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PREFACE

The book of proceedings consists of competitive papers and work-in-progress papers presented at the 29th Annual Conference of the South African Institute of Management Scientists (SAIMS). This year, the annual SAIMS conference was hosted by the Department of Business Management, University of the Free State from 10 to 12 September 2017 at Kopano Nokeng, Bloemfontein. As with previous SAIMS conferences, the main objective of the conference is to bring together emerging, established, and leading scholars within the broader field of Management Sciences to share knowledge and research practices with their fellow colleagues.

The relevance of academic research for organisations is often questioned by practitioners and this could lead to the further widening of the academic-practitioner gap. To narrow and bridge this gap, it is essential for academia to not only conduct research that meets the rigor of quality scientific research, but also to conduct research that leads to the generation of new knowledge that practitioners can use to manage every-day challenges in the real-world. In accordance with this, the theme of the 29th Annual SAIMS conference is *Management Research: Science Serving Practice*.

This proceedings is a collection of competitive papers and work-in-progress papers in all fields of Management Sciences with which authors endeavour to maintain academic excellence, but also to develop knowledge that is useful for practitioners in South Africa. We are pleased to report that we received and sent out for review (double-blind peer-reviewed), 75 competitive papers and 57 work-in-progress papers. Of the 75 competitive papers, 60 were accepted for presentation. Of the 57 work-in-progress papers submitted for review, 49 were accepted for presentation at the conference. In the end, we included in the conference proceedings 51 full competitive papers, 4 competitive papers including only an extended abstract, and 43 work-in-progress papers. The 43 work-in-progress papers included 41 papers originally submitted as work-in-progress for review and 2 competitive papers recommended by the reviewers to be presented as work-in-progress. We are delighted with the quality and originality of the research submitted to the conference. Readers of the book of proceedings will find value in each of the competitive papers.

As the editor, the organising of the conference and the composition of the book of proceedings were made possible by various individuals and entities. Please allow me to thank the following:

- The authors of the papers (competitive and work-in-progress) for their endeavour to produce submissions of high quality and high interest to conference attendees.
- The 125 reviewers for their valuable feedback which enhances the quality of the papers accepted for presentation at the conference.

- Since SAIMS is a non-profit institution, I extend our appreciation to the conference main sponsors, namely, Toyota, JUTA and Company (PTY) Ltd., Oxford, Pearson, Acta Commercii, Van Schaik, UFS Business School, PPS, McGraw-Hill, Wiley, SAIMS and the UFS Economic and Management Sciences Faculty.
- The organising committee of this year's SAIMS conference for their efforts in the planning and the execution of a world-class conference.
- Every member of the Department of Business Management, University of the Free State, that contributed in one way or another in making the conference a success.
- All the conference attendees and presenters who contributed to the success of the conference.

A handwritten signature in black ink, appearing to read 'J Nel', is written over a light grey grid background.

Dr Jacques Nel

The Editor

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Please indicate topic: Accounting

SUSTAINABILITY DISCLOSURES BY SOUTH AFRICAN UNIVERSITIES¹

ABSTRACT

With a decrease of 19% in the combined reserves of the 25 publicly funded Universities in South Africa from the 2014 to the 2015 financial years, stakeholder and public concerns relating to the sustainability of these institutions increased. The purpose of this study was to analyze the Annual Reports of the 25 publicly funded Universities in South Africa for the 2011 to 2015 financial years against a developed analysis framework, which included both Regulatory aspects and International Best Practices relating to sustainability disclosures for Universities. The analysis showed that the Annual Reports of the publicly funded Universities in South Africa are lacking in detail disclosures relating to the individual Institutions' sustainability and although the Annual Reports of the Universities include details

¹ This paper forms part of a larger PhD study, which focused on the corporate governance disclosures of publicly funded South African Universities. Detailed results of this study can be obtained from the author upon request.

on financial sustainability, aspects such as environmental and governance sustainability are not included in the disclosures in the Annual Reports.

1. INTRODUCTION

The #FeesMustFall campaigns of 2015 and 2016 have brought the issue of affordable, quality education into the spotlight in South Africa. These campaigns started with calls for affordable higher education and escalated to calls for free higher education (Vilette, 2015: para. 9). This is not surprising as the African National Congress (ANC), at their 2007 Annual National Conference, resolved to implement free Higher Education to “*all undergraduate students*” in South Africa by 2014 (ANC, 2007: 74; Munusamy, 2015: para. 9). The call for zero increase in University fees flared up again in September of 2016, when University students refused to accept the decision from the Minister of Higher Education and Training to allow Universities to increase fees for 2017 by a maximum of 8% (Pather, 2016: para. 8; Nicholson, 2016: para. 3; Staff Reporter, 2016c: para. 6). Negative consequences that resulted from the protest actions during 2016 include: the intermittent shutting down of most of the Universities in South Africa from the end of September 2016 until middle, and some towards the end of October 2016 (News Team, 2016: 1; Nicholson, 2016: para. 4; Staff Reporter, 2016a: para. 1; Swanepoel, 2016: 6), protests turning violent and burning of University property (Staff Reporter, 2016b: para. 1; Kekano, 2016: para. 1; Reuters, 2016: para. 1) and staff members at one University being held hostage (Van Der Merwe, 2016: para. 1).

The result of the zero increase in fees in 2015 was a budgeted shortfall of R2,3 billion for South African Universities (Editorial, 2015: 1) in 2016. The South African government agreed to help fund the shortfall but required the Universities to contribute as well, from their reserves (Editorial, 2015: 1). Even though the government was willing to assist, they placed the blame for the fee crises at the door of the Universities for “*unilaterally deciding*” on the increase of fees (Hunter & Nkosi, 2015: para. 5). In 2016, the National Treasury said it was working with the Department of Higher Education and Training and other departments to find the R2,5-billion needed to address the budgeted shortfall of University fees revenue for the 2017 financial year (Nicholson, 2016: para. 12). This have led to a 19% decrease in the reserves of South African Universities from R81 billion to R66 billion from the 2014 to the 2015 financial years (Crous, 2017: 246).

The Director of the Centre for Higher Education Transformation also blamed the Vice-Chancellors of the Universities for not putting sufficient pressure on the government to

increase subsidies. This is evident from the fact that almost half (49%) of University budgets in 2000 constituted government subsidies, while only 40% of funding were received from government funds in 2015 (Nkosi, 2015: para. 9). The Higher Education and Training Department, in turn, admitted to the underfunding of Universities, but put the blame for the shortage of funds on the weakening economy (Nkosi, 2015: para. 16).

The funding problems experienced by Universities and the increased calls for free education, brings the financial sustainability of Universities into question. The disclosure of sustainability of Universities therefore becomes increasingly important in South Africa.

2. LITERATURE REVIEW

In 2003, the Department of Higher Education and Training issued Regulations for Reporting by Public Higher Education Institutions (Reporting Regulations) in terms of the Higher Education Act 101 of 1997 (as amended in 2012). The regulations were changed in 2007 and again in 2014. The 2003 Reporting Regulations contain information about the content and format of the Annual Reports of Public Universities in South Africa (RSA, 2003). The objective of the Reporting Regulations is to ensure a minimum standard of reporting by governance structures and management of Universities, in terms of Generally Accepted Accounting Practices (GAAP) and International Financial Reporting Standards (IFRS) (RSA, 2003: introduction). The 2003 Reporting Regulations include reference to principles in the King II Report on Corporate Governance and equate the Council of a University to the Board of Directors of a company (RSA, 2003: introduction). The Reporting Regulations require the following of Council: to take measures to provide the right quality and quantity resources; to achieve the optimal balance between outputs of products, services and other activities; to achieve policy objectives and operational goals; and to ensure that the University's activities are conducted in terms of an accepted standard (RSA, 2003: introduction).

The 2003 Reporting Regulations did not include any disclosure requirements in terms of the sustainability of Universities. The inclusion of disclosures in terms of sustainability in the Annual Reports of Universities were also not included in the 2007 Reporting Regulations (RSA, 2007). Only with the changes made to the Reporting Regulations in 2014, did the Department of Higher Education and Training require Universities to include specific disclosures regarding sustainability with the inclusion of the Statement by the University Council in terms of sustainability (RSA, 2014). The 2014 Reporting

Regulations included detailed disclosure requirements and were linked to specific corporate governance principles as contained in the King III Report on Governance in South Africa, which was already implemented in the private sector in 2009 (RSA, 2014: 9–33).

2.1 Disclosure requirements for sustainability in terms of the 2014 Reporting Regulations and the King III Report on Corporate Governance

The 2014 Reporting Regulations placed high importance on sustainability of South African Universities by stating: *“Sustainability is the primary moral and economic imperative of the 21st century. It is one of the most important sources of both opportunities and risks for public higher education institutions. Nature, society, and public higher education institutions are interconnected in complex ways that should be understood by decision-makers. Most importantly, current incremental changes towards sustainability are not sufficient - there needs to be a fundamental shift in the way public higher education institutions act and organise themselves”* (RSA, 2014: 12). To assist the publicly funded Universities in South Africa in the above-mentioned fundamental shift, the 2014 Reporting Regulations provided detailed guidance on what should be disclosed in terms of sustainability.

The Report of the Chairperson of the Council should include the first reference to sustainability in stating that the Annual Reports of the University contains adequate information in terms of the sustainability of the University (RSA, 2014: 16). The terms of reference of the Audit Committee of the University should also include a statement as to their responsibility in assisting the Council of the University in the consideration of the sustainability of the Institution in the integrated report (RSA, 2014: 23). The Council should, furthermore, include a statement on the sustainability of the institution, which should include a discussion on at least the following aspects (RSA, 2014: 26–27):

- Sufficient information on how the University impact positively on the economic life of community in terms of environmental aspects, social aspects and governance aspects (3 points on analysis framework);
- Sufficient information on how the University impact negatively on economic life of community in terms of environmental aspects, social aspects and governance aspects (3 points on analysis framework);
- How Council believes positive aspects can be improved in the coming year (1 point on analysis framework);

- How Council believes negative aspects can be eradicated or ameliorated (1 point on analysis framework);
- Essential links between the following should be presented:
 - Governance (1 point on analysis framework);
 - Risks and opportunities (1 point on analysis framework);
 - Key performance indicators (1 point on analysis framework); and
 - Sustainable development (1 point on analysis framework);
- Matter that should be dealt with include:
 - Inclusivity of stakeholders (1 point on analysis framework);
 - Innovation (1 point on analysis framework);
 - Fairness (1 point on analysis framework);
 - Collaboration (1 point on analysis framework);
 - Social transformation (1 point on analysis framework);
 - Student numbers (1 point on analysis framework);
 - Through-put rates (1 point on analysis framework);
 - Through-put rates of pipe-line students (1 point on analysis framework); and
 - Generation of alternative funding (1 point on analysis framework).

Additional to the above mentioned disclosures, the Chairperson of the Finance Committee and the Chief Financial Executive of the University, should provide an overview on the budgeting process of the University and how this process intends to promote the sustainability of the Institution over the foreseeable future (RSA, 2014: 32).

2.2 Disclosure requirements for sustainability in terms of the King IV Report on Corporate Governance

The analysis of the King IV Report on Governance, as issued in November 2016, did not bring any additional disclosures to light that could be added to the analysis framework (IOD, 2016) based on the 2014 Reporting Regulations and the King III Report on Governance. The disclosure requirements contained in the 2017 Reporting Regulations (see 2.1 above) were complete and no additions were made to the analysis framework.

2.3 Disclosure requirements for sustainability in terms International Best Practices

The disclosure recommendations about sustainability for Universities are comprehensive in nature when the South African 2014 Reporting Regulations, and the King III and IV Reports' recommendations are taken into consideration (see 2.1 and 2.2 above). The only additional disclosures identified in terms of international best practices were the disclosures of the sustainability metrics used in the consideration of the University's sustainability (University of Cambridge, 2012; University of Cambridge, 2013; University of Cambridge, 2014; University of Oxford, 2012; University of Oxford, 2013; University of Oxford, 2014). Details on these metrics were not investigated further as it falls beyond the scope of this study. The use of sustainability metrics was included in the analysis framework, but details on what the metrics entail, were excluded.

3. PROBLEM INVESTIGATED

The disclosure of all sustainability aspects by South African Universities are becoming increasingly important. The application of the detailed disclosures required by the Regulations for Reporting by Public Higher Education Institutions of 2014 (hereafter called the 2014 Reporting Regulations), proposed sustainability disclosures in terms of the King IV Report on Corporate Governance and international best practices, were investigated.

4. RESEARCH OBJECTIVES

The main objective of this research is thus to determine the level of sustainability disclosures of South African publicly funded Universities, in terms of the 2014 Reporting Regulations, which fully includes the recommendations of the King III Report on Corporate Governance, proposed disclosures in terms of the King IV Report on Corporate Governance and International best practices, and to make recommendations regarding the improvement of sustainability disclosures by South African Universities.

5. RESEARCH METHOD

A qualitative literature review, in the format of document analysis and thematic analysis, was used to develop the themes to use in the analysis framework. The themes identified in this exercise were used to identify code to use in the analysis framework, which was then applied to the Annual Report of Universities regarding sustainability disclosures for

the financial years 2011 to 2015. The thematic analysis was performed by reconciling the Regulations for Reporting by Public Higher Education Institutions of 2014 with the principles of sustainability as contained in the King III Report of Corporate Governance to confirm that the 2014 Reporting Regulations contained all the principles in the King III Report. The same exercise was performed to reconcile the recommended principles in the King IV Report on Corporate Governance to the 2014 Reporting Regulations. This reconciliation allowed for the identification of themes that was used in the codification process in the analysis framework. Subsequently the Annual Reports of the top ten Global Universities were analysed and compared to the developed themes in the analysis framework for the Reporting Regulations and King IV Report on Corporate Governance above, to identify international best practices relating to sustainability disclosures, which was not yet utilised in South African Universities according to literature. The top ten Global Universities were identified by making use of a combination of the Shanghai University Ranking System, the Times Higher Education World University Ranking System and the QS World University Ranking Model for the years 2013 to 2016.

Each of the themes (called items in the analysis framework) identified in the above described process were allocated one point in the analysis framework (see aspects listed under 2.1). These were then added to gain a total for compliance with the 2014 Reporting Regulations, the King IV Report and international best practices regarding sustainability disclosures. These totals were reworked to an average score out of ten to identify trends in non-application of disclosures for sustainability in terms of corporate governance principles.

The small sample of 119 Annual Reports is ideally suited for a qualitative approach. During the period 2011 to 2012, South Africa had twenty-three Universities ($23 \times 2 = 46$ Annual Reports), and two additional Universities were founded in 2013, namely Mpumalanga University and Sol Plaatje University. Sol Plaatje University has issued Annual Reports since 2013, while the Mpumalanga University issued their first Annual Report only in 2015, which brought the total Annual Reports of Universities to twenty-four in 2013, twenty-four in 2014 and twenty-five in 2015 (total 119).

The averages contained in Table 1 *National averages on the Council Statement on Sustainability to be included in the Annual Report*, were calculated after capturing data from the 113 Annual Reports available between the years 2011 and 2015 (The 113 Annual Reports are made up as follows: 2011 – 22; 2012 – 22; 2013 – 23; 2014 – 23;

2015 – 23). The number of items included in the analysis of the minimum content to be included in the Annual Report under the two headings SA and INT is as follows:

- South Africa 21 items
- International 1 item

The total points achieved above were converted to a score out of 10.00 and included in the table. A national average score out of 10.00 was then calculated by using only the available Annual Reports per year, and included at the top of the table (Average for SA - 2011 – 2.27; 2012 – 2.79; 2013 – 2.22; 2014 – 3.48; 2015 – 4.02; Average for INT – 2011 – 2.17; 2012 – 2.69; 2013 – 2.11; 2014 – 3.34; 2015 – 3.85). All items indicated in **RED** in the table indicate Annual Reports that could not be obtained.

6. RESULTS AND FINDINGS

The 2014 Reporting Regulations require that the Council of a University include a statement on the sustainability of the University in the Annual Report (RSA, 2014). This statement should have sufficient information to determine the positive, as well as the negative, impact the University has on the economic life of the University. Both the positive and negative impact should include comments on the environmental aspects, social aspects, and governance aspects. Councils are further required to include the links between the University's governance, risks, and opportunities and sustainable development while dealing with matters such as innovation, collaboration, social transformation and throughput rates of students (RSA, 2014). The Council's statement on the sustainability of the University should therefore not contain only comments on the financial sustainability.

Only 34% of the 113 Annual Reports analysed during this study, contained a statement in the Report from the Chairperson of the Council that the Annual Report of the University contained adequate disclosures in terms of sustainability. Furthermore, only 34% of the 113 Annual Reports contained a statement that the terms of reference of the Audit Committees includes in the integrated report the committee's responsibility to assist the Council in considering the sustainability of the University. In 65% of the 113 Annual Reports, the Chairpersons of the Finance Committee, along with the Chief Financial Executive of the Universities, included a statement on how the University's budgeting process intends to promote the sustainability of the Institution in the foreseeable future. The results of the disclosures contained in the Council's statement of sustainability are discussed in this section.

The national averages of the disclosures contained in the Council's statement on sustainability (in terms of the SA column) (see Table 1) ranges from zero (-) to 7.62. These averages indicate that the University of South Africa (UNISA) (2014 and 2015) was the best performer. A total of fifteen (13%), of the 113 Annual Reports, did not include any information in terms of the sustainability of the Universities, as is evident from the zero (-) scores under the South African columns in Table 1.

The disclosure in the Annual Reports of the Councils' statement on sustainability leaves much to be desired. With the exception of the Annual Reports of the University of Johannesburg (UJ) (2011, 2012, 2014 and 2015), UNISA (2012 to 2015) and the University of Zululand (ZULULAND) (2015), most Annual Reports contain only a statement from the Councils on their belief that the University will remain financially sustainable (see Table 1). On average, 53% of the total Annual Reports analysed include some statement on environmental sustainability in the form of recycling. Further, only 32% of the Annual Reports analysed mention sustainability in terms of social and governance aspects.

Additional to the exclusion of social and governance aspects in the Annual Reports, of the reports that do contain statements on sustainability, only 39% contains comments on how the Universities impacts positively on sustainability. The negative impact of the Universities on environmental, social and governance aspects are disclosed by only 15% of the Annual Reports analysed.

The Annual Reports for the years 2011 to 2015 further lacks disclosures in terms of the essential links between governance, risk and opportunity management, KPI's and sustainable development, as only 15% of the Annual Reports analysed provides these essential links. Only 15% of the Annual Reports address each of the aspects separately in the Annual Report. The North West University's (NWU) Annual Report (2015) provides the best example of how these aspects should be linked throughout the Annual Report although they did not receive the highest disclosure score. Every statement made in the Annual Report of NWU also includes an indication as to the environmental, social and governance aspect associated with the statement.

Table 1 : National averages on the Council Statement on Sustainability to be included in the Annual Report

	2011		2012		2013		2014		2015	
	SA	INT	SA	INT	SA	INT	SA	INT	SA	INT
National Average	2.27	2.17	2.79	2.69	2.22	2.11	3.48	3.34	4.02	3.85
Cape Peninsula University Technology	2.38	2.27	2.38	2.27	2.38	2.27	3.33	3.18	3.33	3.18
Central University of Technology	3.81	3.64	3.81	3.64	4.29	4.09	3.33	3.18	3.33	3.18
Durban University of Technology	2.38	2.27	2.38	2.27	1.43	1.36	2.86	2.73	2.86	2.73
University of Mpumalanga	First Annual Report issued in 2015									
Mangosuthu University of Technology	1.90	1.82	1.90	1.82	3.33	3.18				
Nelson Mandela Metropolitan University	2.86	2.73	2.86	3.18	2.86	2.73	3.81	4.09	4.76	5.00
North-West University	4.76	4.55	6.67	6.36	6.19	5.91	6.19	5.91	6.19	5.91
Rhodes University	1.90	1.82	1.90	1.82	1.43	1.36	3.33	3.18	4.76	4.55
Sol Plaatje University	First Annual Report issued in 2013									
Tshwane University of Technology	-	-	-	-	-	-	4.76	4.55	4.76	4.55
University of Cape Town	1.90	1.82	1.90	1.82	2.86	2.73	2.86	2.73	4.29	4.09
University of Fort Hare	2.38	2.27	1.90	1.82			-	-	0.48	0.45
University of the Free State	2.86	2.73	3.81	3.64	3.81	3.64	4.29	4.09	1.90	1.82
University of Johannesburg	5.71	5.45	5.71	5.45	1.43	1.36	7.14	6.82	7.14	6.82
University of KwaZulu-Natal	0.48	0.45	-	-	-	-	-	-	3.81	3.64
University of Limpopo	1.90	1.82	1.90	1.82	1.90	1.82	1.90	1.82		
University of South Africa	2.38	2.27	6.67	6.36	5.24	5.00	7.62	7.27	7.62	7.27
University of Venda	1.90	1.82			0.95	0.91	0.95	0.91	3.33	3.18
University of Pretoria	-	-	-	-	-	-	6.19	5.91		
University of Stellenbosch	2.86	2.73	2.86	2.73	0.95	0.91	3.33	3.18	2.86	2.73
University of the Western Cape	0.95	0.91	3.33	3.18	4.29	4.09	3.33	3.18	3.33	3.18
Vaal University of Technology	1.43	1.36	3.33	3.18	3.81	3.64	6.19	5.91	6.19	5.91
University of Witwatersrand	3.81	3.64	3.81	3.64	3.81	3.64	3.33	3.18	3.33	3.18
Walter Sisulu University	1.43	1.36	1.90	1.82	-	-	-	-	-	-
University of Zululand			2.38	2.27	-	-	2.86	2.73	6.67	6.36

Sources for Table 1 (Crous, 2017: 338)

Typical matters dealt with in Annual Reports in terms of sustainability include student numbers (61%), throughput rates (76%) and throughput rates of pipeline students (69%). These aspects were typically included in the Senate Report to Council and/or Key Performance Indicators and not as part of the sustainability discussion of the Universities. Only 39% of the Annual Reports specifically addressed the generation of additional funding. An average of only 13% of the Annual Reports included matters such as inclusivity of stakeholders, innovation, fairness, collaboration and social transformation in terms of sustainability of the University.

The apparent lack of discussion of sustainability in the broader sense of the word, not financial or environmental sustainability only, is a concern. This may indicate that the Councils and management of the Universities in South Africa do not understand the concept of sustainability, or if they do, the disclosure on how the University addresses sustainability is very weak. It may also be that the individuals who compiled the Annual Reports do not understand the Universities' responsibility to serve as an example of how these aspects should be addressed and therefore omitted the sustainability disclosures. It may furthermore be that the University Councils may not have the necessary systems in place to produce the required data and information needed for sustainability disclosures or that the costs of complying to the disclosure requirements are too high, which may lead to Universities choosing not to disclose the information. The omission of these aspects in the Annual Reports increase the concerns in terms of University Councils' commitment to the basic principles of corporate governance, namely discipline, transparency, independence, accountability, responsibility, fairness and social responsibility.

Only the Nelson Mandela Metropolitan University (NMMU) (2012, 2014 and 2015) included a comment that the University uses sustainability metrics to determine sustainability. The details of what these metrics involve are not provided in the Annual Report. This University is, therefore, the only University who is proactive in the inclusion of disclosure aspects as contained in the international best practices.

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The omission of some of the detail disclosures regarding sustainability in the Annual Reports have raised questions about the commitment of South African Universities to the principles of sustainability, transparency and accountability. This was specifically

identified with the lacking disclosure of the Councils about their commitment to Corporate Governance principles, poor disclosures in the reports of Chairpersons of the Councils and the poor disclosure relating to sustainability. Although Council may be committed to the principles of sustainability, transparency and accountability, this commitment should be clearly demonstrated by ensuring the information is disclosed in the Annual Reports.

The lack of detail disclosures has led to questions about the awareness of the Council, Committee members and individuals responsible for the disclosures of sustainability of their duties and functions. Although the Council and Committee members may very well be aware of their duties and functions, the individual or group of individuals, who assists the University and the Council in the preparation of the Annual Reports and the disclosures regarding sustainability, may be unaware of the detail disclosures that are recommended in the Annual Reports and omitted the information for that reason. Councils and executive management of Universities should ensure that they are grounded in their knowledge of not only their duties and responsibilities but also in the detail disclosure recommendations they are responsible for. They should further ensure that they are satisfied that the individual or group of individuals they rely on to prepare the disclosures in the Annual Reports are knowledgeable about the detail disclosures that are required by the Reporting Regulations and that the necessary control procedures are in place to assist these individuals.

8. CONCLUSIONS

The #FeesMustFall and #FreeEducationMovements campaigns increased pressure on the finances of South African Universities and highlighted the shortcomings of South African Universities disclosure of sustainability aspects, showing that the sustainability of Universities may be in jeopardy. The disclosure of the sustainability and management of sustainability should therefore, be non-negotiable for Universities. The Councils of Universities, along with the Chief Financial Executive and Finance Committees, should place significantly more focus on the disclosure of sustainability aspects in the Annual Reports of Universities. Specific attention needs to be paid to the disclosures relating to environmental and governance sustainability as well as the disclosures of the sustainability metrics that is used to determine the sustainability of each of the Universities. The University Councils furthermore has a duty to take the lead in ensuring sustainability of the Universities in South Africa and in facing the challenges of sustainability head on. Further recommendations flowing from the study includes that the Reporting Regulations should be adjusted to reflect the additional

disclosures as contained in the King IV Report. As the Reporting Regulations of 2014 were based on the King III Report, the regulations also need to be adjusted to reflect the change in approach to governance from “apply or explain” in the King III Report to “apply and explain” in the King IV Report. The adjustment of the Reporting Regulations for the recommendations of King IV should also be a priority and performed as soon as possible. The implementation of the recommendations of King IV can therefore not be implemented for Universities five years after the implementation in the private sector, as was the case with King III. As institutions of knowledge, the Universities in South Africa should, therefore, set the example concerning the application of the King IV principles. Councils and executive management of Universities should ensure that they are grounded in their knowledge of not only their duties and responsibilities but also in the detail disclosure recommendations they are responsible for. They should further ensure that they are satisfied that the individual or group of individuals they rely on to prepare the disclosures in the Annual Reports are knowledgeable about the detail disclosures that are required by the Reporting Regulations and that the necessary control procedures are in place to assist these individuals. Lastly the international best practices in terms of disclosures should be included in the Reporting Regulations. This will ensure that the Annual Reports of South African Universities are comparable to the top international Universities.

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TAXATION OF NON-RESIDENTS IN SOUTH AFRICA WITH SPECIFIC REFERENCE TO WITHHOLDING TAXES

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TAXATION OF NON-RESIDENTS IN SOUTH AFRICA WITH SPECIFIC REFERENCE TO WITHHOLDING TAXES

ABSTRACT

Non-residents are subjected to tax in South Africa on their income from a source within South Africa. In order to assist tax authorities to collect income, withholding taxes are imposed on payments to non-residents for amounts from a South African source.

This research tests the effectiveness of withholding taxes imposed by the South African tax authorities with respect to amounts paid from a South African source to a non-resident in respect of interest, royalties, foreign entertainers and sportspersons. The opinion of well known authors of tax literature and other literature were analysed to support findings. The OECD MTC provided the framework pertaining to the legal nature of double tax agreements.

The research objectives were analysed by way of the provisions of the Income Tax Act (ITA) as well as case law. The first research objective discusses the alignment of the meaning of words and phrases in both the domestic law of South Africa and Double Tax Agreements (DTA.). The second issue outlines whether the DTA supports the domestic law through the

waiving of tax claims in favour of the country of source. In the last instance the attribution of income is discussed for the purpose of both the domestic law and DTA's.

The wider scope of withholding taxes with respect to the meaning of 'interest', 'royalties' as well as 'foreign entertainer and sportsperson' misaligns with the corresponding meaning of it in the DTA. This creates the risk that amounts paid to non-residents will either not be subjected to withholding tax in the source state or that the income will be taxable in the resident state as a result of the application of other articles of the DTA.

In general, DTA's constructed on the principles of the OECD MTC, tend to favour the residence state with respect to the waiving of tax claims for the source state. The source state's right to collect withholding tax on income from royalties and interest is prevented by the ITA if the foreign person is physically present in South Africa for more than 183 days and if the interest/royalty payment is effectively connected with a permanent establishment in South Africa.

The domestic law and DTA are misaligned with respect to the attribution of interest and royalty income since the recipient of the income for the purpose of the domestic law is not necessarily the beneficial owner of the debt claim or intellectual property.

EFFECT OF MOBILE MONEY ADOPTION ON FINANCIAL INCLUSION

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EFFECT OF MOBILE MONEY ADOPTION ON FINANCIAL INCLUSION

ABSTRACT

The proliferation of mobile money services across developing countries promises to revolutionise financial services access by leap frogging infrastructure gaps. Nonetheless, the influence of mobile money adoption on financial inclusion varies from country to country depending upon contextual and situational factors. Hence, the aim of this study was to determine the effect of mobile money uptake on financial inclusion using binary logistic regression. The study was motivated by the paucity of empirical studies about the influence of information communication technology on financial inclusion in the Ugandan context. The study employed a cross sectional survey design. Mobile money adoption was modeled as behavioural intention to use mobile money measured using a 5 point Likert scale with three items. Financial inclusion was measured using bank account ownership and modeled as a binary decision. Information about other demographic attributes like income as potential predictors of financial inclusion was also sought. The questionnaire was circulated to the respondents through SoGoSurvey online research software. The geographical scope was limited to Kampala Capital City Authority (KCCA) jurisdiction since most mobile money

transactions in Uganda emanate from this area. Income, nature of primary occupation and age were statistically significant predictors of financial inclusion. Mobile money was not a significant predictor of bank account ownership suggesting that mobile money in Uganda complements rather than substitutes bank account ownership. By and large, the study reaffirms the complementary nature of mobile money to traditional brick and mortar bank accounts.

1. INTRODUCTION

Financial inclusion which refers to the process of ensuring access to timely, affordable, and adequate financial services to vast sections of disadvantaged and low income groups (Kumar, 2013:6) is a major area of concern in public policy, academic scholarship, and practice (Arun & Kamath, 2015:267). The intensive scrutiny of financial inclusion is partly explained by empirical and theoretical research that has established a clear linkage between access to finance and economic growth (Paşali, 2013: ii; Levine, 2005:869).

Despite the clarity of the linkage between access to finance and economic growth, a majority of the world's citizens estimated at 2.0 billion or 38 percent of the population (Demirguc-Kunt, Klapper, Singer & Van Oudheusden, 2015:vi) mainly in the developing countries do not have access to a bank account. In Sub-Saharan Africa and East Africa, account penetration stood at 34 percent and 35 percent, respectively in 2014 up from 24 percent and 26 percent in 2011 driven by mobile money (Demirguc-Kunt *et al.*, 2015:13). Similarly, in Uganda, account ownership rose to 34 percent in 2013 from 7 percent in 2009 due to mobile technology (Economic Policy Research Centre, 2013: ix). In both Uganda and East Africa, the share of adults with an account at a financial institution remained steady at 7 percent and 26 percent, respectively across the time periods alluded to above.

The account penetration statistics underscore the possibility of leveraging mobile technology for purposes of financial inclusion. Scholars such as Must and Ludewig (2010:28) and Demirguc-Kunt *et al.* (2015:65) observed that use of digital financial services such as mobile money availed the unbanked individuals with a first opportunity of entry into the formal financial system. Whether the initial opportunity availed translates into opening up a bank account in the traditional brick and mortar financial institution has not been thoroughly investigated in academic literature.

The information intensive nature of banking services (ease of digitisation and automation) (Polasik & Wisniewski, 2009:32; Bradley & Stewart, 2002:250) lends credence to the notion by policy makers that mobile money technology can facilitate

the leap frogging of infrastructure barriers (Botsman, 2016: online; Aron, 2015:4) that have hindered uptake of traditional brick and mortar bank accounts. In order to be able to offer appropriate suggestions of how to leverage mobile money technology for financial inclusion purposes, it is important that a rigorous cross-sectional survey research study using a quantitative approach be conducted to examine the relationship between mobile money adoption and financial inclusion in Uganda.

2. LITERATURE REVIEW

2.1 Theoretical Framework

Prior to the introduction of mobile money services in Uganda, money transfers between the rural and urban areas was undertaken by informal means such as bus courier, entrusting the money with individuals travelling to rural areas, and through the post office among others. Consequently, there was a lot of disintermediation (urban households with a surplus savings had to seek out rural households with a deficit). However, the advent of mobile money has improved the status quo.

In other words, mobile network operators (MNOs) serve as financial intermediaries delivering the functions of any financial intermediary, namely linking economic agents across geographical divides. Other functions such as aggregation, maturity transformation, and risk transformation are likely to evolve as MNOs venture into areas such as loan disbursements and savings. Consequently, the financial intermediation theory is an appropriate framework to explain the relationship between mobile money adoption and financial inclusion.

The theory of financial intermediation seeks to explain reasons why financial intermediaries exist. Current theories of the economic role of financial intermediaries build on the economics of imperfect information that began to emerge during the 1970s (Claus & Grimes, 2003:9). According to Ap Gwilym (2011:11), there are four reasons why financial intermediation occurs, namely reduction of transaction costs, liquidity insurance, information sharing coalitions, and delegated monitoring. Allen and Santomero (1998:1461) point out that transactional costs and asymmetric information constitute the traditional theories of financial intermediation. The other aspects such as delegated monitoring, liquidity insurance, participating costs, and risk management constitute the contemporary or modern school of thought of financial intermediation (Allen & Santomero, 1998:1474; Ap Gwilym, 2011:11; Andries, 2009:258).

Mobile network operators (MNOs) through the provision of mobile money serve as financial intermediaries in that they reduce transaction costs and improve information

available to economic agents. The cost of sending money through bus courier or an acquaintance between rural and urban households is higher compared to mobile money. In addition, through the use of Information Communication Technology (ICT) payment platforms like Obopay by Airtel and Ericsson by MTN, economic agents are able to verify the identity of another third party prior to disbursing funds to them.

Overall, MNOs serve as financial intermediaries by providing mobile money. Nevertheless, the limitations occasioned by the restrictive legislative environment in Uganda that does not perceive mobile money accounts as equivalent to bank accounts in traditional brick and mortar financial institutions (TB&MFIs) limit the applicability of the theory of financial intermediation to mobile money in Uganda.

2.2 Mobile Money Adoption and Financial Inclusion

The inadequate access to bank accounts by a large population in developing countries has led to the spread of other forms of banking and / or financial services. These financial services have relied heavily on the Graemeen Foundation Bank philosophy of microcredit and social businesses postulated by Professor Muhammad Yunus (Yunus, 2003:79; Bari, 2011:6; Donovan, 2013:55) and have targeted the Bottom of the Pyramid clientele through the use of microfinance. M-Pesa the most successful mobile application was started as a loan repayment system for microfinance providers in Kenya (Omwansa, 2009:113; Buku & Meredith, 2013:385; Hughes & Lonie, 2007:70). The advent of technology has enabled financial service providers to extend services to a wider area without necessarily relying on the brick-and-mortar (physical) branch network. Such innovations include telephone banking, internet banking, cellular phone banking, and mobile banking amongst others. Nonetheless, the success of M-Pesa in Kenya has pushed mobile money applications whether as payment systems and /or mobile banking applications to the fore in the debate about financial inclusion.

Mobile banking also known as m-banking is a term used to refer to the process of providing banking and / or financial services with the help of telecommunication devices such as mobile phones and Personal Digital Assistants (Tiwari and Buse, 2007:72). It involves executing transactions such as balance checks, account transactions, payments, credit applications, and other banking transactions using mobile telecommunication devices. Mobile banking is erroneously used synonymously with mobile payments (Klein and Mayer, 2011:14; Donovan, 2012b:64). While the former is a channel of delivering banking services to customers of a well-regulated brick-and-mortar (physical) financial institution, mobile payments refer to the facilitation of payments (usually low value high frequency) using the mobile phones. With the

increasing linkages of bank accounts with mobile accounts such as M-Kesho and M-Shwari in case of Kenya's M-Pesa (Donovan, 2012b:67) and South Africa's WIZZIT (Klein and Mayer, 2011:3), the line between mobile banking and mobile payments is increasingly becoming blurred. Overall, if the barriers that still hinder the mobile payment providers to work closely with banks and connecting mobile accounts to bank accounts are overcome, the potential for mobile payments to contribute to FI is immense (Donovan, 2012a:62). For the benefits to be achieved, providers of mobile payments ought to find solutions to challenges such as handset operability, security, scalability and reliability, application distribution, and personalisation of applications.

Despite the success of Kenya's M-Pesa and other mobile payment systems on the African continent in money transfer, it is clear that easing movement of monetary value from one destination to another does not constitute financial inclusion. Nonetheless, mobile money payments provide the unbanked an opportunity to interact with a formal organisation and increase the likelihood of these people engaging with formal financial institutions either directly or through accounts like M-Kesho. Jimenez and Vanguri (2010:2) note that "once a critical mass of low income customers is comfortable using a low cost "banking channel" for everyday commercial interactions, the probability of developing successful low income banking offerings significantly increases".

Mobile money services have the potential to contribute to financial inclusion through introducing the unbanked and underbanked population to formal financial organisations for the first time. Despite the potential, exclusive mobile money services account holders in the current legislative context of Uganda are not recognised as financially included. The behavioural mechanism needed to entice the mobile money service account holder to open a bank account in a traditional brick and mortar financial institution as well as subsequent use of the opened account for transactions is not well understood. Furthermore, it is assumed that ownership of a bank account in a traditional brick and mortar financial institution is always a harbinger for the use of the account for transactions like payments, savings, deposits, and loans among other financial products and services. The assumption does not necessarily always hold and very often bank accounts are opened but seldom used. Even though the account may never be used once opened, account ownership is used as a measure of financial inclusion at the individual level. Such a measure of financial inclusion is deficient in that it does not capture other facets of financial services like insurance. In addition, it is not easy to determine if the individual voluntarily opened the bank account or it was due to employment related requirements. Once the account is opened for employment related requirements, sustainability becomes an issue once the employment ceases.

Au and Kauffman (2008:141) suggest that the theory associated with mobile payments is still evolving but similar economic forces that shaped other financial services and related technology applications are likely to be the main drivers going forward. Aduda and Kingoo (2012:105) point out that electronic banking influences financial institution performance through lowering transaction costs, switching costs, and reduced lead time among others. It is against this background that this study sought to investigate whether mobile money influences financial inclusion.

2.3 Other Drivers of Financial Inclusion

In the specification of the model to explain financial inclusion, other variables apart from mobile money were considered. These were socio-economic characteristics. Nandru, Anand and Rentala (2016:141) explored how these demographic factors, namely income level, age, gender dimension, employment status, and education level affect financial inclusion. The results revealed that income level and education significantly impacted financial inclusion. Similarly, Zins and Weill (2016:46) found that gender, wealth, education, and age favoured financial inclusion with a higher influence of education and income.

3. METHODOLOGY

3.1 Research Design

A cross-sectional survey research design was deployed to assess the effect of mobile money adoption on financial inclusion in Uganda. The survey was undertaken to collect data for a Doctor of Business Administration thesis project undertaken at the Nelson Mandela Metropolitan University (NMMU), South Africa.

3.2 Study Population and Sample Size

The target population was composed of all the citizens of Uganda 15 years of age and above who are most likely to own cellular phones and transact. As at 2013, the number of people 15 years and above was 19,393,907 people (World Bank Database 2014: online). Of these 19.4 million people, the accessible population consisted of all the people in Kampala City who are 15 years and above. Based on the day time population of Kampala City, the accessible population of this study was 1,578,133 people. The age of 15 years and above was benchmarked on the World Bank's Global Findex survey carried out in over 140 countries and targets a population age 15 years and above.

Using a sample computation formula by Fox, Hunn and Mathers (2009:17) shown in Equation 1.1 and considering a confidence level of 95 percent, a confidence interval (margin of error) of ± 5 and a total accessible population of 1,578,133 people aged 15 years and above. A sample size of 400 people was obtained.

$$n = \frac{N}{1 + N(e)^2} \dots\dots\dots (1.1)$$

where n is the sample size, N is the population size, and e is the level of precision.

The mobile money space has seven providers namely, MTN Mobile Money, Airtel Money, M-Sente, Vodafone Money, Africell Money, M-Cash, and Ezee Money. Of these M-Cash and Ezee Money are not mobile network operator (MNO) based electronic money providers. In this study, the four MNO mobile money offerings are studied.

3.3 Sampling Techniques

The sampling technique used was non-probability sampling design known as snow ball sampling. Atkinson and Flint (2001:1) refers to snow ball sampling as a technique of finding research subjects where existing subjects recruit future subjects from among acquaintances. Morgan (2008:816) notes that snow ball sampling entails using a small pool of research subjects to nominate other participants that meet the eligibility criteria and would contribute to the research investigation.

Once the sample size was determined, the researcher created an electronic mailing list of potential respondents. The principal researcher works with the Central Bank of Uganda’s Communications Department as well as an adjunct facilitator at Uganda Martyrs University. In the former job, the researcher is involved with public education and outreach engagements that entail attending exhibitions, trade fairs, and public lectures. Some of the events whose registers were used include annual Joseph Mubiru memorial lecture, banking and insurance expo, and International trade fair etc. In these events, the researcher as an employee of the Central Bank maintains a register of individuals who attend the events. The information collected about the events attendees include among others, names, telephone numbers, email addresses and

organisation worked for. In addition, the researcher requested communication officers from Government Ministries, Departments, Agencies and private organisations to share with him the e-mails of stakeholders. Furthermore, as an adjunct facilitator at Uganda Martyrs University, the researcher had lists of email contacts of former students as part of the course outlines for modules taught. A total of 626 email addresses were compiled from these sources.

Using this email list, electronic questionnaires were dispatched to potential respondents using SoGoSurvey (SoGoSurvey 2015:online). Of these 626 emails, only 301 people received the questionnaire. In addition, the researcher always embedded a request in the dispatched email for the recipients to share with other colleagues domiciled in Kampala City so that they could respond to the questionnaire.

Of the 404 completed questionnaires, 94.6 percent were filled in using the public access link that was embedded for onward sharing with other colleagues of invited potential respondents. However, there is a possibility that the invited respondents chose to use the public access Uniform Resource Locator (URL) link either unknowingly or deliberately to create more anonymity.

The likely shortcoming with an online survey is the level of internet penetration in the country in question. For Uganda, internet penetration measured as the percentage of individuals using the internet stood at 17.71 percent as at 2014 (International Telecommunications Union 2016: online). The implication for the data collected is that there is a higher likelihood of having responses from people who have access to the internet easily compared to those who do not have ready access to internet. Nonetheless, the focus of the study was Kampala City with a relatively higher internet coverage compared to the national average. The choice of Kampala City was informed by Ndiwalana, Morawczynski and Popov (2012:4)'s study that found that most mobile money transactions in Uganda emanate from the city.

3.4 Data Collection Methods

The survey method using questionnaires was primarily used in data collection. The questionnaire focused covered aspects of financial inclusion (bank account ownership), behavioural intention to use mobile money (mobile money adoption) and demographic characteristics (age, gender, marriage status, education level, primary

occupation, cellular phone ownership, region of origin, income, and frequency of earning income).

3.5 Measurement of Variables

Bank account ownership which is the proxy for financial inclusion (dependent variable) was addressed by a question with a binary response (Yes/No), namely “Do you own a bank account in a traditional brick and mortar financial institution?” Mobile money adoption, one of the independent variables was modeled as behavioural intention to use mobile money and measured using a 5 point Likert scale with 5 being strongly agree, 4 agree, 3 not sure, 2 disagree, and 1 strongly disagree. The behavioural intention to use was assessed using three items, namely (i) I will frequently use the mobile money service in the future; (ii) I intend to use the mobile money service in the future to execute other transactions; and (iii) I will strongly recommend others to use mobile money services. The other explanatory variables were assessed at two levels, that is, nominal and ordinal. The independent variables measured at the nominal level included gender, marital status, and primary occupation. Those assessed at the ordinal level included age, educational level, income, and frequency of earning income.

3.6 Data Analysis

A binary logistic regression econometric model was developed and tested to investigate the predictors of bank account ownership. Individual characteristics of those who own bank accounts were determined by the estimation of a binary logit model. The dependent variable is a dummy in which bank account ownership takes a value of one (1) and zero (0) otherwise. Bank account ownership which is the proxy for financial inclusion in this study is defined as the probability that an individual answered “YES” to the question on the survey that stated: “Do you own a bank account in a traditional brick and mortar financial institution?”

In binary choice models, the individuals are faced with a choice between two alternatives and the choice is dependent upon identifiable characteristics. The two alternatives are (i) bank account ownership, and (ii) no bank account ownership.

The general model is presented as:

$$Y_i^* = \beta_0 + \beta_i X_i + \epsilon_i \dots\dots\dots (ii)$$

Where

Y_i^* = a binary variable for the probability of an individual’s ownership of a bank account

$Y_i = 1$ if the individual owns a bank account, 0 otherwise

X_i = vector of explanatory variables that affect the dependent variable

β_0 = intercept parameter to be estimated

β_i = unknown parameter that reflects the effect of the change in variable X_i on Y_i

ϵ_i = is the error term and

$i = 1, 2, 3, \dots, n$ where i is the number of observations

The researcher assumed that for an individual, Y_i^* represents the critical decision of owning a bank account or not owning a bank account and thus the two alternatives are summarised as follows:

Individual i owns a bank account if $Y_i > Y_i^*$ and $Y_i^* = 1$

Individual i does not own a bank account if $Y_i \leq Y_i^*$ and $Y_i^* = 0$

A logit model which assumes that the error term follows a logistic distribution function so that the probability that Y_i is less than (or equal to) Y_i^* can be computed from the cumulative logistic function was estimated. The detailed model of bank account ownership is shown in equation (ii).

$$Y_i^* = \beta_0 + \beta_1 MMBI + \beta_2 AGE + \beta_3 SEX + \beta_4 MARITAL + \beta_5 EDUC + \beta_6 JOB + \beta_7 CELLOWN + \beta_8 REGION + \beta_9 INCOME + \beta_{10} INCOMEFREQ + \epsilon_i \dots \dots \dots (iii)$$

Where

Y_i^* = is the individual's bank account ownership

ϵ_i = is the error term

β_0 = is the intercept

$\beta_1 - \beta_9$ = coefficients of explanatory variables (X) (Table 1)

The logit model was estimated by the Binary Logistic Regression command in IBM SPSS Statistics version 20 which relies on maximum likelihood technique. It sought to find the likelihood that an individual's bank account ownership is related to various explanatory variables. Initially, each explanatory variable was tested individually to

decipher whether it was a significant predictor of bank account ownership prior to incorporation in the multivariate model. The variables in the model are shown in Table 1.

Table 1: Variables or Constructs used in the Logit Model estimation of Bank Account Ownership

Variable	Definition	Expected Relationship
BI	Behavioural intention to use mobile money (BI) is the proxy of mobile money adoption measured at the interval level of measurement.	+
AGE	Age measured at the ordinal level of measurement with five levels, namely "16-25 years", "26-35 years", "36-45 years", "46-55 years", as well as "56-65 years".	±
SEX	Gender of household head – dummy variable where 1 is male and 0 is female	+
MARITAL	Social relationship status measured at the nominal level of measurement with four categories, namely "single", "married", "widowed", as well as "divorced / separated".	+
EDUC	Ordinal scale variable indicating educational level accomplishments with five levels, namely "No formal education", "Primary School", "Secondary School", "University Degree", as well as "Postgraduate (Masters, Doctorate)"	+
JOB	Individual's primary occupation measured at the nominal level of measurement with five categories, namely "casual labourer", "self-employed", "work in family owned enterprise", "formal employment in the private sector", as well as "formal employment in the public sector".	+
CELLOWN	Ownership of a cellular phone – dummy variable where 1 is own cellular phone and 0 is does not own a cellular phone	±
REGION	Nominal scale variable with 7 levels indicating regional location in country namely, "Central",	±

Variable	Definition	Expected Relationship
	"Western", "West Nile", "South Western", "Mid-Western", "Eastern", and "Northern".	
INCOME	Total monthly income before taxes and other deductions measured as an ordinal variable with five levels namely, "less than UGX100,000/=", "UGX100,001/= to UGX200,000/=", "UGX200,001/= to UGX500,000/=", "UGX500,001/= to UGX1,000,000/=", as well as "more than UGX1,000,000/=".	+
INCOMEFREQ	Frequency of receiving income measured as an ordinal variable with five levels, namely "daily", "weekly", "monthly", "annually", as well as "seasonally".	+

3.7 Ethical Considerations

In this study, the provisions for ethical considerations suggested in UNCST (2014: 2), and Sekaran (2003:260), namely respect for the autonomy of persons, beneficence (maximise benefits and minimise harm), non-maleficence (do no harm), and justice (fair treatment).

In the study, the researcher ensured informed consent, privacy, justice, sensitivity to human dignity and anonymity of the respondents. The researcher ensured that all information that was given by the respondents was treated with a high level of confidentiality.

In addition, the respondents were briefed about the essence of conducting the research and the need for them to give correct responses to the questions posed. The researcher designed the questions in such a manner as to avoid any embarrassing questions that could negatively impact on the self-esteem and self-respect of the respondents. The data provided by the respondents was dealt with in a professional manner without any misrepresentations or distortion during the analysis and / or reporting.

4.0 FINDINGS

4.1 Econometric specification of the determinants of bank account ownership

As shown in Table 2, 96.5 percent of individuals have been correctly predicted in the right category.

Table 2: The observed and the predicted frequencies for bank account ownership by logistic regression with the cutoff of 0.50 (N=404)

Observed			Predicted		Percentage Correct
			Bank Account Ownership		
			Own a bank account	Don't own a bank account	
Step 1	Bank Account Ownership	Own a bank account	371	4	98.9
		Don't own a bank account	10	19	65.5
	Overall Percentage				96.5

Source: SPSS Output

Based on the results of the survey and the analysis, educational level, marital status, region of origin, frequency of earning income, respondent's gender or sex, ownership of a cellular phone, and adoption of mobile money were not statistically significant predictors of bank account ownership (Table 3).

As shown in Table 3, income as a predictor of bank account ownership was statistically significant at $p < 0.1$. All income categories namely "less than UGX100,000/=", "UGX100,001/= to UGX200,000/=", "UGX200,001 to UGX500,000/=", and "UGX500,001/= to UGX1,000,000/=) relative to the reference category (more than UGX1,000,000/=) were statistically significant. The odds of individuals who earn "less than UGX100,000/=", "UGX100,001/= to UGX200,000/=", "UGX200,001 to UGX500,000/=", and "UGX500,001/= to UGX1,000,000/=) having a bank account are greater than the odds for the category of "more than UGX1,000,000/=)".

The primary occupation or source of income as a predictor of bank account ownership was statistically significant at $p < 0.05$. Specifically, working as a casual labourer and being in self-employment relative to the reference category (formal employment in the public sector) was statistically significant. The odds of individuals who are casual labourers or self-employed having bank accounts are greater than the odds for the reference category (formal employment in the public sector).

Age as explanatory factor of bank account ownership was statistically significant at $p < 0.1$. Nevertheless, none of the categories, that is, "16-25 years", "26-35 years", "36-45 years", and "46-55 years" relative to the reference category ("56-65 years") were statistically significant.

Table 2: Logistic Regression analysis of 404 individuals' bank account ownership

Predictor	B	SE (B)	Wald's	df	p	Exp (B)(Odds Ratio)
CONSTANT	-59.152	26967.976	0.000	1	0.998	0.000
BI	-0.256	0.468	0.299	1	0.584	0.774
AGE^a			8.388	4	0.078*	
16-25 years	17.788	7520.163	0.000	1	0.998	53131822.81
26-35 years	14.642	7520.163	0.000	1	0.998	2284314.264
36-45 years	16.048	7520.163	0.000	1	0.998	9320750.699
46-55 years	17.939	7520.163	0.000	1	0.998	61801590.43
SEX (0=female; 1 = male)	0.835	0.725	1.329	1	0.249	2.306
MARITAL^b			2.955	3	0.399	
Single	-0.389	1.936	0.040	1	0.841	0.678
Married	-2.379	1.830	1.691	1	0.193	0.093
Widowed	-18.140	14734.992	0.000	1	0.999	0.000
EDUC^c			2.078	4	0.721	

Predictor	B	SE (B)	Wald's	df	p	Exp (B)(Odds Ratio)
No formal education	-2.187	40267.817	0.000	1	1.000	0.112
Primary School	56.590	25369.775	0.000	1	0.998	3.772E+24
Secondary School	17.348	2454.021	0.000	1	0.994	34211563.88
University Degree	16.158	2454.021	0.000	1	0.995	10405072.96
JOB^d			10.967	4	0.027**	
Casual Labourer	2.438	1.459	2.791	1	0.095*	11.446
Self Employed	2.737	1.294	4.475	1	0.034**	15.448
Work in family owned enterprises	1.179	1.009	1.365	1	0.243	3.250
Formal employment in the private sector	-1.204	1.099	1.199	1	0.273	0.300
CELLOWN (0=Don't own cellular phone; 1 = Own cellular phone)	21.007	25781.715	0.000	1	0.999	1328279817
REGION^e			7.676	6	0.263	
Central	-0.796	1.744	0.208	1	0.648	0.451

Predictor	B	SE (B)	Wald's	df	p	Exp (B)(Odds Ratio)
Western	0.808	1.829	0.195	1	0.658	2.244
West Nile	- 18.063	8401.460	0.000	1	0.998	0.000
South Western	3.828	2.100	3.323	1	0.068	45.989
Mid Western	1.151	1.967	0.343	1	0.558	3.162
Eastern	0.019	1.896	0.000	1	0.992	1.020
INCOME^f			8.477	4	0.076*	
Less than UGX100,000/=	4.312	1.529	7.957	1	0.005***	74.582
UGX100,001/= to UGX200,000/=	2.494	1.359	3.369	1	0.066*	12.114
UGX200,001/= to UGX500,000/=	1.936	1.386	1.951	1	0.162	6.931
UGX500,000/= to UGX1,000,000/=	2.805	1.538	3.324	1	0.068*	16.525
INCOMEFREQ^g			5.748	4	0.219	
Daily	-2.057	1.411	2.125	1	0.145	0.128
Weekly	1.384	1.765	0.615	1	0.433	3.993
Monthly	1.641	1.243	1.743	1	0.187	5.160

Predictor	B	SE (B)	Wald's	df	p	Exp (B)(Odds Ratio)
Annually	19.305	27001.412	0.000	1	0.999	242029458.5

Note: a, b, c, d, e, f, & g – the reference group for the predictors are 56-65 years, Divorced or Separated, Postgraduate (Master, Doctorate), Formal employment in the public sector, Northern, More than UGX1,000,000/=, and Seasonally, respectively. Significance levels * (10%), ** (5%), and *** (1%)

Table 4: Overall Model Evaluation with BI (N=404)

Tests	Chi-square	df	p
Likelihood Ratio Test (Overall Model Evaluation)	71.376	32	0.000
Hosmer-Lemeshow Test (Goodness-of-fit)	0.957	8	0.999
R ² -type Indices			
Cox and Snell R square			0.288
Nagelkerke R square			0.714

In terms of the overall significance of the model (Table 4), the results of the Likelihood ratio test show that the independent variables have an effect on the dependent variable. The model is statistically significant because the p-value is lower than the critical values of $p = 0.05$ and $p = 0.01$. The Hosmer-Lemeshow Test shows that the test was not statistically significant at $p < 0.05$ and $p < 0.01$ implying that the model fits the data well.

4.2 Discussion of results of the determinants of Bank account ownership

Gender was not a statistically significant determinant of bank account ownership which differs from studies such as Clamara, Pena and Tuesta (2014:2) as well as Demirguc-Kunt, Klapper, and Singer (2013a: online) who posit that traditionally more vulnerable groups such as women encounter the greatest bottlenecks in accessing the formal financial system. The probable explanation for the divergence of this finding from literature could be attributed to the fact that the bulk of respondents were in formal employment and by virtue of their formal employment they had surmounted the challenges Clamara et al. (2014;2) allude to in the Peruvian study.

Mobile money adoption modeled as behavioural intention to use mobile money services (BI) was not a significant predictor of bank account ownership. In addition, a closely associated attribute, that is, cellular phone ownership was also not statistically significant in the binary logistic regression model used to determine bank account ownership.

Matsvimbo (2016: online) points out that there is no direct relationship between ownership of mobile phones and / or use of mobile money and improvement in bank accounts at financial institutions. Similarly, Economic Policy Research Centre (2013:ix) pointed out that even though mobile money usage had grown between 2009 and 2013, the growth had not translated into more bank accounts in the formal financial institutions. In other words, the population was comfortable with being able to utilize the mobile phone and the financial services possible without necessarily opening a bank account. Cohn (2015: online) notes that many individuals in Sub-Saharan Africa rely on primitive checking accounts offered by mobile network operators.

The plausible explanation for this increase in mobile money use not being marched with a proportionate increase in bank accounts could be on account of convenience. The stringent procedure of registering to open a traditional bank account is more inconveniencing than that of a mobile phone account.

Further, the statistically insignificant results of mobile adoption on bank account ownership contradict the findings of Karp and Nash-Stacey (2015:2) who studied USA metropolitan areas and found that technology, most especially mobile, internet, computer access, as well as digital account access and use was the main determinant of financial inclusion. The difference could probably be on account of the level of development of the USA financial system such that these technologies can be integrated fully into the formal financial system platforms as channels, an issue that has not yet been realized fully in Uganda. In addition, the results contradict the findings of Mbiti and Weil (2011:2) who studied the impact of M-Pesa in Kenya and found that M-Pesa reduced the desire of people to save using informal savings mechanisms like ROSCAs (Rotating Savings and Credit Associations) but raised the probability of people who used mobile money being banked.

Despite a large proportion of respondents (99.26 percent) having attained at least secondary level education, education was not a statistically significant factor in explaining bank account ownership. These findings are in contrast with studies such as Beck and Brown (2011:4) as well as Goodstein and Rhine (2013:ii) who posit that bank account ownership increases with education. In fact, Zhan and Grinstein-Weiss

(2005:1) who used savings as an indicator of financial inclusion found that “compared to participants without a high school degree, those with some college education, especially those with a four-year college degree, had higher savings”. The most probable explanation for this finding is that the sample included largely highly educated (university and postgraduate degrees) whose work obligated them to open bank accounts.

Region of origin which was proxy for ethnicity or tribe did not have a statistically significant relationship with bank account ownership. This in contrast with scholars such as Goodstein and Rhine (2013:ii) as well as Karp and Nash-Stacey (2015:2) who observe that race and / or ethnicity are important determinants of financial inclusion in the United States of America (USA). The most likely reason why this may not have been significant in this study is that Kampala Capital City is largely cosmopolitan with no ethnic based enclaves and most of the respondents are most likely in mixed ethnicity households and work environments. Furthermore, the implicit institutionalized ethnic based discrimination that might be prevalent in the USA economy (Lusardi, 2005:2) is nonexistent in the Ugandan market.

Marital status was not a statistically significant determinant of bank account ownership. The finding suggests that your relationship with your spouse may not necessarily influence your ownership of a bank account. Nonetheless, this contradicts studies such as Demirguc-Kunt, Klapper and Singer (2013a:4) that suggest that women in marriages may be constrained by their husbands from opening up and using bank accounts. Furthermore, Fanta and Mutsonziwa (2016: i) suggest that more females use someone else’s bank account in the household; a practice likely to increase with marriage pointing to the constraints of marriage on financial inclusion especially for the females. In contrast, a study by Divya (2013:86) undertaken in Tenali town in Cuntu District of Andra Pradesh, South India showed that married respondents were more likely to be financially included than their unmarried counterparts. In this study, the lack of statistical significance of marital status as a predictor of financial inclusion may be attributed to the fact that an individual account is mandatory in formal employment. Of the 404 respondents, 82.67 percent were formally employed in the public and private sector.

The frequency of earning income was not statistically significant in the model of determinants of bank account ownership. In an exploratory study carried out in an Indian district, Shukla and Singh (2015:21) point out that individuals with irregular income sources such as agricultural labourers are least likely to be banked. The

implication of Shukla and Singh (2015:21)'s findings is that it is regularity of earning income that matters not how often, that is, daily, weekly, or monthly that matters. Hence in this study, most people in the study had a regular flow of income, that is monthly, on account of their formal employment in the private and public sectors. Consequently, frequency of income was no longer a limiting factor to bank account ownership.

The significance of income as a determinant of bank account ownership is in agreement with earlier studies such as Reserve Bank of Fiji (2015:1), Beck and Brown (2011:4), Zhan and Grinstein-Weiss (2015:1), as well as Divya (2013:86) amongst others. Income provides the funds necessary to run the bank account. Individuals who are excluded often cite the lack of an income as the major barrier to ownership of a bank account (Plan International, 2014:14; Klapper, Randall & Marlar, 2012: online).

The results indicate that age is a significant determinant of bank account ownership. The finding is in agreement with Efobi, Beecroft and Osabuohien (2014:104) who undertook a microeconomic analysis of access to and use of bank services and found out that age alongside income level and Information Communication Technology (ICT) were major determinants of bank account ownership in Nigeria. However, the results show that there are no statistically significant differences amongst the various age cohorts relative to the 56-65 years category as far as bank account ownership is concerned. This contrasts Kilara and Latortue (2012:1) who observed that individuals aged 15 to 24 years are 33 percent less likely to own a bank account than an adult. The most probable explanation for the lack of statistical significance amongst age ranges could be the fact that most respondents are doing jobs where account ownership is mandatory.

The primary occupation or job of the respondent was a significant factor in explaining bank account ownership. The respondents in more sophisticated white collar employment like formal employment in the public and private sectors had a higher likelihood of owning bank accounts than individuals in blue collar employment like casual labourers. The reason for this difference is that white collar employment provides more money compared to blue collar employment. Since lack of money is the number one reason for not owning a bank account (Klapper, Randall & Marlar, 2012:online), an employment type that provides more money is most likely going to be associated with bank account ownership. Furthermore, white collar employment is more likely to have a prerequisite of a mandatory bank account as part of the remuneration process compared to blue collar employment.

5. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

5.1 Implications

The study results revealed that income, job, and age were significant and salient factors in determining financial inclusion (bank account ownership). Therefore, if policy makers and practitioners want to see an increase in the number of bank accounts in formal financial institutions, it is important to encourage commercial banks to reduce their accounts transaction costs such that even low income earners from blue collar employment may find them affordable. In addition, bank accounts that take into consideration the peculiar needs of younger individuals may be useful in increasing the bank account ownership. In terms of knowledge, these results reaffirm the findings of earlier scholars who worked in developing country contexts such as Beck and Brown (2010:i) as well as Demirguc-Kunt, Klapper and Singer (2013b:1).

With regard to the issue of mobile money adoption not significantly influencing bank account ownership, policy makers and practitioners must work together to establish the necessary practical business conditions and legislative framework that will allow for the recognition of mobile money accounts as equivalent to bank accounts. This is absolutely critical to safeguard the benefits mobile money can confer such as deepening financial markets and improvement of access to finance (European Investment Bank, 2015: v). In Uganda's financial services sector, issues of putting in place legislation to elevate a financial product from an informal and / or semi-formal product has precedence in the recently passed Tier4 Microfinance Institutions Act. The Tier4 Microfinance Institutions Act 2016 transformed semi-formal and informal financial services providers such as Savings and Credit Cooperatives (SACCOs), Village Savings and Loan Associations (VSLAs), Rotating Savings and Credit Associations (ROSCAs), Accumulating Savings and Credit Associations (ASCAs) and money lenders among others into formal financial providers. Nonetheless, such a step would require a collaborative effort with all sectors in the mobile money space, namely MNOs, commercial banks, Uganda Communications Commission (UCC), and Bank of Uganda (BoU).

In as far as knowledge is concerned, mobile money as a determinant of bank account ownership varied from country to country depending on the level of development of the formal financial services system, economic growth level, and prevalence of mobile money (Muir, 2015:3; Mondato, 2015:online). For instance, Mondato (2015: online) cites the example of Zimbabwe in which the economic turbulence saw many

Zimbabweans abandon formal financial institutions accounts and switched to mobile money accounts.

Muir (2015:3) investigated whether mobile money was a complement or substitute to formal bank accounts and found that in countries where mobile money was prevalent, it was a substitute (discouraged bank account usage) while in those where it was less prevalent, it acted as a complement (encouraged bank account usage). Indeed even though the number of bank accounts has increased from 3,555,729 as at December 2009 nine months after the introduction of mobile money in March 2009 to 6,049,598 in December 2015, the study findings suggest that these increases cannot be explained by mobile money. This underscores Muir's (2015:3) suggestion that effects of mobile money on bank account ownership vary from country to country reflecting contextual and situational peculiarities.

Specifically, these findings are in contrast with those by Fanta, Mutsonziwa, Goosen, Emanuel, and Kettles (2016:iii) who used FinScope data and found that once the traditional brick & mortar financial institution (TB&MFI) has a well-developed infrastructure such as automated teller machines or other electronic banking channels, mobile money uptake would be low. In other words, once the TB&MFI infrastructure is well developed, mobile money and traditional banking services are inversely related. In Uganda's case, the TB&MFI infrastructure is well developed in the capital city leaving rural areas with inadequate banking systems. Therefore, mobile money complements the TB&MFI infrastructure with regard to moving monetary value to rural areas from urban centres.

5.2 Recommendations

The binomial regression model estimation indicated that bank account ownership a proxy for financial inclusion was influenced by income, nature of primary occupation and age. The three predictors of bank account ownership are closely related factors of financial inclusion. The amount of income one earns will determine if maintain a bank account. The higher the amount of income, the higher the likelihood of opening and maintaining a bank account. Related to amount of income earned is the nature of primary occupation a respondent does. Individuals in white collar employment have a regular (normally monthly) income stream that is predictable which makes running a bank account easy. With the regular income stream, charges such as maintenance fees and ledger fees can be met in time and the customer may not necessarily be overburdened with bank account surcharges in arrears.

To the contrary, individuals in blue collar employment may receive higher incomes compared to white collar employment but these incomes are irregular. Such incomes make it difficult to run bank accounts whose surcharge schedules are designed to be charged on a monthly basis with the white collar employee in mind. Therefore, blue collar and self-employed individuals are most likely to accumulate bank account surcharge arrears and get discouraged from maintaining bank accounts. Furthermore, age is another factor related to income that determines bank account ownership. Older individuals who have worked for longer periods are likely to have more income compared to younger individuals who have been in employment for shorter durations or are actually unemployed. Thus, older individuals are more likely to own a bank account compared to younger individuals.

The recommendation emanating from those three barriers to bank account ownership are twofold. Commercial bank boards of directors (BoDs) need to undertake deliberate policies that allow their research and development teams to design products that meet peculiar needs of individuals in the blue collar and self-employed categories. These products ought to be cost friendly to customers and reflect the irregularity of their income flows. This characteristic of a product reflecting irregularity in income flows is already embedded in mobile money service accounts where individuals can maintain any amount of money on their accounts without surcharge. In addition, inflows into mobile money accounts either through receipt from a sender or direct deposit by mobile money account holder are not charged. Customers are only charged when they transact. Otherwise, the current bank account cost structure is designed for white collar employees who are obligated to maintain these bank accounts by their employers. The real opportunity for commercial banks is the unbanked people who have to make a voluntary choice to open and maintain bank accounts.

Secondly, Government of Uganda efforts at financial inclusion must target the barrier of inadequate or complete lack of income. It is difficult to open and maintain a bank account without a regular income stream. Therefore, financial inclusion drives by the Government of Uganda must involve how individuals may enhance their income flows. The effort to entrench income generation as part of the financial inclusion drive by the Government of Uganda is underway through the financial literacy campaigns. These efforts should be consolidated and expanded. Financial literacy campaigns involve training various stakeholders in eight modules, namely personal financial management, savings, investment, loan management, making payments, insurance, planning for old age / retirement and financial service providers. These financial literacy campaigns can entrench the appropriate knowledge, skills and confidence for the

unbanked to engage with the formal financial institutions. In addition, Government of Uganda programmes such as the youth venture capital fund and youth livelihoods programme aimed at improving the income of the youth will be instrumental in addressing income inadequacies among young people in the medium to long term.

Another issue is that the financial inclusion measure that was relied upon namely bank account ownership does not cover the full range of financial inclusion offerings such as bank account usage, credit access, savings, and payment systems amongst others. Indices have been developed at the macro-level for cross country comparisons but comprehensive individual indices are lacking. Therefore, further research should aim at developing a comprehensive index for measuring financial inclusion at the individual level.

The study used cross-sectional data which provides a static perspective on mobile money system usage. Use of longitudinal data would have placed the researcher in a better position to draw causal conclusions as postulated by Soto-Acosta, Ramayah and Popa (2013:403).

6. CONCLUSIONS

The factors that significantly predicted bank account ownership included income, nature of primary occupation, and age. In other words, the likelihood that an individual will own a bank account will be shaped by the nature of the job (white collar employees have a higher likelihood than blue collar employees) they do, the income they earn (the higher the income the higher the likelihood of owning a bank account), as well as age (older individuals have a higher likelihood of owning a bank account compared to younger individuals). However, mobile money adoption and financial inclusion (account ownership used as a proxy) did not have a statistically significant relationship.

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THE ROLE OF SERVANT LEADERSHIP IN CREATING AN ETHICAL CULTURE IN ORGANISATIONS

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THE ROLE OF SERVANT LEADERSHIP IN CREATING AN ETHICAL CULTURE IN ORGANISATIONS

ABSTRACT

This study investigates the relationship between servant leadership and ethical culture in organisations, with the purpose of addressing unethical behaviour in the workplace. The role of integrity in servant leaders, and the effect that trust in leaders have on implementing an ethical culture, emerged as important components in the literature. A review of relevant literature culminated in a theoretical model depicting the proposed relationships between the latent variables. The model was empirically tested with a sample of 279 employees from different industries in South Africa. Data were analysed by means of item analysis and confirmatory factor analysis conducted via structural equation modelling. Positive relationships

were confirmed between integrity and trust in a leader, integrity and servant leadership, servant leadership and trust in a leader, servant leadership and ethical culture, and between trust in a leader and ethical culture. The results illustrate that ethical value-laden approaches to leadership effectively lends itself to the creation of an ethical culture through trusting relationships with employees. Organisations should therefore actively pursue servant leadership initiatives, to draw the benefits from the desirable outcomes of an effective ethical culture.

INTRODUCTION

Corruption, fraud, bribery and other systematic problems caused by corporate strategies solely centred on profit maximisation have brought about numerous ethical scandals in recent times. South African organisations in particular have been plagued by increased crime, lawlessness and the general deterioration of the society's morals and ethical values (Van Zyl, 2012). These problems have not only impacted significantly on the economy as a whole, but has also pushed ethics to the forefront of business studies. A renewed focus on research aimed at curbing the devastating effects of unethical behaviour has been the result (Eisenbeiss, Van Knippenberg & Fahrbach, 2015). Ethical culture has surfaced as the most important aspect in addressing unethical behaviour in organisations (Kaptein, 2009). The increased focus on ethical culture is in support of arguments calling for organisations to not only focus on ethics at an operational level and as a reactive function, but rather incorporate ethics into strategic initiatives (Eisenbeiss, et al., 2015).

Ethical culture

An ethical culture forms part of the broader organisational culture concept and is regarded as an important component thereof, due to its positive influence on organisations and their employees (Rossouw, 2008). An effective organisational ethical culture enhances employee loyalty, enables creativity and ultimately results in higher individual productivity and business performance (Rossouw, 2008).

In terms of its conceptualisation, an ethical culture is defined as an informal mechanism within an organisation which dictates how moral issues should be addressed (Engelbrecht, Van Aswegen, & Theron, 2005). It is referred to as a system of shared assumptions and expectations between organisations and their members and encompasses the moral atmosphere of an organisation (Kaptein, 2009). In this way, an ethical culture guides the general perceptions of acceptable norms of behaviour.

In terms of the formation of an ethical culture, it is widely accepted that employees mostly seek outside themselves for guidelines on how to behave and conduct themselves ethically (Treviño, 1986). In light of this finding, most researchers have turned to leadership as a source of aid, arguing that leaders naturally take responsibility and play an active role in setting the ethical tone in the workplace (Ncube & Wasburn, 2006). This study follows suit in this approach.

Servant leadership

Proceeding an investigation into the leadership principles most likely to reap the outcomes of an ethical culture, the value-laden style of servant leadership emerged as the most relevant leadership approach for this study. In terms of its conceptualisation, servant leadership is primarily focused on addressing follower needs (Barbuto & Wheeler, 2006) and is entrenched in the strong ethical principles of moral agency and accountability (Sendjaya & Pekerti, 2010).

In terms of its composition, Sendjaya, Sarros and Santora (2008) propose servant leadership to comprise of the dimensions of voluntary subordination, authentic self, covenantal relationship, responsible morality, transcendental spirituality and transforming influence.

Integrity of leaders and trust in leaders

Integrity of leaders and trust in leaders emerged as further important components of the relationship between servant leaders and ethical culture. Integrity of leaders was proposed to be significant, due to its close relation with servant leader's approach of influence in a credible, moral and consistent manner (Sendjaya & Pekerti, 2010). Whereas trust in a leader was also thought to play a significant role due to the need for followers to willingly make themselves vulnerable to leaders and trust that their positions of vulnerability will not be exploited.

MOTIVATION FOR THE STUDY

While consensus exists in supporting research on perspectives of leadership and culture, proportionately less is known about the ethical dimension of leadership (Brown, Treviño & Harrison, 2005; Eisenbeiss, et al., 2015).

Moreover, research indicates that bottom line productivity and business ethics are not mutually exclusive objectives. Suggesting instead that ethics be viewed as a supportive function to achieve performance rather than be seen as an obstacle standing in the way of success (Eisenbeiss et al., 2015).

This study strives to target these gaps in the extant literature. Through the examination of the leadership qualities deemed relevant for the formation of an ethical culture, the researchers further aim to suggest interventions to address the problem of business ethics and obstacles inhibiting business success.

THE RELATIONSHIP BETWEEN INTEGRITY AND SERVANT LEADERSHIP

A review of literature on integrity and servant leadership suggests a distinct commonality between the two concepts. In their respective definitions, specifically within the authenticity domain of servant leadership, both concepts allude to a sense of morality and consistency, characterised by leaders who portray themselves in relation to others in a truthful and transparent manner (Sendjaya & Pekerti, 2010). Van Dierendonck (2011) further cites the relatedness of the two concepts, describing authenticity as being true to oneself and integrity as the consistency of public and private representations. Notwithstanding this commonality, integrity, specifically in terms of its characteristics of wholeness and strict adherence to set moral and ethical codes, is proposed to have a positive effect on servant leadership, over and above that which is explained by the servant leadership characteristics of authenticity. For this reason, the proposed relationship is thought relevant.

Integrity's inherent appeal within the scope of leadership is derived from the positive influence it has on the leader-follower relationship as well as a leader's ability to influence followers. Integrity within leaders encourages valued, open and honest communication channels with followers (Parry & Proctor-Thomson, 2002) and also promotes the followers' desired objectives. Apart from this, leaders who exhibit integrity, also aim to guide and assist the improvement of their followers' own moral and ethical behaviour. The focus on the moral and specifically the integrity aspect of servant leadership is therefore an important focal point in comprehending how such leaders manage ethics in the organisation. This ensures that the influence on followers is aligned to accepted ethical norms.

Moreover, as a value-laden style of leadership, the role of the Integrity of the Leader is even more important (Parry & Proctor-Thomson, 2002). This style of leadership is firmly rooted in the "morality" dimension of leadership and it is heavily reliant upon this aspect of the leader's character. Servant leadership entails being the custodian of both moral agency and accountability (Sendjaya & Pekerti, 2010), a role which if played effectively, would require the custodian first to be true to his/her own moral self and to be authentic in his/her approach. Thus, it is argued that servant leaders would be unable to transform and guide followers towards the attainment of their individual goals, without approaching such guidance from an authentic, self-sacrificing and ethical perspective themselves.

Additional to the described importance of general ethics within the sphere of servant leadership, integrity specifically adds further value over and above the holistic concept of ethics. Integrity is specifically referred to when describing the very elements that make up the concept of servant leadership, and it shares close ties with authentic leadership and the “real” aspect of servant leadership. There is also a call for servant leaders to portray themselves in relation to others in a truthful and transparent manner, by demonstrating characteristics of humility, security, accountability and vulnerability (Sendjaya & Pekerti 2010).

This interpretation is reflected in numerous servant leadership measurements where the two concepts run a seemingly parallel course, with integrity proposed to be a vital requirement for this style of leadership (Mittal & Dorfman, 2012; Sendjaya et al., 2008; Wong & Page, 2003).

Deduced from the above arguments, a positive relationship between integrity and servant leadership is thus proposed in this study.

Substantive Research Hypothesis 1:

Leader Integrity has a significant positive influence on Servant Leadership in an organisation.

THE RELATIONSHIP BETWEEN INTEGRITY AND TRUST IN LEADER

The relationship between Trust and Leader Integrity is widely accepted in both business and academic circles (Mayer, Davis, & Schoorman, 1995; Engelbrecht, et al., 2015). Integrity is a vital element of leadership and is a proven driving force in leader trust (Palanski, Cullen, Gentry & Nichols, 2015). Mayer et al. (1995) defines Integrity as; “the trustor’s perception that the trustee adheres to a set of principles that the trustor finds acceptable”.

From a theoretical perspective, the relationship between the two variables is derived from the effect which leader Integrity has on follower’s propensity to trust. Leaders who are consistent and perceived by followers as “morally acceptable” in relation to the followers’ own value sets, result in followers exhibiting higher propensity to trust such leaders (Bauman, 2013). The rationale behind the higher propensity to trust is deduced from a higher predictability of the leader’s future behaviour and reduction of the perceived risks involved in followers making themselves vulnerable to leaders or placing themselves in situations of uncertainty.

The proposed relationship between Integrity and Trust is further supported by research, whereby the Integrity of the leader plays a significant role in influencing the thought process of followers; comprising the foundation upon which decisions are made and where trust is

primarily based upon, as a strong positive relationship between the two variables clearly illustrate (Engelbrecht & Cloete, 2000).

The strong positive relationship between the variables is further motivated by the stance that leaders will only instil trust and encourage a following from others, once there has developed a loyalty to a commonly accepted behavioural requirement, as trust in the leader-follower relationship is significantly influenced by the credibility of leaders (Engelbrecht, Heine & Mahembe, 2015). With this line of thought, Integrity is considered to be the concept encapsulating this commonly accepted behaviour, presenting itself as a major determinant of trust in a leader. This suggests that only once a leader is perceived by followers to be consistent, honest and fair – all aspects of Integrity – will trust occur (Morgan & Hunt, 1994).

The nature of the leader-follower relationship therefore needs to be taken into account, whereby a higher value congruence will increase follower's perceptions of leader Integrity and their subsequent propensity to trust (Burke, Sims, Lazzara & Salas, 2007). When followers believe that the leader's behaviour is consistent with their own value set, as well as consistent over time, there is a belief that the leader will behave in a predictable and similar manner in future situations (Moorman & Grover, 2009). The value congruence between the parties therefore plays a significant role.

Engelbrecht, et al. (2015) confirmed the above theoretical arguments and found a significantly positive relationship between the two variables. Leaders' behaviour, particularly their display of Integrity, affects followers' willingness to trust the leader. It can therefore be hypothesised that:

Substantive Research Hypothesis 2:

Leader Integrity has a significant positive influence on Trust in Leaders in an organisation.

THE RELATIONSHIP BETWEEN SERVANT LEADERSHIP AND TRUST IN LEADERS

Trust is the key in any organisational relationship. Van Dierendonck (2011) argues trust to be an important component of the Servant Leadership environment, playing a significant role in organisational commitment, employee attitudes and performance, as well as individual self-actualisation. It is generally accepted that leader effectiveness, their ability to influence others, as well as to successfully function within organisational settings, is dependent on the degree to which they gain followers' trust (Burke et al., 2007). Over and above the "intuitive appeal" of Servant Leadership as a non-conventional approach of influence, studies propose that a focus on leader behaviours which promote empowerment, involvement, participation in decision making process, as well as a collective sharing process, have shown to enhance

employees' trust (Erkutlu & Chafra, 2013). This proposition is also supported regarding servant leaders, whereby positive correlations were found between Servant Leadership and trust in a leader (Joseph & Winston, 2005).

In terms of the dynamics of this relationship, servant leaders earn the trust of followers through selfless service (Greenleaf, 1977), whereby trust is enhanced due to followers perceiving servant leaders' decision making and behaviour patterns to be thoughtful, reliable and of a moral nature (Liden, Wayne, Zhao & Henderson, 2007). The proposed argument regarding this relationship is better understood by examining the characteristics of the respective variables.

In an analysis of the factors that Servant Leadership consist of, the following characteristics all illustrate the picture of a trustworthy leader: voluntary subordination, authentic self, covenantal relationship, responsible morality, transcendental spirituality and transforming influence (Sendjaya et al., 2008). On face value one would assume leaders displaying such behaviours would naturally yield more positive exchanges, and a higher probability of followers internalising and reciprocating such behaviours. The subsequent effect of this is to instil trust in followers.

Research supports this assumption. Leaders, who exhibit genuine concern and care for the interests and needs of others, stimulate stronger relationships with followers (Liden, Wayne, Liao & Meuser, 2014). The covenantal relationship component of Servant Leadership links closely with this aspect, whereby servant leaders foster long lasting genuine relationships with followers. Efforts of treating followers impartially with equality (Sendjaya & Pekerti, 2010) are important in creating long lasting relationships, which is proposed to form bonds with followers. Stronger bonds and perceptions of "genuineness" in the relationship will therefore lead to increased benevolence, as followers are comfortable to trust leaders that have their best interests at heart. Such relationships can also base decisions of trust on shared and repeated positive interactions (Erkutlu & Chafra, 2013). The nature of the relationships created by servant leaders therefore increases trustworthiness.

The authenticity and ethical predisposition components of Servant Leadership are furthermore argued to have a positive influence on Trust in Leaders. Open exchanges are proposed as the root of the trust relationship (Sendjaya & Pekerti, 2010). Regarding authenticity, servant leaders are perceived to be honest and transparent in their transactions with followers (Sendjaya & Pekerti, 2010). According to an ethical predisposition, high ethical and moral standards are entrenched in Servant Leadership (Sendjaya & Pekerti, 2010). This combination creates leaders who behave ethically and in a consistent and easily understood manner, resulting in leaders acting more likely within the paradigms of expected behaviour,

which is thought to enhance predictability of behaviour. The result of this ethical predisposition implies lower risks in engagements, resulting in lower perceptions of being exploited as well as higher trustworthiness.

Therefore, based on the above arguments, a positive relationship between Servant Leadership and trust is proposed in this study.

Substantive Research Hypothesis 3:

Servant Leadership has a significant positive influence on Trust in Leaders.

THE RELATIONSHIP BETWEEN SERVANT LEADERSHIP AND ETHICAL CULTURE

The relationship between leadership and ethics is a widely accepted one, as addressing ethical issues ultimately depends on the establishment of moral, ethical and competent leadership (Van Aswegen & Engelbrecht, 2009). With Ethical Culture, the role of leadership becomes even more of a necessity (Rossouw, 2008).

A primary role of leadership in any organisation is to articulate the expected behaviour of followers to create behavioural norms within the organisations. Because of their inherent positioning in organisations, leaders are responsible for setting the tone in the work environment (Ncube & Wasburn, 2006). In the ethics domain, this responsibility is exasperated and described as a prerequisite of effective leadership (Engelbrecht et al., 2005), whereby ethical values and the inherent ability of leaders to influence followers to internalise these values, are viewed as “must haves” for effective leadership.

Servant Leadership in particular is firmly rooted in the moral and ethical dimensions of leadership and is, moreover, regarded as a group orientated approach to leadership, centred on teamwork, serving others and building a sense of community (Walumbwa, Hartnell & Oke, 2010), and is thus argued to be effective in creating an Ethical Culture (Reed et al., 2011). Notwithstanding the influence of other variables, the servant leadership dimensions of responsible morality and transcendental spirituality, relate closely to the ethical components of Servant Leadership (Sendjaya et al., 2008).

The dimension of responsible morality, calls for leaders to nurture the moral values and higher order needs of followers within the leader-follower relationships (Sendjaya et al., 2008), placing an onus on leaders to take accountability for and foster the ethical values of followers. The influence of these characteristics on Ethical Culture, is that the nurturing of moral values is proposed to enhance the joint consensus seeking process of establishing shared ethical

values. As followers' higher order needs are met and understood, followers will more likely take cognisance of and embrace organisational needs. This is based on the premise of reciprocity in social exchange. The result of this mutual acceptance and understanding in turn reduces the compromise of set ethical principles, and it further fosters behaviour which is constructive and ethical (Sendjaya & Pekerti, 2010).

The dimension of transcendental spirituality alludes to the morally laden and covenant based relationships that Servant Leadership promotes with followers. The establishment of Ethical Culture requires nurturing and is regarded as a long term ethical initiative. In this regard, long lasting and genuine relationships with followers will enhance followers to buy into the specific culture and to be encouraged by servant leaders "calling" to make a difference (Sendjaya & Pekerti, 2010).

In examining the proposed emergence of the described culture, the manifestation of an Ethical Culture through the influence of the Servant Leadership, is suggested to take a slightly less direct route to the culture objective, in comparison with other leadership approaches. Servant leaders aim to influence social learning of followers through epitomising the values of the organisation and to have as their objective the creation of a Servant Leadership culture (Reed et al., 2011). In contrast to most other leadership approaches, which emphasise the needs of the organisation and mobilise employee efforts to attain organisational goals, the primary goal of Servant Leadership is to address followers' needs (Barbuto & Wheeler, 2006). Notwithstanding those who insist on organisational goals being the primary focus, insisting on a more direct and aggressive leader influence approach, a significant correlation is proposed between Servant Leadership and the attainment of an Ethical Culture in this study.

The rationale behind this argument is that the implementation of an Ethical Culture is long term and strategic in nature. This is similar to Servant Leadership's long term or "indirect" approach to organisational goals, whereby the focus is primarily on the follower and the follower needs, with the attainment of organisational specific needs being the subsequent result of individual satisfaction and commitment to the organisation. In this way, as is the case with other organisational objectives, the attainment of cultural change will be approached in a more indirect manner. However, it yields more favourable long-term outcomes, due to its sustainable influence.

This study argues that servant leaders' approach and effect on organisational ethics will be highly effective, as the motivation behind adopting ethical behaviour in followers will be more intrinsically motivated. Leaders, through addressing and satisfying the developmental needs and core values of followers first, will mobilise followers to later become subservient

themselves towards these organisational objectives. Thus, an adoption of ethics is created from a more strategic positioning, with desired goals being achieved in a more sustainable, healthy and growth orientated manner. The impact of Servant Leadership on ethics therefore relates closer to the cultural perspective than to the compliance-based approach (Sendjaya & Pekerti, 2010).

Therefore, a positive relationship between Servant Leadership and Ethical Culture is suggested in this study.

Substantive Research Hypothesis 4:

Servant Leadership has a significant positive influence on Ethical Culture in organisations.

THE RELATIONSHIP BETWEEN TRUST IN LEADER AND ETHICAL CULTURE

While leader trust has been directly linked to ethical climate (DeConinck, 2011; Mulki, Jaramillo & Locander, 2006) and the importance of trust is widely accepted in both business and ethical domains, few studies have explored the nature and dynamics of the relationship between Trust in Leaders and organisational Ethical Culture.

An ethical culture is described as a system of shared assumptions and expectations between organisations and their members (Kaptein, 2009); moreover, as a framework in which issues of moral content are dealt (Engelbrecht et al., 2005) and aligned with mutually accepted high moral standards and expectations (Verhezen, 2010).

In terms of the creation and nurturing of such a framework, leaders' efforts to mobilise follower behaviour towards such shared moral values rely on followers to "buy into" both the communicated desired objectives and into the leader's intention. As such, leader influence is hampered, if not practiced effectively or if perceived to be approached from an untrustworthy standpoint. The effectiveness of leader influence and the perceived trustworthiness of the leader therefore comes to the fore, as followers' willingness to be influenced will be dependent on whether the leader is acting within their best interests.

In examining leader trust influence from an ethical perspective, a strong focus on ethics is prominent within the description of trust. Integrity as an ethical construct is alluded to specifically (Mayer et al., 1995) when describing the characteristics of a leader that is thought to foster trust from followers, entailing the extent to which leaders exhibit strong moral and ethical principles (Erkutlu & Chafra, 2013). Therefore, an inherent ethical component already exists within the framework of trust.

From a general leader effectiveness perspective, studies have furthermore shown that a leader's trustworthiness has a significant influence on the social exchange process, whereby higher leader trustworthiness leads to higher leader effectiveness (Burke et al., 2007). Moreover, increased Trust in Leaders triggers greater collective efforts and the more effective attainments of organisational goals (Brower, Lester, Korsgaard, & Dineen, 2009). Within the scope of creating and nurturing an Ethical Culture, such enhancing characteristics of leaders seem relevant, as strong influence will naturally be thought to mobilise individuals to accept and practice shared norms of behaviour. Therefore, with Ethical Culture as a goal in mind, leader trustworthiness would enhance such collective efforts.

Lastly, there is reason to believe that a lack of trust will be detrimental to the creation of an Ethical Culture. Employees who feel mistreated, or exhibit distrust with the organisation, are more likely to act contrary to the desired behaviours of the organisation, making it difficult to attain compliance with Ethical Culture (Tyler & Blader, 2005).

This study proposes that followers exhibiting a higher Trust in Leaders, will have a positive impact on the establishment of an Ethical Culture within an organisation.

Substantive Research Hypothesis 5:

Trust in Leaders has a significant positive influence on an Ethical Culture in organisations.

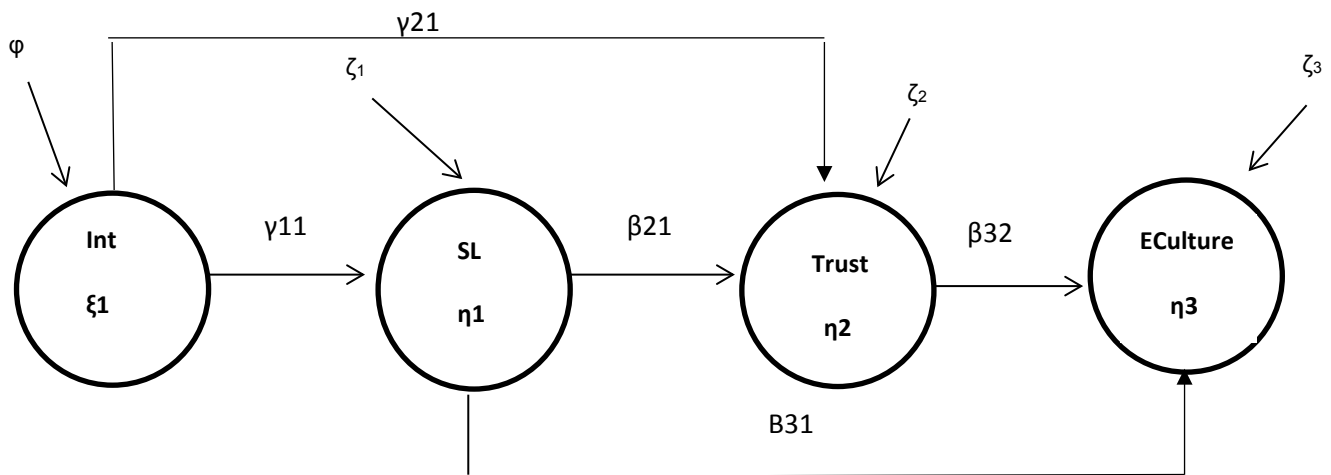
CONCEPTUAL MODEL

The in-depth literature review culminated in the theoretical model illustrated in Figure 1. The model depicts the five theorised constructs and the various proposed linkages between the constructs.

Ethical Culture (η_3), Trust in Leaders (η_2) and Servant Leadership (η_1) present the three endogenous latent variables. Integrity (ξ_1) models the exogenous latent variable.

FIGURE 1

THE THEORETICAL MODEL REPRESENTING THE RELATIONSHIPS BETWEEN INTEGRITY IN LEADERS, SERVANT LEADERSHIP, TRUST IN LEADER AND ETHICAL CULTURE



HYPOTHESES

The substantive hypothesis states that the structural model depicted in Figure 1 provides a valid exact account for an Ethical Culture. This means the model illustrates a perfect account of the manner in which Integrity, Servant Leadership and Trust in Leaders interdependently affect Ethical Culture, the substantive research hypothesis can be translated to statistical hypotheses that represent an exact model fit with the covariance matrix:

H01: RMSEA = 0

Ha1: RMSEA > 0

If the substantive hypothesis stating that the structural model depicted in Figure 2.1 provides an approximate account for an Ethical Culture it means the model illustrates a close account of the manner in which Integrity, Servant Leadership and Trust in Leaders interdependently affect Ethical Culture, the substantive research hypothesis can be translated to statistical hypotheses, which represent a close model fit with the covariance matrix:

H02: RMSEA \leq 0.05

Ha2: RMSEA > 0.05

The two overarching substantive research hypotheses were separated into five more detailed, specific substantive research hypotheses. These five detailed research hypotheses translate into the path coefficient statistical hypotheses depicted below:

Hypothesis 3

Ho3: $\gamma_{11} = 0$

Ha3: $\gamma_{11} > 0$

Hypothesis 4

Ho4: $\gamma_{21} = 0$

Ha4: $\gamma_{21} > 0$

Hypothesis 5

Ho5: $\beta_{21} = 0$

Ha5: $\beta_{21} > 0$

Hypothesis 6

Ho6: $\beta_{31} = 0$

Ha6: $\beta_{31} > 0$

Hypothesis 7

Ho7: $\beta_{32} = 0$

Ha7: $\beta_{32} > 0$

RESEARCH METHODOLOGY

Sampling

This study made use of non-probability convenience sampling to collect the data. The overall study sample consisted of 279 participants from a variety of organisations and industries. In terms of the demographics, this comprised 40.9% male and 59.1% female respondents. With the average age of the sample being 33.32 and the race distribution as follows: African (5.4 percent), Coloured (30.8 percent), Indian (4.3 percent), White (59.1 percent) and other (.04 percent). The majority of respondents were from non-managerial positions (58.4 percent).

Questionnaires were used to gather the relevant data from the sample. Invitations to respond via the questionnaires were distributed to participants via email, making use of a web link to the electronic questionnaire. To ensure confidentiality, all electronic responses were kept anonymous; participants were informed that the individual responses would not be linked to their specific leader (manager). Ethical clearance was obtained from the ethics research committee of the university.

Measuring Instruments

The four variables were examined via four separate questionnaires: Engelbrecht's EIT was used for Integrity, Sendjaya et al.'s SLBS for Servant Leadership, Engelbrecht et al.'s LTS for Trust in Leaders, and Victor and Cullen's ECQ for Ethical Culture.

Integrity

Integrity was measured by the Ethical Integrity Test (EIT) (Other-rating format) developed by Engelbrecht (cited in Du Toit, 2015). The EIT consists of 66 items and measures the 5 dimensions of Integrity, being; Behavioural Consistency, Righteousness, Frankness, Credibility and Fairness.

Servant Leadership

The Servant Leadership Behaviour Scale (SLBS) developed by Sendjaya et al. (2008) was used to measure Servant Leadership in this study. The SLBS comprises 35 items measuring the six proposed dimensions of Servant Leadership, namely Voluntary Subordination, Authentic Self, Covenantal Relationship, Responsible Morality, Transcendental Spirituality and Transforming Influence.

Trust in Leaders

The 13-item Leader Trust Scale (LTS) developed by Engelbrecht et al. (2015) was used to measure the concept of Trust in Leaders in the current study.

Ethical Culture

The Ethical Climate Questionnaire (ECQ) developed by Victor and Cullen (1987), was used to measure ethical culture. The ECQ consists of 19 items with four subscales and tap into respondents' views in respect of how employees typically make decisions around everyday business practices and procedures, which require an ethical frame of reference (Victor & Cullen, 1987).

RESEARCH RESULTS

Reliability Analyses

Item analysis (via SPSS) was conducted on the four measurement scales to ensure the quality and internal reliability of the items in each scale, as well as further to identify poor items not representative of the described latent variable. The results of the item analyses indicated strong item reliability and quality, as all the Cronbach alpha values exceeded the satisfactory cut-off value of .70 (Kerlinger & Lee, 2000). Furthermore, all the items presented high item-total correlations exceeding the .30 cut-off score. Because of these results, no “poor items” were deleted following the item analyses process. It is therefore evident that each of the scales and subscales used had acceptable internal consistency coefficients and were therefore reliable.

Evaluating the measurement models

Confirmatory Factor Analysis (CFA) was used to test the fit between the obtained data and the theorised measurement models. LISREL 8.80 was used to perform the CFA and was conducted on all the scales and subscales of the respective measurements.

CFA was used to investigate the “the goodness-of-fit” between the measurement models and the obtained data, by means of testing the hypotheses of exact fit ($H01: RMSEA = 0$) and close fit ($H02: RMSEA \leq 0.05$).

In terms of interpreting the results of the CFA, the initial index of Root Mean Square Error of Approximation (RMSEA) was first examined to illustrate whether the model fit was acceptable. The smaller the RMSEA value the better the model fit. A good fit is indicated by an RMSEA of < 0.05 , while values between .05 and .08 indicate reasonable model fit and those above .80 indicate poor model fit (Diamantopoulos & Siguaaw, 2000).

Goodness of Fit: EIT

The results of the initial goodness of fit index, the RMSEA (0.0669), indicated that the EIT measurement model showed acceptable fit with the data.

An overall examination of the fit indices also indicated that the EIT measurement model had obtained reasonably good fit.

The χ^2/df value of 2.245 fell between the desired ranges of 2 to 5, suggesting a good model fit was achieved. The P-value for Close Fit (0.000) did not indicate a close fit ($< .05$). Both the RMR value of 0.0379 (< 0.08), and Standardised RMR of 0.0476 (< 0.05) further indicated good fit. The Goodness-of-Fit Index value of 0.580, however, fell below the cut-off

value of 0.90. In the light of this findings, although the indices for absolute fit were generally achieved, it is said that the EIT measurement model only presented reasonable fit.

The incremental fit indices – Normed Fit Index (NFI) (0.978), Non-Normed Fit Index (NNFI) (0.987), Comparative Fit Index (CFI) (0.988), Incremental Fit Index (IFI) (0.988), and Relative Fit Index (RFI) (0.978) – indicated a good fit with the measurement model as all the indices were above 0.95.

Goodness of Fit: SLBS

In terms of the RMSEA (0.0608), the SLBS measurement model appeared to obtain acceptable fit.

In terms of the absolute fit indices, the measurement model of the SLBS indicated reasonable fit. The P-value for Close Fit (0.000367) fell below the close fit criterion (< 0.05). Therefore, the H_0 for close fit can be rejected, indicating that the measurement model did not obtain close fit. The χ^2/df value of 2.208 fell within the desired range, as did the RMR of 0.0317 (< 0.08) and the Standardised RMR of 0.0356 (< 0.05). The GFI of 0.725 (< 0.90) missed the cut-off value. Therefore, the overall absolute fit indices indicated a reasonable fit.

The incremental fit indices (NFI, NNFI, CFI, IFI and RFI) were all above 0.95, representing good fit. Therefore, the overall fit indices demonstrated that the measurement model provided an acceptable explanation for the observed covariance matrix, reflecting a reasonable fit with the data.

Goodness of Fit: LTS

The initial measurement model showed reasonable fit (RMSEA = 0.0562).

The χ^2/df value of 1.879 fell outside the desired range of good fit. The P-value for Close Fit (0.240) indicated good fit (> 0.05), as did the RMR of 0.0305 (< 0.08), and the Standardised RMR of 0.0231 (< 0.05). However, the GFI of 0.875 (< 0.90) missed the cut-off value of good fit. Overall, the absolute fit indices were acceptable.

All the incremental fit indices were above 0.95, representing good fit. The overall measurement model therefore provides a reasonable explanation of the observed covariance matrix.

Goodness of Fit: ECQ

The Ethical Climate Questionnaire with all four its dimensions were submitted to CFA to evaluate measurement model fit. The initial index indicated a poor measurement model fit with the data (RMSEA = 0.0986).

An investigation into the LAMBDA-X matrices indicated problematic items (ETHC5, ETHCS7 and ETHCS14) which were loading on more than one sub-dimension simultaneously. This indicated low discriminant validity on the items and thus their removal was required. After deleting the three items, improved fit for the measurement model was found, whereby RMSEA marginally missed the 0.05 cut-off for good fit but achieved satisfactory fit (RMSEA = 0.0557).

The χ^2/df value of 1.860, the RMR of 0.129 (> 0.08) and the Standardised RMR of 0.0839 (> 0.05) fell outside the desired ranges. The P-value for Close Fit (0.221) indicated close fit (> 0.05). The GFI of 0.882 (< 0.90) marginally missed the cut-off value of good fit. Thus, overall the absolute fit indices were acceptable.

The incremental fit indices (NFI, NNFI, CFI, IFI and RFI) were all above 0.95, representing good fit. The overall fit indices therefore demonstrated that the measurement model provided an acceptable explanation for the observed covariance matrix, reflecting reasonable fit with the data.

Goodness of Fit Indices for the Structural Model

The overall measurement model was fitted using robust maximum likelihood estimation and item parcelling. Random parcelling was used for the LTS, and the subscales were used as parcels for the EIT, SLBS and the ECQ.

The RMSEA value of this structural model resulted in 0.0829, marginally missing the reasonable fit criterion according to Diamantopoulos and Sigauw (2000), but reached the more lenient cut-off value for mediocre fit according to MacCallum et al. (1996). Despite the P-value for Close fit ($p = 0.000$) indicating the rejection of the null hypothesis of close fit (H_{02} : RMSEA < 0.05), taking the RMSEA and other fit indices into account the model still presented reasonable overall fit.

The Satorra-Bentler Scaled Chi-Square of 331.692 ($p < 0.01$), indicated a rejection of the null hypothesis of exact fit (H_{01} : RMSEA = 0). The χ^2/df ratio of 2.9096 fell within the desired good fit range of 2 to 5.

The RMR of the structural model was found to be 0.0318. Values below 0.08 indicate good fit (Kelloway, 1998). The standardised RMR of 0.0329 further indicated good fit. The GFI value of 0.841 for the structural model fell marginally below the criterion for good fit.

The incremental fit indices – NFI (.982), NNFI (.985), CFI (.988), IFI (.988) and RFI (.978) – were all above the good fit cut-off value of .95.

An overall analysis of the fit indices indicates a reasonable fit between the structural model and data.

The relationship between Integrity and Trust in Leaders

The SEM analyses confirmed a significant positive relationship between Integrity (ξ_1) and Trust in Leaders (η_2), with the t value of 3.155 (>1.64).

Therefore, hypothesis 4 (H04) is rejected in favour of Ha4: $\gamma_{21} > 0$, as the proposed relationship between the two latent variable is supported.

The relationship between Integrity and Servant Leadership

A significant positive relationship between Integrity (ξ_1) and Servant Leadership (η_1) was observed with the t value of 19.494 (>1.64).

Therefore, hypothesis 3 (H03) was rejected in favour of Ha3: $\gamma_{11} > 0$, as the proposed relationship between the two latent variable was supported.

The relationship between Servant Leadership on Trust in Leader

As reflected by the beta matrix the t value of 5.702 (> 1.64) indicated a significant positive relationship between Servant Leadership (η_1) and Trust in Leaders (η_2).

The null hypothesis 5 (H05: $\beta_{21} = 0$) was therefore rejected in favour of the alternative hypothesis 5 (Ha5: $\beta_{21} > 0$), which suggested support for the proposed relationship.

The relationship Servant Leadership and Ethical Culture

The t value of 2.823 (> 1.64) indicated a significant positive relationship between Servant Leadership (η_1) and Ethical Culture (η_3). The null hypothesis 6 (H06: $\beta_{31} = 0$) was therefore rejected in favour of the alternative hypothesis 6 (Ha6: $\beta_{31} > 0$) which suggests support for the proposed relationship.

The relationship between Trust in Leaders and Ethical Culture

According to the beta matrix, the t value of 4.089 (> 1.64) indicated a significant positive relationship between Trust in Leaders (η_2) and Ethical Culture (η_3). The null hypothesis 7 (H07: $\beta_{32} = 0$) was therefore rejected in favour of the alternative hypothesis 7 (Ha7: $\beta_{32} > 0$), which suggested support for the proposed relationship.

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

While this study provided valuable insights into the positive relationships among Integrity, Servant Leadership, Trust in Leaders, and Ethical Culture, certain limitations need to be acknowledged and considered in the interest of improving future research.

A first limitation relates to the chosen sampling method used. Non-probability sampling procedure increases the chance of bias and reduces the confidence with which results can be transferred to the general population. It was however seen as the most appropriate method for this study due to cost limitations and practicality.

The second limitation is that the instruments focused only on individuals' responses and subordinates' impressions of the leader with respect to Integrity and Servant Leadership, as well as subordinates' own perceptions of the Ethical Culture of the organisation and their trust in their leader. It was therefore a single source study. Expanding this to include multiple sources of data collecting, such as peer evaluations or leader self-assessments, could be considered to improve future studies.

A third limitation was the demographics of the sample group that did not reflect the true demographics of the South African population. As South Africa is a diverse country with a wide variety of cultural groups, it is not prudent to assume to obtain the same results across cultural groups.

The fourth limitation is that while the constructs investigated in this study conceptualised the core elements of the relationship between Integrity, Servant Leadership, Trust in Leaders and Ethical Culture, capturing the exact nature of the elements and their respective relationships is not as straightforward. Further research is therefore required to create support for the conceptualisations and hypothesised relationships, as the nature of the network put forward is not fully comprehended.

IMPLICATIONS FOR ORGANISATIONAL LEADERS

The empirical evidence has numerous implications for leaders in organisations.

As a result of growing concerns with organisational ethics, combined with widespread perceptions of self-serving corporate leaders, a study into Ethical Culture and leadership initiatives aimed at creating such a culture, is regarded as very important and relevant to South African organisations.

To address unethical behaviour in organisations, a significant number of researchers and practitioners have turned to the concept of Servant Leadership as a viable business strategy and leadership principle (Parris & Peachey, 2013). This was the approach that this study followed, whereby the role of Servant Leadership in creating an Ethical Culture in organisations was supported by both a comprehensive study into existing literature, and quantitative results obtained in this study.

Ethical Culture consists of the shared values and beliefs, which guide individuals in areas such as moral issues, business practices and procedures, and other areas with an ethical content (Van Aswegen & Engelbrecht, 2009). The manifestation of specific cultures as well as the type of culture, which presents itself in an organisation, is dependent on the commitment of the leader in the organisation to moral principles (Van Aswegen & Engelbrecht, 2009). Therefore, a value-laden ethical approach to leadership effectively lends itself to the creation of an Ethical Culture. Integrity and Trust in Leaders were further confirmed as relevant constructs to the relationship between Servant Leadership and Ethical Culture.

Since significant relationships were confirmed to exist between the respective constructs, a focus on the elements, which make up these constructs, is deemed relevant to business managers. Organisations should actively pursue initiatives that aim to enhance these constructs, to draw the benefits from the desirable outcome of an effective Ethical Culture.

The study therefore provides useful insights into the positive effect Servant Leadership has on creating an Ethical Culture in an organisation.

CONCLUSIONS

Significant positive relationships were confirmed between Integrity and Trust in Leaders, Integrity and Servant Leadership, Servant Leadership and Trust in Leaders, Servant Leadership and Ethical Culture, as well as between Trust in Leaders and Ethical Culture.

The comprehensive study of existing literature, the description of the results obtained from the statistical analysis, as well as recommendations put forward, provide a thorough understanding of the role that the constructs play in creating an Ethical Culture.

The intention of the study was therefore to contribute to the existing body of research, in further understanding the relationship between leadership and ethics and specifically the effect of Servant Leadership on business ethics. The empirical results could provide practical value to organisations on a managerial level, which could be of value to the management of human resource. The study thus provides a useful strategy to address the problem of unethical behaviour in the workplace.

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**SET UP FOR FAILURE? THE IMPACT OF ASSIGNMENT COMPLEXITY ON
PLAGIARISM BY SOUTH AFRICAN POSTGRADUATE STUDENTS**

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Please indicate topic: Management education

**SET UP FOR FAILURE? THE IMPACT OF ASSIGNMENT COMPLEXITY ON
PLAGIARISM BY SOUTH AFRICAN POSTGRADUATE STUDENTS**

ABSTRACT

Students are more likely to resort to plagiarism in assignments that are complex, especially when certain factors out of their control are present. This article reports on a study that investigated how postgraduate students' reliance on different types of plagiarism is different between a less complex essay (Bloom's Level 4) and a more complex essay (Bloom's Level 6). The essays of 128 students at a comprehensive university in South Africa were coded for six types plagiarism, which were identified in literature. The first pertinent finding was that students furnished fewer citations in a more complex essay. Secondly, copying substantial portions of text with limited alteration (a type of plagiarism) remained prevalent between the

two essays. Faculty need to ensure that students are adequately prepared in terms of paraphrasing and academic writing to be able to complete more complex essays.

1 INTRODUCTION

Plagiarism is on the increase (Eret & Gokmenoglu, 2010), and is exacerbated by the Internet allowing easy access the work of others (Walker, 2010). Various theories have been utilised to understand why students plagiarise, for example (i) utility theory, which posits that “individuals evaluate each choice on the basis of the value (utility) of each possible outcome of that choice [...], the choice is whether to plagiarize or not” (Heckler, Rice & Bryan, 2013:231); (ii) expectancy valence theory, which argues that “expectations and valences together determine a person’s motivation to undertake a particular behavior” (Honig & Bedi, 2012:108), and (iii) “[E]fficiency gain ... to get a better grade and to save time” (Park, 2003:479).

Addressing student plagiarism using a pedagogical approach has been on the agenda of educations. Various once-off interventions, such as developing writing skills using Turnitin™ similarity reports (Mckay, 2014; Rolfe, 2011; Walker, 2010) have been reported. The use of a rubric to address plagiarism has also been examined (Razi, 2015). Another approach was to examine how students plagiarise. Two lines of research have focused on especially non-native English-speaking students’ writing pertaining to copying from source texts. One area of interest focusses on students’ reliance on specific types of plagiarism (for example, Vieyra, Strickland and Timmerman. (2013) and Walker (2010)). A second considered the practices, beliefs, and decisions of students, particularly non-native English-speaking students, when copying text (for example, Pecorari and Petrić (2014) and Shi (2012)). The issue of time constraints surfaced in these studies. Insights from the latter approach highlighted difficulty and complexity as reasons why students resort to plagiarism.

It is argued that the ‘why’ and ‘how’ of student plagiarism cannot be separated from each other, and that previously used theories fall short in explaining student plagiarism in relation to the complexity of the work. The results of this study provide a deeper understanding of student plagiarism, which could yield insights into the design of effective assessment strategies to ensure students gain the intended skills and knowledge from the learning experience, whilst address the issue of plagiarism.

2 LITERATURE REVIEW

Three factors impact the relationship between level of complexity and plagiarism, namely task context, time constraints, and individual factors, which are addressed first in the literature review. This is followed by a discussion of the characteristics of the essays — the results of the above factors — and the types of plagiarism in which students engage.

2.1 Task context

The context of a task consists of two factors. Firstly, the difficulty of a task is the “condition of being hard to accomplish” (OED Online, 2017). Francis (2014:¶3) states that difficulty “is based upon amount of effort needed to answer a question, solve a problem, or complete a task”. The second factor is complexity, “the kind of thinking, action, and knowledge needed in order to answer a question, solve a problem, or complete a task and how many different ways [there are] to do this” (Francis, 2014:¶4). The relationship between these two concepts and plagiarism is discussed below.

2.1.1 Difficulty

While it has been argued that the difficulty of a task is related to plagiarism, the term ‘difficulty’ has been treated as synonymous with ‘complexity’. Nevertheless, an association between difficulty and plagiarism is observable, and inclusive of different environments, namely the task itself, the course, as well as the qualification. It has been reported that students’ decisions to engage in plagiarism will increase relative to the difficulty of the assignment (Tayan, 2016; Eret & Ok, 2014; Eret & Gokmenoglu, 2010; Jian, Sandnes, Huang, Cai & Law, 2008; Szabo & Underwood, 2004). Krishnan and Kathpalia (2002) draw attention to the difficulty novice writers experience in composing their literature reviews. In contrast to the consideration of difficulty, Szabo and Underwood (2004) present evidence that tedious assignments encourage plagiarism.

The notion of difficulty was also extended to two immediate environments, namely the course as well as the qualification. Yazici, Yazici, and Erdem (2011) found that the difficulty of the material or course has a substantial effect on the incidence of plagiarism. This finding was supported by Kelly, Gutmann, Schneiderman, DeWald, McCann and Campbell (2008) as well as Eret and Gokmenoglu (2010). Jian *et al.* (2008) argue that students may rely less on plagiarism when they perceive that they are able to meet the demands of the course. Jian *et al.* (2008), in a study of undergraduate and postgraduate

students from Hong Kong, China, Norway, and Taiwan, found no differences related to geographic location or level of study in the patchwriting (inadequate paraphrasing) strategies that non-native English speakers employ to deal with difficult courses. It has been reported that a lack of interest in the topic or course leads to students plagiarising (Eret & Gokmenoglu, 2010).

Garnica (2010) considered difficulty and complexity separately, and found a positive association between poor understanding (due to complexity) of the course material and Turnitin™ similarity scores, and a positive association between the experienced level of difficulty of course materials and similarity scores.

2.1.2 Complexity

Complexity, notably associated with paraphrasing, is cognitively demanding in order to move beyond conveying information to producing new knowledge. Students may be particularly prone to resorting to patchwriting if the complexity of the material increases, as paraphrasing is cognitively demanding (Marsh, Landau & Hicks, 1997). Students are required to synthesise material (Chandrasoma, Thompson & Pennycook, 2004), and inferential thinking (either deductive or analogical) is required (Yamada, 2003). Jones and Freeman (2003) argue that the demands posed by useful and necessary activities are different when paraphrasing using a source text, compared to creating a new understanding that requires higher-order thinking. Kuhlthau (2004) notes that students conveying information rather than knowledge and understanding is evident in patchwriting strategies. Garnica (2010) found a positive association between student plagiarism and cognitive overload (e.g., evaluating too many sources). Non-native English speakers have been found to resort to various plagiarism strategies (Pecorari, 2008), particularly when writing a literature review for a research project (Jian *et al.*, 2008). Petrić (2012) proposes that the linguistic and/or conceptual complexity of source texts may influence students' decision whether to quote verbatim or to paraphrase.

However, the level of education also contributes to inadequate paraphrasing, as analytical skills required to deal with complexity as students advance through qualifications. Goh (2013) noted that patchwork plagiarism was more evident among first-year students, compared to those in their third year. Goh (2013) attributes this finding to students developing higher cognitive skills over time; third-year students have stronger analytical skills and are better able to express and support their thoughts. Hong and Cheng (2013) also found fewer instances of plagiarism among final-year undergraduate management

students, compared to second-year students. Petrić (2012) proposes that the linguistic and/or conceptual complexity of source texts may influence students' decision whether to quote verbatim.

It is important to consider a task's complexity relative to the level to which students' analytical skills have developed. A lack of complexity in an assignment also encourages plagiarism. Students resort to plagiarism when the assignment topic does not require original thinking or synthesis (McCord, 2008), and, as argued by Kuhlthau (2004), when students have not accessed their thinking skills beyond the level of application (based on Bloom's Taxonomy (Anderson, Krathwohl, Airasian, Cruikshank, Mayer, Pintrich & Wittrock, 2001)). Faculty may contribute to this problem; Davis (1994) maintains that poorly defined and descriptive assignments are more likely to encourage cheating than more analytical assignments.

2.2 Time constraints

The amount of effort required to complete a task has bearing on students' decisions to engage in plagiarism. Too much effort being required may not only limit the time available to deal with complex tasks, but also hinder students' mental engagement in paraphrasing tasks, resulting in them conveying information as opposed to furnishing information. Difficult tasks require more attention, exacerbating time constraints (Garnica, 2010). Szabo and Underwood (2004) and Eret and Gokmenoglu (2010) argue that students may engage in plagiarism when they are failing to cope with the added time pressure inherent in difficult assignments. In light of the multiple deadlines students face across a curriculum, Pecorari (2008) argues that the importance students accord their tasks may have a bearing on their decision to resort to plagiarism. Pecorari (2008) found that non-native English-speaking postgraduate students attempted to avoid plagiarism, but that this became a lesser priority in light of the time demands placed on them when conducting research. Petrić (2012) reported that additional time was taken by students to understand complex material, and, with less time remaining, they resort to major quotes and paraphrasing only a few additional lines. Pecorari (2008) presented similar findings, Pecorari (2008:102) claiming that, "If the intention of these [postgraduate student] writers had been to copy from the sources to save time and energy, it seems less likely that they would then have taken the trouble to make alterations ...". Starr (2002) posits that spending too much time on finding sources may cause students to plagiarise, because of the volume of source texts they are then required to evaluate (Beasley, 2004).

2.3 Individual factors

Previous writing experience, or rather lack thereof — largely the product of the educational systems — plays a role plagiarism. Shi's (2006) qualitative investigation found that English- and German-speaking students receive training in citation practices during their secondary schooling, while Asian students do not. Goh (2013) found that, as undergraduate students progress through university, patchwork plagiarism decreases, and argued that students developed higher cognitive abilities that make paraphrasing easier. A similar finding was reported by Hong and Cheng (2013). Szabo and Underwood (2004) and Eret and Gokmenoglu (2010) also postulate that a lack of academic writing skills is a contributing factor to plagiarism, especially in the case of novice writers (Tayan, 2016) and postgraduate students writing up their literature review chapter (Krishnan & Kathpalia, 2002). Pecorari (2008) reported that students at British and American universities do more writing than those in non-English-speaking countries. This is also the case in South Africa; for example, Ellery (2008) maintains that students in South Africa are not equipped during their secondary schooling to do academic writing and avoid plagiarism.

Regarding writing experience, students do not always understand attribution of source texts. Elander, Pittam, Lusher, Fox, and Payne (2010) argue that students do not have a clear understanding of the difference between paraphrasing and plagiarism, especially when faced with complex and unfamiliar texts. Non-native English-speaking students' citation practices may be different to those of native English-speaking students, due to the latter's exposure to and practice in writing using other texts (Pecorari, 2008).

A lack of precursors of writing skills, namely reading- and linguistic skills, may lead students to plagiarise, especially students who are non-native English speaking having to use the lingua franca in an academic context. Underdeveloped reading skills may prompt students to resort to patchwriting strategies, as the focus is on sentence level (words and phrases), rather than on the overall meaning of the text (Barks & Watts, 2001). Students lacking the required linguistic ability may resort to plagiarism (Fazel & Kowkabi, 2013), evident in the academic writing of non-native English-speaking students (Pecorari, 2008). In support, Tayan (2016) found that undergraduate students in management have difficulty completing assignments, due to a lack of language skills. Non-native English-speaking students are also more prone to plagiarising (Eret & Gokmenoglu, 2010), particularly when the source text is linguistically complex (Fazel & Kowkabi, 2013) or the ideas are complex (Petrić, 2012). Students with poor English proficiency focus mainly on verbatim copying (

Cumming, Rebuffot & Ledwell, 1989). In this regard, Amsberry (2009) noted that non-native English-speaking students employ the above copying strategies in an attempt to avoid blatant plagiarism. Pecorari (2008) and Tomaš (2011) found that non-native English-speaking students view paraphrasing as a process of making changes to copied text, as opposed to reformulating the text. This is further exacerbated by time constraints, resulting in students only changing a few words. Pecorari (2008) points out that these students regard such strategies as a means to get acquainted with academic writing in English.

The ineffective use of available time has also been linked to plagiarism. Academics have indicated that inadequate preparation by students, despite having sufficient time, also leads to cheating behaviours (Yazici, Yazici & Erdem, 2011). Schouwenburg and Groenewoud (2001) found that, for procrastinating students, the time frame in which to complete the assignment becomes unfavourable. Yet, Starr (2002) maintains that laziness is not a main contributing factor in plagiarism, as plagiarism involves only a small number of students. This finding is supported by Rinnert and Kobayashi (2005).

2.4 Characteristics of assignments

Studies have yielded mixed results regarding the link between the length of an assignment and incidences of plagiarism. Orthaber's (2009) study found a medium positive correlation between word count of reports (with a mean of 441 words) and plagiarism (using Viper Plagiarism Checker). Bilić-Zulle, Frković, Turk, Ažman and Petrovečki (2005) concluded that the length of the assignment (with a mean of 507 words) was not related to plagiarism; they found a very low positive correlation between total word count and Turnitin™ similarity scores. In contrast, Segal, Gelfand, Hurwitz, Berkowitz, Ashley, Nadel and Katz (2010) reported a weak inverse correlation among native English-speaking postgraduate students.

However, an essay marked by complexity and difficulty may influence the association between the length of an essay and plagiarism. The difficulty students encounter when sourcing appropriate source material that is linguistically complex (Fazel & Kowkabi, 2013) or the ideas are complex (Petrić, 2012), including the complexity associated with interpreting and evaluating (too many) texts Garnica (2010), may result in less time to compose the essay. Thus, a reduction in the number of references may be expected in light of the time constraints. Fewer references being available to the student may result in a shorter essay. Therefore, the length of an academic essay may not necessarily increase

as difficulty and complexity increase. The length of an essay marked by complexity, may evidence stronger and positive associations between word count and plagiarism.

The interaction between difficulty and complexity of a task may have an impact on the duration to complete a task. Hence, students will submit assignments marked by difficulty and complexity closer to the deadline. Cognitive demands of paraphrasing (Marsh *et al.*, 1997), especially due to complex source material and tasks that require effort (e.g., the writing process (Pecorari, 2008) and sourcing and evaluating appropriate texts for the assignment (Beasley, 2004)), result in additional time required to complete the task Petrić (2012), in particular for non-native English-speaking students. Lacking required skills (such as academic literacy) may exacerbate the time constraints.

2.5 Types of plagiarism

Neville (2010) identified three main types of plagiarism. The first is copying another author's writing verbatim, without quotation marks, or, as Jones and Freeman (2003:174) labelled it, "word-for-word reproductions". Here, two distinctions are evident. The first is a lack of conventional signals, i.e. quotation marks and citation(s) (Vieyra *et al.*, 2013; Colquitt, 2012; Tomaš, 2011; Walker, 2010; Pecorari, 2008) and page numbers (Colquitt, 2012), where the copied text is presented as the student's original work (Walker, 2010). The second, called "sham paraphrasing" (Walker, 2010:46), contains selected conventional signals, i.e. no quotation marks are used, but citation(s) are included (Tomaš, 2011; Walker, 2010; Park, 2003).

The second type of plagiarism identified by Neville (2010) is referred to as "patchwriting" (Howard, 1995:788), "pastiche" (Edlund, n.d., ¶10), or "close copying" (Wager, 2014:41). Howard (1995:788) defines patchwriting as "copying from a source text and then deleting some words, altering grammatical structures, or plugging in one-for-one synonym-substitutes". Copied material is improperly paraphrased, resulting in "...mimic[ed] passages from prior work" (Colquitt, 2012:749), whereby students slightly change copied material (Wager, 2014) or superficially modify it (Shi, 2012). Two sub-types are noticeable. The first involves copying substantial portions of text with limited alteration (substituting selected words) or "without new contributions" (Honig & Bedi, 2012:106), which entails deleting (Howard, 1999) one to four words from the original text (Walker, 2008) and inserting a limited number of words (Walker, 2008; Jones & Freeman, 2003), and/or substituting words with synonyms (Vieyra *et al.*, 2013; Tomaš, 2011; Davis & Carroll, 2009; Walker, 2008; Howard, 1999). The second is word reversal (Walker, 2008). In contrast to

substituting words, this strategy entails syntax rearrangement (Tomaš, 2011; Shi, 2004; Jones & Freeman, 2003; Nitterhouse, 2003; Howard, 1999). Vieyra, Strickland, and Timmerman (2013) also included the practice of changing the tenses of verbs.

Neville's (2010) third type of plagiarism is the practice of blending copied material with original material. This is also called "plagiphrasing" (Krishnan & Kathpalia, 2002:193) and "structure-based changes" (Barrón-Cedeño, Vila, Martí & Rosso, 2013:920). Jones and Freeman (2003), based on the writing of Bereiter and Scardamalia (1987:179,170), considered the above practices "knowledge telling", which is in contrast to "knowledge transforming", which "implies reflection, problem solving, and planning; it involves associative thinking while critically analysing the information available, in the light of clear goals, in order to create new understandings".

The lack of attribution of material, in addition to inadequate paraphrasing, is also associated with plagiarism. At one end of the continuum, similar to Neville's (2010) criterion that plagiarism excludes citations, is 'major,' outright, intentional or unintentional plagiarism, which is a lack of referencing, acknowledgment, or appropriate quotation marks (Price & Price, 2005), whether copied material is verbatim without quotation marks or improperly paraphrased (Wager, 2014; Walker, 2010; Warn, 2006; Price & Price, 2005; Walker, 1998). At the other end of the continuum, 'minor' plagiarism, sometimes unintentional, is characterised by missing quotation marks, although the source is cited (Price & Price, 2005).

3 PROBLEM INVESTIGATED

In addition to upholding and protecting academic integrity and scholarship (Jabulani, 2014; Choo & Paull, 2013), universities are responsible for preparing students for the workplace, to create future leaders and innovative thinkers. In reality, at the core of leadership in organisations is the ability to deal with complexity in order to take appropriate short- and long-term decisions requiring innovative thought in highly competitive contexts. Failing to address plagiarism in light of complex tasks may have dire financial and reputational consequences for organisations, limit the employability of students in leadership positions, and limit the conversion of information into knowledge. The latter is evident in non-native English-speaking students who, when faced with complexity in conjunction with time constraints, face a decision to paraphrase (thus not merely conveying information) or not (Heckler *et al.*, 2013). In this regard, Pecorari and Petrić (2014) propose that a deeper understanding of non-native English speakers' writing strategies is required.

4 RESEARCH OBJECTIVES

Following the problem statement, the aim of this study was to compare students' reliance on inadequate paraphrasing strategies in two essays of different levels of complexity (the 'how') as well as selected 'why' factors evident in the characteristics of the two essays. This was achieved through two objectives, namely to:

- identify the differences in the writing strategies observable in the types of plagiarism between a more complex essay, compared to a less complex one; and to
- examine the differences between the two essays in terms of the characteristics of the essays resulting from the writing strategies, between the two essays.

Therefore, the contribution of this study is the extension of current knowledge on the notion of complexity by considering the 'how' and 'why' of student plagiarism in two essays of different levels of complexity, by considering not only the types of plagiarism students resort to, but also the impact of time constraints evident in the characteristics of the essays and the length of time before the deadline the work was submitted.

5 RESEARCH METHOD

5.1 Sample

The essays of three cohorts of postgraduate students (registered between 2012 and 2014, $N = 154$) at a comprehensive university's Faculty of Management, were considered. Thirteen repeating students and those who did not submit both essays in the same year of registration ($n = 13$) were excluded from the study. The final sample ($n = 128$) consisted of predominantly women (75.8%) and non-native English-speaking students (73.4%). Two forms of previous education were represented, with vocational education slightly less than half (45.83%). The mean age was 26 years ($SD = 6.64$). The possibility of sub-samples was explored. Based on significant differences between the types of plagiarism revealed by a Friedman test ($\chi^2(11, n = 128) = 93.968; p < .001$), preliminary comparisons between various groups were conducted. Mann-Whitney U -tests revealed four instances where students from the 2014 cohort, those who received plagiarism training, committed less plagiarism, specifically *Alteration major* and *Blend (minor and major)* in Essay 1, and *Blend minor* in Essay 2.

5.2 Assignments

Two different out-of-class assignments from two separate courses were included in the analysis. The requirements for both essays were approximately 15 pages in length with at least 15 references. Assignment 1, the less complex essay, required students to solve an organisational challenge of their choice, drawing on the content of the specific module. This assignment focused on ‘analysing’, i.e. Level 4 of the cognitive domain of Bloom’s taxonomy (Anderson *et al.*, 2001). In the more complex assignment, students were expected to evaluate an organisation (in terms of its mission, internal conditions, and capabilities, as well as the external environment), identify desirable options, and develop short- and long-term objectives according to relevant academic theories, engaging Level 6 of Bloom’s cognitive domain (i.e. ‘evaluation’) (Anderson *et al.*, 2001). Essay 2 was submitted approximately three weeks after Essay 1. Students had approximately three weeks to prepare and submit Essay 1. The concept of plagiarism was briefly addressed in each course’s learning guide, but was excluded from the formulation of the assessment task.

5.3 Measures

5.3.1 Types of plagiarism

Detectable plagiarism was measured with six variables, summarised in Table 1. In addition to the type of plagiarism, i.e. *Reproduction*, *Alteration*, and *Blend*, the use of citations was included, to distinguish between minor plagiarism (citation provided) and major plagiarism (no citation provided).

Table 1: Types of detectable plagiarism at sentence level examined in this study

Citation behaviour		Copying strategies from source text
Citation(s) provided	No citation provided	
<i>Reproduction</i> <i>Minor</i>	<i>Reproduction</i> <i>major</i>	Text copied verbatim, without quotation marks
<i>Alteration</i> <i>Minor</i>	<i>Alteration</i> <i>major</i>	Substantial portions of text copied, with limited alteration
<i>Blend</i> <i>Minor</i>	<i>Blend</i> <i>major</i>	Additional words or phrases added to copied text

Source: Chrysler-Fox and Thomas (2017)

5.3.2 Characteristics of the essays

The characteristics of the essays were measured using four variables. *Word count* reflected the total number of words in an essay, inclusive of the list of references. *References* referred to the total number of references in an essay's list of references. *Timeliness* was measured as the number of minutes an essay was submitted before the deadline. Lastly, *Similarity* was the percentage of words in an essay similar to other texts (iParadigms, 2011). Data were extracted from the essays' Turnitin™ originality reports.

5.4 Data collection

A total of 256 Turnitin™ similarity reports (128 per essay), where each sentence highlighted as similar to other texts, were coded according to the variables described above (see Table 1). Excluded from the coding exercise were common phrases that cannot be regarded as plagiarism, as well as tables of contents, figures, and tables. Bullet points were coded according to full sentences (whether per bullet point or as one sentence continuing over several bullet points).

Examples of the coded sentences (unedited) representing the six types of plagiarism are displayed in Figure 1.

Figure 1: Examples of the six types of plagiarism in the dataset

	With citation ('minor')	Without citation ('major')
Reproduction	Diversity requires a type of organizational culture in which each employee can pursue his career aspirations without being inhibited by gender, race, nationality, or other factors that are irrelevant to performance (Henry & Evans, 2007).	McClelland also suggests that as effective managers need to be successful leaders and to influence other people; they should possess a high need for power.
Alteration	According to Ivancevich and Matteson (1999), the application of reason to bring about change is supported on the dissemination of information prior to the intent to change.	Long time ago, women were not allowed to work simply because it was the duty of their husbands to provide the family.
Blend	Many authorities have expressed some of the tasks that are identified in the above definition for example Andrews, (1987) suggested that the study of strategic management emphasizes the evaluation of external opportunities and threats, in light of an organization's strengths and weaknesses.	In addition to this, is the diversification strategic option to realise its goal of personalised health science nutrition to prevent and treat health conditions such as diabetes, obesity, cardiovascular, and Alzheimer diseases which aims to respond to the vision of the company which is providing Good Life to its customers.

The resulting frequencies were combined with the anonymised biographical data of the students. The frequencies were normalised to 10 000 words, similar to the study of Biber (2006) and Petrić (2012), to allow comparison between essays of different word counts.

5.5 Statistical analysis

Nonparametric tests were employed, as the assumption of normality was violated (Shapiro-Wilk tests were significant ($ps < .001$)). Outliers considered accurate representation of the data were included in the analyses (Hair, Black, Babin & Anderson, 2010). Absolute values of the types of plagiarism were normalised to 10 000 words, to counter the intervening effect of essays of different lengths (Petrić, 2012; Biber, 2006). Friedman tests were used to test whether differences existed between the types of plagiarism committed. Wilcoxon signed-rank tests were employed to test for significant differences between the types of plagiarism between the two essays, as well as the characteristics of the essays. SPSS Version 24 (IBM Corp., 2016) was used for all tests, except where the Benjamini-Hochberg procedure (Benjamini & Hochberg, 1995), using the R Stats Package (R Core Team, 2016), was used, to avoid Type 1 errors and correct the p -values for the multiple comparisons. Only statistically significant and pertinent results are reported (full results are available upon request).

6 RESULTS AND FINDINGS

The aim of this study was to compare students' reliance on inadequate paraphrasing strategies in two essays of different levels of complexity.

6.1 Plagiarism strategies in the essays

The first objective was to identify the differences between the types of plagiarism committed in the more complex essay, compared to the less complex one. Following a significant Friedman's chi-square test result ($\chi^2(11, n = 128) = 93.968; p < .001$) testing for differences among the different types of plagiarism between the essays, a series of Wilcoxon signed ranks tests were conducted. Statistically significant differences in students' use of different types of plagiarism between a less complex essay (Bloom's Level 4) and a more complex one (Bloom's Level 6) are reported in Table 2. The z -values of the Wilcoxon signed ranks tests are reported for each comparison. The differences were all of small effect size, unless a medium effect (§) is indicated. The 'X' in the horizontal comparisons represents the type of plagiarism most used.

Table 2: Comparison of students' use of types of plagiarism in essays with two levels of complexity

Var.	Less complex Essay 1 (Bloom's Level 4)						More complex Essay 2 (Bloom's Level 6)					
	Minor plagiarism			Major plagiarism			Minor plagiarism			Major plagiarism		
	Repro.	Alt.	Blend	Repro.	Alt.	Blend	Repro.	Alt.	Blend	Repro.	Alt.	Blend
Repro.	X								-2.754*			-2.314*
Alt.		X							-4.330***			-2.768**
Blend			X						-2.413*			
Repro.	-	-	-	-	-	-	-	-	-	-	-	-
Alt.	-	-	-	-	-	-	-	-	-	-	-	-
Blend	-	-	-	-	-	-	-	-	-	-	-	-
Repro.	-	-	-	-	-	-	X	-	-	-	-	-
Alt.	-	-	-	-3.158**	-2.723*	-3.596***	-	X	-	-	-	-
Blend	-	-	-	-	-	-	-	-	-	-	-	-
Repro.	-	-	-	-2.684*	-2.286*	-3.709***	-	-	-	X	-	-
Alt.	-3.466**	-2.119*	-4.060***	-5.038***§	-4.735***	-6.290***§	-	-	-	-	X	-
Blend						-3.216**						X
Min.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mdn	0.00	2.43	2.19	0.00	0.00	0.00	0.00	2.84	0.00	0.00	4.12	0.00
75%	9.37	10.80	7.65	3.32	5.89	2.79	6.46	10.61	4.75	12.65	23.52	6.93
Max.	162.74	76.00	52.92	248.67	87.94	40.82	146.75	143.78	33.16	340.57	239.52	50.84

Note: Repro. = Reproduction; Alt. = Alteration.

* $p < .05$, ** $p < .01$ and *** $p < .001$, based on the adjusted Benjamini-Hochberg p -values.

As can be seen in Table 2, five statistically significant differences in the use of different types of plagiarism indicated that students, in the more complex Essay 2, compared to Essay 1, relied more on:

- *Reproduction minor* than *Blend major* in Essay 1;
- *Reproduction major* than all types of major plagiarism used in Essay 1;
- *Alteration minor* than all types of major plagiarism used in Essay 1;
- *Alteration major*, compared to all other (*minor* and *major*) types of plagiarism used in Essay 1; and
- *Blend major* than *Blend major* in Essay 1.

Alteration major, where substantial portions of text were copied but not furnished with citations, was the prominent type of plagiarism in Essay 2, where half of the sample's number of transgressions ranged between 0.00 and 23.52 (*Mdn* = 4.12). *Blend minor*, where additional words or phrases were added to copied text and citation were provided, was relied on the least (where three-quarters of the sample's number of transgressions ranged between 0.00 and 4.75, *Mdn* = 0.00).

Overall, the results indicate that plagiarism increases as the complexity of essays increases. Firstly, it was found that the students furnished fewer citations in the more complex essay. This supports previous views (Petrić, 2012; Elander *et al.*, 2010; Jian *et al.*, 2008) that complexity may influence students' decisions to plagiarise, in particular, to resort to patchwriting strategies (Chandrasoma, Thompson & Pennycook, 2004; Marsh *et al.*, 1997). However, the 'process of writing' is an alternative explanation. In light of the time constraints and complexity, students may focus more on compiling a draft document with text copied from source documents that are not always appropriately cited. With a looming deadline, rather than revising the essay, time is spent on paraphrasing and inserting citations where they were originally not included, resulting in spending additional time to look for the citations. Thus, students' process of writing may lead them to exclude citations. It seems that students deem appropriation (use of source text) and attribution (providing citations) of text as two separate activities.

Furthermore, the students relied predominantly on copying substantial portions of text with limited alteration (*Alteration*). This may be explained by Petrić's (2012) finding that time constraints may influence the type of plagiarism. This could also be ascribed to students' way of paraphrasing, i.e. the process of making changes before a deadline (Tomaš, 2011; Pecorari, 2008), which would point to a lack of academic writing skill. Time constrains,

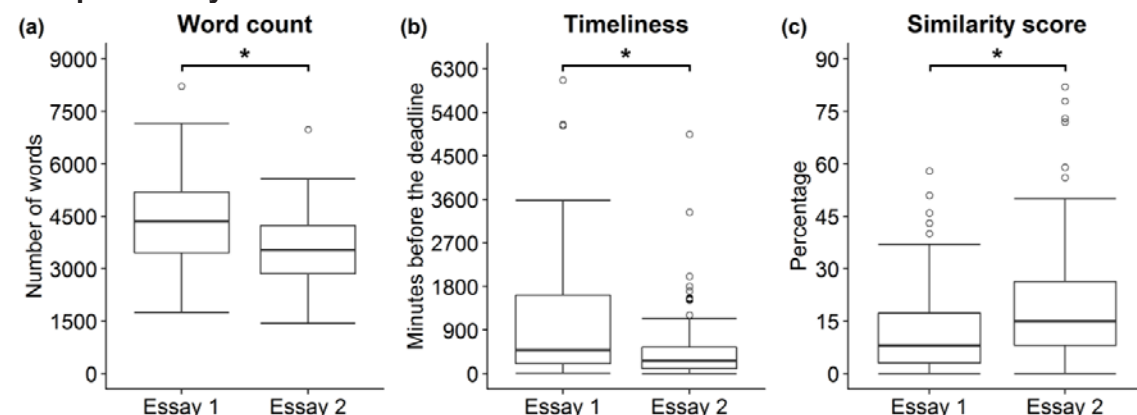
exacerbated by the need to paraphrase, which is cognitively demanding, may explain the reliance on this type of behaviour (Marsh *et al.*, 1997).

Finally, when considering, holistically, the five statistically significant differences in Table 2, an intriguing pattern emerged. It seems more likely that students' decisions in light of difficulty (effort) and complexity (mentally taxing) in avoiding plagiarism (at the last minute), are based on the 'least effort given a time constraint,' and balanced between (i) whether to attempt paraphrasing (cognitively demanding) versus (ii) providing a citation (when it was at hand (e.g., available in the draft document)). Thus, there is an interaction (systemic) between the task environment (difficulty, complexity, and time constraints) and the individual factors. Thus, the type of plagiarism in the essays cannot only be explained, for example, by poor academic writing skills (Tayan, 2016; Eret & Gokmenoglu, 2010; Szabo & Underwood, 2004), or the finding of Cumming *et al.* (1989), who maintain that students with poor English proficiency copy text verbatim. In fact, not all sentences in the essays were plagiarised (when reviewing the descriptive statistics in Table 2).

6.2 Differences in essay characteristics

The next objective was to determine the differences in the characteristics of the essays as a result of the writing strategies employed. Following a series of Wilcoxon signed rank tests, statistically significant differences (all of medium effect) between the less complex and more complex essay were found, displayed in Figure 2.

Figure 2: Differences in essay characteristics between the less complex and more complex essay



* $p < .001$.

The total number of words decreased significantly ($z = -7.207$; $p < .001$, $r = -.45$) between Essay 1 ($Mdn = 4\,349$) and Essay 2 ($Mdn = 3\,530$). After excluding 21 students who had

submitted their essays after the deadline, a significant decrease ($z = -5.997$; $p < .001$; $r = -.41$) was found between the time students ($n = 107$) submitted Essay 1 ($Mdn = 487$ minutes; ~8 hours), compared to Essay 2 ($Mdn = 257$ minutes; ~4 hours). Students' similarity scores increased significantly ($z = -5.710$; $p < .001$, $r = -.36$) between Essay 1 ($Mdn = 8\%$) and Essay 2 ($Mdn = 15\%$). No significant difference ($z = -1.471$; $p = .14$; $r = -.09$) was found between the number of references used in Essay 1 ($Mdn = 12.00$) and Essay 2 ($Mdn = 12.00$).

What is striking about the results is that, compared to Essay 1, Essay 2 had a lower word count, was submitted closer to the deadline, and contained more plagiarism, indicated by Turnitin™'s similarity index. A first finding is that plagiarism (i.e. similarity scores) increased when the complexity of the essay increased, which supports previous arguments and findings (Petrić, 2012; Yazici *et al.*, 2011; Elander *et al.*, 2010; Jian *et al.*, 2008; Chandrasoma *et al.*, 2004; Marsh *et al.*, 1997) that complexity may lead to plagiarism.

A second finding is that the effort required for and complexity of the essays seem to have a bearing on the timeliness, as students submitted the more complex essay closer to the deadline, lending support to Petrić's (2012) finding that, to understand complex material, students (especially non-native English-speaking students (Tomaš, 2011)) need additional time. The writing process, influenced by the effort and cognitive demands placed on students (Petrić, 2012), may explain this behaviour.

The last finding was that the more complex essays contained fewer words than the less complex essays, despite similar requirements. It was expected that, as the total number of references increased, the length of the assignment would also increase; however, there was no statistically significant difference between the total number of references between the essays. A possible explanation may be that students experienced difficulty in evaluating source documents and selecting appropriate material for the task, resulting in less material being included in the assignments. In light of there being no significant difference between the essays in the total number of references, Starr's (2002) argument that students spending too much time finding relevant sources may lead to plagiarism is not supported. Time constraints may also have influenced the extent to which material was selected for inclusion in Essay 2, compared to Essay 1, when considering the linguistic and/or conceptual complexity of source texts leading to plagiarism (Petrić, 2012).

7 LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

This study has a few limitations. Firstly, findings would have been enriched by a mixed-method approach. A follow-up examination of the essays would have yielded more insight into how the students wrote, in particular how copied sentences were combined into paragraphs, together with an indication of how copied material was combined with proper paraphrasing. Such an approach would indicate whether students consider a larger section of the source text, rather than focussing only at sentence level (Barks & Watts, 2001). In addition, interviews with selected students would have provided more insight into: (a) the process of writing, in particular when and how words in sentences were emended to avoid plagiarism; (b) the decisions surrounding how copied sentences were integrated into paragraphs; and (c) how they dealt with the effort, time constraints, and complexity with respect to plagiarism. Future research may utilise mixed methods incorporating a quantitative assessment, followed up by an inspection of the actual writing and students' perceptions of their writing.

A further limitation was that the essays were done outside of the classroom; it is thus impossible to confirm authenticity. A future endeavour may consider a quantitative experimental approach, to ensure the students' identity. Lastly, the coding of the essays was done only by the present researcher. Co-coding with another specialist may have yielded different interpretations in certain cases, and may have slightly altered the statistical results and interpretations.

8 PRACTICAL MANAGERIAL IMPLICATIONS

Educationists need to be mindful when designing learning experiences, especially when complex tasks are introduced in academic essays. More specifically, in light of the challenges presented in the literature review and the findings presented, the practice of scaffolding can be employed to stagger the tasks from less to more complex. In conjunction with the introduction of more complex tasks, students should be allowed the necessary time to cognitively engage with the task and to paraphrase appropriately. Attention can also be given to the writing process, in conjunction with the appropriation and attribution of text as part of drafting an essay. The above is particularly important in a South Africa, where the majority of students are non-native English speakers. Educationists developing students' report-writing skills and knowledge may not only foster confidence in dealing with complexity, but also contribute towards their employability. Implications for institutions are also noted. The design and assessment of learning

experiences described above may also be extended to the teaching and learning policies, especially with regard to formative assessment. University writing centres could provide a supportive environment, using non-credit-bearing interventions to aid vulnerable students in acquiring the required reading and paraphrasing skills to deal with complex essays.

9 CONCLUSIONS

As the complexity of tasks increase, students are more prone to resorting to plagiarism if they have not developed the appropriate level of cognitive ability. In addition, contextual factors outside the control of students encourage plagiarism. The effort required of students may exacerbate time constraints, leaving less time to engage in critical thinking, which may ultimately lead to plagiarism. As a consequence, opportunities for learning are minimised (Postle, 2009).

It was argued that the 'why' and 'how' of student plagiarism cannot be separated from each other, and, that previously proposed theories fall short in explaining student plagiarism in the context of complexity. Therefore, the contribution of this study is the extension of current knowledge on the notion of complexity by considering the 'how' and 'why' of student plagiarism in two essays of different levels of complexity, by considering, not only the types of plagiarism students resort to, but also the impact of time constraints, evident in the characteristics of the essays and time submitted before a deadline. The findings indicate that students furnish fewer citations in a more complex assignment, alternatively resorting to copying substantial portions of text with limited alteration and without citations. This may be explained by students' decisions during the writing process in weighing up the amount of effort required, given the looming deadline, as reported by Pecorari (2008). It appears that students regard the practice of citation and writing, specifically paraphrasing, as two isolated activities. Furthermore, when complexity is present, students produce shorter essays, submitted closer to the deadline. Their decision that it would be less time-consuming to provide citations rather than paraphrasing may require more time, may have resulted in the complex essays which were shorter in length and submitted closer to the deadline.

An appreciation of the impact of task complexity on students' academic essays interplay with factors not within their control will enable educationists to not set students up for failure and through punitive consequences that may limit their employability and access to future leadership positions.

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10.1 Competing interest

This study has not received any financial assistance that could have influenced the results.

10.2 Author contributions

This study was conceptualised, executed, and written up in this article by the author.

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**ASSESSING THE BUSINESS CASE FOR ENVIRONMENTAL, SOCIAL AND
CORPORATE GOVERNANCE PRACTICES IN SOUTH AFRICA**

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**ASSESSING THE BUSINESS CASE FOR ENVIRONMENTAL, SOCIAL AND
CORPORATE GOVERNANCE PRACTICES IN SOUTH AFRICA**

ABSTRACT

Thirty years ago, the United Nations warned corporations that sustainable development should meet the needs of the present generation, without compromising the well-being of future generations. Since then, stakeholders became increasingly aware of sustainability-related challenges that companies are confronted with. In an attempt to address such challenges, managers and directorates around the world introduced corporate social responsibility (CSR) and corporate social performance (CSP) initiatives. As the main motivation of such initiatives was to engage with and improve the well-being of society, focus was mostly placed on environmental and social considerations. Corporate governance was typically omitted from such initiatives.

The sustainability concept is of particular importance to responsible investors. They incorporate environmental, social and corporate governance (ESG) aspects into their investment decision-making and ownership practices. Such investors aspire to earn sustainable returns. They recognise the possible long-term effect of sound ESG risk management on corporate performance. The leaders of firms should consider the interests and enlist the support of their stakeholders to promote sustainable value creation over the long-term. They should caution against an excessive focus on short-term results.

There has been a growing interest in research on responsible investment and sound ESG practices globally. The majority of ESG-research was conducted in developed countries where authors reported divergent results (positive, negative or no association between ESG and different financial performance measures). Local researchers mostly focused on the state of responsible investment and corporate governance practices due to South Africa's well-developed corporate governance framework. A lack of ESG measurement criteria and standardised data resulted in limited ESG studies in the emerging market context during the 2000s. Several databases, however, now offer comprehensive ESG data.

This study was undertaken to address the gap in literature by assessing the business case for ESG practices within the local context. The relationships between ESG and several financial performance measures will be investigated for a sample of companies that were listed on the Johannesburg Stock Exchange over the period 2011 to 2016. The relationship between selected market-based and accounting-based financial performance metrics and the Bloomberg E, S and G disclosure scores will be evaluated by conducting panel regression analyses. Since responsible investors evaluate ESG risks and opportunities in addition to possible returns, risk-adjusted abnormal returns will furthermore be estimated by employing the capital asset pricing model and Fama-French three-factor model. Given the enhanced focus on sustainable value creation, the authors will expand on the work of previous emerging market researchers by including three value-based performance measures, namely economic value added, market value added and free cash flow.

The findings of this study might be beneficial to several stakeholders. The existence of a significant positive link between ESG and corporate financial performance might motivate the managers and directors of JSE-listed companies to allocate more time and money to ESG-related aspects in order to enhance sustainable performance. Furthermore, emphasis on the financial materiality of ESG aspects is likely to be a prominent driver for sustainability and enhanced shareholder engagement in future.

DEVELOPMENT AND INITIAL VALIDATION OF THE PRINCIPLED LEADERSHIP SCALE

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DEVELOPMENT AND INITIAL VALIDATION OF THE PRINCIPLED LEADERSHIP SCALE

ABSTRACT

The purpose of the study was to develop a new scale, the Principled Leadership Scale (PLS), which measures principled leadership. Principled leadership was defined as a holistic construct, based on the overlap of behaviours inherent to transformational, servant, authentic and ethical leadership. The study adds value in that it is the first to integrate these value-based leadership theories under one construct, principled leadership. Further value is added by analysing principled leadership within a nomological network of variables, in which moral intelligence was postulated as an antecedent, and trust in the leader and organisational citizenship behaviour (OCB) as outcomes of principled leadership. Data were analysed by means of item analysis, exploratory and confirmatory factor analysis conducted via structural

equation modelling. The statistical analyses yielded confirming results for the reliability and construct validity of the PLS and provided support for the relationships postulated in the structural model.

1 INTRODUCTION

The Enron debacle of 2001 could possibly be regarded as one of the most complex examples of unethical and corrupt business practices of the past two decades. Despite the lessons that leaders could have learnt from this debacle, history keeps repeating itself as daily reports of unethical behaviour, greed and the abuse of power by public and private organisational leaders continue to make headline news. Recent international examples include the FIFA, Volkswagen and Panama Paper scandals, while issues such as state capture and gross misuse of government funds continue to plague South African news.

The devastating result of having an organisation managed by corrupt leaders is that the corruption does not remain closeted behind the boardroom door. The leaders' corrupt behaviour tends to infiltrate and pollute the entire organisation. This phenomenon has its roots in social learning theory (SLT), developed by Bandura (Bandura, cited in Mayer, Kuenzi, Geenbaum, Bardes & Savador, 2009), which suggests that individuals will strive to emulate the behaviour of role models in their work environment. Employees witness reward and punishment for the behaviour that is deemed acceptable or unacceptable in their workplace and will adjust their behaviour in accordance with what is deemed acceptable behaviour (Mayer *et al.*, 2009:2). In organisations where leaders are corrupt, display immoral behaviour as the norm, and are seen to reap positive rewards for this behaviour, employees will learn to emulate this behaviour to similarly reap rewards for themselves.

Several methods of curbing the corrupt behaviour of leaders and their followers have been proposed in the literature. These include adherence to and penalties for breaking the law (Sausser, 2005), organisational policies, professional codes of conduct that prescribe appropriate work behaviour (Sausser, 2005), codes of ethics and ethics training and committees (Mayer *et al.*, 2009). The ability of these methods to enforce ethical conduct of leaders in organisations, is however doubtful. The organisations linked to the scandals referred to above are all guided by such laws and codes, and yet corruption triumphs.

Pillay (2014) and Sausser (2005) suggest an alternate solution to this problem. Sausser (2005:346). proposes that the conscience, based on the individual's value system, is what ultimately holds a person accountable for his/her actions. This value system becomes the leader's inner moral compass and guides the leader's actions from the inside out (Pillay, 2014). What is therefore needed, is for organisations to appoint leaders who have a strong moral

compass and who, based on this, rather than on moral regulations imposed from the outside, become role models of desirable moral behaviour, which via social learning will cascade down the ranks of an organisation (Mayer *et al.*, 2005).

In addition to role modelling, leadership development training appears to have some worth in instilling appropriate moral behaviour in leaders. However, the traditional forms of leadership training where leaders attend short conferences or training sessions appear to add little more value than a cognitive, short-lived, motivational experience for developing leaders (Allio, 2005). For leaders to learn to lead effectively, their behaviour must change in line with effective leadership outcomes. Effective leadership encompasses establishing the vision, values and purpose of an organisation and building a culture that embraces these in such a way, that growth and survival of the organisation are achieved (IoDSA, 2016). The change in behaviour necessary to achieve effective leadership does not occur through a once-off training session. It requires mentoring and coaching by appropriate role models, over a period of time, until the required behaviour is learned and entrenched (Allio, 2005).

Some important questions to consider before embarking on a development program to build effective leaders and strengthen their moral compass are: 1) whose concept of morality is one referring to, 2) can universal standards of morality be defined, and 3) are such universal standards of morality necessary?

The necessity of a universal understanding of morality is aptly summarised by Bell (cited in Kinnear, Kernes & Dautheribes, 2000:6) as follows: "Without universal moral standards we are left with no way to condemn cannibalism, physical torture, mutilation, wife beating, child abuse, slavery, murder and genocide if they are part of the habitual practice and cultural traditions of a group." This statement highlights the need to move away from moral relativism towards universally recognised moral principles, if behaviour is to be judged as either ethical or unethical.

Kinnear *et al.* (2000) and Schwartz (2005) conducted studies in which they attempted to establish such universal principles. Their studies included the analysis of sacred texts of the major religions of the world, codes of secular organisations, which focus on morality (e.g. American Humanist Association, the United Nations, the Caux Roundtable Principles), corporate codes of ethics, and business ethics literature. Their findings revealed the following as universal moral values (Schwartz, 2005:39; Kinnear *et al.*, 2000:9 -10):

- 1) *Commitment to something greater than oneself (a supreme being, transcendent purpose or meaning to one's existence, truth or justice)*

- 2) *Trustworthiness (including honesty, integrity, transparency, reliability, humility and loyalty);*
- 3) *Respect for self, humankind, the environment and other living beings;*
- 4) *Responsibility (including accountability, excellence and self-discipline);*
- 5) *Fairness (including process, impartiality, and equity);*
- 6) *Caring (including avoiding unnecessary harm, compassion, forgiveness and tolerance);*
- 7) *Citizenship (including notions of obeying laws and protecting the environment)*

The above list provides a guideline as to what universally accepted moral behaviour looks like. Organisations who wish to cultivate a culture in which ethical behaviour is the norm, should therefore seek to employ leaders who display this behaviour, so that it can be learnt by followers and cascaded down the levels of the organisation.

A starting point to identifying such leaders would be to assess leaders by means of the scales of leadership theories, which are underpinned by the moral principles described above. The most significant leadership theories, which speak to these moral behaviours, are transformational, servant, authentic and ethical leadership, referred to in this study as the value-based leadership theories.

2 LITERATURE REVIEW

2.1 Transformational leadership

Transformational leadership focuses largely on the principle of being committed to something greater than oneself. The transformational leader typically inspires followers to move beyond focussing on their own interests to focusing on a higher purpose, such as an organisational goal (Bass, cited in Hemsworth, Muterera & Baregheh, 2013).

The theory has received criticism relating to the motivation behind such inspiration by transformational leaders, as it may serve the organisation more than the follower, rendering the ethical behaviour of such a leader questionable (Stephens, D'Intino & Victor, cited in Yukl, 1999). The strong moral component of the transformational leader is however defended by several researchers, who argue that transformational leaders inspire followers towards ethical behaviour and doing the right thing in pursuit of higher goals (Engelbrecht, van Aswegen & Theron, 2005). This is confirmed in the detail of the subscales of the MLQ, the most widely used instrument to measure transformational leadership (Hemsworth *et al.*, 2013).

The MLQ's subscale *Idealised Behaviours* focuses on communicating important values and beliefs, the necessity of having a strong sense of purpose and the need to consider the moral and ethical consequences of decisions. Humility in the leader's thinking is addressed in

the subscale *Intellectual Stimulation*, where the need to seek the opinions of others is emphasised. The subscale *Individualised Consideration* explores the leader's ability to coach and mentor followers and to assist them in developing their individual strengths (Hemsworth *et al.*, 2013:857). While articulating a compelling vision and inspiring followers about the future, as described in *Inspirational Motivation* (Hemsworth *et al.*, 2013:857), are important behaviours of a leader, this behaviour is only value-based when the vision that is communicated is morally sound. On balance, it would thus seem that transformational leadership is indeed grounded in moral principles.

2.2 Servant Leadership

The focus of servant leadership is the leader's desire to serve others with the aim of seeing them grow into "healthier, wiser, freer, more autonomous beings" (Greenleaf, cited in Barbuto & Wheeler, 2006:301). The motivation behind this desire to serve lies in the leader's feelings of obedient gratitude towards a higher power (Sendjaya, Sarros & Santora, 2008). While transformational leadership places an emphasis on the follower's achievement of transcendent, rather than self-directed goals, servant leadership regards the achievement of transcendent goals (e.g. strategic organisational goals) as a natural, long-term outflow of the short-term focus of assisting (serving) the follower in his/her self-development (Stone, cited in Sendjaya *et al.*, 2008).

Servant leadership thus has strong links to the universal principles of being committed to something greater than oneself and caring for others. These principles are embedded in dimensions of servant leadership such as *Altruistic Calling* and *Emotional Healing* (Barbuto & Wheeler, 2006), *Voluntary Subordination* (Sendjaya *et al.*, 2008), and *Empowerment, Standing Back*, and *Forgiveness* (Van Dierendonck & Nuijten, 2011).

Notions of respect, responsibility and citizenship are also embedded in servant leadership. Beyond developing the follower, the servant leader must ensure that he/she acts responsibly by ensuring that the ends sought in business are morally legitimate and justified (Sendjaya *et al.*, 2008). Furthermore, the servant leader is a steward of the organisation in that he/she provides direction, ensures that the organisation contributes positively to society and that followers are held accountable for the performance they can control (Van Dierendonck & Nuijten, 2011). Sendjaya *et al.* (2008) touch on the principle of fairness, which requires the servant leader to treat followers fairly, and with radical equality. Finally, the notion of trustworthiness is embedded in the servant leadership dimensions *Authentic Self* (Sendjaya *et al.*, 2008), *Authenticity* and *Humility* (Van Dierendonck & Nuijten, 2011). These dimensions focus on the servant leader's ability to make themselves vulnerable and accountable to others

and to be true, both publicly and privately, to their stated intentions and commitments (Van Dierendonck & Nuijten, 2011; Sendjaya *et al.*, 2008).

2.3 Authentic Leadership

Authentic leadership is largely focussed on the principle of trustworthiness. In essence, an authentic leader is one who is true to his/her beliefs and values and bases his/her actions on these, does not conform to the expectations of others, or copy what is done by others (Avolio & Gardner, 2005). Furthermore, authentic leaders are transparent about their feelings, thoughts, weaknesses and strengths (Avolio & Gardner, 2005). The relational transparency and ability of the authentic leader to 'walk his/her talk' has been proven to promote trust in the leader (Hassan & Ahmed, 2011).

Despite this, Shamir and Eilam (cited in Walumbwa, Avolio, Gardner, Wernsing & Petersen, 2008) warn that authenticity can be a dangerous attribute in narcissistic or other dysfunctional personalities. Gardner, Avolio and Walumbwa (cited in Walumbwa *et al.*, 2008) however argue that true authentic leadership requires a high degree of self-awareness and self-acceptance, which is preceded by high moral development. Dysfunctional personalities do not have the necessary moral development to be sufficiently self-aware or self-accepting to have transparent, authentic relationships with others.

Further principles that are embodied in authentic leadership are self-restraint, humility and tolerance. While authentic leaders are transparent about their true feelings, they exercise the self-restraint necessary to minimise displays of inappropriate emotions (Walumbwa *et al.*, 2008). Humility and tolerance are displayed in an authentic leader's ability to ask others for opinions and to be open to others challenging their point of view (Neider & Schriesheim, 2011).

2.4 Ethical Leadership

It appears from the literature that some confusion still exists around the precise definition of ethical leadership (Yukl, Mahsud, Hassan & Prussia, 2013). A definition commonly used to define ethical leadership is the one provided by Brown, Trevino and Harrison (2005), namely, it is "the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement and decision-making" (Brown *et al.*, 2005, p.120).

This definition is problematic in the sense that it does not define what normatively appropriate behaviour is (Giessner & Van Quaquebeke, 2010) and places ethical leadership into the realm of ethical relativity, which as discussed in the introduction, is not ideal. To regard behaviour as ethical or not requires a definition of what ethical behaviour looks like.

Eisenbeiss (2012) attempted doing this by analysing Western, Eastern, and to some extent, African viewpoints which relate to four ethical orientations, namely, 1) the humane, 2) justice, 3) responsibility and sustainability, and 4) moderation orientations. The ethical behaviours underpinning these ethical considerations respectively are: 1) treating others with respect and not as a means to an end, 2) interacting with followers in a way that is fair, consistent and non-discriminatory, 3) taking responsibility for, and being concerned about, the wellbeing of society and the environment, and 4) showing self-restraint with emotions, displaying humility, and being careful and wise in finding a balance between stakeholder interests and organisational objectives (Eisenbeiss, 2012:792).

In a similar attempt to establish the behaviours underlying ethical leadership, Yukl et al. (2013) analysed various scales measuring ethical leadership, as well as authentic and servant leadership. The behaviours they found to be most unique and pertinent to ethical leadership included: honesty and integrity, behaviour which purposefully communicated ethical standards to followers, fairness, kindness, compassion, and concern for others (Yukl, *et al.*, 2013:40 – 41).

The above behaviours speak to Kinnear et al., (2000) and Schwartz' (2005) universal principles of having respect for others and the environment, responsibility (including self-restraint), trustworthiness, fairness, humility and caring. With this in mind, Brown et al.'s (2005) definition of ethical leadership could be rewritten as follows: *the demonstration of fairness, respect, responsibility, trustworthiness, humility and caring through personal actions and interpersonal relationships, and the promotion of such behaviours in followers through two-way communication, reinforcement and decision-making.*

2.5 Summary of value-based leadership theories

In summary, each theory focuses on a unique aspect of value-based leadership. If an organisation wanted to assess a leader holistically on all the principles underlying these theories, they would have to use a battery of assessments from the various leadership theories to do so. This could become an expensive and time-consuming exercise. A more parsimonious approach would be to have one assessment, which covers all aspects of value-based leadership.

Furthermore, while each theory makes a unique contribution, there is considerable overlap in behaviours among the theories. For example, having a strong sense of purpose, being humble and basing actions on moral values is inherent to all four value-based theories. Caring for and developing followers underpins transformational, servant and ethical leadership. Being vulnerable, transparent and self-aware is integral to authentic, servant and ethical leaders. The researchers thus question the usefulness of focusing on individual theories, when

essentially, they all emphasise the importance and effectiveness of moral leadership. If the study of leader effectiveness were to be the end-point of leadership study, then a starting point would be to integrate the current theories of value-based leadership into one holistic construct. This leads to the primary aim of the study.

2.6 Primary aim of the study

The primary aim of the study was to distil a holistic leadership concept, under the construct Principled Leadership, from the salient and overlapping features of the four value-based leadership theories discussed above and to develop a reliable and valid scale, the Principled Leadership Scale (PLS) to measure this construct.

2.6.1 Conceptualisation of principled leadership

The detail of how the researchers derived the dimensions of principled leadership from the four value-based leadership theories is discussed in detail in the Research Method of this paper. For the purpose of the theoretical background of the study, the dimensions conceptualised for principled leadership are given in Table 1.

Table 1: Dimensions of Principled Leadership

<p>Internalised values: The leader's actions are based on a strong foundation of universally accepted moral principles (values). These principles include being committed to something greater than oneself, humility, integrity, honesty, transparency, self-discipline, trustworthiness and reliability. Such leaders are role models of behaviour based on these principles. They will 'walk their talk' and act in agreement with these values, even when faced with opposition.</p>
<p>Self-awareness: The leader is secure in his/her understanding of him/herself. This awareness is continually developed by seeking feedback from others and choosing to react positively to the feedback. Self-awareness leads to a good understanding of the leader's strengths and weaknesses, and of the impact that they have on others. The leader uses this understanding to exercise appropriate self-monitoring over his/her behaviour to interact effectively with others.</p>
<p>Principled Strategist: The leader acts from a deep-seated sense of purpose, even calling, that goes beyond his/her own interests. This sense of purpose drives the leader to develop and promote a vision and strategy for the organisation that is inspiring, meaningful and morally sound.</p>
<p>Other-centred: Rather than being focussed on his/her own agenda, the leader places a priority on mentoring and developing others and sees this as one of his/her primary responsibilities. He/she builds confidence and trust in team members by empowering them and by creating an environment, which is fair and respectful. The leader recognises that team members have unique development needs, strengths and weaknesses, and therefore gives individual attention to team members.</p>
<p>Stewardship: Leaders regard themselves as stewards of the organisation. Therefore, they are responsible for the long-term success of the organisation. Success should be understood as organisational well-being in the bigger picture, in that it includes financial and operational success, ethical interaction with all stakeholders and the environment, as well</p>

as employee well-being. Stewardship includes taking accountability for organisational performance and holding others accountable for their performance. Ultimately, stewardship aims to ensure longevity of the organisation and to leave a positive legacy.

Balanced Processing: Leaders recognise that critical thinking and problem solving are crucial for effective functioning in a diverse and ever changing world. The leader's thinking is marked by humility, courage, empathy and autonomy. Leaders encourage others to challenge the status quo, think critically about their own perspectives, to be open to alternative points of view, and to embrace uncertainty.

2.7 Secondary aim of the study

The meaning of a construct does not lie in the internal structure of the construct alone, but also in the way the construct is embedded in a larger nomological network of latent variables (Kerlinger & Lee, 2000). As such, the researchers sought to answer the following questions:

- 1) What makes people moral and is there a link between the leader's morality and the extent to which he/she displays principled behaviour?
- 2) Can it be proved that a principled leader has a positive effect on the behaviour of employees?

To answer to these questions, the researchers studied literature on moral intelligence, trust in leadership and Organisational Citizenship Behaviour (OCB).

2.8 Moral Intelligence and principled leadership

Philosophers, theologians and sages as far back as Plato, Aristotle, Augustine, Confucius and Buddha have debated the issue of morality (Narvaez, 2010; Hass, 1998). The general consensus among these men of wisdom was that mind and reason had to be trained, via the painstaking process of punishment and reward, to control the body and emotions. This training was the responsibility of families and society (Narvaez, 2010).

While the above views on moral training still influence parenting and education today and their usefulness cannot be negated, empirical science has begun to prove that these dualistic views of a separation between mind and body, and reason and emotion can no longer be regarded as true (Narvaez, 2010).

Several scientific studies which observed infants' and toddlers' ability to show compassion to others in distress, as well as examinations of vagal nerve establishment and tone, and fMRI scans comparing the brain development of abused or neglected children with those of children who came from loving, stable homes, has led scientists to conclude that humans are innately wired to be moral (Narvaez, 2010; Lennick & Kiel, 2008). However, just as infants are naturally wired to speak but require their caregivers to coach them in this skill,

so humans, who are innately wired to be moral, require nurturing and training to become moral adults (Lennick & Kiel, 2008).

Moral intelligence, a concept that addresses this innate moral wiring of humans, is defined as follows by Lennick and Kiel (2008:7): “Moral intelligence is the mental capacity to determine how the universal human principles should be applied to our values, goals and actions.” Lennick and Kiel (2008) expand this definition to include the following four principles: integrity, responsibility, compassion and forgiveness.

The most defining benefit of developing moral intelligence is that it is viewed as the ‘central intelligence’, which directs our other forms of intelligence to do something purposeful with our lives (Beheshtifar, Esmaeli & Moghadam, 2011:9). Moral intelligence provides an anchor for other intelligences and grounds the skills learnt via these in constructive principles, rather than allowing them to be used in possible destructive ways (Lennick & Kiel, 2008:10).

While the literature advocates a strong association between intelligence (IQ) and leadership effectiveness, it appears that moral intelligence, rather than IQ alone, is a distinguishing factor in leading organisations effectively (Beheshtifar *et al.*, 2008). Today, leaders will inevitably be faced with moral and ethical choices and the more adept they are at handling these, the more successful they will be (Clarken; McGregor; Rahimi, cited in Beheshtifar *et al.*, 2011:10).

A mark of principled leaders is that they have internalised the universal moral values. Such leaders base their decision-making and actions on these internalised values, even when faced with opposition. This shows them to have the integrity that forms part of moral intelligence. Furthermore, principled leaders have a strong sense of responsibility because they regard themselves as stewards of the organisation, who must see to its longevity and sustainability, by devising and implementing a morally sound strategy. Lastly, the behaviour of principled leaders is infused with compassion and forgiveness. Compassion is displayed in the ‘other-centred’ and ‘balanced-processing’ behaviours where the leader takes a keen interest in understanding the individual in his/her team, attending to their development needs and seeing things from their perspective. Humility is a behaviour that is underpinned by forgiveness. The awareness that we are all fallible and in need of forgiveness from others and ourselves, breeds an attitude of humility.

It follows that moral intelligence and principled leader behaviour are closely linked. The researchers propose that a leader cannot be principled without also being morally intelligent, and thus postulate the following:

Research hypothesis 1: Moral intelligence has a significantly positive influence on principled leader behaviour.

2.9 Principled leadership and trust in the leader

Leaders are in a position where the decisions they make and the actions they take directly affect their followers (Dirks & Ferrin, 2002). For there to be a trust relationship between the leader and follower, the follower must be “willing to be vulnerable to the leader’s action [and] confident that [his/her] rights and interests will not be abused” (Hassan & Ahmed, 2011:165). When followers perceive their leader to be capable, benevolent and to have integrity, trust is established and followers become willing to reciprocate with desirable behaviours (Dirks & Ferrin, 2002:613).

Benevolence forms part of the behaviour of a transformational, servant and ethical leader (Engelbrecht, Heine & Mahembe, 2014). The honesty in the relational transparency of the authentic leader promotes trust, as does the balanced processing, which requires a leader to seek and hear the opinions of others (Walumbwa et al., 2008: 95). Showing fairness and respect towards others, as well as the high consistency between the leader’s moral intentions and their actions, lead followers to place greater trust in ethical leaders (Engelbrecht *et al.*, 2014).

The positive relationship between all four value-based leadership theories and trust in the leader, discussed above, lead the researchers to theorise that a principled leadership will likewise engender trust of the leader in the follower. By acting out the universally accepted moral principles of honesty, transparency, self-discipline, and reliability, principled leaders show that they have integrity and can thus be trusted. Principled leaders’ self-awareness leads them to be aware of how their actions influence others. By being transparent about their weaknesses and open to feedback, principled leaders build trust by showing commitment to improving the way they interact with others. An important focus of the principled leader is to develop others as per their individual development needs, and to provide them with goals and feedback. This individual concern includes having empathy with the follower and having the ability to see a situation from their perspective. This helps to build strong emotional bonds, which in turn builds trust. Finally, creating an environment that is fair and respectful, is also a mark of a principled leader, which results in a strong trust relationship. These behaviours of a principled leader lead the researchers to postulate the following hypothesis:

Research hypothesis 2: Principled leader behaviour has a significantly positive influence on trust in the leader.

2.10 Trust in the leader and OCB

OCB is defined in the literature as “*individual behaviour that is discretionary, not directly or explicitly recognised by the formal reward system, and that in the aggregate promotes the effective functioning of the organisation*” (Organ, cited in Podsakoff et al., 2000:513). It is desirable for organisations to have employees who display OCB because of the positive effect OCB has on the organisation’s efficiency. Organisational efficiency allows human resources to be freed up and be allocated more effectively, which has a positive spin-off on productivity (Organ, cited in Wat & Shaffer, 2005:406). Furthermore, OCB leads to better organisational performance in that colleagues and managers can be more efficient at planning, scheduling and problem solving, as well as contributing positively to the quality of service delivery (Wat & Shaffer, 2005:406). Lastly, Wat and Shaffer (2005) claim that organisations where OCB is practiced, gain a reputation for being good places to work at. This helps organisations to employ and retain high quality people.

One way to increase OCB in organisations is to increase trust in the leadership. Several researchers have found positive relationships between trust in the leader and OCB (Newman et al, 2014; Engelbrecht & Chamberlain, 2005). Employees are more willing to engage in voluntary extra-role behaviours like OCB, when they trust their immediate supervisor and believe that he/she will not take advantage of them (Pillai et al., cited in Engelbrecht & Chamberlain, 2005:4).

This positive relationship appears to be grounded in social exchange theory (SET), which postulates that when employees feel satisfied with and supported by their leader, they usually want to reciprocate with appropriate behaviour, which takes the form of OCB (Smith *et al.*, cited in Engelbrecht & Chamberlain, 2005:3). By focussing on increasing subordinates’ trust in them, leaders can thus help bring about increased OCB in followers (Pillai et al.; Podsakoff et al.; and Welch, cited in Engelbrecht & Chamberlain, 2005:4).

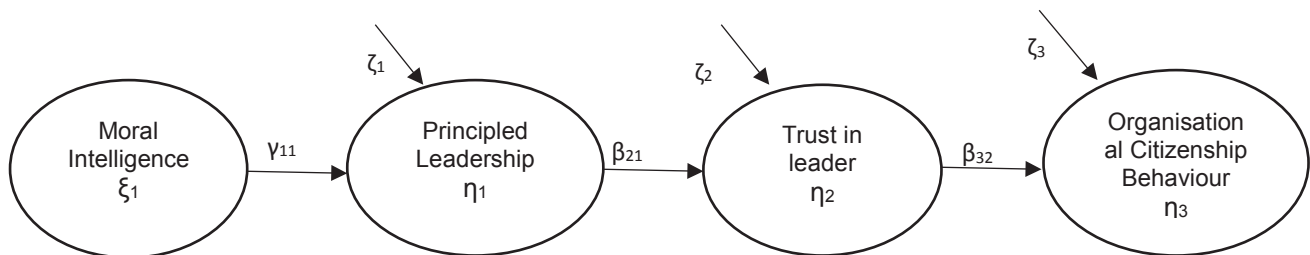
As principled leader behaviour is underpinned by behaviours that are required for building trust (see Section 2.9), it is likely that based on SET, followers will feel the need to reciprocate with appropriate behaviour such as OCB (Blau, cited in Newman et al., 2014). The researchers thus postulate the following:

Research hypothesis 3: Trust in the leader has a significantly positive influence on organisational citizenship behaviour.

2.11 Conceptual Model

The literature review and theoretical arguments presented above lead to the development of the conceptual model depicted in Figure 1. The conceptual model indicates the relationships that have been postulated in the hypotheses above.

Figure 1: Conceptual model of relationships among moral intelligence, principled leadership, trust in the leader and OCB



3 RESEARCH METHOD

3.1 Research design and plan

A quantitative, ex post facto design was used in this study. Paper-based and web-based, electronic questionnaires were used to gather the data. The research plan was based on the generic steps for scale development presented by McKenzie, Podsakoff, and Podsakoff (2011), and took place as discussed below.

3.1.1 Specification of the PLS

The dimensions and items of the PLS were specified in three steps. First, the researchers compiled a list of behaviours inherent to the four value-based leadership theories to determine the extent to which the behaviours overlap or are unique to the various theories. Behaviours were compiled based on the scales listed in Table 2.

Next, the researchers grouped the behaviours into six dimensions. The overlapping behaviours and the dimensions of the various scales analysed were used as a guideline to do this. Initially, the six dimensions were labelled Internalised Values, Self-Awareness, Principled Strategist, Follower-centric, Stewardship and Change Agent. Eighty-one items to measure these dimensions were generated deductively through detailed examination of the literature. Of these, 21 items were derived directly from these scales, as indicated in Table 2.

Table 2: Value-based leadership scales analysed

Leadership theory	Scale	Number of items used for the PLS
Transformational Leadership	MLQ (Hemsworth et al., 2014)	
Servant Leadership	SLQ (Barbuto & Wheeler, 2006)	1
	SLBS (Sendjaya et al., 2008)	1
Authentic Leadership	SLS (Van Dierendonck & Nuijten, 2011)	8
	ALQ (Walumbwa et al., 2008)	5
Ethical Leadership	ALI (Neider & Schriesheim, 2011)	3
	ELS (Brown et al., 2005)	1
	ELI (Spangenberg & Theron, 2005)	
	ELQ (Yukl et al., 2013)	2

Finally, face and content validity of the scale were established via the Delphi Technique (Hsu & Sandford, 2007). The scale was emailed to South African academics and professionals practising in the field of leadership.

Several changes were made after reviewing the feedback provided by 13 participants. The wording of several items was changed. The number of items was reduced from 81 to 58. The title of the dimension *Follower-centric* was change to *Other-centred* and the dimension *Change Agent* was replaced with the dimension *Balanced Processing*. Upon review, it became clear that managing change, while important to leadership, is not necessarily a value-based behaviour. The ability of a leader to be open to others' ideas and to show humility in his/her thinking, is better contained in the dimensions 'Intellectual Stimulation' of transformational leadership (Hemsworth *et al.*, 2010) and 'Balanced Processing' of authentic leadership (Walumbwa et al., 2008). These definitions, together with literature on critical thinking were thus used to conceptualise the value-based 'thinking' behaviours of a principled leader, under the dimension 'Balanced Processing'.

A five-point Likert scale was used to measure the items. A sample of items per PLS dimension are provided in Table 3.

Table 3: PLS item samples

Internalised Values	<ul style="list-style-type: none"> • My manager's actions are consistent with commonly accepted moral principles (i.e. he/she is not greedy or selfish, is honest, has integrity, is trustworthy, transparent and reliable).
Self-awareness	<ul style="list-style-type: none"> • My manager thinks before he/she acts.
Principled Strategist	<ul style="list-style-type: none"> • My manager ensures that the strategy is not achieved by methods that are unethical (e.g. dishonest, harmful or unsafe, motivated by greed, benefitting only a few).
Other-centred	<ul style="list-style-type: none"> • My manager regularly provides me with constructive feedback.
Stewardship	<ul style="list-style-type: none"> • My manager measures success not only by the results achieved but also by whether the results were achieved responsibly and ethically.
Balanced processing	<ul style="list-style-type: none"> • My manager does not claim to know more than he/she actually knows.

3.1.2 Ancillary scales

Lennick and Kiel's Moral Competency Inventory (MCI) (Martin & Austin, 2010) was used to measure moral intelligence in the leader. For the purpose of this study, the original MCI, which is a self-rating scale, was adapted to an other-rating scale so that participants could rate the moral intelligence of their leader. Eleven items, relating to the moral intelligence principle of forgiveness, were removed from the original MCI as it is not possible for subordinates to rate their leader on his/her ability to forgive him/herself or others.

Trust in the leader was measured using the 13-item Leader Trust Scale (LTS) (Engelbrecht et al., 2014). Participants evaluated the trust they have in their leader.

OCB was measured using a modification of Podsakoff and MacKenzie's Organisational Citizenship Behaviour Scale (OCBS) (Engelbrecht & Chamberlain, 2005). The OCBS measures the following dimensions of OCB: *Conscientiousness, Sportsmanship, Civic Virtue, Courtesy and Altruism*. Research participants evaluated their own organisational citizenship behaviour.

3.1.3 Sample selection and data collection

Purposive, non-probability sampling was used to select participants from various companies in the Western Cape, Gauteng and Kwa-Zulu Natal. The participating organisations included software development and consulting services, retail, wine making, construction and public service. A total of 308 questionnaires were completed. The racial split of the sample was as follows: White (84%), Coloured (10%), Indian (5%), African (4%). Of the respondents, 58% were working in non-managerial positions, 31% in lower to mid-level management and

11% in senior to top management level positions. The average age of participants was 33 years.

Electronic and/or paper-based questionnaires were sent either to a contact person at the organisation for further distribution, or directly to participants. A covering letter (introductory paragraph in the case of the electronic questionnaires) informed participants of the purpose of the study and that participation was voluntary. Confidentiality and anonymity were assured.

3.1.4 Statistical analysis

SPSS 23.0 was utilised to assess the internal consistency of the four scales by means of the Cronbach alpha coefficients (α). Exploratory Factor Analysis (EFA) was performed to establish unidimensionality of the subscales of the PLS. In particular, the Principal-Axis factoring extraction method with the Direct Oblimin Rotated solution was used in SPSS 23.0. The cut-off point for substantial factor loadings was loadings $\geq .40$ (Hinkin, 1998)

Confirmatory Factor Analysis (CFA) was performed in LISREL 8.80 on the measurement model of each scale, and also on the overall structural model. Random item parcelling was used to specify the overall measurement model underlying the structural model. The GAMMA and BETA matrices of the structural model produced in LISREL were used to evaluate the validity of the hypothesised paths of the structural model.

4 RESULTS

Two theoretical models were derived from the literature study, namely, the measurement model of the PLS and the structural model, in which the PLS was placed into a network of latent variables (see Figure 1). The results of statistical analyses of both these models are reported below.

4.1 Missing values

The questionnaires were completed by 308 participants. Of these, eight data sets had missing values. These were deleted, leaving 300 complete data sets to work with.

4.2 Item analysis of the PLS

Item analysis was conducted using SSPS's reliability analysis. The Cronbach's alpha values for the six dimensions of the PLS are indicated in Table 4. All dimensions exceeded the minimum acceptable cut-off of .70 (Nunnally, 1978). In addition, the corrected item-total correlations were above the desired correlation value of .30 for all subscales (Pallant, 2010).

4.3 Factor analysis of the PLS

The aim of EFA is to confirm the unidimensionality of each subscale. All subscales except for Stewardship met the criteria for unidimensionality. In all subscales, except

Stewardship, the factor loadings of the unrotated factor matrix were significant at >0.40 (Hinkin, 1998).

The factor analysis of Stewardship indicated a possible second factor. Two items, which relate to the leader holding parties external to the organisation accountable, were identified as loading on a separate factor. The item, which had the highest loading on the second factor, was deleted and subsequently unidimensionality was achieved.

Table 4: Summary of PLS and ancillary scales' item analysis

Scale	Subscale	Number of items	Number of items deleted	Cronbach's alpha
PLS	Internalised Values	13	0	.94
	Self-Awareness	10	0	.93
	Principled Strategist	6	0	.88
	Other-Centred	11	0	.92
	Stewardship	11	1	.89
	Balanced Processing	6	0	.89
Adapted MCI	Responsibility	12	0	.96
	Integrity	13	0	.93
	Compassion	4	0	.75
LTS		13	0	.97
OCBS	Altruism	5	0	.78
	Conscientiousness	5	0	.71
	Sportsmanship	5	0	.76
	Civic Virtue	4	0	.66
	Courtesy	5	0	.74

Note: PLS: Principled Leadership Scale; MCI: Moral Competency Index; LTS: Leader Trust Scale; OCBS: Organisational Citizenship Behaviour Scale

4.4 Evaluation of the PLS measurement model's fit and validation of path coefficients

Model fit is conducted to determine the degree to which the data collected supports the theorised model. Confirmatory factor analysis (CFA) was performed in LISREL 8.80 to determine the degree of model fit by using individual items. A range of goodness-of-fit indices together with the completely standardised and unstandardized LAMBDA-X matrices were analysed to determine the PLS's measurement model fit.

The results of the fit indices showed that the model did not meet the criteria for exact and close fit. However, the RMSEA, RMR, SRMR and relative fit indices indicated reasonably good model fit. See Table 5 for details of the fit statistics. Furthermore, all but two items had factor loadings of $> .50$, however, the t-values of these two items were greater than $|1.64|$. Thus, all items loaded significantly on their designated latent variables when tested in one measurement model in the CFA.

Overall, the researchers thus concluded that the measurement model for the PLS showed satisfactory fit.

4.5 Item analysis and measurement model fit of the ancillary scales

The item analysis of the ancillary scales yielded a satisfactory result (see Table 4). All subscales, except *Civic Virtue* ($\alpha = .66$) of the OCB scale exceeded the recommended Cronbach's alpha value of 0.70 (Nunnally, 1997). No questionable items were identified.

A measurement model was specified for each ancillary scale and the fit thereof was evaluated. Details are provided in Table 5. The fit of the measurement models ranged from good to satisfactory for these scales.

4.6 Evaluation of the structural model's fit

The structural model failed the test for exact fit but met the criteria for close fit (P-value for close fit = .086). The RMSEA indicated reasonably good fit and the relative fit indices showed good fit. The researchers thus concluded that the structural model showed reasonable good fit. See Table 5 for details.

Table 5: Goodness-of-fit indices for the measurement and structural Models

Model	S-B χ^2	RMSEA	Pclose fit	RMR	SRMR	GFI	NNFI	NFI	CFI
PLS	3388.75*	.0553	.002	.0367	.047	.695	.988	.976	.988
Adapted MCI	1465.04*	.0752	.000	.040	.052	.732	.983	.975	.984
LTS	106.57*	.0462	.636	.019	.027	.897	.996	.991	.996
OCBS	329.45*	.0348	.998	.031	.052	.904	.980	.936	.982
SModel	404.56*	.0568	.086	.009	.024	.876	.993	.987	.994

Note: PLS: Principled Leadership Scale; MCI: Moral Competency Index; LTS: Leader Trust Scale; OCBS: Organisational Citizenship Behaviour Scale; SModel: Structural Model; * $p < .05$

4.7 The relationships between the latent variables of the structural model

Hypothesis 1 postulated that moral intelligence has a significantly positive influence on principled leadership. The results confirmed a strong, positive relationship between the two variables ($p < .05$) (see Table 6).

Hypothesis 2 proposed that principled leadership has a significantly positive effect on trust in the leader. A strong, positive relationship between these variables was confirmed ($p < .05$) (see Table 6).

Hypothesis 3 suggested that trust in the leader has a positive effect on OCB. The substantial, positive relationship ($p < 0.05$), between trust in the leader and OCB proved this hypothesis to be true (see Table 6).

Model modification was performed to determine if LISREL proposed any alternate paths, which would improve the fit of the model. No such paths were indicated. In summary, the data thus supported all the paths and relationships postulated through analysis of the literature.

Table 6: The gamma and beta matrices of path coefficient for the structural model

Latent variable	Moral Intelligence	Principled Leadership	Trust in Leader
Principled Leadership	0.94		
	(0.047)		
	20.938*		
Trust in Leader		0.926	
		(0.036)	
		25.67*	
OCB			0.497
			(0.071)
			6.984*

Note: Unstandardized path coefficients in bold; standard error estimates in brackets; t-values $\geq |1.64|$ indicate significant parameter estimates. * $p < .05$

4.8 Conclusion of statistical results

The main purpose of the study was to develop a new scale, the PLS, which is an aggregate, value-based leader behaviour scale, measuring leader behaviour in middle to top management. The statistical results of the item and dimensionality analysis (EFA), and of the CFA rendered the PLS a construct valid scale, which can sufficiently measure the aggregate behaviours inherent to transformational, servant, authentic and ethical leadership.

The statistical analysis of the structural model depicted in Figure 1 proved the assumption true, which proposed that moral intelligence is an antecedent of principled leadership and trust in the leader and OCB are outcomes of principled leadership. This served to confirm the meaning of principled leadership as a construct within a nomological network of latent variables, and added to the construct validity of the PLS.

5 PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The literature provides ample proof that the disease of unethical behaviour in organisations cannot be healed through external measures. Organisational leaders, who are serious about wanting to eradicate unethical behaviour in their organisations, should therefore quit efforts, which try to impose morality on their employees from the outside in. They should instead start by taking a hard, honest look at their own behaviour to determine if it is principled

enough to emulate. If not, they should address the unethical issues in their own conscience and behaviour first.

Thereafter, it is critical that organisational leaders evaluate whom they elect into leadership positions, as the cascading effect (Mayer et al., 2009) of leader behaviour will determine the type of behaviour and values that will filter down through the organisation. For this, a selection process, which makes use of selection methods from which correct inferences about the inherent principled behaviour of a potential leader, can be drawn, are necessary.

5.1 Managerial implications of the PLS

This study has shown that the PLS could be a construct valid measure of principled leader behaviour. The PLS could assist organisations to assess the degree of principled behaviour in incumbents in their top structures, or of candidates applying for leadership positions. Areas for leadership development could also be identified. Because the PLS is an other-rating scale, the level of the leader's principled behaviour, as perceived by others, will provide valuable insight and self-awareness.

Furthermore, the results of the hypothesised relationships of the structural model provide valuable information and implications of the effect that the constructs have on each other.

5.2 Managerial implications derived from the effect of moral intelligence on principled leadership

The principles underlying moral intelligence are integrity, responsibility, compassion and forgiveness (Lennick & Kiel, 2005). Lennick and Kiel argue that when people have a high propensity to display the behaviours which underlie these principles, they can be regarded as being morally intelligent.

The behaviours identified in moral intelligence are effectively a pre-requisite to principled leader behaviour. If a leader's behaviour is not rooted in the moral intelligence principles, the leader will struggle to stand their ground for what is right, will not have the responsibility necessary to devise a strategy that is focussed wider than the bottom line of profits, or to build an organisation that is sustainable in the long-term, without using the planet or people as means to build that sustainability. Such a person will not have the servant attitude necessary to be able to put the development needs of others at the fore-front of their responsibilities, nor will they have the necessary humility to question their thinking and be open to the ideas of others. Essentially, a leader who is not morally intelligent will also not be principled.

5.3 Managerial implications derived from the effect of principled leadership on trust in the leader

The literature study indicated that behaviours such as benevolence, respect, integrity, transparency and humility assist in building strong emotional ties between follower and leader and lead to greater trust in the leader (Engelbrecht *et al*, 2014; Hassan & Ahmed, 2011)

The above behaviours are contained in the PLS dimensions of *internalised values, other centred, self-awareness and balanced processing*. By focusing on developing the behaviours contained in these dimensions through coaching and mentoring of leaders, the level of trust within the organisation should be positively affected.

5.4 Managerial implications derived from the effect of trust in the leader on OCB

As discussed in the literature review, employees tend to reciprocate with desirable work behaviour when they experience trust in leadership. Rather than being suspicious of the motives of their leaders, employees will perceive their leaders as having their best interests at heart (Hassan & Ahmed, 2011) and will be willing to take on helping behaviours, which have been shown to be significantly related to performance (Podsakoff *et al.*, 2000:546). Efficiency and effectiveness are highly desired outcomes of any organisation, and assist in giving it a competitive edge. This competitive edge is enhanced when organisations are promoted as good places to work and are therefore able to attract quality candidates (Podsakoff *et al.*, 2000:550). Promoting OCB by enhancing the trust relationship between leaders and followers therefore makes sound business sense.

5.5 Conclusion of managerial implications

An organisation which invests in assessing the principled leader behaviour of its top management, and in recruiting and developing principled leaders should be confident that they have the best calibre role models in place to ensure the cascading of principled behaviour down the ranks of the organisations. Over time, such organisations should be able to restore the behaviour of their workforce towards ethical, principled behaviour, which in turn will result in greater trust and cooperation between organisational members, as well as enhanced organisational effectiveness.

5.6 Limitations of the study and suggestions for future research

This study was successful in developing the PLS, in that it yielded good internal reliability and initial evidence of construct validity. The study was also able to successfully prove that moral intelligence can be regarded as an antecedent and trust in the leader and OCB as outcomes of principled leadership. The study had certain limitations and revealed areas for future research, which should be considered.

The demographics of the sample used in the study should ideally have been representative of the racial demographics of South Africa. Unfortunately, the sample did not live up to this requirement. This is often a problem when purposive, non-probability sampling is used. Choosing a sample that shows better representation of the racial demographics in a future study would be highly recommended, especially to enhance its worth as a South African scale.

A study in which the PLS is assessed in a structural model together with a scale from any one of the four value-based leadership theories would serve to establish its discriminant and convergent validity in comparison to these scales. This would aid in further proving its claim to be an aggregate scale of the value-based leadership theories.

Discriminant validity of the subscales of the PLS should be investigated in future research to determine if the dimensions discriminate adequately and if items of the PLS indeed load on separate dimensions as postulated.

It would be valuable to expand the PLS to a self-rating scale. The PLS could then be used as a fully-fledged 360-degree assessment tool. This would lead to greater insights and better identification of development areas than can be achieved with the other-rating scale alone. Furthermore, an other-rating scale is difficult to use during a selection process if a candidate outside of an organisation is considered for appointment.

The PLS was correlated with its antecedents and outcomes as a whole, rather than by dimension. It may be useful to know what the extent is of the effect of the separate dimensions of the PLS on trust in the leader, or directly on the various OCB dimensions. This would assist with knowing which behaviours to focus on developing if trust, or any of the OCB dimensions, is a problem in an organisation.

The researchers suggest that a longitudinal study, which tests the relationships between principled leadership, trust and OCB, over time, would be valuable. This would substantiate the claims made about the relationships of the variables in this study. Most desirable would be a longitudinal study in a corrupt organisation, which wishes to become ethical. Measuring the degree of principled behaviour over time, while instituting interventions to develop principled behaviour in leaders, would be invaluable in establishing the true, practical worth of the PLS.

While converting the self-rating scale of the Moral Competency Inventory (MCI) into an adapted other-rating scale was necessary for the sake of this study, and was not in itself an aim of the study, doing so yielded some pleasing results. The results showed adequate to excellent internal reliability and adequate model fit. In this study, the adapted scale was analysed by loading the items onto the four principles, rather than onto their underlying moral

intelligence competencies, as was done in the study of Martin and Austin (2010). It is suggested that further analysis of the MCI is conducted into a model where the items load on their related moral intelligence competencies, which in turn load on the four moral intelligence principles. It would seem that this is the more extensive model of the MCI as postulated by Lennick and Kiel (2008).

6 CONCLUSION

In conclusion, this study proved valuable in that a reliable and valid new leadership assessment tool was developed. While further research to validate the findings of this study is suggested, the PLS provides, in its current form, a tool by which the principled behaviour of a leader can be assessed sufficiently. In a country like South Africa, where corrupt leader behaviour appears to have seeped into all facets of society, a tool like this can provide organisations with valuable information about leadership applicants during the selection process. Furthermore, the PLS could be used to identify development areas for incumbents of leadership positions, or to develop those earmarked for leadership positions at a future point in their career.

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**FACTORS INFLUENCING THE USE-INTENTION OF PROXIMITY MOBILE-PAYMENT
APPLICATIONS IN-STORE: A MULTI-THEORY PERSPECTIVE**

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**FACTORS INFLUENCING THE USE-INTENTION OF PROXIMITY MOBILE-PAYMENT
APPLICATIONS IN-STORE: A MULTI-THEORY PERSPECTIVE**

ABSTRACT

Recent advances in technology have enabled a broad range of new functionalities for mobile devices, supporting several mobile financial services such as bill payment, account transfers, proximity payments at the point of sale, and remote payments to purchase products and services online. Mobile payments are widely viewed as the next revolution in payments to support store-based bricks-and-mortar selling. The use of mobile payments is a relatively new area of research and under-explored, compared with related areas of electronic commerce where research has been widely conducted, such as Internet banking or mobile banking. Proximity mobile-payment applications enable consumers to pay for purchases in-store. Customers' use of proximity mobile-payment applications in-store remains lower than

expected. Moreover, due to the novelty of this type of mobile application, research investigating consumers' adoption behavior of these payment applications remains scant. To contribute to the existing knowledge on the use of proximity mobile-payment applications in-store by consumers, the objective of the study was to investigate the factors influencing the use-intention of proximity mobile-payment applications in-store by customers.

To realise the objective of the study, a conceptual model of the use-intention of proximity mobile-payment applications by customers in-store was developed based on four theories: initial trust, trust transfer, the valence framework and social-cognitive theory. In brief, it was hypothesised that positive and negative valences, initial trust and perceived self-efficacy would directly influence the use-intention of proximity mobile-payment applications. It was also hypothesized that initial trust would influence positive and negative valences. Based on trust-transfer theory it was hypothesised that trust in the provider would enhance initial trust in the proximity mobile-payment application and moderate the influence of initial trust on valences.

Data were collected from 555 students at a South African university. Before the hypotheses were tested using the structural equations modelling statistical software programme Mplus 7.4, the multivariate normality of the data was assessed using the statistical software programme SAS 9.4 and a confirmatory factor analysis was conducted also using Mplus 7.4. The assessment of the multivariate normality of the data showed that the assumption of multivariate normality did not hold. Therefore, the MLM estimator was used in the assessment of both the measurement model and the structural model.

The results of the hypotheses testing showed that perceived risk negatively influences the use-intention of this type of mobile-payment application. The influence of positive valences (task-technology fit, perceived relative advantage and perceived compatibility), initial trust and self-efficacy judgements on use-intention were also confirmed. In addition to these results initial trust only influenced the positive valences. Also as hypothesised, initial trust is influenced by trust in the provider of the payment application

Testing the moderation effect of trust in the service provider on the relationship between initial trust and valences showed that as trust in the provider increases, the negative influence of initial trust on perceived risk also increases. Additional analysis confirmed that the influence of initial trust on use-intention is only mediated by perceived risk when trust in the provider is high.

The following main managerial implications emanate for the results. It would be important for service providers and merchants offering proximity mobile-payment applications to develop the self-efficacy judgements of customers. Additionally, providers and merchants should draw on the compatibility factor to stimulate trial of the payment application in-store, and educate customers on the advantages of using the payment application and impertinent risk perceptions. The development of initial trust and trust in the provider are also important factors to manage to increase the use-intention of this type of payment application in-store.

THE INFLUENCE OF PERCEIVED BRAND PERSONALITY OF FACEBOOK ON USERS' ATTITUDE, MOTIVATIONS, BEHAVIOURAL INTENT AND BEHAVIOUR

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THE INFLUENCE OF PERCEIVED BRAND PERSONALITY OF FACEBOOK ON USERS' ATTITUDE, MOTIVATIONS, BEHAVIOURAL INTENT AND BEHAVIOUR

ABSTRACT

Brand personality is defined by Aaker as the “set of human characteristics associated with a brand”. Since the construction of Aaker’s Brand Personality Scale (BPS), it has been applied to sport, B2B industries, and to places (among others), with a major focus on the application and validation of the scale. Despite the plethora of brand personality studies across industries, there is a paucity of studies on this in reference to social media brands (such as Facebook). Much research has been devoted to the predictive effects of brand personality on a number of outcomes in the marketing domain, however it is still unclear how perceived brand personality (PBP) of social network sites (SNS) influences attitude, motivations, behavioural intent and behaviour. Although studies on Facebook focused on (among others) attitudes of users, the motives for use and users’ behaviour, none could be found that assessed the PBP in association with these constructs.

This study examined the underlying structure of Aaker's Brand Personality Scale (BPS) in the context of Facebook, and tested a hypothesised model for the interrelationships between PBP and attitudes, motives, behavioural intent and behaviour. The conceptual framework is theoretically based in brand personality theory and the theory of planned behaviour (TPB).

A structured, self-administered questionnaire was fielded among a quota (equal gender) sample of 355 adult Facebook users from an online survey panel sourced from Consulta. Aaker's widely utilised BPS was used to gauge the extent to which PBP is applicable to an SNS.

Because the BPS was not particularly designed for social media, an exploratory factor analysis (EFA) was used to examine the underlying structure of the Facebook PBP. Thereafter structural equation modelling was used to evaluate the fit of the hypothesised model and to examine the relationships between the constructs.

Two factors for Facebook PBP were extracted, explaining 50.6% of the total variance. Two traits, excitement and sincerity, represented the Facebook PBP. Fit of the model was investigated and acceptable fit indices were attained: $\chi^2 = 1200.1687$; $df = 478$; $p = .000$; RMSEA = 0.0653; TLI = .895; IFI = .906; CFI = .905.

The results indicated that the PBP of Facebook has significant positive relationships with attitude and two motivational sub dimensions. Consistent with the TPB, significant positive relationships were found between attitude and behavioural intent. One motivational sub dimension had a significant positive relationship with behavioural intent, and behaviour. Contrary to the TPB, no significant relationships were found between behavioural intent and attitude, nor behaviour.

Although not conforming exactly to the original structure of Aaker's BPS, the results suggest that the BPS has applicability in a social media context. The findings indicate Facebook as an exciting and sincere brand, which are traits that potential users may find attractive. The results further indicate that Facebook PBP favourably influences users' attitude and motivations. It is suggested that Facebook could leverage its PBP to influence attitudes and thereby enhance behavioural intent regarding continued use of Facebook.

FACTORS INFLUENCING THE USE-INTENTION OF BRANDED MOBILE APPLICATIONS

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FACTORS INFLUENCING THE USE-INTENTION OF BRANDED MOBILE APPLICATIONS

ABSTRACT

In the digital age we live in, most consumers have easy access to a plethora of mobile applications. This provides organisations and brands with the opportunity of developing branded mobile applications through which they can not only reach out to their clients with ease, but also constructively engage with them by offering a distinctive, brand-related experience. A branded mobile application is defined as a computer generated end-user software program, developed for smartphone operating systems, that exhibits the brand identity throughout the end-user's encounter.

While some brands managed to profit from their branded mobile applications, the majority of branded mobile applications reportedly do not achieve the download-figures the organisation initially envisioned. Hence, it is reasonable to assert that consumers lack the intention to use the mobile branded application(s) of these organisations. From the organisation's point of view, to recoup the investments made in the development of the mobile branded application

and to achieve the set marketing objective(s) of the mobile branded application, the large-scale use of the branded mobile application by consumers is essential. Against this background, the study intends to investigate the factors influencing the use-intention of mobile branded applications by consumers.

Empirical research on the topic of mobile applications are becoming increasingly popular, however, research on the adoption of branded mobile applications by consumers remains deficient. A potential reason for the lack of research on the adoption of branded mobile applications is the novelty of this type of mobile application. A Google Scholar search produced only eight journal publications that specifically focused on branded mobile applications – the earliest dating from 2011.

The primary research objective of the study is to investigate the factors influencing the use-intention of branded mobile applications among consumers. To achieve the objective of the study, the theoretical model is based on the Theory of Reasoned Action, perceived value, customer-based brand equity as well as the accessibility-diagnostic framework.

A quantitative, cross-sectional research design will be used. The population will be members of the South African Parkrun community who own a smartphone. Parkrun participants can sign-up to receive information from the South African Parkrun organisers and probability sampling can therefore be used, considering that a sampling framework does exist. In order to achieve the primary research objective, respondents will be required to complete an online questionnaire, based on visual stimuli of either *Nike+ Running* or *My ASICS*.

The demographic information of respondents will be measured by means of ordinal and nominal scales, while construct items will be measured by means of 7-point Likert-scales. Demographic information of the respondents will be analysed using IBM SPSS STATISTICS version 23 (IBM Corp 2015). The hypotheses will be tested using the covariance-based structural equations modelling software Mplus version 7.4.

THE INFLUENCE OF PERSONALITY AND SOCIAL NETWORKING SITE USAGE ON OMNICHANNEL BEHAVIOUR OF SOUTH AFRICAN CONSUMERS

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THE INFLUENCE OF PERSONALITY AND SOCIAL NETWORKING SITE USAGE ON OMNICHANNEL BEHAVIOUR OF SOUTH AFRICAN CONSUMERS

ABSTRACT

South African shoppers are increasingly adopting an omnichannel approach to shopping where two or more channels are used simultaneously. However, limited information about the behavior of the omnichannel South African consumer is available, illustrating the lack of empirical research in this regard.

Omnichannel behavior includes the combined use of both physical and digital channels to ensure a seamless shopping experience across channels. Mobile channels, tablets, social media and the integration of these channels and devices in an online and offline setting have given birth to the “omnishopper” that expect a seamless experience across channels. Omnishopper behavior include inter alia researching characteristics of a product by means of a mobile app, comparing prices on several websites from their laptop or tablet and finally buying the product at a physical store.

Understanding the consumer in an omnichannel environment is one of the biggest challenges facing retailers that aim to maximize their omnichannel potential. Personality as a psychological characteristic and social networking site usage as a sociocultural factor affect consumer behaviour. It should therefore be beneficial to retailers to gain insight into the influence of personality traits and social networking site usage on the omnichannel behavior of consumers in order to address one of their biggest challenges.

Personality, social media and/or social networking sites (SNS) and their influences or impact on online shopping have been the focus of several studies over the years. Some of these studies focused on personality and its influence on online behavior, whereas others explored

personality and social media use or predicted personality traits using social networking site analysis. The influence of social networking site usage on buying behavior has also been explored in previous studies. None of these studies has however investigated both the influence of personality and social network site usage on omnichannel behavior.

The research will thus contribute firstly by providing insight into omnichannel behavior of South African consumers and secondly it will investigate the influence of personality and use of social networking sites on the omnichannel behavior of these consumers.

As part of the empirical phase of this study, information will be collected by means of an electronic questionnaire. The sample will consist of active social networking site users, who use two or more channels when shopping. Scales to be included in the questionnaire are existing scales to measure SNS usage and personality traits as well as a new scale to measure omnichannel behavior. The omnichannel behavior scale will be developed after an extensive literature review and in-depth interviews.

Findings from previous studies that might prove to be significant for this study include, but are not limited to the following: there is a relationship between personality and online socialising and information seeking; the usage of social media facilitates social interaction of consumers leading to increased trust and intention to buy online; and personality characteristics affect decisions about future online purchases.

**COMMITMENT AND ONLINE COMMUNITY CITIZENSHIP BEHAVIOUR – A MODEL FOR
RESIDENTIAL ONLINE ACTIVITY COMMUNITY ON FACEBOOK**

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**COMMITMENT AND ONLINE COMMUNITY CITIZENSHIP BEHAVIOUR – A MODEL FOR
RESIDENTIAL ONLINE ACTIVITY COMMUNITY ON FACEBOOK**

ABSTRACT

Customer citizenship behaviour is defined as the helpful, beneficial actions by customers that are valuable and appreciated by the firm but that is not directly enforceable or required from the customer. These behaviours are receiving growing attention in the online community environment. Online communities are generally described as web-based online services which include attributes enabling members to communicate with each other, hence involving people socially and include both members and administrators. Administrators are responsible for accepting members, sending messages to the group, removing members and changing the group settings.

Extant research explains online community citizenship behaviour from a general perspective and claims that it may entail feedback to the organisation, advocacy to other members, offering help and tolerance towards fellow members. Little, however, is known about online community citizenship behaviour, as directed towards administrators and members of an online community. Furthermore, while the importance of commitment in facilitating online community citizenship behaviour has been acknowledged, the impact of different forms of commitment, as directed towards administrators and members of online communities has not been examined before. In addition, limited knowledge is available on factors that may contribute towards the various forms of commitment of members of an online community and that may further add to a better understanding of the various forms of commitment.

Consequently, it is the purpose of the proposed study to address these matters and examine the impact of affective-, continuance- and normative commitment on online community citizenship behaviours, as directed towards administrators and members of residential online activity communities on Facebook (regarded as a form of online community). Selected antecedents contributing to the different forms of customer commitment towards online activity communities on Facebook are also examined.

Ultimately, the research findings may contribute theoretically by providing more insight into the extent to which relationship marketing theory could affect online community citizenship behaviours. The study also distinguishes between administrator directed and member directed extra-role behaviour that have not been empirically tested before in studies related to online community citizenship behaviour. Insight is also gained into a novel set of factors that may be important in the fostering of commitment in an online community environment. From a managerial perspective, the results of this study may offer assistance to administrators of online communities in increasing the membership base of the community and growing their participation.

The proposed methodology include a descriptive research design involving online surveys to be completed by members of residential online activity communities on Facebook of Potchefstroom, Klerksdorp and Rustenburg in the North West Province. Probability sampling will be used, which include cluster sampling using a two-step area sampling technique to identify the sampling units and sampling elements for this study. A sample of 500 respondents will be surveyed. The data analysis include descriptive statistics, exploratory factor analysis as part of the development of two new constructs, confirmatory factor analysis to establish model fit and structural equation modeling.

A MEDIATED MODEL FOR POSITIVE WORD OF MOUTH INTENTIONS IN THE ELECTRONIC BANKING ENVIRONMENT

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Key words: commitment, electronic banking, perceived usefulness, perceived value, positive word of mouth intention, relationship quality, trust

A MEDIATED MODEL FOR POSITIVE WORD OF MOUTH INTENTIONS IN THE ELECTRONIC BANKING ENVIRONMENT

ABSTRACT

Positive word of mouth communication, referring to casual conversations between consumers about products, has received considerable attention in marketing research owing to its potential to influence the behaviours and attitudes of customers. This study aims to extend knowledge on the subject by investigating the mediating effect of the relationship quality factor *continuance commitment* on the relationships between *perceived usefulness* (a

perceived value factor) and *positive word of mouth intention*, as well as between *ability trust* (another relationship quality factor) and *positive word of mouth intention*. Positive word of mouth intention concerns the intent of consumers to engage in word of mouth conversations that will favour the firm.

The proposed model has not been tested before and is based on the belief that (1) relationship quality may contribute to positive word of mouth intention, (2) customer perceived value may lead to positive word of mouth intention and (3) perceived value may impact on views of relationship quality. Previous research has also indicated that key dimensions of relationship quality, namely trust and commitment, apart from their direct relationship with word of mouth communication, may be related to each other. Consumers may first become committed towards the firm, owing to the development of trusting perceptions, before engaging in positive word of mouth communication behaviour.

The context of the study is the electronic banking environment that can benefit from customers engaging in positive word of mouth conversations with other potential users of the service. Many bank customers still seem to prefer the traditional in-branch banking services that are perceived to be a lower risk. It is suggested that existing users of electronic banking services appreciating the usefulness of the service and trusting its reliability (*ability trust*) may have the intention to recommend the service to other potential users and convince them of the benefits of the service. These relationships may further be strengthened by existing users' continuance commitment towards the service, relating to an avoidance of perceived cost and the loss of benefits in terminating the service.

Ultimately, the findings may add to the developing body of knowledge on perceived value and relationship quality and the extent to which these theories are connected to contribute to behavioural intention in the form of positive word of mouth intention. From a practical perspective, the study may assist retail banks in the promotion of their electronic banking services.

The research design is quantitative and descriptive and involves the distribution of self-administered questionnaires to 500 existing users of electronic banking services residing in South Africa. Gender quotas will be filled by approaching an equal number of male and female respondents. Previously validated measurement scales will be used to measure the research constructs and data analysis will include a confirmatory factor analysis and structural equation modeling.

AN INVESTIGATION OF THE EFFECT OF DEMOGRAPHICS ON SOCIAL MEDIA USAGE

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Key words: Social media, technology usage, user characteristics, gratifications

AN INVESTIGATION OF THE EFFECT OF DEMOGRAPHICS ON SOCIAL MEDIA USAGE

ABSTRACT

The exponential increase in commercial websites where consumers can purchase their needs satisfying goods and services, has amplified the need for marketers to understand the factors that influence users to accept new technology. One type of technology development namely Web 2.0, which is a technical platform that allows for the formation and distribution of messages and content across different networks, caused a revolution in the growth of the Internet. Web 2.0 paved the way for the development of social network sites that allowed for and encouraged two-way communication that lead to the creation of an online identity on a social media network site, where people create and distribute information, ideas and opinions across many different channels with “friends, fans, followers or connections”.

The sheer numbers of active social network users have created several opportunities for organisations to use social networks as a communication medium. Social network sites allow

marketers the opportunity to provide the traditional international marketing communication opportunities of creating and sharing information with consumers about products. For marketers to customise marketing offerings effectively, they need to understand the dynamic perceptions, and gratifications of social network site users.

Research found gender differences to exist regarding the gratification dimensions: self-expression, information-seeking behaviour and relationship maintenance and that gender is a strong predictor of the number of friends and of the extent of social network site usage. In addition to gender differences and the inherent psychological dimensions contained in the number of Facebook friends, age appear to have an inverse relationship with the use of technology.

The purpose of this study therefore is to investigate the effect of the demographic dimensions of age and gender on the number of years of Facebook membership, hours spent on Facebook, number of Facebook visits per week, number of Facebook friends and gratifications sought from Facebook usage.

A multi-method, non-probability, quantitative technique consisting of self-selection sampling, quota sampling and snowball sampling was used to collect 307, Likert-scaled questionnaires from English speaking Facebook users, residing in South Africa.

Descriptive statistics, frequency tables and cross tabulations, were used to compare the number of years of membership, hours spent on Facebook, number of Facebook visits and number of Facebook friends between males and females and between different age categories. To assess whether the descriptive analyses were statistically significant, an independent samples t-test and a one-way ANOVA were conducted.

EXAMINING THE USE OF INFORMATION SOURCES BY PROSPECTIVE ENTREPRENEURS IN SCREENING BUSINESS OPPORTUNITIES

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Key words: Prospective entrepreneurs, information sources, information literacy, prospective market.

EXAMINING THE USE OF INFORMATION SOURCES BY PROSPECTIVE ENTREPRENEURS IN SCREENING BUSINESS OPPORTUNITIES

ABSTRACT

The purpose of this study aims at investigating prospective entrepreneurs at a University of Technology actively search for and utilise information sources on business opportunities. The Information sources are classified into three categories. Namely:

- Format: documentary versus oral information; textual versus audio-visual; electronic versus paper-based information.
- Status: personal versus impersonal; published/open versus unpublished/secret or confidential information and
- Location: which is internal versus external information.

Not all of the three categories are important, but only status and location are important for the business. Given the fact that the focus of this study is mainly on prospective entrepreneurs, only external information sources of status and location dimensions will be

investigated. Both collaboratively constitute the following information sources: External-Formal and External-Informal information sources.

South Africa has a lower rate of potential entrepreneurs than the rest of the entire African region. In the past two years, South Africa has experienced lower economic growth than its annual population growth of around 1.6%, which means that the country is going rapidly backwards. Information is a very important asset for entrepreneurs in a sense that it helps them to identify gaps in the market and find ways to address those gaps, which contributes to economic growth.

The research design used in this study is the quantitative-descriptive research design. A structured questionnaire will be utilised and a systematic random sampling method will be used. Classes of students enrolled for the entrepreneurship module at a University of Technology based in Gauteng Province will be selected randomly and assumed to be the prospective entrepreneurs. Sample size will be set at $n = 300$ respondents.

The anticipated findings of this study is that the prospective entrepreneurs would most probably be inclined to be using some of the external-informal information sources since they are easily and readily accessible than the external-formal sources.

The conclusion drawn on this study is that prospective entrepreneurs are not aware of all available and valuable sources of information especially the external-formal sources. The study therefore recommends that a topic if not the entire module of information literacy should be part of the syllabus of students who are enrolled for the entrepreneurship module. This will enhance the searching scope and the ability of the entrepreneurs in searching for relevant information and competitively process the information to create a competitive advantage in the prospective market.

**ETHEKWINI MUNICIPALITY WOMEN ENTREPRENEURSHIP PROGRAMME: AN
ASSESSMENT**

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**ETHEKWINI MUNICIPALITY WOMEN ENTREPRENEURSHIP PROGRAMME: AN
ASSESSMENT**

ABSTRACT

Research was conducted amongst women participants in a municipal entrepreneurship development programme to assess benefit of the instructional offering. The study investigated what contribution was made to skills development of programme participants, whether the programme heightened their commitment to business development, and whether the programme helped participants in business planning and management of resources. Literature findings indicated that earlier entrepreneurship programmes were static and content driven, with little benefit to participants. It was found that the action-orientated approach of the municipal entrepreneurship program assisted participants in the development of their entrepreneurial skills, boosted their commitment to developing their businesses, enhanced their business planning, and helped to improve their access to resources.

1 INTRODUCTION

The stated aim of the eThekweni Municipality Women Entrepreneurship Programme is “to raise the profile of women in business whilst continuously striving to address their business needs through the implementation of the Productive Capacity Building Programme which includes mentorship and training” ([eThekweni Municipality](#), 2017). First held in 2006, the programme culminates each year in a two-day conference where participants can discuss and explore opportunities and challenges that they are likely to encounter as women in business.

Poverty, inequality and unemployment, according to Philips et al. (2014), are the three most serious barriers in socio-economic development in South Africa and they affect women more than men. Conditions for entrepreneurship in South Africa are weakest in relation to government initiatives, entrepreneurship education and training, cultural and social norms, and research and development transfer (Herrington and Kew, 2016), which the 2016 GEM report cites as especially problematic for propelling the economy and combatting unemployment.

In the self-employed sector women entrepreneurs are a significant presence and it is particularly important for their support needs to be addressed. (Minniti & Naudé, 2010) This paper considers the effectiveness for these women entrepreneurs of women entrepreneurship development and training programmes. Most prospective women entrepreneurs have limited education or training and lack startup funds, business experience, know-how, contacts, and self-confidence. How are these needs being addressed?

2 LITERATURE REVIEW

2.1 Women entrepreneurship

The gender gap in entrepreneurship, which is a growing area of research attention (Minniti & Naudé, 2010), can be defined as gender disparity (a) in relation to entrepreneurial intention and/or engagement on the part of men or women starting or conducting a business or choosing an industry, and (b) in the relative business performance and growth of their enterprise. Training available to women setting up businesses varies within and between countries (Sahay and Nirjar, 2012). While most can access some form of business training, these opportunities are often regionally restricted, and courses specifically addressed to women are also needed (Phillips et al, 2014).

2.2 The role of women development initiatives

Despite measures and initiatives to reduce unemployment of women, they still face numerous obstacles in the corporate world (Phillips et al, 2014). Although the figure of the woman entrepreneur may now be entering the discourse of scholarly research, the media still keep alive the old gender stereotypes. Before the 1980s, according to Moore and Buttner (1997: 20), entrepreneurship studies were almost entirely concerned with men, and almost nothing was known about female entrepreneurship until it began to attract attention as an emerging social phenomenon.

2.3 Business development challenges for women

Certification as a woman-owned business requires that a woman must own at least a 51% majority of the business, a woman must occupy the highest position in the business, and be actively involved in the daily and strategic management and decision-making of the business (Schweitzer, 2010).

An examination of the SME Growth Report, reveals that the gross national average of female entrepreneurs equals 21%. StatsSA's Quarterly Labour Force Survey reveals that males still dominate the Manufacturing, Business Services, and Tourism industries (StatsSA, 2015), and shows huge disparity in unemployment and discouragement rates, with the figures for women far in excess of those for their male counterparts. And despite a narrowing in gender unemployment rates amongst youth from 9.6% to 6.1% between 2008 and 2014, young women remain of the most vulnerable groups (StatsSA, 2014).

In growing recognition of the gap in gender entrepreneurial equality, government in South Africa has tended to focus on the development of previously disadvantaged subsets (Women, 2015). This is especially pertinent with regard to female entrepreneurs, who socio-culturally have previously not owned property that could be used to secure loans, and often require their husbands' permission before any financial arrangements can be made (Campos, Goldstein and McKenzie, 2015). Many informal sector female entrepreneurs consequently do not have bank accounts, and have little or no access to external finance. Further, StatsSA (2014) reveal that among youth not in education, employment or training (NEET), young women rank highest. This explains why sectors requiring high start-up have received very little female attention and dominance. The current female entrepreneurial landscape has seen a restructuring of policies in organisations in an effort to correct the previous inequalities and transform the current

business climate in South Africa to make it more amenable for women to enter business and take on leadership positions in their business activities. Women are now much more at ease in regard to key issues such as cooperation, networking, transparency and relationships (Herrington & Kew, 2016). Despite this, however, the gender gap continues to widen, with global statistics revealing that unemployment rates for women remain higher in both the educated and uneducated categories (Tsele, 2015). According to the GEM Report for 2015-2016, only 6.2% of South African women are involved in entrepreneurial activities, which shows a marked decline of 9% from 2014 (Herrington & Kew, 2016).

According to SBP (2013), the rate of entrepreneurial activity globally is much higher amongst men than amongst women, as is also the case in South Africa. Cultural and social norms significantly influence these gender differences, particularly in view of traditionally female domestic responsibilities such as domestic responsibilities, lower levels of education, lack of female role models, fewer networks, lack of capital and status, and personal belief (Herrington & Kew, 2016). The GEM Report for 2015-2016 (Herrington & Kew, 2016) further revealed that female-owned businesses seem generally to be smaller than those owned by men in relation to turnover and number of employees, with the former turnover amounting to approximately R8.2million, and 23.1 employees compared to an average of R12.1 million and 29.6 employees for the latter (SBP, 2013). This trend is evident in South African SMEs (Herrington & Kew, 2016).

According to the 2015-2016 GEM report, the gender gap is “widest in middle-income countries and lowest in high-income countries” (Herrington & Kew, 2016); as such, many women engage in entrepreneurial activities because they don’t have alternative employment opportunities and necessity is their key motivator to action (Herrington & Kew, 2016).

2.4 Entrepreneurship acceleration for women in South Africa

Although there has been an acceleration in women’s entrepreneurship in response to government initiatives, little or no empirical investigation has been done into the motivation and aspirations driving increased entrepreneurial activity of women in South Africa other than informal sector survivalist activity (SBP, 2013). In addition, women’s activity seems limited to particular sectors, especially in the case of those who have low start-up capital and greatest need for specialised professional and technical skills. In sectors which in developed countries are traditionally male-affiliated, women’s activity is only beginning to show increased growth (SBP, 2013), and according to StatsSA (2014), unemployment

rates for women, except for the 15–19 year age group, were higher in every age category than for their male counterparts.

SME South Africa (2015) reported also that 80% of start-ups in South Africa fail within the first three years of operation, resulting in net loss of small-business activity and subsequent job losses.

Gender inequality has been identified as a push factor for female entrepreneurship in both developed and developing economies (Herrington & Kew, 2016). Female entrepreneurs' choice of self-employment may often be a survival strategy in that it offers flexibility for women trying to juggle multiple responsibilities in the face of labour market discrimination, necessity, or hitting the glass ceiling (Baughn et al., 2006; Islam, 2012; Herrington & Kew, 2016). Since 2008 there has been a significant decline in opportunity-driven start-ups and an increase in necessity-driven start-ups.

According to Agbenyegah (2013), although people pursue entrepreneurship for various reasons the factors contributing to growth in female entrepreneurship can be broadly divided into push and pull elements. Women 'pushed' into business creation differ from women 'pulled' into entrepreneurship. The 'push' includes difficulty gaining access to the labour market, as for long-term unemployed women, women with limited or outdated skills, women in regions of limited job opportunity such as inner cities and rural areas, socially disadvantaged women such as lone parents, migrants, ethnic minorities and the disabled (European Union, 2010). These women often lack sufficient start-up funds, have limited education and specific training (SBP, 2013), lack appropriate business experience, know-how, contacts and self-confidence (Herrington & Kew, 2016). In contrast, women 'pulled' into entrepreneurship often have backgrounds, resources and experience conducive to developing their own enterprise within the conventional business environment.

Significant pull factors include self-employment being seen as an opportunity for independence (Orhan, 1999; Jalbert, 2000, Bradley & Boles, 2003; Lebakeng, 2008), taking on a challenge or initiative (Lebakeng, 2008, Kock, 2008), success and satisfaction to be derived from entrepreneurship (SBP, 2013; Islam, 2012), government policy in support of women, more role models, improved networking, financial independence, flexibility and self-actualisation (Maas & Herrington, 2006; Heilman & Chen, 2003).

Studies also suggest that there are different motivators specific to men and women entrepreneurs: motivators more pertinent to men, for example, include status attainment

and social relationships, while domestic harmony and goals are more pertinent to women (SBP, 2013).

The rise in female unemployment can be attributed to increasing numbers of women seeking paid work (often wishing to combine paid employment with family responsibilities or seeking to return after a break) in a broader context of rapid technological developments and structural changes in the labour market (SBP, 2013; Baughn et al., 2006).

Just as the characteristics, motivations and backgrounds of women entrepreneurs differ, so do their support needs, both quantitatively and qualitatively. (Stošić, 2015). But in relation to business size and sector the conventional support bodies are rarely attuned to the needs of women setting up an enterprise.

2.5 Business support for women

Advice agencies offering business support services often fail to take on board the particular needs of women in relation to start-ups and running businesses (van der Merwe, 2015). Women need training and support for development of both personal skills and technical and business skills, to redress previous disadvantage in relation to female technical, skill and academic development and training (OECD, 2012). This requires that venues for training must also be accessible to women (UNCTAD, 2014). Ideally, women need opportunities to step away from domestic environments and child care responsibilities so that they can realistically reassess their obligations and navigate between home lives and personal development, whether in education, training, setting up a business, or organizing collectively.

With increasing numbers of women involved in entrepreneurship (Timmons & Spinelli, 2004:256) questions arise in relation to disparities between men and women entrepreneurs. OECD (2012), for example, notes wide divergence between types of support and availability of support for different kinds of business activity undertaken by women, and highlight the need for all specifically women-owned enterprises to be targeted and receive the same support and the same access to finance as their male-owned business counterparts. We conclude, nonetheless, that very little has been done to evaluate the effectiveness of these support initiatives, whether in relation to money well spent, or in relation to support being given where women most need it. This calls for new research questions and new interdisciplinary methodologies to investigate key questions on women's business activity (Verheul et al., 2006).

2.6 Entrepreneurship skills development and education for women

With skills development and pedagogy in the field of entrepreneurship shifting the emphasis from classroom teaching to action learning, also referred to as experiential learning, outdated static and content-oriented teaching is longer appropriate in South Africa's complex and change-driven society (Garavan & O'Conneide, 1994; Oyugi, 2014; Sahay & Nirjar, 2012).

Entrepreneurship curricula and skills development programmes based on discovery theory and creation theory can help training programmes to advance from static classroom instruction to an action learning methodology. In developing and presenting an entrepreneurship programme, there needs to be a suitable programme process to help aspirant entrepreneurs assimilate entrepreneurial practice, with appealing, action-focused themes that are oriented towards the students themselves and encourage reflective thinking (Chia, 2014; McIntyre-Mills et al., 2014; Yeo & Marquardt, 2015). In the complex and continually evolving South African context, training approaches are needed that emphasise the overall learning process, showing how ideas can transform over time and giving programme participants practice in adapting an initial idea in response to new knowledge and information. In this kind of entrepreneurship programme (also referred to as experiential learning or action learning) participants are presented with an environment of challenges to be met and they learn by doing. In this way they develop self-direction and adaptability. It then becomes possible to assess the impact of entrepreneurship, whereas, traditionally, programme participants would merely be allocated a "pass" or "fail". The cyclical approach of the experiential or action learning process thus shapes students into lifelong learners. (Rahimi et al., 2015).

Results from a progressive Systemic Action Learning and Action Research programme conducted by van der Westhuizen {2016}, in which experiential and action learning practices were applied, showed that participants in an entrepreneurship programs developed more significant and more radical transformation in their entrepreneurial self-efficacy and individual entrepreneurial orientation and gained more momentum towards entrepreneurial action than individuals who had nascent business ideas but had not participated in such an entrepreneurship programme. Transformation in this context is described as "growth in developmental maturity" (Fitch & O'Fallon, 2013).

3 PROBLEM INVESTIGATED

An entrepreneurship programme needs to help aspirant entrepreneurs assimilate entrepreneurial practice, with action-focused and appealing themes that are practitioner-oriented and encourage reflective thinking (Chia, 2014; McIntyre-Mills et al., 2014; Yeo & Marquardt, 2015).

3.1 Background to the problem

Entrepreneurship programmes in South Africa currently face a number of challenges, often relating to business planning aspects, skills development aspects, lack of business acceleration and lack of information on resource management. Further challenges include the following:

- Making students aware of socio-economic change. Otto Scharmer believes that society has a blind spot in relation to a deeper dimension of systemic change. This blind spot might be the systems thinking paradigm where systems are seen only as interconnected and interrelated – which might imply fragmentation of systems (Pillay, 2015b). The current era of our time calls for new levels of cognition processes (Scharmer, 2009) adopting a nondual perspective where systems are perceived as a whole, with one source (Pillay, 2015a). Scharmer notes also that this might allow youth to create a future of greater opportunities (Scharmer, 2009).
- Enhancing levels of self-efficacy among programme participants. Young people lack commitment, work ethic and motivation; South Africa has the third lowest level of youth entrepreneurship globally (Xavier et al., 2013).
- Enhancing levels of entrepreneurial orientation. Strategy-making processes in both public and private sector organisations can provide a basis for entrepreneurial initiatives and create opportunities for young people to be involved in decisions and actions (Bolton & Lane, 2012).
- Developing a nexus of intermediaries for student entrepreneurs. In South Africa, it is difficult for student entrepreneurs to engage with a nexus of supportive intermediaries (Dhliwayo, 2008). Not enough private sector organisations or small or medium-size business owners are willing to form Business Friendships with youth entrepreneurs to harness their entrepreneurial drive, and help them to develop sustainable entrepreneurial skills (DTI, 2005).

Commenting on challenges such as these which are faced by entrepreneurship programmes, Oyugi (2014) argues that the initial focus should be on enhancing

participants' levels of self-confidence, and that tertiary entrepreneurship programmes should teach both *for* entrepreneurship (e.g. case studies, guest speakers, group projects, business plans, student oral presentations) and *about* entrepreneurship (e.g. lecturers, set tests, individual assignments and written exams).

A systemic action learning and action research project jointly involving experienced entrepreneur and youth entrepreneurs (Van der Westhuizen, 2016) identified five main types of barriers affecting women entrepreneurs: (i) the entrepreneur in relation to herself, (ii) entrepreneurship programs offered in higher education, (iii) networks and supply chains from other women entrepreneurs with similar business interest, (iv) inability to access support from the municipality or local chamber of commerce, and (v) inability to reach out to large business or corporates.

Although more women entrepreneurship programmes may now be on offer, challenges remain in relation to (i) each woman's own skills development, (ii) sustaining commitment towards their business development, (iii) business planning and strategy, and (iv) accessing resources.

This research investigated the role that women entrepreneurship programs play in addressing each of these challenges, especially related to business planning aspects, skills development aspects, resource management, and business acceleration.

4 PROBLEM STATEMENT

Women entrepreneurship programs have been fraught with shortcomings which further marginalise women and hinder them in developing their businesses. Key among these is inability to transfer the necessary skills and resources for successful business planning, set-up and implementation.

5 RESEARCH OBJECTIVES

1. To determine how women entrepreneurship programs contribute towards skills development of individual participants
2. To investigate how women entrepreneurship programs assist in accelerating women's commitment towards business development
3. To establish if women entrepreneurship programs contribute to assisting participants with business planning aspects

4. To find out how women entrepreneurship programs contribute to resources that help development of female-owned enterprises

6 RESEARCH QUESTIONS

1. How do women entrepreneurship programs contribute to skills development of individual participants?
2. How do women entrepreneurship programs assist in accelerating women's commitment to business development?
3. Do women entrepreneurship programs assist participants with business planning aspects?
4. How do women entrepreneurship programs contribute to resources needed for development of female-owned enterprises?

7 RESEARCH METHOD

7.1 Research Design

This study was guided by a positivist research philosophy and conducted within the quantitative research paradigm, using a survey design and descriptive and inferential analysis of quantitative data. It was a cross-sectional, case-study design, adopting a descriptive and non-experimental research strategy.

7.2 Research methodology

Sampling: Non-probability, judgment sampling techniques were used. The study population were 50 female entrepreneurs who participated in the 2015 Women Entrepreneurship Program offered by eThekweni Municipality.

Data collection: A 20-item questionnaire using a four-point Likert scale ranging from strongly disagree to strongly agree was administered to study participants. Biographic details included in the study were identified as significant indicators as per the literature, and included gender, marital status, educational background, years on the job, nationality and race.

Four variables were identified and tested for in the study: skills, growth, commitment/plan, and resources. The questionnaires were self-administrated and handed out to all women participating in the program.

Data Analysis: No particular hypothesis testing was undertaken; instead a largely descriptive account was accumulated of respondent experiences of the women entrepreneurship program, and data was further explored using inferential, non-parametric tests statistics including Mann-Whitney, and Kruskal-Wallis. The analysis was performed using SPSS 24.

Collected data met nominal and ordinal levels of measurement. Tests of normality and homogeneity of variance (Kolmogorov-Smirnov and Shapiro-Wilk, and Levene's test) were conducted, and because assumptions were violated use was made of non-parametric tests.

To investigate the research objectives, frequency and descriptive analysis was performed, using measures of central location by way of the median, and distribution and spread through skewness and kurtosis. Further exploration of significant relationships between respondent characteristics and outcomes were explored through Kruskal-Wallis (in the event of three or more group means), and Mann-Whitney (in the case of only two means). Non-parametric permutations constituting post-hoc assessments were performed by selecting cases and testing for significant differences on each level of each competing variable.

A factor analysis was performed on the data, but the KMO and Bartlett's test of Sphericity revealed that data was unsuitable for the requirements of the test on the grounds of inadequate sample size, and the data was therefore dropped from the analysis.

Reliability measures were performed using Cronbach's alpha. In addition, data was aggregated according to the operationalised variables, and a Spearman's ranked Rho correlation was performed on the data to determine any significant correlations between variables.

The findings are presented as follows: (i) all tests and measures relating to the research instrument itself, (ii) discussion on the sample, (iii) descriptive and inferential statistics relevant to each research objective/question.

The assumptions underlying parametric tests were tested and the Shapiro-Wilk and Kolmogorov-Smirnov were significant for all items; non-parametric tests were accordingly run.

The sample: Of the targeted 50 women, 33 were available and responded to the questionnaires. The sample consisted of 33 women, 51.5% of whom were classified as single, and 48.5% as married (n = 33), with a median of 1 (single). The median for educational level was 3 (higher national diploma), where 42.4% of the sample (n = 33) were in possession of a higher national diploma, 18.2% a certificate, and 39.4% other. In regard to years on the job, the median was 2 (6–10 years) with a valid percentage of 27.3%, of which 39.4% reported having been in service between 11 and 15 years, followed by 0–5 years (30.3%, n = 33). The sample consisted mainly of 36 to 45 year-old women (45.5%, n = 33) with a median of 4 (36–45 years old) all of whom had South African nationality. The modal race was Black (93.9%, n = 33), and the remainder of the sample, Coloured (6.1%, n = 33). This sample demographic has implications for generalizability, as no other race groups were represented, and it is restricted to the Durban area and to having undergone the WEP programme.

8 RESULTS AND FINDINGS

8.1 The research instrument

Reliability measures using Cronbach's alpha were run for the overall instrument and each section therein. A constraining factor on reliability was the small sample size (n = 33), which meant that the overall reliability measure was roughly reliable ($\alpha = 0.692$, N = 20). The following items were reverse scored:

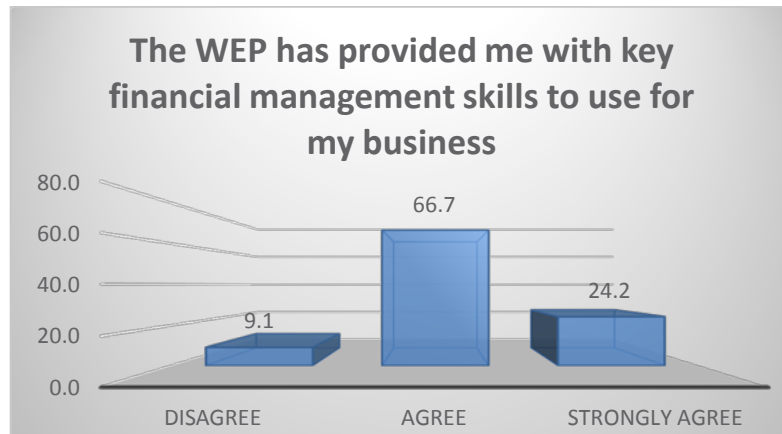
- The WEP has assisted me with financial support to grow my business
- Being involved in the WEP has helped me build relations with women who share the same value as me when it comes to business
- Growth in my business has been enhanced as a result of the Woman Empowerment Programme.
- The WEP has contributed positively to improving my business skills?
- The WEP has helped to equip me with key skills necessary to address customer needs

A factor analysis was performed in which KMO was 0.462 (below the 0.550 threshold); the sample was therefore inadequate to support a FA.

8.2 RQ 1 – WEP Skills development

Overall, the WEP seemed to have equipped respondents positively with the skills necessary to success in business success, with a median of 3 (agree) reported for every single item under this section.

Figure 1 Financial management skills development



In regard to skills, a large majority of respondents (90.9%, n = 33) agreed that the WEP provided them with financial management skills to use for their business. There was a significant difference in this provision between different age groups ($H(4) = 9.839$, $p = 0.043$), more particularly between 18–23 years and 24–29 years ($X^2(1) = 4.667$, $p = 0.031$), between 18–23 years and 36–45 years ($X^2(1) = 3.911$, $p = 0.048$), and between 24–29 years and 36–45 years ($X^2(1) = 5.095$, $p = 0.024$).

There was also a significant difference in relation to race group ($H(1) = 7.432$, $p = 0.006$).

Figure 2: Age group and financial management skills

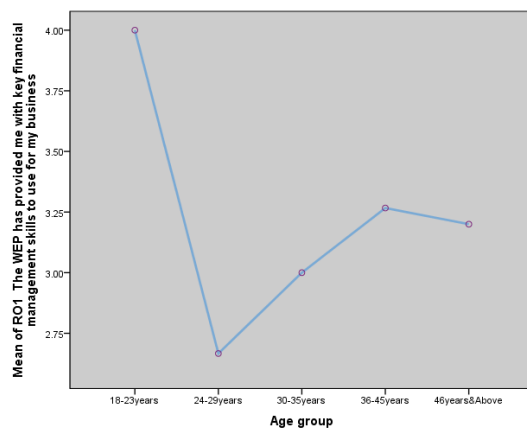


Figure 3: Ethnicity and financial management skills

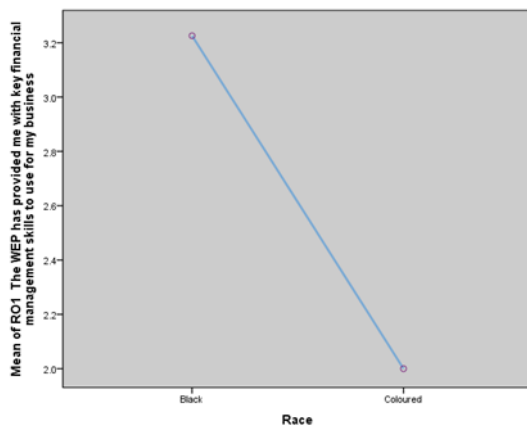
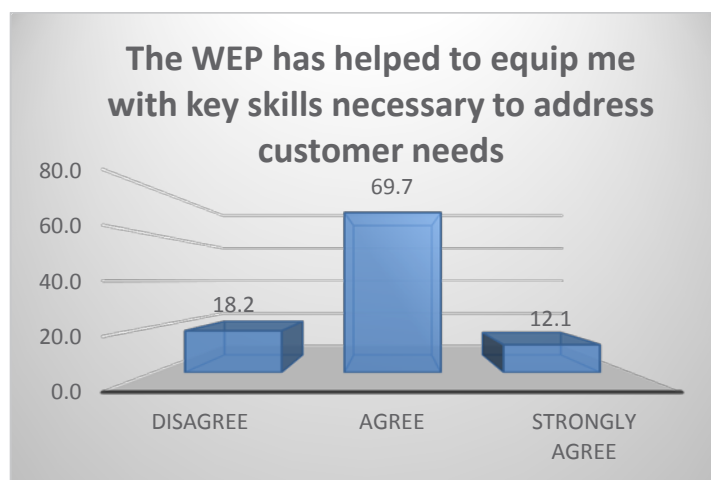


Figure 4: Identifying business opportunities



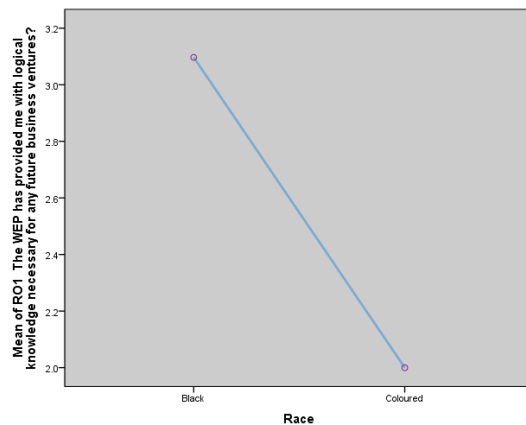
Figure 5: Skills in addressing customer needs



In addition, 93.9% (n = 33) of respondents agreed that the WEP had helped them in their ability to identify good business opportunities for their business. In regard to WEP

contributing positively towards improving their entrepreneurial and business skills, there was a 100% (n = 33) agreement rate, with 87.9% agreeing that WEP provided them with logical knowledge necessary for any future business ventures (n = 33). There was, however, a difference in race ($H(1) = 7.840, p = 0.005$).

Figure 6: Logical knowledge for business ventures



Lastly, the WEP showed an agreement rate of 81.8% (n = 33) on having equipped respondents with key skills needed to address customer needs. So overall, the WEP has shown to be effective in developing women’s entrepreneurial skills by equipping them with skills necessary to manage their business, identify good entrepreneurial opportunities, and address customer needs.

8.3 RQ2 - How do these initiatives assist in accelerating women’s commitment in businesses?

Figure 7: Knowledge for improving productivity

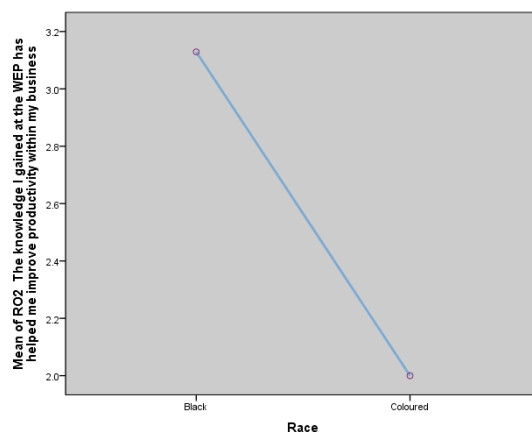
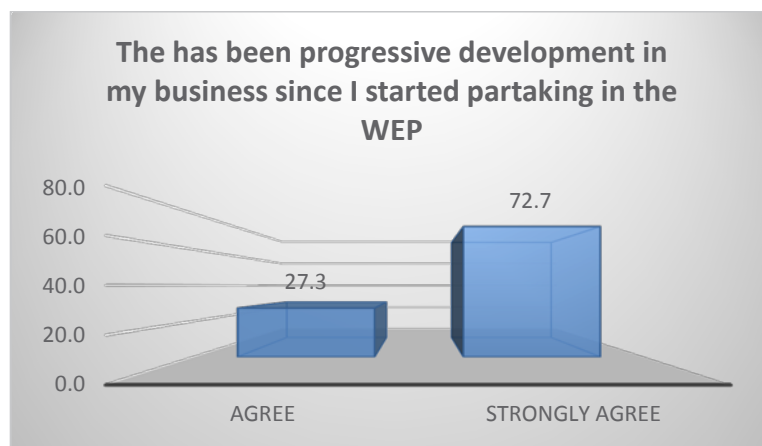


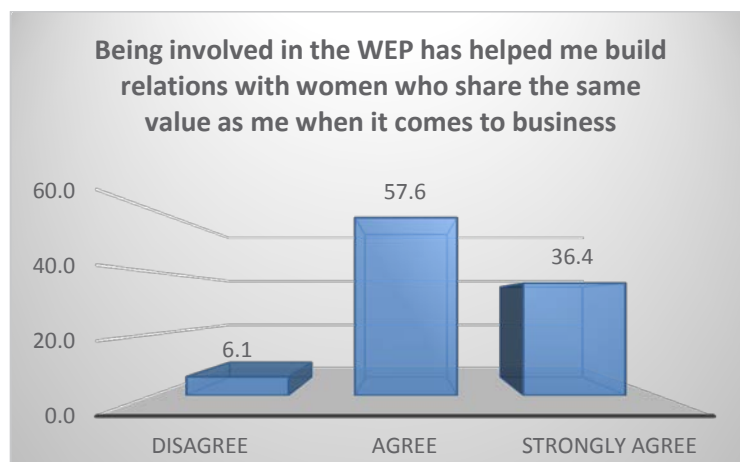
Figure 8: Progressive development in the participant's business



Overall, the impact of the WEP was positive, accelerating women's commitment in businesses, with a median of 3 (agree) reported for every single item except there having been progressive development in their business since they began participating in the WEP, which had a median of 4 (strongly agree).

A majority of respondents reported that WEP helped them improve productivity within their business (84.8%, n = 33). There was a significant difference in this report by race ($H(1) = 6.114, p = 0.013$).

Figure 9: Building relationships with other women in business



A key contributor to accelerating commitment is networking, and 94% (n = 33) of respondents reported that the WEP helped them build relations with women who share the same values in regard to business. Building relations is also key to creating further employment, and 72.7% (n = 33) reported that as a result of the WEP they were able to expand their business and create employment for their community; the remaining 27.3% did not reap these same benefits. There was, however, a significant difference in being

able to expand their business and create employment for their community as a result of skills gained from the WEP ($H(1) = 5.556, p = 0.018$) between single and married women ($X^2(1) = 5.556, p = 0.018$).

Figure 10: Marital status and ability to expand business

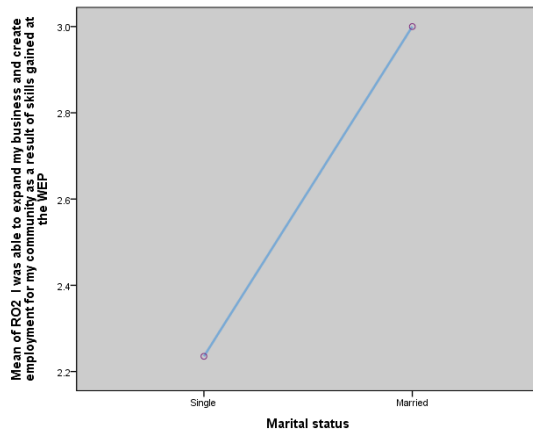
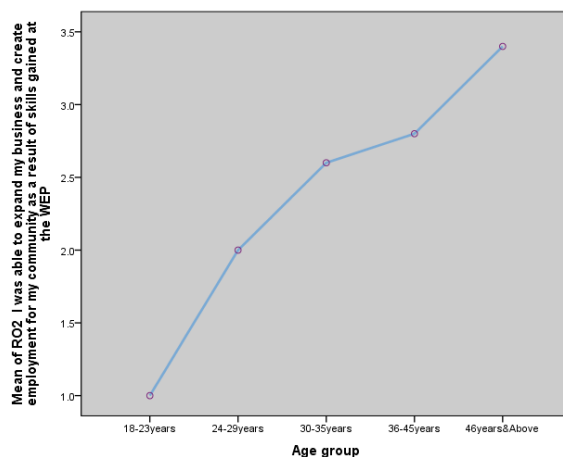


Figure 11: Age group and ability to expand business



There was also a reported, significant difference in age ($H(4) 12.363, p = 0.015$), particularly between 18–23 years and 30–35 years ($X^2(1) = 4.200, p = 0.040$), between 18–23 years and 36–45 years ($X^2(1) = 5.893, p = 0.015$), between 18–23 years and 46 years & above ($X^2(1) = 4.200, p = 0.040$), and between 24–29 years and 46 years & above ($X^2(1) = 4.492, p = 0.034$).

There was also a significant difference by race ($H(1) = 5.254, p = 0.022$).

Figure 12: Ethnicity and ability to expand business

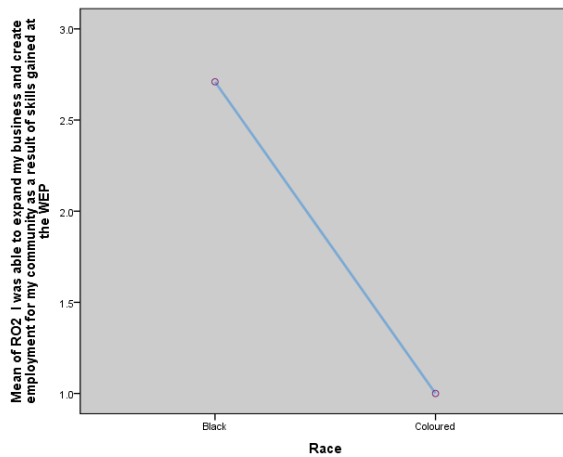


Figure 13: Age group and mentorship

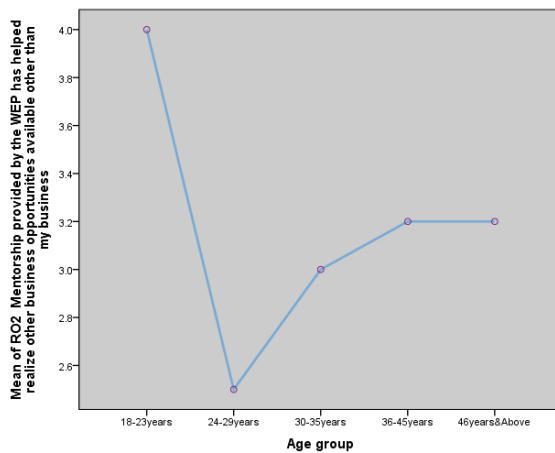
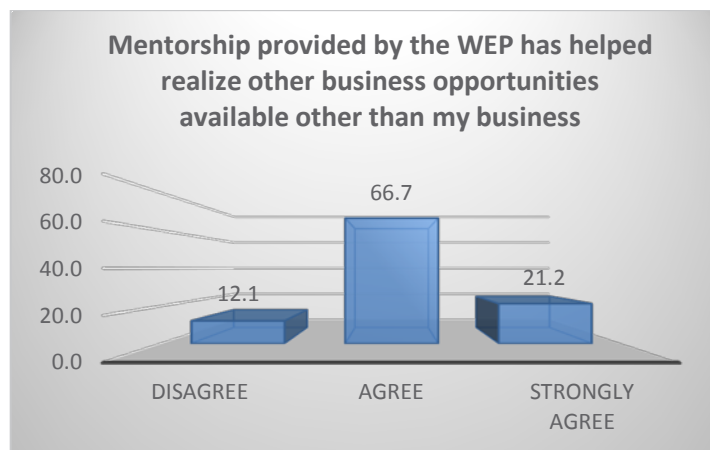


Figure 14: Mentorship



Key to understanding growth is the ability to not only identify opportunities, and but also to realize them, and 87.9% of respondents reported having put into effect further

opportunities. This realization of available business opportunities other than their existing businesses was significantly different by age ($H(4) = 11.859, p = 0.018$), particularly between 18–23 years and 24–29 years ($X^2(1) = 4.480, p = 0.034$), between 18–23 years and 36–45 years ($X^2(1) = 5.120, p = 0.024$), and between 24–29 years and 36–45 years ($X^2(1) = 7.000, p = 0.008$).

Overall, 84.8% ($n = 33$) of respondents reported that growth in their business had been enhanced as a result of the WEP, and 84.9% ($n = 33$) reported that their business had been more progressive than before due to coaching provided by the WEP, and had subsequently expanded (78.8%, $n = 33$). In regard to whether their business had been more progressive as a result of coaching provided by the WEP there was, however, a significant difference ($H(1) = 4.474, p = 0.034$) between single and married women ($X^2(1) = 4.474, p = 0.034$).

Figure 15: Marital status and progressiveness of business

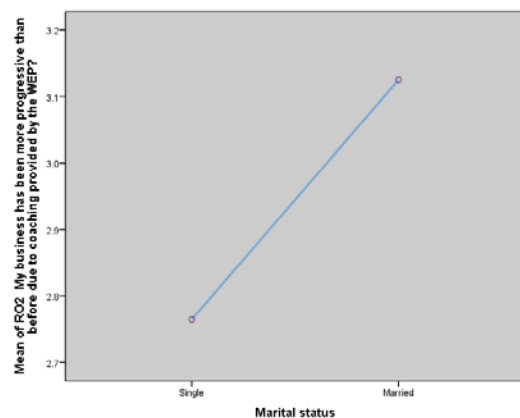
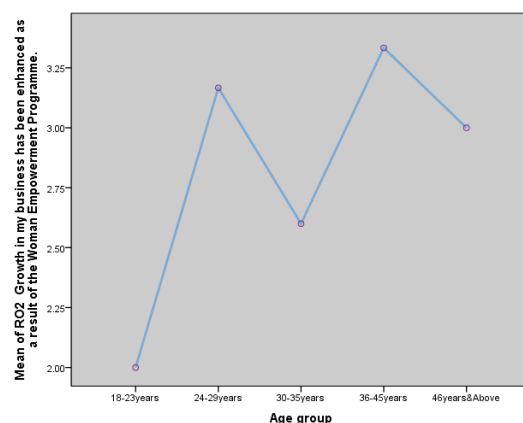


Figure 16: Age group and business growth



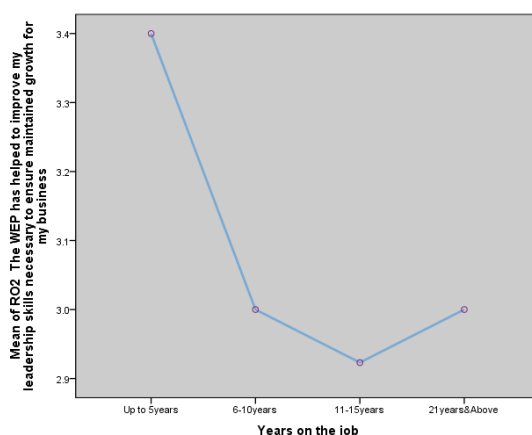
There was also a significant difference in the enhanced growth of their business as a result of the WEP ($H(4) = 11.718, p = 0.020$) between 18–23 years and 24–29 years ($X^2(1) = 5.333, p = 0.021$), and 18–23 years and 36–45 years ($X^2(1) = 6.476, p = 0.011$).

Figure 17: Improvement in leadership skills



Not only were they able to expand, progress and enhance their businesses, but 96.9% of respondents reported that they were able to improve their leadership skills to ensure maintained growth. There was a significant difference in this improvement to their leadership skills according to the number of years on the job ($H(3) = 9.697, p 0.021$) between those having worked up to 5 years and 6–10 years ($X^2(1) = 4.320, p = 0.038$), and up to 5 years and 11–15 years ($X^2(1) = 6.265, p = 0.012$).

Figure 18: Years on the job and improvement in leadership skills



Overall, 100% of respondents (27.3% agreed, and 72.7% strongly agreed, $n = 33$) confirmed that there has been progressive development in their business since they began participating in the WEP.

RQ3 - What impact do women initiatives have on business planning in female owned enterprises?

Overall, there was a positive impact of WEP on business planning, with a median of 3 (agree) reported for every single item under this category.

Figure 19: Business strategizing skills



An integral part of planning is the ability to strategize, and 72.7% (n = 33) of respondents reported that WEP helped to improve their skills in strategizing for their business. There was however a significant difference by age in this skill improvement in strategizing ($H(4) = 12.284, p = 0.015$) between 18–23 years and 36–45 years ($X^2(1) = 11.333, p = 0.001$) and between 24–29 years and 36–45 years ($X^2(1) = 10.552, p = 0.001$).

There was also a significant difference by race ($H(1) = 4.542, p = 0.033$).

Figure 20: Ethnicity and strategizing skills

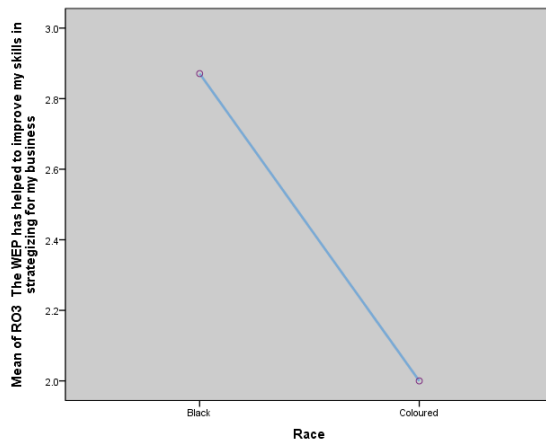
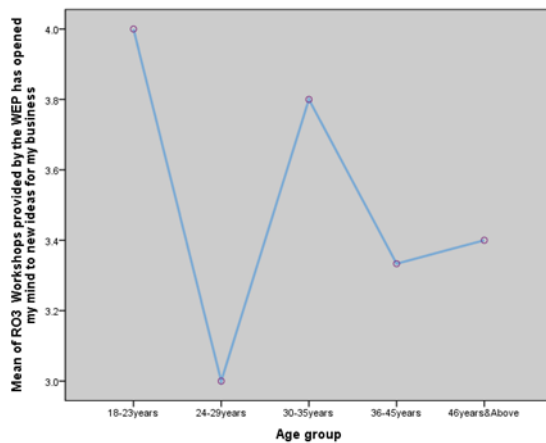


Figure 21: Age group and openness to new ideas



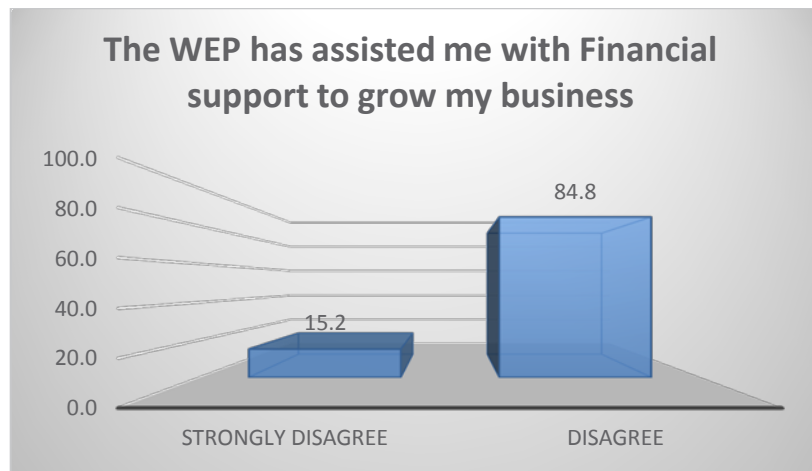
When you are aware of other opportunities available to you, it also becomes easier to strategize and plan, and to steer your company in a particular direction; 60.6% of respondents agreed, and 39.4% strongly agreed that workshops provided by the WEP opened their mind to new ideas for their business. There was a significant difference by age of respondent in the efficacy of workshops ($H(4) = 10.338$, $p = 0.035$), particularly between 18–23 years and 24–29 years ($X^2(1) = 7.000$, $p = 0.008$), and between 24–29 years and 30–35 years ($X^2(1) = 6.857$, $p = 0.009$).

Integral, too, to planning is commitment and follow-through on strategy and plans; 97% of respondents agreed that WEP had taught them the importance of commitment when working on a business idea ($n = 33$). When people know what they are working towards and have a clearly defined goal, motivation seems to flow as a natural result.

On “business monitoring by WEP influenced performance motivation within my business for the better” (63.6% agreed and 33.3% strongly agreed, n = 33)

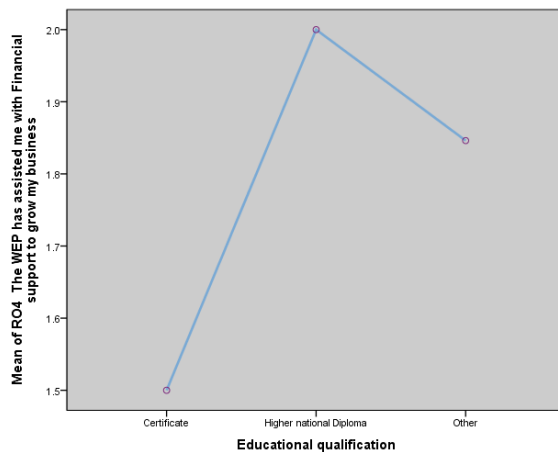
8.4 RQ4 - How do these programs contribute towards the resources (intellectual capability, funding/sponsorship) that help with enhancement of growth in female owned enterprises?

Figure 22: Assistance with financial support



In regard to resources, particularly financial resources, there was a median of 2 (disagree), with 15.2% of respondents strongly disagreeing, and 84.8% disagreeing that the WEP had assisted them with financial support to grow their business (n = 33). There was a significant difference in educational qualification and WEP assisting them with financial support to grow their business ($H(2) = 7.921, p = 0.019$). This difference was between those in possession of certificates and those with national diplomas ($X^2(1) = 7.824, p = 0.005$).

Figure 23: Educational qualification and financial support



Despite this, intellectual resources as per the statistics found and discussed under research question 1 were strongly supported, and the WEP proved more than effective in further equipping women entrepreneurs to more adequately deal with running, sustaining and growing their own businesses.

Correlations: There was a significant, moderate, positive correlation between skills and growth ($r = 0.385$, $n = 33$, $p = 0.027$).

9 PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Since the publication of the 1995 White Paper, government at various levels has shown commitment and support to boosting women entrepreneurship through various support initiatives undertaken chiefly by municipal units. In the interim, many changes have been made by leaders and municipal managers alike in adoption of new policies to empower women entrepreneurs. Previous research on women entrepreneurship programmes offered by municipalities indicated that these initiatives failed to sufficiently develop and support women entrepreneurs (Naidoo and Hilton 2006, Molapo et al. 2008, Rogerson, 2004). The findings of these studies indicated specific shortcomings of municipal managers and program development teams in relation to skills development, business planning, adequacy of commitment and sufficiency of resources offered to women entrepreneurs who participate in these programs.

The findings of this study show, however, that transformation is happening and that this type of WEP is starting to have a positive entrepreneurial development effect on its participants.

The findings from the empirical part of this study give a clearer indication of the potential benefits for WEP participants and of the new skills and knowledge they may acquire. The programme did therefore contribute to development self-management skills for women entrepreneur seeking to grow their businesses. These findings confirm that a WEP is helpful for business start-up, for growing an existing enterprise, for job creation, and more broadly for enhancing management skills of women in business. The literature review confirms similarly that there is a strong case for women entrepreneurship training programmes. The particular interest of WEP reported here is that it took account of issues that are often overlooked: leadership, boosting entrepreneurial self-efficacy, and follow-up through ongoing mentorship and counselling. All of these are issue that help to consolidate self-management skills for business women.

This study has also shown that participants will benefit by gaining new managerial skills and knowledge relevant to running a business, increasing their confidence in their

entrepreneurial abilities, and improving their employability, their turnover, and their profit. It confirms that the WEP offered as a training intervention by eThekweni Municipality has been effective in training for potential start-up and in boosting self-management qualities of South African women entrepreneurs.

Recommendations to be drawn from the study are (i) that municipal managers involved in developing the WEP should improve its communication channels to reach more women entrepreneurs and encourage them to attend, (ii) that women's time, mobility and childcare constraints should also be taken into account in programme design and implementation, and (iii) that there should be a stronger focus on inspiring women in relation to qualities that help to ensure the sustainability of their businesses.

10 CONCLUSIONS

Women entrepreneurship programs offered by municipalities have seen transformation in the content of their instructional offerings, and in the application of pedagogy. WEPs currently seem to take a more action-orientated approach to skills development women entrepreneurs, boosting women's commitment to developing their businesses, enhancing women's business planning, and helping to improve women's access to resources. The EMWEP confirms the value of this approach in seeking to promote women's capacity for self-management in their business endeavours.

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BARRIERS TO YOUTH ENTREPRENEURSHIP: A SYSTEMIC APPROACH

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BARRIERS TO YOUTH ENTREPRENEURSHIP: A SYSTEMIC APPROACH

ABSTRACT

This work-in-progress is part of a larger Systemic Action Learning and Action Research (SALAR) project named SHAPE (Shifting Hope, Activating Potential Entrepreneurship). The research focused on barriers that student entrepreneurs faced in the process of becoming entrepreneurs during 2015. Findings from current SALAR suggest that an entire eco-system, ranging from municipalities, government agencies, corporations, communities, education institutions and other SME owners are all role players in contributing to South Africa's high youth employment rate, staggering at 62% in 2015. The SHAPE project aim was to apply a systemic approach, through deep action learning pedagogy, to youth participants and objectives included to assist them to become more entrepreneurial or even start a business. The systemic role-players set out to support the student entrepreneurs *en route* of giving momentum to their nascent business idea during the project included: a) government agencies b) private sector agencies c) communities d) small to medium sized business e) large business f) corporates g) educational institutions to achieve success. The purpose of investigating these

barriers was to find ways to overcome obstacles that participants experienced during the first cycle of the SALAR, and apply these solutions to the second cycle SALAR of SHAPE. Due to the applied and action-orientated nature of the project, the sample population included all program participants during 2015, which were 60 second year students. This research explored how their professional life changed since participating in the project. The research initially used an inductive approach, insofar as a questionnaire was based on the literature study, real life problems which resulted in new theory emerging from the data. These were matched up and identified within the first two years of implementing the SALAR. Subsequently the research adopted a deductive approach aimed at testing the theory, which was based on responses from the study population, data analysis, interpretations of findings, and conclusions from the findings. A seven-point Likert scale was used to capture the participants' responses with two scales types. A pilot test was conducted to determine reliability and validity of the tool.

The preliminary findings suggest that the majority of participants have graduated and progressed into employment or postgraduate studies. It was also found that business capital, either generating own capital or funds provided from government agencies, were perceived as the highest barrier. Further, the majority indicated that obtaining in-service training or mentorship from corporates or large business was a high barrier. Community aspects, for example community support, business facilities and infrastructure, as well as personal barriers, for example personality traits were also perceived as high barriers to youth entrepreneurship. They also felt that entrepreneurship education and training prepared them sufficiently for becoming an entrepreneur. Previous literature suggests that entrepreneurship training programs are not sufficient, but this research shows that SHAPE was beneficial for their growth in becoming an entrepreneur.

THE EFFECT OF CLOSER AND SOCIAL VALUATION OF ENTREPRENEURSHIP ON ENTREPRENEURIAL INTENTION

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THE EFFECT OF CLOSER AND SOCIAL VALUATION OF ENTREPRENEURSHIP ON ENTREPRENEURIAL INTENTION

ABSTRACT

The purpose of this paper was to establish whether closer and social valuation of entrepreneurship influences the formation of entrepreneurial intention among rural university students in South Africa. The paper also extends limited research that tested the predictive validity of the theory of planned behaviour. A cross-sectional quantitative survey was conducted using a sample of 613 final-year commerce students from two comprehensive

universities in the Eastern Cape and Limpopo and a university of technology in Limpopo. A structured self-administered questionnaire was used for data collection. Data was analysed by means of SPSS. The results indicate that the attitude towards becoming an entrepreneur, perceived behavioural control and subjective norms have a positive and statistically significant effect on entrepreneurial intention. The findings revealed that closer and social valuation of entrepreneurship had a positive and statistically significant relationship with entrepreneurial intention, the attitude towards becoming an entrepreneur, perceived behavioural control and subjective norms.

1. INTRODUCTION

In recent years entrepreneurial intention research has grown considerably in both developed and developing countries (Schlaegel & Koenig, 2014:291; Engle, Dimitriadi, Gavidia, Schlaegel, Delanoë, Alvarado, He, Buame & Wolff, 2010:37; Iakovleva, Kolvereid & Stephan, 2011:354). This growth is fuelled by the view that entrepreneurial behaviour is planned and intentional in nature (Krueger, Reilly & Carsrud, 2000:413), and entrepreneurial intentions precede the behaviour (Douglas, 2013:537) and form the foundation for the new venture creation process (Bird, 1988:444; Shook, Priem & McGee, 2003:380-381). Prior research indicates that a significant relationship exists between entrepreneurial intentions and entrepreneurial behaviour in terms of the actions taken to launch a new venture (Rauch & Hulsink, 2015:199; Kautonen, van Gelderen & Fink, 2015:666; Kautonen, van Gelderen & Tornikoski, 2013:703) and the actual launch of new ventures (Delanoë, 2013:393).

South Africa currently faces a high unemployment rate of about 26.5% (Statistics South Africa, 2017:9), which necessitates the promotion and various forms of support for entrepreneurship as an approach for stimulating job creation. On the other hand, the low total early stage entrepreneurial activity (TEA) rate of 6.9% and 10.1% of individuals who have entrepreneurial intentions raise a great concern (Global Entrepreneurship Research Association, 2016/17:93). As a result, knowledge of the determinants of entrepreneurial intention in South Africa is vital for the development of interventions that could stimulate entrepreneurial intention and subsequently entrepreneurial activity. This knowledge is even more crucial in rural areas which are characterised by lower entrepreneurial activity rates than their urban counterparts (Herrington, Kew & Kew, 2010:42).

Prior research indicates that entrepreneurship is social activity that is embedded in networks of interpersonal relationships (McKeever, Anderson & Jack, 2014:468; Stephan

& Uhlaner, 2010:1358). As a result, social and cultural factors which include shared values and norms of people in one's closer environment and the society in general can influence entrepreneurial activity (Kibler, Kautonen & Fink, 2014:1009; Light & Dana, 2013:618; Liñán, Nabi & Krueger, 2013:83). According to Kelley, Singer and Herrington (2016:15), perceptions of societal values related to entrepreneurship include the extent to which people consider entrepreneurship as a desirable career choice, the high status given to successful entrepreneurs and the media attention for entrepreneurship. Research findings indicate that the majority of South Africans view entrepreneurship as a desirable career choice (73.8%), successful entrepreneurs are given high status (76.1%) and there is high media attention for entrepreneurship (73.8) (Herrington & Kew, 2015/16:24).

The study advances the application of the theory of planned behaviour by assessing the impact of closer and social valuation of entrepreneurship on entrepreneurial intention and its antecedents in the South African context. This study is one of the few studies globally that examined the role of closer and social valuation of entrepreneurship in the formation of entrepreneurial intention (for example, Liñán, Urbano & Guerrero, 2011a:192-193; Liñán & Santos, 2007:449; Liñán, 2008:266; Liñán et al., 2013:81-82; Katono, Heintze & Byabashajja, 2010:15; Santos, Roomi & Liñán, 2016:53; Nieuwenhuizen, 2016:327). The study also extends limited research that tested the predictive validity of the theory of planned behaviour in South Africa (for example, Gird & Bagraim, 2008:718; Malebana, 2014a:138; Malebana & Swanepoel, 2015:104; Nieuwenhuizen, 2016:327; Rusteberg, 2013:77).

2. LITERATURE REVIEW

This study is based on the premise that the values attached to the entrepreneurial activity in an individual's closer environment and the society in general are vital in the development of entrepreneurial intention. These values can affect entrepreneurial intention directly or indirectly through the antecedents of entrepreneurial intention. Thus, the effect of these values is examined using the theory of planned behaviour, which is explained in the next sections.

2.1 Theory of planned behaviour

According to the theory of planned behaviour (TPB), intentions are the most important immediate determinants of individuals' behaviour (Ajzen, 2005:117; Ajzen, 2012:448). While many models have been developed in the past three decades, the TPB has become the most influential and popular entrepreneurial intention model (Entrialgo & Iglesias, 2016:1211; Schlaegel & Koenig, 2014:293; Krueger et al., 2000:413). The TPB offers a coherent theoretical framework which can be applied to predict a variety of behaviours while taking into account the effect of personal and social factors (Entrialgo & Iglesias, 2016:1211).

The TPB suggests that an individual's intention to start a business is determined by the attitude towards the behaviour, subjective norms and perceived behavioural control (Ajzen, 2005:117-118, Ajzen, 2012:448). Attitude towards the behaviour refers to the attractiveness of performing of a given behaviour, which depends on how an individual evaluates its outcomes. Attitudes towards the behaviour such as entrepreneurship are determined by the beliefs regarding the consequences associated with being an entrepreneur (Ajzen, 2005:118). Perceived behavioural control is the extent to which people believe they have the ability to perform a particular behaviour. Perceived behavioural control increases when individuals perceive that resources and opportunities for performing the behaviour are available. Subjective norms refer to the perceived social pressure to perform or not to perform the behaviour (Ajzen, 2005:118). Perceived social pressure to engage in entrepreneurship is more likely to increase when individuals believe that their most important social referents want them to do so and they are motivated to comply with their expectations (Ajzen, 2012:443). Similarly, Bandura (1986:235) states that social reactions can serve as incentives or deterrents of behaviour, as people tend to engage in activities that are approved by others and refrain from those that are disapproved.

The TPB has received an overwhelming support in terms of the three antecedents of the entrepreneurial intention in developed as well as developing countries (see Malebana, 2014a:132; Kautonen et al., 2015:666; Kibler, 2013:307; Kautonen et al., 2013:703; Sahinidis, Giovanis & Sdrolas, 2012:65; Schlaegel & Koenig, 2014:304; Engle et al., 2010:50; Katono et al., 2010:14; Mahmoud, 2015:95; Otuya, Kibas, Gichira & Martin, 2013:142; Tarek, 2017:79). On the contrary, some studies reported support for the TPB only with regard to the effects of the attitude towards entrepreneurship and perceived behavioural control on entrepreneurial intention, indicating the indirect effect of subjective norms on entrepreneurial intention via the attitude towards entrepreneurship and perceived behavioural control (Santos et al., 2016:59; Liñán & Chen, 2009:607; Do Paço,

Ferreira, Raposo, Rodrigues & Dinis, 2011:31; Liñán et al., 2011a:206-207; Liñán et al., 2013:89).

2.2 The effect of closer and social valuation on entrepreneurial intention

Social circumstances to which individuals are exposed play a crucial role in the formation of entrepreneurial intention (Klyver & Schøtt 2008:1). Socio-cultural practices, values and norms that prevail in one's environment can facilitate or hinder entrepreneurial activity and entrepreneurial intentions (Krueger, Liñán & Nabi 2013:704; Stephan & Uhlaner 2010:1355; Kibler et al., 2014:1009; Thornton, Ribeiro-Soriano & Urbano, 2011:108). Improved entrepreneurial activity rates are more likely to be achieved in countries where entrepreneurship has high normative legitimacy than where such legitimacy is low (Díez-Martín, Blanco-González & Prado-Román, 2016:1090). Normative legitimacy derives from the cultural environment in which societal norms, values and beliefs consider entrepreneurial activity as something that is commonplace, familiar, understandable and acceptable. According to Kibler et al. (2014:1009), social legitimacy of entrepreneurship increases the strength of the positive effects of the attitude on entrepreneurial intention and that of entrepreneurial intention on start-up behaviour.

Closer valuation and social valuation of entrepreneurship are attributes of social capital which reflect what close and weak ties and culture prescribe as appropriate conduct and behaviour (Santos et al., 2016:51-52; Liñán et al., 2013:81; Liñán et al., 2011a:192). Extant literature highlights the importance of social capital in promoting entrepreneurship throughout all the stages of the venture life-cycle (Davidsson & Honig, 2003:320; Stam, Arzlanian & Elfring, 2014:167; Anderson & Miller, 2003:28-29; Cruickshank & Rolland, 2006:73). However, Light and Dana (2013:618) suggest that the positive effects of social capital on entrepreneurship would not be possible without the societal culture that values entrepreneurship.

The formation of entrepreneurial intention is dependent on the value attached to the entrepreneurial activity by an individual's closer environment and the society in general, referred to as the closer valuation and social valuation of entrepreneurship. Closer valuation of entrepreneurship is defined as "the way individuals perceive the entrepreneurial activity to be valued in their closer environment" (Santos et al., 2016:51). Social valuation of entrepreneurship refers to shared values among individuals in a particular society regarding entrepreneurship, which determine to a large extent how an individual perceives entrepreneurship as a career (Liñán et al., 2011a:192; Liñán et al.,

2013:81). Shared values and norms create shared understandings and ways of doing things in a particular society which influence individuals' choices and practices (McKeever et al., 2014:468). Accordingly, individuals would form strong intentions to start their own businesses when those in their closer environment and the society in general value entrepreneurial activity positively. The formation of entrepreneurial intention can be impacted positively by cultural values in which entrepreneurship is considered as a desirable career choice, successful entrepreneurs are given high status and the media report favourably about successful businesses (Liñán, Santos & Fernández, 2011b:383). These cultural values serve as rewards for entrepreneurial activity. The social learning theory indicates that observed positive outcomes can motivate individuals to adopt similar rewarded activities (Bandura, 1986:283).

An environment in which entrepreneurship is valued, entrepreneurs are given high status and perceptions about social support for entrepreneurship increase (Santos et al., 2016:51; Liñán et al., 2013:95). Hence, perceived social status of entrepreneurs and perceived social support have a strong relationship with entrepreneurial intention (Abebe, 2012:13). Prior research has found significant relationships between closer and social valuation of entrepreneurship and the antecedents of entrepreneurial intention (Liñán et al., 2011a:205; Liñán et al., 2013:92; Santos et al., 2016:59) and perceived entrepreneurial skills (Liñán, 2008:266; Liñán et al., 2013:92). However, the effects of these valuations of entrepreneurship on the antecedents of entrepreneurial intention and entrepreneurial intention vary depending on the population being studied (for example, Liñán et al., 2011a:205 & 207; Liñán et al., 2013:92; Liñán, 2008:266; Katono et al., 2010:15; Santos et al., 2016:59; Liñán & Santos, 2007:450). Social valuation of entrepreneurship also influences entrepreneurial motivation (Malebana, 2014b:720-721). On the contrary, Nieuwenhuizen (2016:329) could not find a significant relationship between closer and social valuation of entrepreneurship and the attitude towards becoming an entrepreneur and perceived behavioural control among Polish and South African students.

3. PROBLEM INVESTIGATED

Despite most South Africans having perceptions that entrepreneurs have high status and entrepreneurship is a good career choice (Global Entrepreneurship Research Association, 2017:94), it is not known whether these values have a positive effect on entrepreneurial intention given the country's low percentage of entrepreneurial intention. As a result, there is paucity of research in South Africa on the effect of closer and social

valuation of entrepreneurship on entrepreneurial intention and its antecedents. This study examines, based on the theory of planned behaviour, the relationship between closer and social valuation of entrepreneurship and entrepreneurial intention and the antecedents of entrepreneurial intention.

4. RESEARCH OBJECTIVES

The objectives of this study were:

- To determine the relationship between the attitude towards becoming an entrepreneur, perceived behavioural control, subjective norms and entrepreneurial intention.
- To determine the relationship between closer and social valuation of entrepreneurship and the attitude towards becoming an entrepreneur, perceived behavioural control, subjective norms and entrepreneurial intention.

5. RESEARCH METHOD

5.1 Sample

A quantitative descriptive survey was conducted using a sample of 613 final year rural university students in the Eastern Cape and Limpopo in South Africa. The respondents were obtained using convenience and purposive sampling methods. This group of students was chosen because they were suitable for studying entrepreneurial intentions as they were facing important career decisions on completion of their studies of which entrepreneurship could be one of their options. Samples of final year university students are common in entrepreneurial intention research (Liñán et al., 2011a; Liñán & Chen, 2009:604; Krueger et al., 2000:421). While this sample was easily obtained and consisted of people who had to make decisions regarding their future careers upon completion of their studies, it is not a representative sample of all final year students.

5.2 Data collection

The instrument for data collection was designed based on structured and validated questionnaires that were used in previous studies on entrepreneurial intention (Malebana, 2012:401). All questions measuring entrepreneurial intention, the antecedents of entrepreneurial intention, closer and social valuation of entrepreneurship were adopted from Liñán (2008:270), Liñán and Chen (2009:612-613); Guerrero, Lavín and Álvarez (2009:8) and Liñán et al. (2011a:215). Entrepreneurial intention was the dependent

variable while the attitude towards becoming an entrepreneur, perceived behavioural control, subjective norms, and closer and social valuation of entrepreneurship were independent variables. Questions measuring the dependent and independent variables were based on a five-point Likert scale (1=Strongly disagree to 5=Strongly agree). Questions on demographic variables were based on a nominal scale, namely, gender and prior entrepreneurial exposure (whether the respondents currently own a business, or have tried to start a business before, or were from an entrepreneurial family background, or have friends who run a business, or know other people who are entrepreneurs, with 1=Yes and 0=No; 1=Male and 0=Female). These demographic questions were used as control variables. Prior research has shown that factors such as gender (Sahinidis et al., 2012:72), prior entrepreneurial experience (Gird & Bagraim, 2008:720; Kibler, 2013:308) and role models (Liñán et al., 2011b:383; Malebana, 2014a:138) are significantly related to entrepreneurial intention and its antecedents.

Prior to data collection the researchers were granted permission and ethical clearance to conduct the study at the selected universities. Questionnaires were distributed to students during their lectures. These students were informed about the purpose of the research and were asked to participate voluntarily in the study by signing consent forms and completing the questionnaire. Students completed the questionnaires in the presence of their lecturers and returned them afterwards.

5.3 Data analysis

The Statistical Package for the Social Sciences (SPSS) Version 24 was used to analyse the data. Descriptive statistics were used for the sample characteristics while hierarchical multiple regression analysis was used to test the relationships between the independent variables and the dependent variables. The focus of the analysis in this study was mainly concerned with the influence of closer and social valuation of entrepreneurship on entrepreneurial intention and its theoretical determinants. Prior to data analysis, reliability analysis and factor analysis were conducted to determine the reliability and validity of the measuring instrument.

The reliability of the measuring instrument was tested by means of Cronbach's alpha. The Cronbach's alpha values for the variables were 0.835 for perceived behavioural control (eight items), 0.855 for the attitude towards becoming an entrepreneur (five items), 0.786 for subjective norms (three items), 0.904 for entrepreneurial intention (seven items), 0.844 for closer valuation of entrepreneurship (three items) and 0.751 for social valuation of

entrepreneurship (two items). These values suggest that the questionnaire was a reliable instrument for use in this study (Field, 2013:712).

The construct validity of the data collection instrument was assessed by conducting exploratory factor analysis (Lehmann, 1988:412). Factors were extracted with the principal component analysis using the Varimax rotation method. Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for the variables was 0.936. Bartlett's Test of Sphericity was highly significant ($p < 0.001$). Principal component analysis extracted four factors with eigenvalues greater than 1 which accounted for 58.2% of the variance. These results indicate that the data was suitable for factor analysis.

Data were also tested for the independence of errors and multicollinearity. The values of the Durbin-Watson statistic ranged from 1.838 to 2.070, which were well within the acceptable range from 1 to 3, as suggested by Field (2013:311). Therefore, the data did not violate the assumption of independence of errors. Tolerance values ranged from 0.769 to 0.965, and since they were larger than 0.2, this means that multicollinearity was not a problem (Field, 2013:325). Variance inflation factors (VIF) were also highly satisfactory below 10, ranging from 1.036 to 1.301, suggesting that there was no strong relationship between predictors (Field, 2013:886).

6. RESULTS AND FINDINGS

6.1 Descriptive profile of the sample

Of the 613 respondents that participated in the study, 64.3% were female and 35.7% were male. About 52.4% and 18.6% of the respondents were from comprehensive universities in the Eastern Cape and Limpopo respectively, while 29% were from a university of technology in Limpopo. In terms of age, 79.3% of these respondents were between 18 and 24 years, 19.6% was between 25 and 34 years and just above one percent was over 35 years. With regard to prior exposure to entrepreneurship, 6.4% of the respondents were running their own businesses, 30.3% had tried to start a business before, 35.1% came from families with members who were running businesses, 30.1% had friends who were running businesses, while 63.4% knew other people who are entrepreneurs. In terms of the qualifications enrolled for, 19.4% of the respondents had three years exposure to entrepreneurship education, 36.1% had six months exposure to entrepreneurship education, and 44.5% had no exposure to entrepreneurship education. Less than 3% of the respondents were employed at the time of the survey while 24.5% of them were previously employed.

6.2 Relationship between entrepreneurial intention and its theoretical antecedents

The results of the base model (Table 1, Model 1) indicate that control variables explained 11.3% of the variance in entrepreneurial intention ($F(9,557) = 7.992; p < 0.001$). Control variables that include gender ($\beta = 0.121, p < 0.01$), having friends who are running businesses ($\beta = 0.123, p < 0.01$), knowing any other person who is an entrepreneur ($\beta = 0.123, p < 0.01$) and having tried to start a business before ($\beta = 0.164, p < 0.001$) were statistically significantly related to entrepreneurial intention.

The results of the base model (Table 1, Model 3) indicate that attitude towards becoming an entrepreneur, perceived behavioural control and subjective norms accounted for the variance of 49.8% in entrepreneurial intention ($F(3,609) = 201.54; p < 0.001$). Attitude towards becoming an entrepreneur ($\beta = 0.566, p < 0.001$) had the greatest effect on entrepreneurial intention followed by perceived behavioural control ($\beta = 0.195, p < 0.001$) while subjective norms had the lowest impact ($\beta = 0.096, p < 0.01$). These results suggest that attitude towards becoming an entrepreneur, perceived behavioural control and subjective norms have a positive and statistically significant relationship with entrepreneurial intention.

6.3 Relationship between closer and social valuation of entrepreneurship and entrepreneurial intention

A statistically significant relationship was found between closer ($\beta = 0.246, p < 0.001$) and social ($\beta = 0.128, p < 0.01$) valuation of entrepreneurship and entrepreneurial intention. Closer and social valuation of entrepreneurship (Table 1, Model 4) accounted for 10.4% of the variance in entrepreneurial intention ($F(2,610) = 35.590; p < 0.001$). The results indicate that the value attached to entrepreneurship in the closer environment has a greater effect on entrepreneurial intention than the value attached to entrepreneurship by the society in general. The findings suggest importance of the value attached to entrepreneurship by close ties and the societal culture that favours entrepreneurial activity in enhancing the formation of entrepreneurial intention.

Table 1: Regression models for the effect of the antecedents of entrepreneurial intention and closer and social valuation of entrepreneurship on entrepreneurial intention

	Dependent variable: Entrepreneurial intention			
	Model 1	Model 2	Model 3	Model 4
Control variables:				

Gender	0.121**	0.021		
Age	0.037	0.004		
Currently employed	-0.035	-0.034		
Has been employed before	-0.053	0.002		
Currently runs a business	0.040	0.008		
Family members run a business	-0.008	-0.028		
Friends run a business	0.123**	0.059		
Knows any other person who is an entrepreneur	0.123**	0.020		
Tried to start a business before	0.164***	0.061		
<i>Independent variables:</i>				
Attitude towards becoming an entrepreneur		0.539***	0.566***	
Perceived behavioural control		0.180***	0.195***	
Subjective norms		0.087**	0.096**	
Closer valuation of entrepreneurship				0.246**
Social valuation of entrepreneurship				0.128***
Multiple R	0.337	0.706	0.706	0.323
R Square (R ²)	0.113	0.498	0.498	0.104
Δ Adjusted R ²	0.099	0.487	0.496	0.102
Δ F-Ratio	7.922	45.751	201.537	35.590
Significance of F	0.000***	0.000***	0.000***	0.000***

* P < 0.05 ** P < 0.01 *** P < 0.001

6.4 Relationship between closer and social valuation of entrepreneurship and the antecedents of entrepreneurial intention

Regression analysis results for the base model (Table 2, Model 1) show that control variables had a statistically significant relationship with the attitude towards becoming an entrepreneur ($F(9,557) = 6.576$; $p < 0.001$). The model explained 9.6% of the variance in the attitude towards becoming an entrepreneur. Gender ($\beta = 0.134$, $p < 0.01$), knowing any other person who is an entrepreneur ($\beta = 0.158$, $p < 0.001$), and having tried to start a business before ($\beta = 0.125$, $p < 0.01$) were statistically significantly related to the attitude towards becoming an entrepreneur.

The findings (Table 2, Model 2) revealed that closer and social valuation of entrepreneurship have a statistically significant relationship with the attitude towards becoming an entrepreneur ($F(2,610) = 48.702$; $p < 0.001$). Closer and social valuation of entrepreneurship accounted for 13.8% of the variance in the attitude towards becoming an entrepreneur. The results indicate that valuation of entrepreneurship in the closer environment ($\beta = 0.314$, $p < 0.001$) had a greater effect on the attitude towards becoming an entrepreneur than social valuation of entrepreneurship ($\beta = 0.104$, $p < 0.05$). The findings suggest the value attached to entrepreneurship by close ties and the society in general can positively affect the attitude towards entrepreneurship.

Perceived behavioural control (Table 2, Model 3) was statistically significantly related to gender ($\beta = 0.132$, $p < 0.01$), age ($\beta = 0.103$, $p < 0.05$), prior employment experience ($\beta = -0.097$, $p < 0.05$), having family members who are running businesses ($\beta = 0.091$, $p < 0.05$), having friends who are running businesses ($\beta = 0.108$, $p < 0.05$) and having tried to start a business before ($\beta = 0.168$, $p < 0.001$). These control variables accounted for 13.5% of the variance in perceived behavioural control ($F(9,557) = 9.623$; $p < 0.001$). The results (Table 2, Model 4) indicate that a statistically significant relationship exists between perceived behavioural control and closer and social valuation of entrepreneurship ($F(2,610) = 31.491$; $p < 0.001$). The model explained 9.4% of the variance in perceived behavioural control. Closer valuation of entrepreneurship had a greater effect ($\beta = 0.222$, $p < 0.001$) on perceived behavioural control than social valuation of entrepreneurship ($\beta = 0.135$, $p < 0.01$). The findings indicate that closer and social valuation of entrepreneurship can play a vital role in enhancing perceived capability for starting a business.

The results (Table 2, Model 5) show that subjective norms had a statistically significant relationship with prior employment experience ($\beta = -0.141$, $p < 0.01$), having friends who are running businesses ($\beta = 0.110$, $p < 0.05$) and knowing any other person who is an entrepreneur ($\beta = 0.107$, $p < 0.05$). The model accounted for 6.2% of the variance in subjective norms ($F(9,557) = 4.123$; $p < 0.001$). These findings indicate that prior employment experience is negatively related to subjective norms while exposure to entrepreneurial role models that include friends and other entrepreneurs with the exception of entrepreneurs in the family is positively related to subjective norms.

Furthermore, closer and social valuation of entrepreneurship had a statistically significant relationship with subjective norms ($F(2,610) = 96.586$; $p < 0.001$). The results indicate that 24.1% of the variance in subjective norms was explained by closer and social

valuation of entrepreneurship. Closer valuation of entrepreneurship had a greater effect ($\beta = 0.386$, $p < 0.001$) on subjective norms than social valuation of entrepreneurship ($\beta = 0.178$, $p < 0.001$). The results suggest that individuals are more likely to perceive the social pressure to engage in the entrepreneurial activity when their close ties attach more value to it than when the society in general does so.

Table 2: Regression models for the effect of closer and social valuation of entrepreneurship on the antecedents of entrepreneurial intention

	Dependent variables					
	Attitude towards becoming an entrepreneur		Perceived behavioural control		Subjective norms	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Control variables:						
Gender	0.134**		0.132**		0.038	
Age	0.031		0.103*		-0.011	
Currently employed	-0.020		-0.001		0.034	
Has been employed before	-0.046		-0.097*		-0.141**	
Currently runs a business	0.039		0.051		0.034	
Family members run a business	-0.002		0.091*		0.037	
Friends run a business	0.065		0.108*		0.110	
Knows any other person who is an entrepreneur	0.158***		0.077		0.107	
Tried to start a business before	0.125**		0.168***		0.050	
<i>Independent variables:</i>						
Closer valuation of entrepreneurship		0.314***		0.222***		0.386***
Social valuation of entrepreneurship		0.104*		0.135**		0.178***
Multiple R	0.310	0.371	0.367	0.306	0.250	0.490
R Square (R ²)	0.096	0.138	0.135	0.094	0.062	0.241
Δ Adjusted R ²	0.081	0.135	0.121	0.091	0.047	0.238
Δ F-Ratio	6.576	48.702	9.623	31.491	4.123	96.586
Significance of F	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***

* P < 0.05 ** P < 0.01 *** P < 0.001

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The findings have implications for entrepreneurship education and policymakers. Entrepreneurship educators can increase the likelihood of engaging in entrepreneurial behaviour among graduates by stimulating entrepreneurial intention (Rauch & Hulsink, 2015:199) and perceived behavioural control (Kibler et al., 2014:1006; Kautonen et al., 2013:703; Kautonen et al., 2015:666). Instead of focusing only on developing entrepreneurial competencies and skills, entrepreneurship educators should also inculcate the value for entrepreneurship among students, as the valuation for entrepreneurship positively affects entrepreneurial intention and its antecedents. The use of case studies that celebrate successful entrepreneurship and portray a good image of entrepreneurs can help in changing perceptions regarding closer and social valuation of entrepreneurship. Policymakers could in addition to providing entrepreneurial support, use the media to highlight the importance of entrepreneurship. By so doing, perceptions about both closer and social valuation of entrepreneurship would be enhanced. By changing perceptions about the valuation of entrepreneurship, entrepreneurship educators and policymakers would stimulate entrepreneurial intention and ultimately entrepreneurial activity.

Limitations of this study include the use of convenience sampling and the fact that it was based on a cross-sectional survey. In addition, the study did not test the relationship between closer and social valuation of entrepreneurship and the actual act of starting a business. Future studies in this direction would contribute to a better understanding of how closer and social valuations of entrepreneurship impact the entrepreneurial behaviour in terms of new venture creation and growth. Although the results shed light with regard to the effect of closer and social valuation of entrepreneurship on entrepreneurial intention of final year rural university students, they may not be generalised to all final year students in South Africa owing to the use of convenience sampling.

8. CONCLUSIONS

Entrepreneurship as a social activity can be facilitated or hindered by the values held by people in both the close environment and the society in general. As a result, the purpose of this study was to determine whether closer and social valuation of entrepreneurship have a significant influence on entrepreneurial intention and the antecedents of entrepreneurial intention. The study also extended limited research that tested the predictive validity of the theory of planned behaviour in South Africa by using a sample of final year commerce students from two comprehensive universities in the Eastern Cape

and Limpopo and a university of technology in Limpopo. The findings revealed that closer and social valuation of entrepreneurship play a crucial role in the formation of entrepreneurial intention. Statistically significant relationships were found between closer and social valuation of entrepreneurship, entrepreneurial intention, attitude towards becoming an entrepreneur, perceived behavioural control, and subjective norms. In line with previous research, these findings show that the TPB is a valuable model for understanding how closer and social valuations of entrepreneurship shape the formation of entrepreneurial intentions.

The findings with regard to the relationship between closer and social valuation of entrepreneurship and the three antecedents of entrepreneurial intention concur with previous research (Santos et al., 2016:59). However, the effects of closer and social valuations of entrepreneurship seem to depend on the population being studied. For example, in Uganda, Katono et al. (2010:15) found that close valuation of entrepreneurship was significantly associated with entrepreneurial intention and all the three antecedents of entrepreneurial intention while social valuation had a significant relationship with subjective norms only. In Spain, Liñán et al. (2011a:205) report that closer valuation of entrepreneurship had a significant relationship with the attitude towards the behaviour and subjective norms while social valuation influenced subjective norms and perceived behavioural control. The results of British and Spanish samples by Liñán et al. (2013:92) indicate the positive effects of closer valuation of entrepreneurship on the attitude towards the behaviour and those of social valuation of entrepreneurship on subjective norms and perceived behavioural control.

This study makes a unique contribution to the body of knowledge in a South African context by finding significant positive effects of closer and social valuation of entrepreneurship on entrepreneurial intention and its three antecedents. These findings contradict those that were reported by Nieuwenhuizen (2016:329). Closer and social valuation of entrepreneurship accounted for the most variance in subjective norms, followed by attitude towards becoming an entrepreneur and entrepreneurial intention while the lowest variance was observed on perceived behavioural control. Closer valuation of entrepreneurship had a greater effect on entrepreneurial intention and its antecedents than social valuation of entrepreneurship. Since the majority of entrepreneurs depend on their close ties for support when starting their own businesses (Cruickshank & Rolland, 2006:73; Anderson & Miller, 2003:28-29; Davidsson & Honig, 2003:320), these results suggest that rural entrepreneurial activity in South Africa is more likely to remain low unless targeted interventions are designed and implemented to

improve closer valuation of the entrepreneurial activity. Closer valuation of entrepreneurship strengthens individuals' confidence about the availability of social support for starting a business (Liñán et al., 2013:95; Santos et al., 2016:51). Hence closer valuation of entrepreneurship exerted a stronger effect on subjective norms than on entrepreneurial intention and other antecedents. These findings suggest that individuals would perceive strong social pressure to start a business when entrepreneurship is positively valued in their close environment.

In view of the low entrepreneurial intentions in South Africa (Herrington & Kew, 2015/16:26; Global Entrepreneurship Research Association, 2017:93), these findings suggest that interventions that could help increase both closer and social valuation of entrepreneurship are necessary to remedy the situation. High closer and social valuation of entrepreneurship would legitimise entrepreneurial activity, which in turn would not only increase entrepreneurial intention but would improve TEA rates in South Africa. This is in line with the findings of previous research (Díez-Martín et al., 2016:1090; Kibler et al., 2014:1009).

The findings indicate that the attitude towards becoming an entrepreneur, perceived behavioural control and subjective norms have a statistically significant relationship with entrepreneurial intention. In line with previous research (Gird & Bagraim, 2008:718; Malebana, 2014a:138), the findings provide full support for the predictive ability of the TPB in the South African context. On the other hand, they contradict the results of Malebana and Swanepoel (2015:104) and Rusteberg (2013:76-77). In addition, the findings of this study contradict previous research that could not find a significant relationship between subjective norms and entrepreneurial intention and reported the indirect effects of subjective norms on entrepreneurial intention via the attitude towards the behaviour and perceived behavioural control (for example, Do Paço et al., 2011:31; Liñán et al., 2013:91; Liñán & Chen, 2009:607; Malebana & Swanepoel, 2015:104; Santos et al., 2016:58; Krueger et al., 2000:423; Liñán et al., 2011a:205-207; Liñán & Santos, 2007:450). In addition, the results support previous research that has found that entrepreneurial intention and its antecedents can be influenced by gender, role models (Liñán et al., 2011a; Liñán et al., 2011b; Liñán et al., 2013), and prior entrepreneurial experience (Gird & Bagraim, 2008:719; Kibler, 2013:308; Malebana, 2014a:138).

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**DOES FIELD OF STUDY INFLUENCE DESIRABILITY AND ATTITUDES TOWARDS
SELF-EMPLOYMENT? EVIDENCE FROM UNIVERSITY STUDENTS IN SOUTH
AFRICA**

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Topic: Entrepreneurship

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Abstract

Desirability and attitudes are conceptually related and both influence individual's behaviour towards self-employment. This study investigated the influence of the field of study on desirability and attitudes towards self-employment among university students in South Africa. The study adopted a quantitative research approach. Data were analysed from 485 questionnaires completed by students in four universities. Correlation analysis was used to test the relationship between desirability and attitudes towards self-employment among university students. Analysis of variance (ANOVA) was used to compare the students' desirability for self-employment and their attitudes towards self-employment in terms of field of study. Statistically significant correlation between desirability for self-employment and attitudes towards self-employment were found. Despite the majority of students indicating the desire for self-employment and positive attitudes towards self-employment, statistically significant differences were found in terms of the field of study. More studies should be conducted to investigate the reasons behind low self-employment rates among young people in South Africa.

1. INTRODUCTION

Research on self-employment indicates that there has been an increasing interest in self-employment intentions of university students around the world recently. This increasing interest in self-employment intentions of university students affirms that self-

employment is an alternative option to employment in the corporate world. From this, it is clear that the concept of intentions is deeply fundamental to decision-making (Fayolle & Liñàn, 2014:664). Evidence from previous studies indicates that there is a direct correlation between self-employment intentions and actual entrepreneurial activity (Turton & Herrington, 2012:33). However, it is worth mentioning that self-employment is a process and its intentions should be seen as the beginning of an evolving process (Fatoki, 2010:89). Bird (1988:442) defines self-employment intentions as a state of mind that directs attentions, experience and action towards a business concept, set the form and direction of organisations at their inception. According to Walter, Parboteeah and Walter (2013:176), self-employment intentions refer to the subjective possibility of an individual to engage in self-employment within a reasonable period of time. In the context of this study, self-employment intentions refer to university students' judgement in terms of their likelihood to engage in entrepreneurial activities in the foreseeable future. However, it is worth observing that intentions for self-employment on their own will not necessarily result in self-employment. This is so since it takes planning and hard-work to establish a new business (Thompson, 2009:671).

Researchers are constantly investigating the factors that influence self-employment intentions. Some of these factors include personal background, entrepreneurial motive and exposure (Viviers, Solomon & Venter, 2013:10), work environment (Lee, Wong, Foo & Leung, 2011:124), culture (Pruett, Shinnar, Toney, Llopis & Fox, 2009:573) and demographic variables (Farrington, Venter & Neethling, 2012:41). It is deemed necessary to continuously investigate further in order to understand the factors that influence self-employment intentions, particularly among university students. This is because university students form an important pool from which future entrepreneurs will emerge. This is so, since the university setting has the potential to directly influence the students' prospects of identifying and exploiting business opportunities and therefore their self-employment intentions (Walter et al., 2013:178). For this reason, it is imperative to understand university students' self-employment intentions as they offer a better understanding of business formation (Malebana, 2014:3). In South Africa, there is a persuasive need for business formation, particularly by young people as they form the bulk of those who are unemployed.

Even so, one cannot talk about self-employment intentions and not mention the Entrepreneurial Event Model (Shapero & Sokol, 1982) and the Theory of Planned Behaviour (TPB) (Ajzen, 1991). These two models are frequently cited in the literature of self-employment intentions. Amongst many studies, these include Krueger, Reilly and Carsrud, 2000:412, Kautonen, Van Gelderen and Tornikoski (2013:697) and Rauch and

Hulsink (2015:187). According to the entrepreneurial event model, an individual's intention to engage in self-employment is influenced by the perception of desirability, the propensity to act and the perception of feasibility (Krueger et al., 2000:412). The Theory of Planned Behaviour on the other hand argues that the attitude towards the act, social norms and perceived behavioural control influence self-employment intentions (Ajzen, 1991:179). Both these models have been tested and found to predict self-employment intentions (Kautonen, et al., 2013:697; Krueger, et al. 2000:412). Van Gelderen, Brand, Praag, Bodewes, Poutsman and Van Gils, (2006:2) tested the Theory of Planned Behaviour among undergraduate business administration students. In the end the two important factors that influence self-employment intentions among students emerged, namely (1) entrepreneurial alertness and (2) the importance attached to financial security. According to Schlaegel and Koenig (2014:293), "the two models provide well-articulated theoretical framework that demonstrate strong explanatory power". In line with the two models, this study sought to understand desirability and attitudes towards self-employment among university students in South Africa.

2. LITERATURE REVIEW

Attitudes and desirability have been found to be conceptually related and empirical evidence indicates that both influence individual's behaviour by the impact they have on intentions (Krueger, et al., 2000:412). In support of this assertion, Schlaegel and Koenig (2014:300) maintain that perceived desirability has a motivating effect that has the potential to transform a favourable attitude into entrepreneurial intention.

2.1 Attitude for self-employment

Research from previous studies has indicated that to a great extent, self-employment intentions are influenced by the attitude of the individual. For example, Schwarz, Wdowiak, Almer-Jarz and Breiteneker (2009:273) investigated the effects of attitudes and perceived environmental conditions on students' entrepreneurial intent. Their study found that attitude is an important predictor of self-employment intentions. This finding affirms the notion that individuals with a positive attitude towards autonomy and risk tend to show a higher willingness to be self-employed (Douglas, 1999:152). Similarly, Lütjhe and Franke (2003:135) investigated the entrepreneurial intent of engineering students at Massachusetts Institute of Technology (MIT) and found that attitude towards self-employment is associated with risk-taking propensity and internal locus of control. Risk-taking and locus of control are characteristics that distinguish entrepreneurs from non-entrepreneurs. Harris and Gibson (2008:574) found that business management students

had stronger entrepreneurial attitudes compared to those from other fields of study. Souitaris, Zerbinati, and Al-Laham (2007:1) found that entrepreneurship programmes raise the attitudes of students towards self-employment which ultimately leads to the overall intentions to be self-employed. Therefore, one could conclude that business formation is likely to improve due to a positive attitude and thus, self-employment intentions (Krueger et al., 2000:412). This is so since a positive attitude towards self-employment can positively affect personal attractiveness for one to start their own business (Schlaegel & Koenig, 2014:300).

Knowledge about university students' attitudes towards self-employment can assist to develop relevant entrepreneurship education programmes (Harris & Gibson, 2008:569). For this reason, students' positive attitudes towards self-employment is likely to have a positive outcome and influence their self-employment intentions (Davey, Plewa & Struwig, 2011:337). Izquierdo and Buelens (2008:8) found that after exposure to entrepreneurship, university students' attitudes towards entrepreneurship increased and thus resulted in higher intentions to start a business. The afore-mentioned findings affirm that with the right attitude, university students are likely to choose self-employment over employment in big companies. This is in line with the assertion that an entrepreneurially favourable attitude is normally related to entrepreneurial intention in a positive way (Kautonen et al., 2013:699).

Schwarz et al. (2009:277) developed an intention model for students in which general attitudes, attitudes towards self-employment and perceptions of the environmental conditions were the focal points. According to this model, students with a positive attitude towards change, are likely to opt for self-employment as opposed to employment in the corporate world because they may view it as an attractive alternative career. Similarly, a positive attitude towards money will result in students choosing self-employment because high income is viewed as a sign of achievement. Equally so, students with the willingness to compete and win are likely to choose self-employment while a favourable attitude towards entrepreneurship is likely to influence their intention towards self-employment. Furthermore, according to this model, unlike a hostile or restrictive environment, a perceived supportive environment will lead students to choose self-employment. The model was tested and the authors found that attitudes have proven to be central in predicting entrepreneurial aspirations of students.

2.2 Desirability for self-employment

Desirability defined as the degree to which an individual feels attracted towards a certain behaviour (Zampetakis, 2008:155), has also been identified as a factor that gives effect to self-employment intentions (Peterman & Kennedy, 2003). Lee et al. (2011:124) support this view when they state that among many factors, self-employment intentions are derived from perceptions of desirability. Frank, Korunka, Lueger and Mugler (2005:260) contend that the desire and the ability of a person are the two prerequisites for success in establishing a new business. Furthermore, the review of literature reveals compelling empirical evidence supporting this view. For example, Zampetakis (2008:155) found that desirability mediates the effect of proactivity and creativity on entrepreneurial intentions among students at three Greek universities. Similarly, in a study among MBA students taking an entrepreneurial course in Australia, China, India and Thailand, Fitzsimmons and Douglas (2011:432) found that desirability is significantly and positively related to self-employment intentions. Dabic, Daim, Bayraktaroglu, Novak and Basic (2012:316) investigated gender differences in perceived desirability for self-employment among university students and found that female students were less likely to start their own businesses compared to their male counterparts. Males showed more desirability than females. Reflecting on the afore-mentioned findings, it is evident that self-employment intentions of university students can be enhanced by promoting their desirability for self-employment (Krueger et al., 2000:412).

2.3 Self-employment intentions of university students in South Africa

Similar to other countries of the world, self-employment intentions of university students in South Africa have received much attention recently. Muofhe and Du Toit (2011:14) found that students who enrolled for entrepreneurship modules showed a positive attitude towards self-employment and had higher entrepreneurial self-efficacy and intention. In other words, they found a positive relationship between entrepreneurship education and intentions for self-employment. This finding confirms that attitudes can be changed hence a favourable environment that encourages entrepreneurship is essential (Florin, Karri & Rossiter, 2007:19). Furthermore, university students from South Africa were included in the third Global University Entrepreneurship Spirit Students Survey (GUESSS) (Viviers et al., 2013:18) whose purpose was to measure the entrepreneurial intentions and behaviour among students. The findings were encouraging since South African students showed comparatively more interest in starting their own businesses than their global counterparts. Malebana (2014:13) investigated the relationship between entrepreneurial self-efficacy and self-employment intentions among students in two rural provinces of South Africa and found that perceived self-

efficacy of students is significantly related to students' entrepreneurial intentions. From the afore-mentioned, it is clear that entrepreneurship education indeed emphasises the increasing antecedents of intentions and behaviour among students (Rauch & Hulsink, 2015:187). On the other hand, it is seen as very important towards the development of students' entrepreneurial attitudes, abilities and skills (Piperopoulos & Dimov, 2015:3).

3. PROBLEM STATEMENT

Despite all these findings, a disturbing reality is that South Africa's self-employment rates among the youth is at comparatively lower levels. For example, the percentage of the youth aged between 18 and 24 years who are actively engaged in early-stage entrepreneurial activity is significantly lower than the average for Africa, which is 2.4 times the South African figure (Herrington & Kew, 2016:5). In addition, the total early-stage entrepreneurial activity (TEA) in the 25 to 34 years age group is lower than the average for efficiency-driven economies, which stands at 18 percent. This is a troubling reality since self-employment and entrepreneurship are consistently identified as the solution to the high unemployment that the country is battling with for a considerable time. The latest indicators point to the view that unemployment rates among those aged 15 to 24 years (67.2%) and those aged 25 to 34 years (40.3%) are the highest in South Africa (Statistics South Africa, 2017:44). Furthermore, the 2015/16 Global Entrepreneurship Monitor report revealed that South Africa together with Morocco are the two countries in Africa where the early entrepreneurial activity (EEA) is the lowest (Kelley, Singer & Harrington, 2016:28). There seem to be no immediate solution to this challenge since in 2014 entrepreneurial intentions among South African citizens were significantly lower than the rest of the Sub-Saharan region as they dropped from 15.4% to 11.8% when compared to 2013 (Herrington, Kew & Kew, 2014:21).

This study aimed to investigate the desirability and attitudes towards self-employment among university students in terms of field of study. Previous studies have found that the field of study influences desirability and attitudes students towards self-employment. For example, in their study among university students in different regions of Europe Franco, Haase and Lautenschläger (2010:267) found that students who had enrolled for business administration manifested higher preference for self-employment than those from other disciplines. Therefore, the current study aimed to contribute to this knowledge by investigating the desirability and attitudes towards self-employment and compare them in terms of field of study in the South African context. South Africa must produce entrepreneurs who will create job opportunities for others urgently. Future entrepreneurs will come from the youth, particularly those who are educated. Based on the review of the

literature, the following hypotheses were formulated:

H1: There is a positive significant relationship between desirability and attitudes towards self-employment among university students in South Africa.

H2: There is a statistically significant difference among students of different fields of study in terms of desirability and attitudes towards self-employment.

4. METHODOLOGY

An extensive literature search was conducted to strengthen the empirical objective of the study. The study used a quantitative approach to collect data. This approach is viewed as systematic and objective because statistical analysis techniques are applied (Malhotra, 2010:171). In line with this approach, a self-administered questionnaire was used.

4.1 Sample and sampling techniques.

Due to financial constraints, a non-probability convenience method was used to collect data. Four universities in Gauteng and the Free State province were selected because they were accessible. Two comprehensive universities and two universities of technology were selected. Therefore, their proximity made the survey inexpensive. Second year, third year and postgraduate students from various fields of study at the selected universities were invited to participate in the survey. These group of students are deemed to be more mature and likely to make informed decisions regarding their career path compared to first year students. Consistent with previous similar studies (Bonn, Janeke & Kruger, 2009:52) the sample size was set at 800 students.

4.2 Measuring instrument and data collection

Items were drawn from previous similar studies (Yusof, et al., 2007:26-27; Keat et al., 2011:212) to develop the questionnaire for this study. The questionnaire was divided into two sections (Section A, demographic information; Section B, desirability and attitudes towards self-employment). Desirability comprised 10 items and attitudes comprised 3 items. Section B items were scored on a 6 point Likert type scale ranging from 1 (strongly disagree) to 6 (strongly agree). The questionnaire was piloted on 50 students to eliminate potential problems. The necessary arrangement were made to collect the data with minimal disruption of academic programmes. The researcher conducted the fieldwork. In order to ensure a high response rate, the questionnaires were administered face to face. Of the 800 questionnaires that were distributed, 524 were returned, constituting a response rate of 65.5 percent. Subsequent to extensive screening, 485

questionnaires were legible for the final analysis.

4.3 Data analysis

The Statistical Package for Social Sciences (IBM SPSS version 23) was used to analyse the data. Descriptive statistics using frequencies and percentages were applied to describe the demographic characteristics of the sample. Exploratory factor analysis was used to identify factors that may influence self-employment intentions of university students. ANOVA was used to compare students' perceptions in terms of field of study on desirability and attitude towards self-employment. Correlation analysis was used to establish whether there was any relationship between desirability for self-employment and attitudes towards self-employment among university students.

4.4 Reliability and validity

The reliability of the instrument was established by Cronbach alpha. Coefficient Cronbach alpha values were computed for the construct of desirability and attitudes towards self-employment respectively. Cronbach coefficient values for desirability and attitudes towards self-employment were 0.920 and 0.691 respectively, and were above the recommended value of 0.60 (Malhotra, 2010:319). Three experienced researchers were requested to examine the instrument to establish face and content validity. The purpose was to identify any errors and ascertain whether the questions were properly constructed. Convergent validity was established by applying factor analysis on the data. Items loaded well on the two constructs and there were no cross loadings. Table 1 provides the Cronbach's Alpha values and the item loadings.

Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity were used to check whether the data were suitable for factor analysis. Exploratory factor analysis was performed on the data in Sections B of the questionnaire using the Statistical Package for Social Sciences (SPSS). The KMO measure of sampling adequacy value of 0.936 indicated that the data were appropriate for analysis and the Bartlett's test of sphericity was significant at 0.000 thus, supporting the factorability of the correlation matrix. Two factors with an eigenvalue of more than one were extracted. The cumulative variance explained was 65.773%. These factors were labelled '*desirability*' and '*attitudes*' towards self-employment respectively. Principal component analysis with Direct Oblimin was conducted on the two constructs. One item loaded very low on one factor and was subsequently deleted. The final factor structure is reported in Table 1.

Table 1: Scale reliability

Research constructs		Descriptive statistics		Cronbach's test		Factor loading
		Mean	SD	Item-total	α value	
Perceived desirability	DES1	4.58	.031	.909	0.920	.929
	DES2			.907		.899
	DES3			.904		.894
	DES4			.906		.866
	DES5			.917		.839
	DES6			.909		.835
	DES7			.901		.829
	DES8			.949		.826
	DES9			.906		.825
	DES10			.909		.647
Attitudes	ATT1	3.30	.141	.677	.691	.803
	ATT2			.639		.777
	ATT3			.469		.773

DES1 to DES10=Desirability items; ATT1 to ATT3= Attitudes towards self-employment items

4.5 Ethical considerations

The study complied with a number of ethical standards of academic research. The researcher obtained permission from the four selected universities to conduct the survey. Arrangements were made to distribute the questionnaires without disturbing the students' academic programme. A covering letter explaining the purpose of the study accompanied the questionnaire. Participants were informed that participation was voluntary and they may withdraw at any time without repercussions. Furthermore, participants were assured of anonymity at all times and therefore they did not have to provide their names. They were informed that all responses will be analysed in an aggregate format.

5. RESULTS

Demographic profile of the sample

Of the total students who participated, the gender distribution comprised 171(38%) males and 282(62%) females respectively. In terms of race, 390(81%) were Black and 68(14%) were White. Mixed race and Indians were 18(4%) and 6(1%) respectively. This numbers reflect the South African population demographics (Statistics South Africa, 2016:7). The age distribution of the sample comprised 223(46%) who were between the ages of 22 and 24 years, and 172(36%) were aged between 19 and 21 years. This was followed by 79 (16%) who were aged 25 years and above and 9 (2%) who were 18 years. In terms of the field of study commerce students were in the majority, comprising 173(36%) participants followed by other degrees comprising 131(27%), education 72(15%), IT 68(14%), Law 23(5%) and engineering 10(2%) respectively.

Correlations

Pearson correlation analysis was used to test the relationship between desirability and attitudes towards self-employment among university students in South Africa. The correlation matrix in Table 2 revealed a statistically significant relationship between desirability and attitudes towards self-employment. This can be interpreted as suggesting that desirability and attitudes of university students towards self-employment has a direct relationship with their intention for self-employment. Therefore, the hypothesis that *‘there is a relationship between desirability and attitudes towards self-employment among university students in South Africa’* is accepted. This finding supports Krueger et al.’s (2000) assertion that attitudes and desirability are conceptually related and influence self-employment intentions. Similarly, Schlaegel and Koenig (2014:300) maintain that perceived desirability has a motivating effect that has the potential to transform a favourable attitude into entrepreneurial intention. Veciana, Aponte and Urbano (2005:176) found a positive relationship between attitudes and desirability since students showed a favourable attitude and desirability to create businesses.

Table 2: Correlation matrix

		Desirability for self-employment	Attitudes towards self-employment
Desirability	Pearson	1	.301**
Correlation for self-employment	Sig. (2-tailed)		.000
Attitudes towards	Pearson	.301**	1
Correlation Self-employment	Sig. (2tailed)	.000	

**Correlation is significant at the 0.01 level (2-tailed)

ANOVA – Desirability for self-employment (Field of study)

ANOVA was used to test whether there were any significant differences in terms of desirability for self-employment among university students in the different field of study. Table 3 provides field of study comparisons in terms of perceived desirability for self-employment among university students. Statistically significant differences at the $p < 0.05$ level were observed among students in the different fields of study in terms of desirability for self-employment. Therefore, the hypothesis that “*There is a statistically significant difference among students of different fields of study in terms of desirability and attitudes towards self-employment*” is accepted. Post hoc comparison using Tukey test showed that the mean score for Commerce ($\bar{x} = 4.9$) was significantly different from the mean score for Education ($\bar{x} = 3.89$) and IT ($\bar{x} = 4.29$). Furthermore, the mean score for Education ($\bar{x} = 3.89$) was significantly different from the mean score for other degrees ($\bar{x} = 4.65$) and the mean score for IT ($\bar{x} = 4.29$). Reflecting on the mean score for different fields of study, it is evident that Commerce students show higher desirability for self-employment than other fields of study. This finding supports Zampetakis (2008:155) who found that desirability mediates the effect of proactivity and creativity on entrepreneurial intentions among students at three Greek universities. Similarly, in a study among MBA students taking an entrepreneurial course in Australia, China, India and Thailand, Fitzsimmons and Douglas (2011:432) found that desirability is significantly and positively related to self-employment intentions. On the other hand, the mean score for education students show that the students have less desirability for self-employment than students from other fields of study.

Table 3: Field of study comparisons on perceived desirability for self-employment

	Sum of Squares	df	Mean	F	Sig.
Between Groups	31.737	6	5.290	7.706	.000
Within Groups	245.7	358	.686		
Total	277.489	364			

ANOVA- Attitudes towards self-employment (Field of study)

ANOVA was used to test whether there were any significant differences in terms of field of study regarding the attitudes of students towards self-employment. Table 4 provides the comparisons of the attitudes of students towards self-employment. Statistically significant differences at the $p < 0.05$ level were observed among different fields of study in terms of attitude towards self-employment. Therefore, the hypothesis that “*There is a statistically significant difference among students of different fields of study in terms of*

desirability and attitudes towards self-employment is accepted. Post hoc comparison using Tukey HSD test showed that the mean score for Commerce ($\bar{x}=3.40$) was significantly different from the mean score for Education ($\bar{x}=2.72$) and IT ($\bar{x}=2.91$). Furthermore, the mean score for Education ($\bar{x}=2.72$) was significantly different from the mean score for other degrees ($\bar{x}=3.45$). Based on the mean scores it appears that Education and IT students showed negative attitudes towards self-employment. In this study, commerce students showed higher attitudes towards self-employment. This finding is consistent with the finding of Harris and Gibson (2008:574) where they found that business management students have attitudes that are characteristic of entrepreneurs.

Table 4: Field of study comparisons on attitudes towards self-employment

	Sum of Squares	df	Mean	F	Sig
Between Groups	25.792	6	4.299	4.925	.000
Within Groups	312.45	358	.873		
Total	338.24	364			

6. MANAGERIAL IMPLICATIONS

The findings of this study confirmed that perceived desirability and attitudes for self-employment are positively correlated. In other words, to a great extent, self-employment intentions of university students depend on their desirability and positive attitudes towards self-employment. The conclusion drawn from this relationship is that, a positive attitude towards self-employment together with an unwavering desire to be self-employed will most likely lead to more businesses being established. In light of the shortage of employment opportunities among the youth of South Africa, this outcome is a positive development. The youth of South Africa need a positive attitude and desirability for self-employment more than ever. However, desirability and positive attitudes alone cannot result in business formation. It is through support from different stakeholders and an enabling environment that young people (university students) can be able to establish their own businesses, thus creating employment opportunities for others.

It is both encouraging and significant that university students in this study showed positive attitudes towards self-employment and have the desire to be self-employed someday.

This is so because when students show a positive attitude towards self-employment, they will see a positive outcome from such behaviour (Davey et al., 2011:337). Hopefully, this outcome will result in actual entrepreneurial activities among university students since in general, attitudes are likely to change over time (Harris & Gibson, 2008:569). In other words, the desire and a positive attitude towards self-employment among university students will be meaningless if they do not lead to actual self-employment. What is needed is a deep understanding of the factors that influence the desirability and attitudes of university students towards self-employment. Universities can play a major role in this regard by instilling an entrepreneurial culture among students since attitudes can be influenced in a variety of ways within a university setup (Florin et al., 2007:20). Among many things, entrepreneurship education is known to change the attitudes of students towards self-employment thereby enhancing the likelihood of them intending to start their own businesses.

Equally so, the findings in this study indicate that the students showed the desire to be self-employed someday. Therefore, the outcome of this study is a step in the right direction. Previous research (Peterman & Kennedy, 2003:131) indicated that the desire for self-employment can lead to behaviour associated with self-employment. Desirability for self-employment among university students is encouraging, particularly in the South African context. Self-employment among the youth can go a long way in creating the much needed jobs in South Africa. In spite of this, a disturbing finding of this study is that students from other fields of study show less desirability for self-employment and do not have the right attitude towards self-employment. In particular, students who have enrolled for education degrees. Future educators should manifest behaviour that is consistent with self-employment by establishing their own businesses. In other words, they should have the desire and a positive attitude towards self-employment. In this way, they will transfer this to their learners when they start their teaching career. It is therefore imperative that self-employment is practiced by all students irrespective of the field of study they enrolled for.

7. LIMITATIONS AND IMPLICATIONS FOR FUTURE RESEARCH

One common feature of most studies is limitations. This study is no exception. First, due to financial constraints, only students from four accessible universities were surveyed. Therefore, generalisation of these findings should be approached with caution as the views of students do not necessarily represent those of the total student population

around the country. Similar studies should be conducted to include students from other institutions or countries. Second, desirability and attitudes towards self-employment are not the only factors influencing self-employment intentions. In future, other factors that did not form part of this study can be investigated. Likewise, desirability and attitudes towards self-employment may be influenced by other factors. Therefore, it would be essential to investigate the relationship between these two factors and other factors.

8. RECOMMENDATIONS

Practical steps should be taken to address low rates of self-employment among the youth. These may include funding for businesses started by young people, establishment of business incubators at universities to assist young aspiring entrepreneurs and introducing self-employment modules across different fields of study. Particular attention should be given to students who have enrolled for education degrees. These are future educators. Universities should consider changing the way they deliver entrepreneurship modules. Previous studies have indicated that activity-based learning has the potential to influence students' attitudes. When educators themselves are passionate about self-employment, they will transfer this to their learners.

9. CONCLUSION

South Africa is one of the most unequal societies in the world. One way of bridging the ever-widening gap between those who have and those who don't, is the establishment of sustainable businesses. This has the potential to create the much needed jobs. The youth can play a significant role in this regard. With desirability and positive attitudes, this can be achieved. Different stakeholders including government, businesses and universities can come together and instil an entrepreneurial culture among the students.

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ENVIRONMENTAL RISKS AND LENDING PROCESSES IN NAMIBIAN BANKS

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ENVIRONMENTAL RISKS AND LENDING PROCESSES IN NAMIBIAN BANKS

ABSTRACT

Considerable work has been done considering the environmental impact of projects that banks finance. Most projects are associated with a certain degree of environmental impact and this translates into risk for the bank via the potential decrease in the borrower's repayment ability, a weakening in the value of the security and potential risks to the bank's reputation. This study investigates how Namibian banks incorporate these environmental risks into their lending processes within the context of corporate social responsibility. A qualitative research method through interviews was used and the findings suggest that incorporating environmental risks remains a huge challenge for Namibian banks due to the lack of in-house capacity to conduct such a process. This risk is further exacerbated due to the fact that most bank staff dealing directly (or indirectly) with lending processes have no formal training on environmental risk

management when projects are financed. This concern is driven by an implicit drive by management that questions the ultimate benefit of incorporating environmental risk management in lending processes. There is therefore a need for banks in Namibia to consider developing integrated reporting systems that consider an enterprise-wide risk management framework to incorporate environmental risks.

1. INTRODUCTION

For many years environmental risks were hardly regarded as relevant to the financial sector in general. Caldecott and McDaniels (2014) noted that only in the last few decades has this changed and banks have recognised that the industry is increasingly affecting, and is affected by, environmental issues. Environmental risk and the impact it can have has been defined in various ways, mostly dependent on the area and scope to which the concept is being applied. For example, Freeman and Kunreuther (2002) define it as specific hazard that display scientific uncertainty, irreversibility, latency of effect, and a high likelihood of a catastrophic effects. Mazahrih (2011) notes that many resource-based entities were pressured by their governments in the early 1980s to reform attitudes towards environmental issues. Banks were included due to the acknowledgement by stakeholders that they are inseparably linked by their lending and investment practices to commercial activities that degrade the environment (Jeucken and Bouma, 1999).

Banks in Namibia face challenges associated with the country's economy. Mining and agriculture industries, for instance, cause significant environmental degradation driven by in particular the structure of the Namibian economy becoming more diversified in recent years (Sherbourne, 2010). In 2004, for instance, the Ministry of Environment and Tourism (MET, 2004) cautioned that water extraction, mining and agriculture industries were notorious for causing significant environmental degradation. As a result, the Namibian government promulgated the Environmental Management Act (EMA) (No 7 of 2007) to provide a process of assessment and control for activities which may have significant effects on the environment and to cater for incidental matters. Given that Namibian banks are traditionally the largest financiers of projects (Jeucken and Bouma, 2001), it is important that they consider environmental risks when taking lending decisions into account. Failure to do so can have devastating effects on the Namibian economy, notwithstanding the reputational effects on banks as financiers of loans towards these projects. For this reason, it is important to gain an understanding of how Namibian banks incorporate such environmental risks into their lending decisions so as to ensure that the lending process is governed by ethical business practices. This paper therefore

investigates the environmental risk management approaches adopted in the lending processes of Namibian banks.

2. LITERATURE REVIEW

Since the early 1960s, environmental issues as a topic has gained more attention and has resulted in pressure being placed on government and the private sector at large to mobilise these risks (Banhalmi-Zakar, 2011; Mazahrih, 2011). In response to this pressure, governments have initiated environmental regulations and the formalisation of subjective approval of projects that have the potential to negatively impact the environment. The private sector in general has responded by adopting environmental management tools such as the Environmental Impact Assessments (EIAs) which allow them to fulfil environmental regulations. Banhalmi-Zakar (2011) has noted that several companies have decided to move beyond mere compliance to voluntarily develop additional tools that allow them to manage their activities to a greater extent.

For banks specifically, there are no legal obligations to implement environmental management measures because they are not considered to have a substantial impact on the environment (Jeucken, 2001). In recent times, however, environmental management practices have become part of the Corporate Social Responsibility (CSR) practices of banks (Banhalmi-Zakar, 2011). The following sections deal with the literature on environmental risks.

2.1. Defining Corporate Social Responsibility

CSR is based on the idea that both public policy and private-owned institutions should take responsibility for social issues (Chahoud, 2007). While there is no universal definition of CSR, a commonly applied definition is a commitment to improve societal well-being through discretionary business practices and contributions of corporate resources (Du, et al., 2010; Kotler and Lee, 2005; Mackey, et al., 2007; McWilliams and Siegel, 2000). Coetzee and Crous (2016) further note that CSR refers to how ethically companies are managed when creating wealth, not only for the company itself but also for all stakeholders. As such, companies are required to report on the quality of their management towards both people and operating processes. Thus, beyond making profits, companies' responsibility is more pervasive and includes the impact on people and the planet.

Reporting the environmental impact that a company has, or may have, has become increasingly important in recent times. This not only demonstrates that companies are actively involved in environmental management (Banhalmi-Zakar, 2011) but also serves to avoid possible environment-related fines (Saha and Darnton, 2005), and, reflects how it aligns its activities to overall strategic and risk management practices (Coetzee and Crous, 2016). Disclosure, therefore, provides an important signal to the market regarding the ethical nature of business conduct that companies pursue.

2.2. CSR and banks

Hoang and Thanh (2014) identify two sets of drivers that promote social responsibility within banks. First, national drivers relate to those within the country and typically include cultural tradition, political reform, governance gaps, socio-economic priorities, crisis management, and market access. Second, international (or external) drivers have a global origin and relate to international standards, investment incentives, stakeholder activism and supply chains.

The former suggests that deep-rooted indigenous cultural traditions of philanthropy, business ethics and community embeddedness are inherent to CSR. Further to this, the socio-political environment within which a company operates has a large bearing on CSR since it drives business behaviour in the direction of incorporating social and ethical issues. Political reform, therefore, is a driving force that influences CSR activities. This further implies that CSR is directly shaped by the socio-economic priorities in which companies operate and the development priorities this creates where it is considered a mechanism to 'plug' the governance gaps left by weak, corrupt or under-resourced governments that have failed to address social ills properly (Hoang and Thanh, 2014). As such, governmental and non-governmental organisations (NGOs), as well as social advocacy groups have a significant impact on the CSR activities of companies, and in particular banks (Matten and Moon, 2008; Campbell, 2007; Edwards, 2004; Burke et al., 1986). Labuschagne et al. (2007) cautioned that the concept of sustainability at the operational level is more complicated especially in developing countries, since social criteria often do not receive enough attention to be incorporated in CSR reporting. Hoang and Thanh, (2014: 10) also emphasise that leaders' educational qualifications and family background affect CSR decisions since a leader's attitudes towards social and environmental issues can affect the culture and philosophy of an organisation. Thus, it can be emphasised that management's attitude towards engaging CSR is one of the foremost determinants of successful implementation.

From an international point of view, standardisation is a mechanism to self-regulate CSR codes, guidelines and standards and is a key driver for companies wishing to operate globally (Hoang and Thanh, 2014). As such, Qi Lai (2006) suggests that global competition, laws and regulations are key driving forces that ensure that CSR is internationally standardised.

2.3. The history of sustainable development in the banking industry

According to Coulson and Monks (1999), the recognition of sustainability as an agenda item for banks started in the 1980s with the establishment of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) of 1980 in the US. This act compelled owners of contaminated/polluted sites to be responsible for the cleaning up of sites. Fenchel et al. (2003) indicated that despite the inclusion of an exemption clause of lenders from ownership status, some banks in the US were forced to enter into court procedures and recorded financial losses as a result of their investments. These financial implications made banks realise that their clients' environmental risks affect their financial success and forced them to be more aware of the environmental impact of financed projects.

During the 1990s, the role of banks in stimulating sustainable development was recognised and increased substantially. With the hosting of the Rio Earth Summit in 1992, several key issues transpired that included the development of guiding principles, statements, standards and international programmes related to sustainable development. The main initiatives include the UN Environment Programme Financial Institutions Initiative on the Environment (UNEP FI), the EPI-Finance 2000, Wolfsburg Principles, London Principles, and the Equator Principles:

- *The United Nations Environment Programme Financial Institutions Initiative on the Environment (UNEP FI)*

The role of financial institutions in stimulating sustainable development was recognised in the early 1990s (Mazahrih, 2011). In 1992 at the Rio Earth Summit the UNEP FI was established. Bouma et al. (2001) noted that the UNEP FI was a partnership between the UNEP and the private financial sector to improve and promote relationships between the environment, sustainability and financial performance focuses on stimulating clean and renewable energy investment by financial institutions (Bai et al., 2013). This initiative does

however exclude other environmental issues, such as climate change, biodiversity loss, and hazardous emissions.

- *The London Principles (LPs)*

The LPs were established in 2002 as a response to the outcomes of the Johannesburg Earth Summit 2000. The principles encourage reflection on the cost of environmental and social risks in the pricing of financial and risk management products. The principles also exercise equity ownership to promote efficient and sustainable asset use and risk management, and provide guidelines for access to finance for the development of environmentally beneficial technologies (Mazahrih, 2011). Unlike the UNEP FI, the LPs ignore management tasks related to training and auditing (Mazahrih, 2011).

- *The Equator Principles (EPs)*

The Rio +20 conference in 2012 reaffirmed political commitment to further environmental development through steps for a better future for all generations coupled with voluntary commitments through declarations by financial institutions (Morimoto, 2012). In a time of growing need to emphasise social and environmental issues in developing countries, a group of leading private financial institutions established common environmental and social standards for project financing called the Equator Principles (EPs). The EPs were essentially a risk management framework to determine, assess and manage environmental and social risk in projects and was intended to provide a minimum standard for due diligence to support responsible risk decision-making (Scholtens and Dam, 2007).

2.4. The relationship between banks and the environment

Several studies indicate a positive correlation between environmental performance and financial performance (Bai et al., 2013; Amalric, 2005) as environmental risks can lead to economic and reputational losses for banks if clients do not complete projects due to environmental concerns, or, have been punished for violating environmental regulations. As a result, banks may be exposed to increasing non-performing loans and face increasing levels of reputational risk. Furthermore, increased environmental risk may impact on project returns, when, for example, the life expectancy of a project is shortened by unforeseen ecological processes and social risks in the form of local resistance (Amalric, 2005). Therefore, environmental and social risks pose potentially significant financial risks to lenders, especially given that project finance arrangements specify that lenders have little recourse beyond the revenues generated by the project itself as the collateral in these arrangements is lower than in normal credit transactions and credit risks are automatically

higher. There is therefore a direct link between the social and environmental risks of the project and the credit risks borne by banks (Lozinski, 2013) because they are regarded as being facilitators of activities which may have a negative impact on the environment (Thompson and Cowton, 2004).

It is therefore important that banks adopt sound environmental management principles as it will result in significant benefits, their clients and stakeholders (Kamijyo, 2004). These benefits include improved cost saving, lower risks, greater environmental stewardship and increased operating profit (Heim and Zenklusen, 2005). From a lending point of view, Jeucken (2001:64) theorised that “customer risks are also bank risks and can affect their [banks] own continuity”, and, in the same vein, “customer opportunities are also opportunities for banks”. This implies that the responsibility of the bank is to assess the customer’s risks (predominantly from a credit risk perspective) which, in turn, have the potential to manifest itself in the environment (Capella, 2002).

Generally speaking, risks can be classified in several ways for banks. *Direct risk* refers to the responsibility of banks to, for example, clean up a site that may be contaminated by a company whose loan was financed but later went bankrupt (Thompson, 1998a). Banks may therefore have direct risk from potential liability as a result of the borrower’s conduct and activities. Conversely, *indirect risk* arises when the borrower is unable to repay a loan as a result of spending on managing and rectifying the environmental impact of a project through, for example, environmental penalties or failure to meet environmental standards and regulations. As a result of these direct and indirect risks, banks can be associated with a commensurate level of *reputational risk*, especially when potentially unpredictable large-scale projects face problems associated with credibility, accountability and transparency. Failure to consider the impact of these issues can damage the reputation of a bank and in turn result in negative publicity through adverse media exposures, customer boycotts and having its existing clients leave (Thomson, 1998a; Jeucken, 2001).

How do banks therefore manage environmental risks? Barannik (2001) found that that environmental audits and assessments were the key risk management tools used by banks in the US. In addition, environmental insurance was also identified as an important retroactive risk management tool that is particularly important for large-scale projects realised in developing countries. Some banks use environmental checklists or risk rating processes when making lending decisions and EIAs were also used especially in project financing practices (Tarna, 2001). From this, it is clear that environmental risks should be

part and parcel of the functional and operational policy of banks with regards to lending practices.

3. PROBLEM INVESTIGATED

The literature on environmental risk management in the banking industry has been conducted in predominantly developed economies (Bai, Faure and Liu, 2013; Morimoto, 2012; Banhalmi-Zakar, 2011; Biswas, 2011; Mazahrih, 2011; Thomas, 2008; Delibasic, 2008; Scholtens, and Dam, 2007; Hansen, 2006; Wright, and Rwabizambuga, 2006; Amalric 2005; Hoijtink, 2005; Capella, 2002; Jeucken, 2001; Coulson and Monks, 1999). However, there is no literature documenting how banks in Namibia incorporate environmental risk management frameworks into their lending processes, particularly in light of the implementation of the Environmental Management Act No 7 of 2007 requiring environmental clearance certifications of certain projects as part of their corporate social responsibility. The lack of such research makes it difficult to comprehend approaches by Namibian banks to mainstream environmental risks into their broader risks management frameworks as well as the contribution of the banking industry at large towards sound environmental management. This paper attempts to address this gap. This is further supported by the fact that only 11% of the 84 banks that have officially adopted the risk management framework of the Equator Principles are from Africa, of which the greatest percentage is from South African banks (Equator Principles Association, 2016). There is clearly a case to document Namibia's case regarding the implementation of environmental risk into lending practices.

4. RESEARCH OBJECTIVES

The primary objective of this study is to investigate the environmental risk management approaches adopted in the lending processes of Namibian banks. In addition to this, the study has several secondary objectives, namely, to assess the 1) environment risk management processes pursued by banks in Namibia and to 2) internal capacity development measures driven by environmental risk management by banks in Namibia

5. RESEARCH METHODS

5.1. Research and sampling design

This study used a qualitative research design method in order to facilitate an in-depth and detailed investigation that is “information-rich” (Reedy and Ormrod, 2010:136). As such, the sample was selected using a non-probability technique and specifically judgmental sampling. Although Namibia has nine licensed commercial banks, several have no commercial activities pertaining to project financing at the time when the study was undertaken, hence their exclusion. Therefore, out the seven banks classified for the purpose of this study, a senior executive of five agreed to be interviewed. These ‘key informants’ were used as they were in charge of the environment-related credit risk management decisions inherent of project financing in their respective bank. This sampling design is supported by similar studies (and also in the banking context) as it provides a manner to ensure that information-rich data is acquired from executives with decision-making authority (see for example Mitter et al. 2015, Rowley 2012 and Kumar et al. 1993). The banks were Bank Windhoek, Nedbank Namibia, SME Bank Limited, Development Bank of Namibia and Agribank of Namibia. In no particular order and in the interests of confidentiality, these banks are referred to as Bank A, B, C, D and E.

5.2. Data collection methods

Interviews were conducted with the senior executive in each banks’ respective department that deals with lending and risk management pertaining specifically to environment-related projects. Open-ended questions were used to ascertain each bank’s respective approach to environmental risks in their lending processes. Interviews generally lasted between 45 and 60 minutes and were recorded using detailed notes. The interviews were organised through a letter of request for each bank to allocate a senior staff member and prior informed consent was sought at each bank.

Each interview made use of a pre-determined interview plan. Upon answering a question, further in-depth information was sought through continuous probing. In addition to investigating the general approach of Namibian banks to incorporating environmental risks in lending processes, further attempts were made to probe operative aspects of project lending and bank organisational structures. This, it can be argued, provides crucial information to understand the internal processes of banks in terms of why it is perceived that the environmental impact of projects were or were not a concern and how they were dealt with. To further facilitate this, each interview incorporated the specific context for the respective bank due to prior consultation of Annual Reports and all other publicly available information.

6. RESULTS AND FINDINGS

The findings are presented in four different sections, namely, 1) the general approaches to environment risk management, 2) the perceived drivers for incorporating environmental risks into lending processes, 3) the capacity development measures on environmental risk management and 4) the challenges faced by banks to incorporate environmental risks.

6.1. General approaches to environmental risk management by banks

6.1.1. *Internal environmental policies*

The participants from the banks were asked to provide an indication of environmental policy measures that they have in place. Four out of the five participants indicated that their banks have environmental policy statements in place. When asked about what has led the bank to have such a policy statement in place, the participant from Bank D noted “given our position as one of Namibia’s leading lenders and the commitment to CSR, our bank has a duty to manage and influence the way in which our national resources are being used and as such we are dedicated to consider environmental issues in all aspects of our business or ventures, including assessing risks associated with certain projects.” The participant from Bank A said that “the bank is primarily driven to include such a policy statement in its operation since the Constitution of Namibia is the first constitution to include a provision for environmental protection and hence the realisation that protection of the environment is paramount to the sustainability of our resources.”

Two of the five banks were able to reveal through the interviews or their annual report the existence of such policies. The fact that two of the banks interviewed could not provide the underlying reasons for having initiated such policies leaves a grey area to understand the key drivers enabling banks to pursue such an initiative. The analysis of the key drivers for banks to have an environmental policy in place points to those external factors such as conditions imposed by lenders and national legislations are the influencing instruments for such action.

6.1.2. *Environmental reporting by the banks*

Two banks indicated that they produce sustainability/environmental reports based on their operations. Bank B indicated that its report is actually a corporate social investment report and have supported environmental related measures through association fees and

supporting non-governmental organisations promoting conservation of flagship species such as the rhino. The participant further highlighted that the bank sees this as a major investment to ensure that the survival of the rhino is secured for the foreseeable future. The participant from Bank D highlighted that their bank does not produce a sustainability report, however further interrogation of the Annual Report of 2014 indicated that the bank had indeed reported on environmental management measures.

This raises a concern. Although some banks understand the need to report to the public what they are doing in terms of addressing environmental issues within their operations as part of their CSR there appears to be a lack of awareness (or engagement) of what is written in Annual Reports with respect environmental risks. This may suggest poor internal communication on the matter as there are no concerted efforts and plans by some banks to create awareness on CSR initiatives. This is not surprising since Branco and Rodrigues (2006) indicated that CSR reporting by banks tend to overlook internal stakeholders including staff and concentrate on external stakeholders when disclosing CSR practices in order to legitimise their behaviour.

6.1.3. Environmental risk management strategies for banks

Three banks noted that they do consider environmental risks in their lending decisions. The participant from Bank D added that “the bank takes an operational approach to sustainability and the environment. If projects are judged likely to have an impact, the bank will require an EIA, as well as certainty that the project adheres to all legislation and regulatory mechanisms.” The participant further noted that “the project initiator or proponent is responsible for ensuring that the EIA is done whereas the bank takes ownership of categorising such projects based on the magnitude of the risks associated with the project.”

The participant from Bank D further indicated that the bank had initiated the development of an internal Environmental Policy which was supposed to be unveiled in 2015 and intended to be focused on five areas, namely sustainable use of non-renewable resources, development and preservation of renewable resources, development of communal resources, environmental health, and climate variability. The participant further highlighted that although there was currently no minimum financial threshold, the bank is in the process of developing a policy that would serve as a guiding tool for threshold consideration when undertaking risk assessments.

The participant from Bank B indicated that the bank has adopted the International Finance Corporation (IFC) standards for identification and managing environmental and social risks. However, it was indicated that although it has been adopted, these standards have not been implemented or applied to any specific project since the bank has no technical capacity internally to implement it and no training has ever been implemented to that effect. The participant from Bank E specified that the bank had a checklist to establish the foreseen environmental impact, regulation requirements and risks associated with projects to be financed. However, the checklist had been cancelled by management because its value to the risk assessment processes was unclear. The participant further indicated that the bank requires all large-scale projects to have an EIA in place before they are financed. The bank, however, was unable to indicate what constitutes a large-scale project in this regard.

The participant from Bank A noted that the bank considers environmental risks in its lending processes and has on two occasions refused to finance projects because due diligence processes (such as EIAs) had not been followed. Bank A had also in the past sourced external expertise on environmental risks assessments on a specific project in order to make an informed decision based on technical information. It was further indicated that EIA reports were often available at the time when project proponents sought financing. The participant from Bank E indicated that at this stage, the bank has not been able to implement environmental risk management measures into its lending processes since the bank was only recently issued with its operational licence and as such it has been preoccupied with setting up its operational systems.

When asked how successful each respective bank has had been in incorporating environmental risks into lending process, all participants indicated that they have performed “fairly”. The participant from Bank B noted that more could be done by their bank to improve the incorporation of environmental risks into lending process in light of the Environmental Management Act no 7 of 2007 since it has a significant bearing on how banks finance projects. The participant from Bank A is of the view that their bank has done fairly in this respect considering that they had established fund providing grants to environmental non-governmental organisations (NGOs) and research institutions to implement environment related projects in accordance with national strategies related to biodiversity, land management and climate change.

Most banks indicated that they consider environmental risks when making lending decisions. These findings are reinforced by the tools used by banks in their lending processes. Notable instruments highlighted at least by two banks, are the International

Financing Corporation (IFC) guidelines and standards and the EIA as required in the EMA of 2007. All the banks indicated that they incorporate environmental risks into their lending decisions in some form. Some have even categorised these risks, but judging from the feedback, this process appears to be disorganised. The discrepancies in the approach and methodology of categorising risks and environmental risks exposure survey puts into question the effectiveness of the exercise within these banks.

6.2. Perceived drivers for incorporating environmental risks into lending processes

Four out five participants pointed out that risk management is the primary driver for banks to incorporate environmental risks into lending decisions. National legislation and regulations, conditions imposed by lenders and organisational values were observed to be the second most important driver. Further important drivers include stakeholder/public demands, company/business plans and objectives, and personnel. International commitments, cultural/traditional reasons, company requirements, and potential environmental events and issues were the least considered to be important drivers to incorporate environmental risks into lending processes.

The participant from Bank A noted that their bank's "environmental risk is one of several risks that any bank must consider as a priority since major environmental issues linked to a project financed by the bank can enhance the level of risk that they become the most prominent credit risk and as such risk management remains the key issue driving the incorporation of environmental risk in lending processes." The participant from Bank D added that the driver for incorporating environmental risks has also been largely driven by conditions imposed by the lenders, stressing that, for example, "the bank has requested a loan from a Africa Development Bank to finance its activities and part of the loan requirements is the need to implement the Integrated Safeguards System requiring the bank to have a formalised environmental and social department to oversee environmental risk management processes in the bank."

The participant from Bank D revealed that the bank has realised that the EMA no 7 of 2007 has impacted on lending processes: "although the bank has been cautious of the impact of environmental issues on certain projects financed by the bank, the bank did not take the impacts of such in detail since there were no penalties or ban due to the absence of a regulatory framework but with the enactment of the Environmental Management Act, our bank now needs to take precautionary measures to ensure that project proponents meet

the required standards thus mitigating risks associated with that specific project.” It was therefore highlighted that conditions imposed by lenders and national legislations are the key drivers for Bank D to pursue the incorporation of environmental issues into lending processes.

The drivers for banks to incorporate environmental risks are both national and international and evidence to this is the revelation by the banks that some banks have started reconsidering their lending approach with the introduction of the environmental management legislation since it can have a negative impact on loan repayments if due diligence processes are not followed. Furthermore, since some banks want to obtain loans from external financial institutions, there are certain requirements they need to meet in order to qualify for such loans and this includes developing institutional structures responding to environmental risks associated with projects and developing policy statements committing them to sound environmental management. As such, regulation has always been seen as a key driver forcing banks to recognise environmental risk in their lending processes, with multi-lateral development banks such as the World Bank (WB) and the European Bank for Reconstruction and Development (EBRD) pressuring banks to adopt their guidelines on environmental assessments of projects (Tompson and Cowton, 2004; Barta and Eri, 2001; Missimer, 1996).

International commitments, cultural/traditional reasons, company requirements, and potential environmental events and issues were considered to be the least important drivers to incorporate environmental risks into lending processes in this study. This finding is supported by Thompson and Cowton (2004) who indicate that satisfying the needs of stakeholders were seen as less important for banks.

6.3. Capacity development measures on environmental risks management

All participants indicated that their respective bank has not received any environmental related training. The participant from Bank D indicated that their bank has an environmental policy which is accompanied by the establishment of a managerial position for environmental and social development within the bank in order meet the conditions imposed by the lender. As pointed out that “the EMA no 7 of 2007 needs to serve as the basis for incorporating environmental risk into the lending process and as such, there is a need to create awareness on the Act and an implication for those projects listed by the schedule of activities in the Act requiring EIAs. The creation of such awareness will further

strengthen the risk management aspect of the bank and further ensure that projects follow due diligence processes”

Bank A's participant indicated that “our bank strives to be a leader renowned as a green and caring bank which strives to achieve this by establishing an environmental offset mechanism through a grant initiative supporting environment related projects nationwide guided by national environmental management strategies including research. However, due to lack of internal capacity to manage such a process, the bank has outsourced the grant management to a leading conservation NGO in Namibia. Furthermore, the NGO also provides a steering function with the marketing manager of the bank serving on the steering committee.” Bank A therefore has not undertaken any training amongst staff even with their seemingly noble environmental programme in place.

The participant of Bank C noted that capacity development measures relating to risk management is in place in the bank; however, an environmental risk training programme for lending purposes has not been discussed in the bank due to the bank's operating licence being issued quite recently. Although Bank B has adopted the IFC standards for identifying and managing environmental and social risks, its participant indicated that it has not been implemented and training to apply this standard has not been carried out. The participant from Bank B noted “although the bank has adopted the IFC standards, the bank is not a signatory and as such the necessary training undertaken with the signing has not been carried out.”

The findings reveal that no training had been undertaken at the time of the study. Banhalmi-Zakar (2011) found similar results and highlighted that training on environmental risks were rare and only few staff attended them because the banks viewed them as too time-consuming compared to the benefits they offered. Furthermore, it was noted that one impediment to the incorporation of environmental risk management in mainstream banks has been identified as the costs associated with its implementation and practice. Wright and Rwabizambuga (2006: 95) cautioned that screening and monitoring environmental and social impacts of projects financed incurs considerable costs for the banks. However, Scholtens and Dam (2007: 1320) maintained that the costs of training and retaining CSR staff in banks is analogous to professional advisory fees paid to external environmental consultants and such training might provide opportunities to fund projects with environmental and social impacts which they would not in the absence of in-house expertise. According to Mazahrih (2011: 295), the absence of environmental education limits the capability of the bank to comprehend the potential environmental risks and

opportunities. In other words, being environmentally conscious is important to exploit new technological opportunities emerging, while simultaneously reducing environmental risks resulting from staff's lack of environmental knowledge, which may cause credit, operational and compliance risks.

6.4. Challenges for the banks to incorporate environmental risk

In order to understand the challenges faced by the banks to incorporate environmental risks into lending processes, participants were asked to describe the challenges they face in doing so in their respective risk management frameworks. The participant from Bank A said “environmental issues are complex for the bank and the challenge is the lack of industry guidelines to guide banks on how to incorporate environmental guidelines specifically in a Namibian context. The environmental management legislation also needs to be contextualised for the banks to grasp the risks.”

The participant from Bank B indicated that the bank has long-term relationships with clients, and as such, finds it difficult to refuse clients loans based on environmental assessment studies. Although Bank D is now in the process of operationalising a dedicated environmental and social department within the bank, the participant from the bank noted that the bank has been largely challenged to incorporate environmental risks into lending process due to a lack of a dedicated department to assist in the assessment of environmental risks. As indicated: “the bank has established environmental checklists for assessing potential projects long before the introduction of the Environmental Management Act of 2007; however, no detailed lessons can be derived from such an exercise and as such the issue of incorporating environmental risks into lending processes remains a new phenomenon and is challenging to the bank. But, the bank is hopeful that this shortcoming will be addressed once the dedicated structure to deal with environmental and social issues is in place.”

Finally, the participant from Bank E noted that the understanding of national legislations pertaining to environmental management is a challenge for the bank. Furthermore, awareness of environmental issues and associated risks are also a challenge to the bank and these include formal training sessions for staff in order to ensure that environmental risks are incorporated into lending processes.

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Although the participants from the banks highlight different challenges, the understanding of national legislation and awareness of environmental issues are intertwined and the need for banks to understand the current legislative regime pertaining to environmental issues is important. While environmental legislation is well developed in Namibia, its implementation seems to be relatively slow probably because of government's competing priorities. One of the most important barriers to incorporating environmental risks into lending decisions is the lack of information and tools available to banks to be used as a guide. According to Capella (2002), this lack of information prevents managers from detecting their mistakes in credit analysis, thus not entirely realising the negative consequences that can occur. Banhalmi-Zakar (2011) also found that an impediment to the spread of environmental risk management in mainstream banks is the cost associated with its implementation and practice. The findings of this study seem to support this.

This is a major concern. Coulson (2001) noted that in order for banks to overcome the challenges associated with environmental risk governance, precautionary principles must be applied, which attempt to anticipate and avoid damages before they occur or detect them early. The findings suggest, however, that although there is awareness of incorporating environmental risks, the actual formalisation of that process is lacking. In a sense, as alluded to by a participant, the benefits of incorporating this seem to not justify the effort doing it. Based on this, the following recommendations are proposed:

7.1. Recommendations for banks

- *Develop environmental risk management training programmes for management and operational staff within the credit and communication department*

The findings of this study indicate that all banks surveyed have not undertaken any environmental management training over the last three years. According to Mazahrih (2011: 307), employees' training is critical to the success of improving the bank's environmental performance. These programmes should be applied at senior management, middle management as well as at operations staff particularly those staff members dealing with lending processes and the training must have a strong emphasis on environmental risk identification and how to interpret various environmental reports.

- *Develop best practices, procedures and guidelines to incorporate environmental risks into lending processes*

Policies, procedures and guidelines play a very important role to define an organisation's guiding principles as they provide detailed instructions and form the basic structure of

business operations. The EMA no 7 of 2007 needs to serve as the basis to develop such guidelines and this can be developed under the guidance of the Ministry of Environment and Tourism in partnership with the Banker's Association of Namibia (BAN). The procedures need to classify projects based on the perceived magnitude of their impact on the environment so that further precautions are taken by the banks to mitigate failure for loan repayments. Moreover, documenting best practices on environmental risks in lending processes will assist banks to develop and refine their lending processes so as to incorporate environmental risks. The incorporation of environmental risks into lending processes has to be fuelled from within the bank to provide better results. This is as opposed to being imposed by regulators. The possible entry point is the recognition of the risks involved in incorporating them within the environmental issues in credit analysis and to develop the right tools (procedures, criteria, and checklists) to lending departments. The commitment of top management is also a prerequisite to encourage banks to establish their corporate responsibility, in order to enable the bank to gradually make the conversion towards the incorporation of these issues.

- *Designate a staff member, or a small team, in the lending department to deal with loan applications that carry environmental risks (or opportunities)*

Although some banks indicated that they had staff designated to deal with environmental risks since it is in the interest of all banks, the team or staff member will need to be capacitated in environmental management and risk assessments in order to be able to execute his/her mandate.

7.2. Recommendations for regulatory authorities

The findings of this study revealed that no specific government role on environmental risks management in the banking industry were evident. For this reason it is recommended that:

- *Government should establish incentives for banks to engage in environmental financing.* Specific measures could include, for example, more governmental support including tax incentives.
- *Since government oversees the regulatory institutions for banks in Namibia, they must establish policies to ensure the effective practice of environmental risk management in banks and specifically the disclosure of environmental and social issues.*

Many countries have begun to implement detailed legislation to protect the environment and Namibia is not an exception such legislation as the EMA no 7 of 2007. The refinement of the EMA regulations to cater for the banking industry will further enhance the implementation of the EMA and at the same time reduce exposure to environmental risks associated with projects they finance.

- *The Namibian Stock Exchange should consider requesting their listed banks to follow Global Reporting Initiative (GRI) guidelines.*

The aim of the GRI guidelines is to assist reporting organisations and their stakeholders to articulate and understand contributions of the organisation to sustainable development through their reporting. The advantage of using GRI Guidelines for reporting provide a holistic framework that addresses broad performance – social, environmental and economic – as to how an organisation is reporting to stakeholders. The benefit of this is not only that it is internationally accepted, but also that it ensures increased comparability, and thus risk awareness.

8. CONCLUSION

This study has offered insight into how Namibia's banks incorporate environmental risks into lending processes by way of exploring aspects relevant to environmental risk assessment. The outcomes of this study confirm the findings of Jeucken and Bouma (2001) in which they observed that the management of environmental risks in the lending processes are still in an infancy stage of development though it is incorporated in most banks in one way or another.

While environmental issues are implicitly incorporated in the credit management processes of some banks, banks in Namibia are not prepared for possible future challenges primarily in relation to new national environmental legislation (EMA no. 7 of 2007). As long as environmental risks are not considered properly within the context of risk policies, banks in Namibia are exposed to risks, both financial and reputational. Maintaining the status quo that these risks are important yet not formally integrated into lending policies will not solve the problem.

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**A CONCEPTUAL MODEL OF IMPACT INVESTING IN WATER PURIFICATION
INFRASTRUCTURE IN SOUTH AFRICA**

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**A CONCEPTUAL MODEL OF IMPACT INVESTING IN WATER PURIFICATION
INFRASTRUCTURE IN SOUTH AFRICA**

ABSTRACT

The research arose from the need to gain a deeper understanding of impact investing in South Africa, specifically as it pertains to investments in much needed water purification infrastructure. The literature review centres on the motives driving impact investments in this sector and highlights a number of perceived barriers and opportunities associated with impact investing (in general and in water purification infrastructure in particular). Attention is also given to the definition and *status quo* of 'acceptable access' to potable water in South Africa and the role that private sector investors can play in addressing the growing need for drinking water in the country.

Three reasons prompted an investigation into the motives, barriers and opportunities that could influence private sector impact investment in water purification infrastructure in South Africa. These include the need to improve acceptable access to water, the interest expressed by impact investors and the lack of academic research on the topic.

A conceptual model was developed consisting of motives, barriers and opportunities. Extant literature shows that impact investors are either motivated by market-based, risk-adjusted financial returns with secondary social and environmental impact objectives or vice versa.

Some of the identified barriers to impact investing in general include the shortage of 'investment ready' deals, the nascent impact investing market, the shortage of established track records and disagreements regarding measurement of impact. A few of the barriers to impact investing in water purification infrastructure are the possibility of political interference, financial risks inherent to water sector investments and the moral dilemma associated with making a profit from a basic human right.

The opportunities in impact investing in general consist of the growing acceptance of impact investing as a responsible investing strategy, positive changes in the regulatory environment and the opportunities to generate social and environmental impact. Lastly, the opportunities in impact investing in water purification infrastructure include the growth potential and innovations in the water market leading to increased opportunities and the large financing gap of water infrastructure. Opportunities for the private sector to earn financial returns by improving the efficiency, quality and service delivery in the water sector were also identified.

The conceptual model will be empirically tested with a variety of expert role-players in the impact investing market and across the water provision process. Specific attention will be given to asset managers who have made impact investments in the past five years. A sample of 20 experts will be approached using judgement and snowball sampling. Semi-structured personal interviews will be conducted with these experts to verify and extend the conceptual model.

The result will be a modified conceptual model of the motives, barriers and opportunities that influence private sector impact investment in water purification infrastructure in South Africa. This conceptual model will be used to provide recommendations for academics and practitioners in the impact investment market and water provision process in South Africa and other emerging markets facing similar challenges.

**ACCESSING GREENHOUSE GAS EMISSION STRATEGIES OF
FOOD RETAILERS**

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**ACCESSING GREENHOUSE GAS EMISSION STRATEGIES OF
FOOD RETAILERS**

ABSTRACT

This paper sets out to assess greenhouse gas emissions strategies employed by food retailers in Nelson Mandela Bay region of South Africa. Climate change has been receiving considerable attention in literature and from the media for its catastrophic potential harmful effect on businesses and the general community. A comprehensive literature study provided the theoretical framework for the study. In the empirical study, a survey was conducted using self-administered questionnaires that were distributed to a convenient sample of 120 food retailers from the designated population. The impact of six operational factors regarding greenhouse gas emissions among retailers were tested, namely refrigeration, air conditioning, lighting, baking, heating and food waste. It was found that most respondents are neutral towards the impact of these operational factors in the food retail sector. Practical guidelines are provided to assist food retailers in dealing with the impact of operational factors on greenhouse gas emissions.

1. INTRODUCTION

Greenhouse gas emission (GHG) emission and its associated effects have been a debate in literature for many years (Hoffman, 2011:5; Williams & Schaefer, 2012:175; Whitmarsh, 2011:690). According to Jackson (2016), climate change is seen as a yearly change within the earth's climate that is a result of changes in its atmosphere, as well as interactions between the atmosphere and other chemical, geologic, geographic and biological factors within the earth's system. Climate change has primarily caused a warming effect of the earth's atmosphere that has affected all aspects of life (Pachauri & Reisinger, 2007:7). It is essentially the anthropogenic emission of greenhouse gases (GHG) that created this warming effect within the earth's atmosphere. In addition to CO² emissions, other anthropogenic emissions include methane, nitrous oxide and other ozone-depleting substances (Montzka, Dlugokencky & Butler, 2011:43). GHG are essentially gases that are caused by humans and contribute significantly to the effect of global climate change (Popp, Lotze-Campen & Bodirsky, 2010:451). While there are limited studies that measure greenhouse gas emissions arising from the entire global food chain, there have been estimates of GHG emissions attributable to global agricultural production (Garnett, 2011:23). Energy consumption is one of the biggest challenges food retailers are facing as it not only increases overhead costs but also GHG emission (Tassou, Hadaway & Marriott, 2011).

It is estimated that the amount of energy consumed by large supermarkets in developed countries is between 3% and 5% of total energy consumption. For developing countries, it is assumed that energy consumption is more than developed countries, as there is a lack of modern technological implementation within these regions and thus relying on outdated technology that contributes more to the carbon footprint. (Tassou, Chaer, Sugiarta, Ge & Marriott, 2007:2988). In addition, other operational activities such as packaging, refrigeration, lighting and machinery used, amongst others, all contribute to the carbon footprint. Over the last few years food retailers in South Africa started to focus their attention towards GHG missions, but there is still no framework for food retailers to reduce GHG emissions in South Africa (Tassou *et al*, 2007:2988). Popp *et al* (2010:451) further state that food and energy sources emits the most non-CO² emissions and with consistent population growth and changing dietary preferences for foods that have a higher emission content, makes it harder for the food sector to manage food demand while remaining within its required carbon tax bracket.

This study focuses on determining the impact of operational factors on GHG emission and climate change in the food retail sector with specific focus on Nelson Mandela Bay. The first part of the paper sets out the introduction and background of the study, problem statement research objectives. The next part outlines the literature study and research methodology followed. The last part covers the empirical results, conclusions and recommendations.

2. LITERATURE REVIEW

2.1 Clarification of key concepts

In order to understand the context of the study the following concepts will be defined, namely climate change, greenhouse gas emissions (GHG) and food retailers.

- **Climate change**

According to Werndl (2015), climate change refers to the change in distribution of certain climate variables arising for a certain configuration (certain gas greenhouse concentrations and certain aerosol emissions) of the climate system. Climate change is thus responsible

for disturbing the global hydrological cycle, the warming of the atmosphere and surface (Henderson-Sellers & McGuffie, 2012:3).

- **Greenhouse gas (GHG) emissions**

According to Nolt (2011:3-10), greenhouse gas emissions are gases that are caused by human activities and contribute significantly to the effect of global climate change. The scope of GHG emissions includes carbon dioxide methane, nitrous oxide, and various halocarbons (Nolt, 2011:3-10). All GHG emissions are the result of activities that involve the use of fossil fuels in heating, electricity generation, transportation and industrial processes (Berners-Lee, Hoolohan, Cammack & Hewitt. 2012:184).

- **Food retailers**

Foodretailworld.com (2015) defines food retailers as selling food to customers that is mostly consumed off-premise. The food bought by customers will come in different shapes and sizes, depending on each specific food retailer. The products of food retailers include perishable and non-perishable items. Food retailers could include restaurants and fast food businesses (Shuttle, 2016).

2.2 The history of GHG emissions and climate change

According to Stern (2007), there is a clear connection between climate change and GHG emissions being emitted into the atmosphere. The greenhouse effect is a natural process taking place to support the earth in heating the surface and atmosphere. The more GHG the earth send into the atmosphere caused by the greenhouse effect, the less energy can escape into space and the earth will become warmer over time (Henson, 2006). Although climate change is a major concern for all countries there are three main international systems in place to reduce the effects of climate change, namely United Nations Framework Convention on Climate Change (UNFCCC), Intergovernmental Panel on Climate Change (IPCC) and the Kyoto Protocol.

In 1988 the IPCC was created by the United Nations Environment Programme (UNEP) and the World Meteorological Organisation. In 1990 the first report was issued and it revealed the views of four hundred scientists and they identified that climate change was a reality and insisted that something needed to be done. The findings by these four hundred scientists encouraged governments all over the world to create the UNFCCC which started on 21 March 1994 and are supported by 191 countries worldwide. The ultimate goal of this framework is to reduce GHG emissions to such a level where there will be no further harm done to the earth or humans in future. The main focus is placed on countries who are more industrial oriented, since they contribute the most to current and past GHG emissions (UNFCCC, 2007b). The Kyoto Protocol is a worldwide arrangement that builds on the UNFCCC and came into force in 1998 (Richter, 2010). A total of 172 countries started to act and signed the Kyoto Protocol and sets legally binding goals and schedules for reducing GHG emission in countries (UNFCCC, 2007a). The Kyoto Protocol mainly focuses on six main GHG emissions, namely: Carbon dioxide (CO₂), Methane (CH₄), Nitrous oxide (N₂O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs) and Sulphur hexafluoride (SF₆).

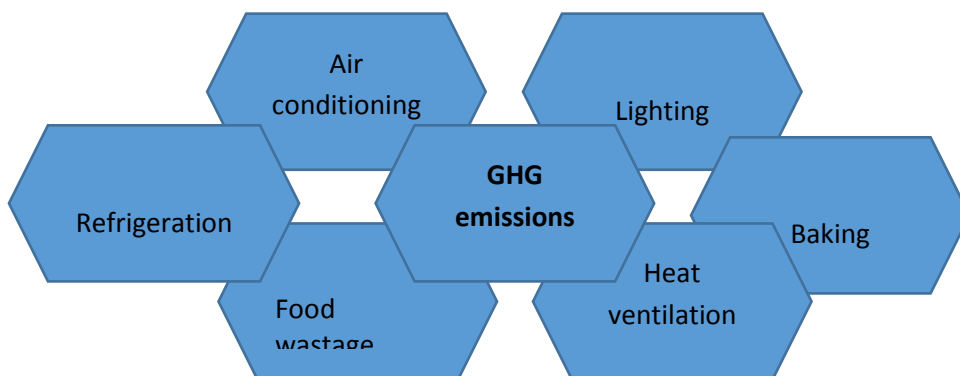
2.3 Factors influencing GHG emissions and climate change

The science of climate change is one that is immensely complex and is still emerging (Raubenheimer, 2011). However, there are known factors that affect climate and has

resulted in most of the challenges that has been experienced. Factors such as the variations in solar radiation, changes in the orbital parameters of the earth, changes in galactic cosmic rays, geophysical and geological processes and human activity are among the main factors that have contributed to current situation (Nikolov & Petrov, 2014:1445). Human activities such as extraction and use of oil, coal and gas have discharged massive amounts of CO² emissions within earth's atmosphere and have resulted in increased atmospheric temperatures (Hutchins, 2009). It should also be noted that there are various GHG emissions that have various impacts on socio-environmental and economic life, and these emissions vary in terms of impact, and importance within each sector or part of the value chain (Nolt, 2011:4). Turning the attention towards the food chain and food retailers, it is evident that human activity in this sector has also contributed to this warming effect. The food chain as a whole produces GHG emissions at various stages within its life cycle, from the farming process and its inputs, through to manufacture, distribution, refrigeration, retailing, food preparation in the home and waste disposal all stages contribute to the global carbon footprint (Garnett, 2011:23).

Although a combined effort by the food chain as a whole is necessary to ensure the most effective reduction in GHG emission, the agricultural stage (raw materials/farm stage) has reported to contribute the most of the non-CO² emissions emitted by the chain (Vermeulen, Campbell & Ingram 2012:195). The majority of the literature focuses on the supply chain of retailers as a whole as being the main source of GHG emissions emitted and less information is provided on the contribution that supermarkets and other retailers have on the environment with regard to GHG emission. Although this is the case, there are some operating factors contributing to GHG emissions emitted by food retailers specifically. These can be categorised as direct emissions such as refrigeration and air conditioning and indirect emissions such as lighting, baking, heating ventilation; and other emissions such as food wastage (Tassou *et al*, 2011:147; Friel, Dangour, Garnett, Lock, Chalabi, Roberts, Butler, Butler, Waage, McMichael & Haines *et al* 2009:2016-2025). Figure 1 illustrates the most important operational factors contributing to GHG emission in the food retail sector.

Figure 1: Factors Contributing to GHG Emissions in the Food Retail Sector



Source: Own construction

2.3.1 Direct emissions

Direct emissions refer to emissions that have a noticeable direct impact on the environment and GHG emissions are created by that operation, service or product that the organisation possess. Concerning food retailers, refrigeration acts as one of the main contributors of direct emissions in addition to air conditioning. Although these appear to be

minute to the food value chain as a whole, they emit a sufficient amount of GHG emissions to be regarded as an important factor to consider.

- **Refrigeration and air conditioning**

Refrigeration is an important component of food retailers as it helps preserve food and helps keep it safe. However, refrigeration also contributes directly to the amount of GHG emissions emitted into the atmosphere through the leakage of refrigerant gases and indirectly through the massive amounts of energy consumed. Food retailers have been fighting to reduce the amount of GHG emissions emitted through the adoption of technologically advanced system designs and leakage sensing. Although significant improvements have been made in this regard, refrigeration leakages still places a dominant concern for food retailers (Tassou *et al*, 2011:148).

With conventional refrigeration, hydro fluorocarbons (HFCs) are leaking and released into the atmosphere during equipment operation, repair and disposal. It has placed an economical strain on food retailers as they are forced to make large capital investments in refrigeration systems that employ less harmful toxins to the environment (Suamir, Tassou, Marriott, 2012:408; Samudra & Sahinidis, 2013:8518). For the year 2010 it was reported that GHG emissions from the refrigeration/air conditioning sector amounted to roughly 349 million metric tons of carbon dioxide equivalent (MtCO₂e) and it is predicted that by the year 2020 emissions generated from this sector would reach 733 million MtCO₂e, if current trends continue (Environmental Protection Agency (EPA), 2013).

Although environmental aspects are forcing food retailers to change, additional pressures come from government in the form of policies and regulations, like the King IV Report (Hweshe, 2011). Changing consumer concerns for the environment has further placed pressures on food retailers to change its product offering, systems, policies, marketing strategies and the way it manages its business operations. This is undertaken to remain competitive, legally responsible and environmentally responsible. (Vermeulen *et al*, 2012:197; Gadema & Oglethorpe, 2011:815). Within the borders of South Africa, the Southern African Refrigerated Distribution Association (SARDA) is the only governing body that seeks to ensure that refrigeration across sectors match pre-established standards and to ensure that losses of perishables are kept to a minimum and consumers are provided with quality products (SARDA, 2016).

Other than its direct impact on the environment, refrigeration also acts as one of food retailers' biggest concerns with regard to energy consumption and contributes to roughly 50% of food retailers' total energy consumption. This has been a huge concern for food retailers, as they have to battle with massive amounts of food storage/preservation and has resulted in energy consumption levels that are generally higher than the total energy consumed by other facilities of equal size (e.g. offices, hotels, non-food retailers) (Galvez-Martos, Styles & Schoenberger, 2013:983).

2.3.2 Indirect emissions

Indirect emissions are the result of activities that is performed by the firm/food retailer, but actual GHG emissions emitted is caused by another entity and the resulting activities is a by-product (Zhu, Peng & Wu, 2012:618). Such examples in food retailers include energy/electricity, which is used for refrigeration, lighting, heating ventilation, baking and other ancillary services. Gas is another indirect GHG emission source, which is used for space and domestic hot water heating as well as for baking.

- **Lighting, baking and heating ventilation**

Lighting, baking and heating ventilation contribute to the global carbon footprint in an indirect manner, through the use of energy/electricity. The consumption of energy and particularly fossil fuel produced energy, has been a strong enforcer of climate change and is a condition that not only affects the food value chain but all spheres of life. Other than refrigeration, lighting acts as the second largest consumer of electricity within food retailers, and it roughly consumes between 15% and 30% of retailer's total energy consumption, and heating ventilation and air conditioning equipment and other utilities such as baking, consuming the remainder (Tassou *et al*, 2011:147).

Although the retailer does not initially emit the undesirable GHG emissions it acts as an enforcer thereof, as it creates a demand for energy which causes a ripple effect as providers of energy has to produce energy through hazardous operational procedures that initially contributes to the carbon footprint. In addition to these indirect impacts that food retailers cause, operationally the industry is also energy intensive and as climatic conditions becomes warmer there is an increasing demand for energy to sustain frozen produce, cooling systems and other energy demanding operations. Managing the increasing costs associated with this increasing demand for energy, as well as the ever increasing energy costs, has placed a strain on food retailers and has forced them to come up with innovative methods, systems and procedures to cope with these additional costs (Winn, Kirchgeorg, Griffiths, Linnenluecke & Günther, 2011:161; Galvez-Martos *et al*, 2013:982). According to Vermeulen *et al* (2012:201), the total energy consumption of supermarkets is dependent on food retailers' associated business practices, product mix, shopping activity, store format, the equipment used for in-store food preparation, preservation and its display. It is therefore necessary for food retailers to take a holistic view when managing the energy levels of its operations

Pressures further up the food retail chain to produce an excessive amount of food for human consumption has also had a magnificent effect on the whole food retail chain, as the use of agricultural practices causes significant GHG emissions which impact the amount of carbon taxes payable (Berners-Lee *et al*, 2012:184). Carbon taxes are government's way to ensure that businesses keep their GHG emissions within a reasonable bracket (Blaine, 2013a). Food retailers are affected by these associated costs, as these costs are essentially pushed through the food retail chain and if costs or GHG emissions are not reduced further down the chain, the final customer incurs the costs that may result in a decrease in the demand of the food retailers' products due to price increases (Oelofseand & Nahman, 2013:81).

Transportation in the food retailing sector and the value chain as a whole is a serious victim to this tax legislation and has been putting a financial burden on food retailers (Blaine, 2013a; Ackerman & Stanton, 2012). The use of forklifts in supermarkets and other delivery trucks within the food retailing sector contributes significant amounts of GHG emissions in the form of petroleum consumption. Within the United States alone transportation as a whole has contributed significantly to the global carbon footprint as it accounted for close to 30% of all GHG emissions emitted with nearly 70% being the result of petroleum consumption (Martin & Shaheen, 2011:1074).

4.3.3 Other emissions

Other emissions would be emissions that does not fall into either category mentioned above and generally includes GHG emissions that are caused by waste streams. Within food retailers other GHG emissions would include mainly food waste, in addition to plastic shopping bags/ packaging and the disposal of cooking oil.

- **Food waste**

The primary issue that is faced by food retailers is that of food waste. According to Garnett (2008), food waste contributes to GHG emissions when it is landfilled and has the potential to degrade with time thus generating CH⁴ which is very toxic to the environment. Food retailers have been battling with managing the amounts of food wastage within their organisations and entire food retail chain. Although it is essentially the mismatch between demand and supply of food produce which resulted in this food wastage, Blaine (2013b) further explains that food wastage is also the result of limitations in harvesting techniques, storage and cooling facilities, infrastructure, packaging and marketing systems. It is thus important to ensure that the right food waste systems are implemented throughout the food chain to ensure sustainable development and good waste management. Food retailers are affected by through these socio-environmental factors as well as an economically through the loss of operation costs (Papargyropoulou, Lozano, Steinberger, Wright & Ujang, 2014:108).

According to Oelofseand and Nahman (2013:81), the main cause for food wastage in developing countries such as South Africa is due to managerial, financial and technical limitations in harvesting techniques, storage and cooling facilities in difficult climatic conditions, packaging, incorrect disposal of cooking oils, infrastructure and marketing systems. It is therefore essential for food retailers and the food retail chain to combat food wastage, through better coordination and improve relations between manufacturers and retailers, initiate public awareness campaigns, join voluntary industry agreements, and ensure innovation in packaging to extend product life spans of food produce (Garnett, 2011:28).

In combating GHG emission it would be advisable for all food retailers to employ a corporate carbon strategy and employ carbon assets as it is not adopted by all food retailers in South Africa. Corporate carbon strategy is the concept of infusing climate change in the organisations business strategy whereas carbon assets are the mechanisms that are put in place to reduce the mitigation of GHG emission (Lee, 2012:34). Carbon assets focuses on the reduction of the level of GHGs in the atmosphere with the long-term objective of returning to the levels of GHG emissions back to its twentieth century state (Ramírez and González, 2011:62). The employment of carbon assets will not only have socio-environmental benefits for food retailers but also economic benefits.

3. PROBLEM INVESTIGATED

Hahn, Lee and Yoon (2012) advocate that climate change has been receiving growing importance resulting in urgency placed on minimising the negative effects of climate change and specifically the reduction of GHG emissions. It is further stipulated that other than the associated socio-environmental benefits that arises with implementing a carbon reduction strategy there are various economic benefits that organisations can gain from if a carbon strategy is designed and implemented correctly. Climate change is one of the key factors that had an increased impact on food production and food supply (Hanjra & Qureshi, 2010:367). Climate change is also a major threat to worldwide food security due to a few aspects namely: impacts on crop productivity (Droogers, 2004:16), high cost adoption of climate change (Kandlikar & Risbey, 2000) and water supply and demand (Alcamo, Dronin, Endejan, Golubev & Kirilenko, 2007; Barnett, Adam & Lettenmaier 2005; Döll & Siebert 2002; Spash 2008).

South Africa has put some structures in place in the form of policies and regulations in order to combat GHG (Tucker & Khanye, 2015). However, to combat this climactic issue the entire value chain needs to act in unity (Vermeulen, Campbell & Ingram, 2012:197). In South Africa, the effects of climate change on food production are problematic. The total

amount of crops harvested in South Africa dropped by 4.5-million ton from 2014 to 2015. The decrease in food production will result to more food imports and food prices will rise. The gross domestic product (GDP) figures for 2015 revealed that the agricultural sector has decreased by more than 17% quarter on quarter (Donnelly, 2015). GHG emission contributes significantly to the effect of global climate change (Nolt, 2011:3-10). Food retailers are contributing to GHG emissions by means of electricity usage through refrigerator equipment, lighting, heating, air conditioning, baking and other secondary services. There is no general strategy for food retailers to reduce GHG emission and minimal research has been done in this sector (Tassou *et al*, 2011).

The purpose of this study is to determine how food retailers use different strategies to reduce GHG emissions more efficiently and effectively. Strategies of retailers regarding operational factors contributing to greenhouse gas emissions such as, air conditioning, refrigeration, lighting, heating ventilation, water wastage and baking will be assessed. Against this background, the main research question to be addressed in this study is: *What strategies do food retailers in Nelson Mandela Bay implement to reduce greenhouse gas emissions?*

4. RESEARCH OBJECTIVES

The primary objective of this study is to investigate the greenhouse gas emissions strategies of food retailers in Nelson Mandela Bay. In order to achieve the primary objective, the following secondary objectives are formulated:

- To conduct a literature review regarding greenhouse emission strategies and climate change.
- To empirically assess the greenhouse emissions strategies of food retailers in the Nelson Mandela Bay.
- To assist organisations in formulating general guidelines to reduce greenhouse gas emissions for food retailers.

5. RESEARCH METHOD

This section will contain all the elements concerning research design and methodology of this study. The study is aimed at investigating greenhouse gas emission strategies employed by food retailers in the Nelson Mandela Bay.

5.1 Research paradigm

There are mainly two main research paradigms when conducting research, namely positivistic paradigm (quantitative data) and a phenomenological paradigm (qualitative data). This study adopted the quantitative research approach to assess greenhouse gas emissions strategies of food retailers in the Nelson Mandela Bay region. Quantitative data refers to data that are assigned numbers for quantifying the data sample (O'Leary 2014).

5.2 Research methods

For the purpose of this study, two main research methods have been identified, with regard to a positivistic methodology, namely exploratory research and descriptive research. Exploratory research are used to simplify indefinite situations or realise concepts that may be opportunities for businesses (Zikmund, Babin, Carr & Griffon 2010), since it is a relatively new area of research not conducted in this region. Descriptive research defines features of objects, people, groups, organisations or environments and

attempts to explain a given situation (Zikmund *et al.* 2010), describing perceptions regarding greenhouse gas emission strategies of food retailers in Nelson Mandela Bay

5.3 Population

A population is any group of people, schools, stores, hospitals, companies, university students, etc., that share some set of characteristics (Zikmund 2003). The population selected for this study will be limited to all food retailers (including restaurants) in Nelson Mandela Bay.

5.4 Sampling

The two main types of sampling could be used namely, probability and non-probability sampling. This study will make use of the non-probability sampling technique. Non-probability sampling refers to a procedure of composing a sample that does not give some elements in the population a chance to participate (Daniel, 2012). Specifically, convenience and judgmental sampling will be used. This sampling method was chosen as it is best suited for the assessment of a specific subset of respondents and it is less time consuming. The sample size will be restricted to a maximum of 120 selected respondents in the food retail sector within Nelson Mandela Bay.

5.4 Data collection

To achieve the objectives of this study, various secondary and primary sources of data will be used in the research process. Secondary data in the form of a comprehensive literature review were conducted through textbooks, journals and the Internet. Primary data in the form of a survey was conducted within Nelson Mandela Bay. This survey will be in the form of self-administered structured questionnaires provided to respondents. A total of 150 questionnaires were distributed and 120 questionnaires were returned (effective response rate of 80%). This sample size seems appropriate for the nature of this exploratory study.

5.5. Questionnaire design

The questionnaire consists of three sections:

- Section A investigated general perceptions regarding climate change and GHG emissions, using a five-point ordinal Likert scale. This scale consisted of 10 items.
- Section B explored perceptions regarding operational factors influencing GHG emissions within food retailers, utilising a five-point ordinal Likert scale. The operational factors tested were refrigeration, heating ventilation, air conditioning, lighting and food waste (18 items). As no existing scales were available to test these six operational factors, the items in the measuring instrument were self-developed based on existing literature of these operational factors.
- Section C assessed the biographical data of respondents using a nominal scale (6 items).

5.6 Data analysis

Data collected were coded and transferred to an excel spreadsheet and analysed by means of the Statistica computer programme. Descriptive statistics was used by means of measure of central tendency (mean), variability (standard deviation) as well as frequency distributions. Reliability testing was done by means of Cronbach's alpha

coefficient calculations and validity was established through an exploratory factor analysis.

5.7 Reliability and validity of the measuring instrument

Reliability is the uniformity or stability of a measure (Landy & Conte, 2007). To determine the internal reliability of the measuring instrument, Cronbach's alpha was used. Coefficient alpha is the most frequently applied assessment of a multi-item scale's reliability (Zikmund *et al*, 2010).

Validity can be described a measure that precisely and completely symbolises what was planned to be measured (Landy & Conte, 2007). Content validity is the degree that a measure covers the scope of the field of interest, while face validity is when a scale's content rationally gives the impression to reveal what was planned to be measured. This will be ensured by means of expert judgement in the field of greening, sustainability and statistics. In addition, a pilot study was conducted among 10 food retailers. Face validity is the degree to which respondents judge that items of an assessment instrument are suitable to the targeted concept and assessment objectives (Yaghmale, 2003:25).

6. RESULTS AND FINDINGS

6.1 Demographic profile of respondents

Table 1 shows the demographic profile of the respondents of this study.

Table 1: Demographic Profile of Respondents

Characteristic	Category	%
Position in organisation	Owner	27
	Manager	36
	Employee	37
Period of current employment	< 1 year	21
	1-5 years	41
	6-10 years	23
	11-15 years	10
	16 years +	5
Size of organisation	Small (≤ 50 employees)	74
	Medium (51- ≤ 200 employees)	23
	Large (> 200 employees)	3

Length of organisation's existence	< 1 year	12
	1-5 years	29
	6-10 years	24
	11-15 years	13
	16-20 years	10
	21 years +	12
Form of ownership	Sole trader	38
	Partnership	35
	Close corporation	4
	Private company	12
	Public company	5
	Other	6
Type of food industry/sector	Food retailer	34
	Fast food restaurant	33
	Restaurant	33

Source: Own construction

Table 1 clearly indicates an almost even distribution of respondents in terms of position in the organisation, namely employees (37%), managers (36%) and owners (27%). In terms of tenure, it shows that most respondents have been employed with their current employer between one and five years (41% and between six and 10 years (23%). Most organisations are regarded as small having an employment size of less than 51 (74%) and medium-sized (23%). The majority of organisations to which respondents belong have been in existence for between one and five years (29%) and between six and 10 years (24%). The majority of respondents are employed in sole traders (38%) and partnerships (35%). There is an even distribution in terms of food retailers, fast food restaurants and restaurants.

6.2 Validity of the measuring instrument

Table 2 shows the exploratory factor analyses of the six operational factors influencing GHG emissions of food retailers (Section B of the questionnaire).

Table 2: Exploratory Factor Analysis

Variables	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Refrigeration1	0.157881	0.115098	0.678499	0.306691	-0.182744
Refrigeration2	0.123394	0.105126	-0.005905	0.829766	0.117041
Refrigeration3	-0.040967	0.159358	0.238093	0.803356	0.142850
Air conditioning1	0.256929	0.124749	0.818556	-0.006587	0.112311
Air conditioning2	0.269710	0.087197	0.792246	0.027253	0.167558
Air conditioning3	0.284790	-0.135764	0.739201	0.117895	0.131277
Lighting1	-0.085758	0.116417	0.181786	0.336920	0.774698
Lighting2	0.223683	0.792052	0.164924	0.200341	0.184318
Lighting3	0.217224	0.818425	0.173487	0.033644	0.186569
Bake1	-0.102883	0.798853	-0.090988	0.015332	-0.204017
Bake2	0.758945	0.148709	0.202155	-0.215753	-0.027364
Bake3	0.554518	0.067008	0.366435	-0.330513	0.040589
Heating1	0.701737	0.064851	0.365281	0.162659	-0.009781
Heating2	0.760644	0.130518	0.373830	0.233239	-0.066840
Heating3	0.749654	0.158459	0.282872	0.243971	-0.125325

Food waste1	0.283183	0.582339	-0.166387	0.281768	0.048637
Food waste2	0.582833	0.091348	0.085394	-0.159076	0.350907
Food waste3	0.663410	0.155782	0.055525	-0.056961	0.465789

p > 0.50

Source: Own construction

Two of the variables initially intended to measure 'Baking' (Bake2 and Bake3) and 'Food waste' (Food waste2 and Food waste3) as well as all three variables measuring 'Heating' (Heating1, Heating2 and Heating3) loaded onto Factor 1. This factor was then renamed to 'Baking and heating'. Two of the variables initially intended to measure 'Lighting' (Lighting2 and Lighting3) and one variable each to measure 'Food waste' (Food waste1) and 'Baking' (Bake 1) loaded onto Factor 2 and were renamed as 'Lighting and energy usage'. One variable of 'Refrigeration' (Refrigeration1) and all three variables from 'Air conditioning' (Air conditioning 1-3) loaded onto factor 3 and were renamed as 'Air conditioning and Refrigeration'. The cut-off point for the minimum number of variables per factor was three and thus were Factor 4 (items Refrigeration 2 and Refrigeration 3) and Factor 5 (Lighting1) deleted from further analysis. This ensured that all variables could be regarded as having construct validity.

6.3 Reliability of the measuring instrument

Table 3 shows the Cronbach's reliability coefficients of the various items.

Table 3: Internal Reliability (Cronbach's alpha) for the Factors (Sections A and B)

Section	Aspect	Variables	Cronbach's alpha
A	General perceptions regarding GHG emissions and climate change		0.84
B	Perceptions regarding factors influencing GHG emissions and climate change	Baking and heating	0.87
		Lighting & energy usage	0.79
		Air conditioning and refrigeration	0.83

The typical acceptable level for Cronbach's alpha values is usually 0.70 (Hair, Anderson, Tatham & Black (1998). It thus appears that all the variables could be regarded as internally reliable.

6.4 Descriptive statistics

Table 4 indicates the descriptive statistics and frequency distributions for the various factors used in this study.

Table 4: Descriptive Statistics

Factors	Mean	Standard deviation	Disagree %	Neutral %	Agree %
Section B: General perceptions regarding GHG emissions and climate change	3.40	0.49	32	68	0
Section C: Operational factors influencing GHG emissions and climate change					

Baking and heating	3.31	0.59	18	45	37
Lighting and energy usage	3.82	0.59	8	28	64
Air conditioning and refrigeration	3.38	0.65	16	43	41

Source: Own construction

Table 5 shows that that most of the mean values clusters around point three (neutral) on the measuring scale, except for lighting and energy usage towards which respondents appears to agree (point four). There appears not be much variability around the mean scores as all standard deviation scores are far below one.

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Based on the general perceptions influencing GHG emissions and climate change in the food sector, it is recommended that food retailers should:

- Realise the impact of greenhouse gas emissions (also known as the greenhouse effect) on food retailers in the future.
- Be mindful of the possible effects of global climate change.
- Understand the impact of climate change on the environment (e.g. droughts, floods)
- Be concerned about water scarcity, rising water levels and lost land.
- Be aware that everyday business activities contribute to greenhouse gas emissions.
- Realise that greenhouse gas emissions will have an influence on the business in the long-run.
- Realise that organisations in the food sector contribute significantly to GHG emissions and climate change.
- Realise that competitiveness in the food sector will require climate change-friendly technologies and operations.
- View greenhouse gas emission reduction as a priority.

Table 5 outlines some general guidelines and recommendations regarding the impact of GHG emission and climate change in the food sector.

Table 5: General Guidelines and Recommendations Regarding the Impact of Operational Factors on GHG Emission and Climate Change in the Food Sector

No	Baking and heating
1	Make use of gas stoves to reduce electricity usage.
2	Employ the latest energy efficient baking equipment (e.g. food mixers, food processors, ovens).
3	Food retailers should view heating ventilation as a major contributor to the amount of GHG emissions emitted by the business.
4	Make use of the latest energy efficient heating ventilation systems.
5	Attempt to reduce the high costs involved with heating ventilation.
6	Have efficient purchasing strategies in place to reduce food wastage.
7	Food wastage should be viewed as a huge cost concern for the business.
	Lighting and energy usage
8	Use energy efficient bulbs in the business.
9	Employ energy efficient lighting to reduce electricity usage.
10	Food retailers should have a strategy to recycle cooking oil used to prepare food.
11	Food retailers should have a strategy in place to recycle plastic, paper and cardboard.

	Air conditioning and refrigeration
12	Food retailers should employ the latest energy-efficient refrigerators.
13	Food retailers should make use of energy-efficient air conditioning.
14	Make use of proper roof, walls and floor insulation (to regulate temperatures).
15	Only use air conditioning when it is really necessary.

Source: Own construction

In terms of reducing greenhouse gas emissions, there are many aspects that food retailers neglect and fail to implement in their organisations. The following aspects could offer guidance to food retailers on how to formulate and implement a better strategy to reduce greenhouse gas emissions:

- Food retailers should realise that GHG emissions could affect the image of their business and its sustainability.
- Food retailers should have specific strategies in place to reduce GHG emission that is compliant with law and societal expectations.
- Food retailers must start making use of solar energy and although it might seem very expensive, it could save food retailers money in the long-term.
- Food retailers must find ways to reduce food wastage to a minimum in order to help reduce greenhouse gas emissions.

It is also impediment that food retailers act in unity with the whole food value chain to formulate and implement GHG reduction strategies. This is important to reduce the overall costs associated with carbon taxes as well as to remain sustainable competitive.

8. CONCLUSIONS

The concept of greenhouse gases and its associated effect are essential concepts for developing and understanding climate change throughout the world. The main consequences of climate change can be seen on many levels. On a business level climate change has resulted in businesses having to change the way they operate their businesses and develop and execute strategies. In terms of addressing this issue there are a number of international organisations, such as the UNFCCC, the IPCC and the Kyoto Protocol, that were established to address the impact of climate change. The fight against climate change is real and measures to slow this epidemic are necessary. Main measures that will slow climate change includes: reducing GHG emissions, the expansion of forests, changing lifestyles and the establishment of regulations and laws to enforce change. It is essential for all inhabitants at all levels - government, citizens and businesses to act in unity to reduce the impact of climate change. The food sector is particularly vulnerable and contributes significantly to the negative effects of climate change. The agricultural stage of the food chain has reported to contributing the most to the GHG emission emitted out of the whole food chain. As this is evident in literature and in reality, most literature focuses on the early stages (raw materials extraction, processing of products etc.) of the food chain in reducing GHG emissions and ultimately slowing climate change.

Food retailers' actions to reduce GHG emissions should include: reducing electricity consumption, minimising waste from packaging, designing buildings and choosing locations efficiently, operating fleet vehicles efficiently, recycling, using less harmful gases in refrigeration systems, encouraging sustainability and employing policies in the business to enforce the reduction of GHG emissions. It was established that food retailers should consider operational factors such as baking and heating, lighting and energy usage and air conditioning and refrigeration when reducing GHG emissions. The limited sample size of 120 food retailers are acknowledged.

The following extract seems appropriate to conclude this paper with:

“To meet such ambitious targets, downward pressure on GHG emissions is required in all sectors of economic activity, as it is clear that GHG reductions in one or several sectors will never be sufficient to meet reduction targets. Where activities lead to the direct combustion of fossil fuels (e.g. transport, space heating, electricity generation and manufacturing) methods to reduce GHG emissions are obvious, if not easy. However, in some sectors of the economy there are very significant indirect sources of GHGs and available methods of quantifying and reducing GHG emissions are much less transparent. The production of food is a major source of GHG emissions to the atmosphere.” (Hoolohan, Berners-Lee, McKinstry-West & Hewitt, 2013:1065).

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PUBLIC-PRIVATE PARTNERSHIPS: A WIN-WIN SITUATION FOR BOTH SECTORS?

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PUBLIC-PRIVATE PARTNERSHIPS: A WIN-WIN SITUATION FOR BOTH SECTORS?

ABSTRACT

Governments are continuously looking for alternative ways to deliver improved services which can imply changes in delivery mechanisms. Public-private partnerships form part hereof. Popular belief is that public-private partnerships only benefit the public sector seeing that no profit margin can be showed by the private sector through these endeavours. The contrary is, however, true if particular guidelines are followed. These guidelines will be discussed in this paper. Apart from these guidelines, should risk also be shared and managed to prevent that public-private partnerships do not achieve the objectives set through these projects.

1. INTRODUCTION

The onset of democratic transformation in South Africa in 1994 and the subsequent public administration reforms that followed on each sphere of government created excitement and expectations for better services beyond recognition. Seldom before has constitutional change of so fundamental a nature as we experienced in South Africa been achieved in a peaceful manner. Change, however, does not necessarily imply a positive outcome and although having been a democracy for 23 years, does South Africa remain a highly unequal society especially taking cognisance of the recent recorded cases of corruption and public service delivery protests experienced on local government level.

An efficient public service is vital to a well-functioning country that maximises its developmental potential and the welfare of its citizens, that works to extend services and reduce inequalities, and demonstrating to citizens that their society is capable of organising itself in an efficient way. In Africa and specifically South Africa the public service is unfortunately rapidly gaining a reputation for inefficiency and incompetence as governmental institutions routinely receive qualified audits, thereby undermining, rather than maximising, the developmental potential of the country. The situation has been complicated by the global financial crisis experienced since September 2008. The crisis, however, created opportunities for emerging market economies such as South Africa to strengthen economic growth. It, however, necessitates that new ventures should be undertaken in the delivery of public services.

Goods and services can be delivered by governments in a number of different ways. Governments that previously both produced and provided services now tend to rely increasingly on the market for either inputs to government production and provision or for direct provision of goods and services. This move has been made both for ideological reasons and in the pursuit of value for money, i.e. how to improve the use of resources. Public-private partnerships (PPPs) are part of this trend. With PPPs, the government enters into a long-term contract with a private partner to deliver a good or service, and the private partner is responsible for building, operating and maintaining assets that are necessary for delivering a good or service to either the government or to individuals. These arrangements are not without risk and is risk sharing and the management thereof important to ensure that PPPs will be to the benefit of both the public and private sectors.

In this paper attention will be focused on the role of the state in service delivery, public-private partnerships in perspective, guidelines be discussed to ensure effective public-private partnerships and new ventures on local government level to improve the welfare of all citizens through public-private partnerships.

2. LITERATURE REVIEW

2.1 The role of the state in service delivery

The State is a critical player in the socio-politico-economic development of any country. This includes in managing the environment as *inter alia* can be seen from the commitments of governments towards the implementation of the 2030 Sustainable Development Goals. Whether the State works alone or collaborates with non-state actors, it largely relies on the public service as a critical instrumental institution for implementing its policies especially on service delivery. Whether it concerns poverty eradication, addressing social problems, economic challenges and even saving the environment, ultimately the real results should be seen at community level in terms of service delivery by the public service (Sachs 2017:1).

In implementing or facilitating the implementation of public services are the following aspects of critical importance, namely (i) policy and strategy planning, (ii) providing services, (iii) infrastructure development, (iv) resource mobilisation, (v) monitoring and evaluation, and (vi) institutional and human resource capacity development. Most importantly is that the public service is expected to provide the bedrock on which all operations of all actors are anchored which, when not provided, will jeopardized service delivery. This bedrock is the rule of law and justice, observance of human rights, law and order, security of person and property, leadership, professionalism, transparency, accountability, ethical conduct, and integrity. The latter are therefore critical instruments for state action in the implementation of public services. It is also a critical backbone for the action of the other actors and stakeholders besides the government (Kauzya 2016:7).

The reality, however, is that many governments are operating public services that are not capable of delivering services effectively, efficiently and equitably. However, at the same time, in light of the criticality of effective delivery of public services, governments are expecting the Public Service to provide more and better quality of services with less resources to their disposal. Doing more with less is being taken at a much higher level and will success require a comprehensive transformation of the public service (Minnaar 2017).

To achieve the aforementioned will depend on the state's global competitiveness especially where the state plays an important role. South Africa's global competitiveness unfortunately deteriorated during the last couple of years. Afrobarometer (2016:4) indicated that the majority of South Africans do not trust the South African Parliament (down from 64,5% in 2010 to 51,6% in 2016). Legislation, promulgated by Parliament, determine regulations according to which individuals and businesses should adhere to and is of utmost importance for economic growth and development. Unnecessary regulations, however, will hinder economic growth which will inhibit the broadening of the tax-base. Unfortunately the South African Parliament increased the former activities. This meant that South Africa dropped from position 42 in 2000 in respect of economic freedom to 105 in 2016 which is a tragedy taking cognisance of the fact that the welfare of a state is *inter alia* determined by the economic freedom (Botha 2016:10). The World Economic Forum (2016:1) issued a report on the role that the state should play in driving efficiency and effectiveness in services rendered (see Table 1).

Table 1: Indicators of competitiveness and SA's position

INDICATOR	2009	2015	DECREASE (POSITION)
Wasting of state expenditure	29	89	-60
Salaries and productivity	81	136	-55
Preferential treatment by public officials	50	104	-54
Public trust in politicians	50	90	-40
Quality of primary education	104	133	-29
Burden of regulation by the state	95	117	-22
Cooperation between trade unions and employers	123	139	-16

Source: World Economic Forum 2016

It is evident that the South African situation worsened substantially and explains why foreign investment in South Africa deteriorated during the last couple of years. The awarding of junk status for South Africa's credit rating and foreign debt as well as for the five leading banks (Absa Bank, FirstRand Bank, Investec Bank, Standard Bank and Nedbank) by Standard and Poor and Fitch in April 2017 in the wake of a cabinet reshuffle furthermore contributed to this situation (EP Herald 2017:2).

It is thus imperative that governments should look for alternative ways of delivering high quality services to as many citizens over a short period as possible and yet maintain viable systems in the medium and long-term. To a large extent, all countries, whatever their stage of development, pursue similar aims. They are all trying to become 'modern' or, if they can claim to be modern, to remain in that supposedly happy condition. This involves the downgrading of values, habits and institutions and the upgrading of frequent and continuous changes in technology, morals, standards, habits, fashion and style (Mulgan 2005:60). Change is now regarded as a goal in itself, and is, according to Wessels (2000:311) *inter alia* being brought about by the growth of the world's population; urbanization (affecting the accessibility of all types of government services); industrialization (impacting on the worsening world environmental situation); integration of national economies into global market mechanisms (bringing about increased insecurity, unemployment, inequality and poverty due to increased competition and flexibility); the spread of new epidemics such as HIV/AIDS (necessitating the adoption of new methods of health care and delivery); and social instability (a result of wars in various regions in the world). Dwivedi (2003:32) adds to these challenges the need to revitalize the institution of the public sector by setting the governing process in order through exemplary examples set by political leaders for the public servants to follow. In this process cognizance should be taken of the disruptive impact of reforms on culture, style of governance and local traditions and beliefs, civil society and ethical governance; the erosion of public service ethics and morality; and the training of public leaders.

The new challenges of governing within this changing environment seem increasingly complex and should issues such as the growing complexity of policy issues, the need for a simpler and more transparent political process, the multiplication of controls, too many procedures hindering change, low morale among public servants, low public administration productivity, growing financial constraints, and the citizen's lack of confidence in the public service, be dealt with (Laegreid 2001:2). Change furthermore takes place at breathtaking speed, placing governments and public administrations in situations that are probably quite different from those we knew before. Today, developing countries such as South Africa need to find answers geared to today's needs in order to clear up ambiguities concerning some of the basic principles by which it is governed.

Whatever appropriate means chosen by the government to deliver services and address the abovementioned, the ability of the government to achieve its social objectives must

therefore be strengthened as it cannot be assumed that in future the public sector will be the only instrument of choice for achieving social reforms and promoting change in society. Other boundaries and distinctions are fading between the public and the private sector, between national and global, between governor and governed (Bourgault, Demers & Williams 1997:384). The traditional modes of service delivery are therefore challenged. Due to the diminishing availability of financial and human resources caused by policies of privatisation, down-sizing and budget cuts, the capacity of the public service is also reduced, implying that citizen's basic needs towards education, health and housing will not be met (Kaul 1996:137).

Alternative measures such as PPPs should therefore be considered to address the above-mentioned situation.

2.2 Public-private partnerships in perspective

Good and democratic governance means that 'a social subcontract' between citizens, the government, NGO's and private sector interest can be achieved. It might mean that both private organisations and NGO's take a more active role in the production of public services. The dominant feature of the governance model has been the argument that partnerships dominate public decision-making and implementation policy. Governing and public management has partly been seen as partnership building, but it should be stated that governance is not equivalent to partnering. Although partnerships form an important aspect of local governance for instance, there are also other governance mechanisms such as hierarchies, markets and communities which will continue to be significant in the public, private and voluntary sector (Pierre & Peters 2000:14-15). The multiple forms of partnerships therefore create a new grey area where it is difficult to distinguish the interests of one from those of the other. This leads to many questions about the legitimacy of decisions and management methods, and to conflicts over accountability (compare Chang, Memon & Imura 2003:245 & Diale 2005:53).

Particular definitions, although highly contested in the literature, were mooted to address the latter situation. Martin (2016:195) in an attempt to introduce a consensus definition of a PPP, defines a PPP as "a class of public contracts for the construction or rehabilitation of public facilities and public infrastructure and for the provision of supportive or ancillary services". South Africa's National Treasury defines a PPP (PPP Unit, 2007) as a contract

between a government institution and private party, where the private party performs an institutional function and/or uses state property in terms of output specifications and where the former benefits through unitary payments from government budgets and/or user fees.

The definition of Martin focuses on firstly, the formal, contractual nature of PPPs and secondly, for the purpose of the construction or rehabilitation of public facilities and infrastructure and provision of ancillary services. However, the literature recognises a broader set of purposes that are not only contractual in nature and not only related to facilities and infrastructure but include:

- constructing or rehabilitating of public facilities and infrastructure (Martin 2016:198; Grimsey & Lewis 2005:346);
- providing the public sector with technical expertise and established networks for resource sharing (Minnaar 2017);
- modernising the public sector through business practice and thinking (Brinkerhoff & Brinkerhoff 2011:7);
- policy implementation and service delivery (Bovaird & Loeffler, 2016:26); and
- addressing societal challenges like water security, health and poverty (Stadler, 2016:79).

The Organisation for Economic Co-operation and Development (OECD) (2008:17) defined PPPs as an agreement between the government and one or more private partners (which may include the operators and the financiers) according to which the private partners deliver the service in such a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners and where the effectiveness of the alignment depends on a sufficient transfer and sharing of risk to the private partners. The emphasis on risk sharing poses particular challenges such as risk sharing and will attention be focused thereon to see that a win-win situation be created for all role-players in the PPP.

The process of the allocation of risk to the party most capable of bearing the risk is determined by whether a particular party is risk-averse. A party's aversion to risk depends

on the retention of possibilities to diversify control over risks. The control over diversifying the risk relates to the occurrence of the risk, the likelihood of the occurrence, and the impact (Iossa, Spagnola & Vellez 2003:3). It boils down to that in instances where the parties possess comparable risk-aversion, the risk should be allocated to the party who has more control over the risk. Risk in PPPs can affect the productivity, performance, budget, quality and overall success of a PPP project and a number of factors will play a role, ie legal or contractual obligations, the different types of PPPs, the interdependencies of the risk and the different stages of the project (Mills 2001:245). Some methods of risk mitigation in a PPP include insurance and performance bonds, specialist advisors, business interruption insurance, construction subcontractor entities, cost overruns, quality specifications, due diligence, unitary payments, contingency plans and funds, regulatory bodies, penalty clauses, bank guarantees, environmental assessment, vendor quality control procedures, defined terms and conditions, and owner oversight (Kunreuther 2004:1124). To therefore control risk, Nel (2014:64) suggests that use should be made of systematic risk management, a process of expecting the unexpected. It also identifies opportunities to enhance performance and is a structured process of identifying, assessing, monitoring and managing risk, thereby assessing the cost benefits of such actions, enabling decision-making to be less subjective, making the relative importance of each risk immediately apparent, and providing an improved understanding of the project through response scenarios. May and Koski (2013:151) are, however, of the opinion that PPPs should not only be limited to the counterparts in a PPP but should encourage wider community participation and engagement.

In the South African context, the Treasury has to approve and govern all PPP, satisfying itself that the PPP is feasible and remains feasible. These regulations in some cases prevent private investors to engage in partnerships with the public sector. To counter the situation the South African government introduced the Business-Adopt-A-Municipality (BAAM) project on local government level in 2014.

2.3 Public-private partnerships on municipal level

A novel idea was introduced on local government level to replace the stringent PPP guidelines with the introduction of the BAAM project. Traditional PPP's are based on legislation and formal, legally binding agreements with performances being monitored and governed by a government department. BAAM agreements are less formal and with the

express purpose of building much-needed capacity in local government to improve municipal service delivery. These less-formal partnerships are characterised by Memoranda of Understanding (MoU) between the partners and are based on mutual collaboration and trust without the requirement to account to entities such as a government department (DCoG and GIZ 2015:10). BAAM draws on the skills, resources and goodwill of the private sector and are based on cooperation agreements between local government agencies, for example the Department of Cooperative Governance (COGTA), the South African Local Government Association (SALGA), municipalities and the private sector.

Sixty-seven private sector companies in South Africa accepted an invitation from the Department of Cooperative Governance (DCoG) to adopt and support especially vulnerable municipalities (DCoG 2014:24). In 2014 the Back-to-Basics (B2B) programme for local government was added to the BAAM programme. The B2B programme gives greater focus to the BAAM initiative and defines the five key elements that constitute the basics (Nel 2015:22):

- adequate and community oriented service provision – putting people first;
- delivery of a basket of basic services like water, electricity, sanitation and refuse removal;
- good governance administration;
- sound financial management and accounting; and
- robust institutions and administration.

Accepting the invitation of DCoG involves *inter alia* concluding memoranda of agreement with adopted municipalities as earlier mentioned, facilitating agreement on the prioritized areas of focus for the BAAM intervention, developing a joint implementation plan and monitoring and evaluating the outcomes resulting from the successful implementation of the plan. All of this is done collaboratively with the appropriate municipal officials on the basis of mutual trust and co-creation of solutions, with the appropriate municipal leadership retaining accountability for the achievement of the planning outcomes that reside within their management domain.

There is thus a need for mechanisms such as the BAAM programme that unlock other sources of funding for these municipalities and supports the building of key skills and experience. The notion of shared value ie policies and operating practices that enhance

the competitiveness of an organization while simultaneously advancing the economic and social conditions in the communities in which it operates (Porter & Kramer 2011:67) suggests that in the modern world public or private sector organizations need to view their success and sustainability as being interdependent with that of other organizations. The BAAM programme attempts to build on this by bringing together the local government sector and the private sector without the legalities of current PPP arrangements. The afore-mentioned innovative examples thus ensure that the general welfare of all citizens will increase due to improve local government service delivery efforts and be to the benefit of all role-players involved in the partnership.

3. PROBLEM INVESTIGATED

Traditionally, government programmes and services were for the most part delivered through government departmental organisations. However, this is no longer the case as governments are increasingly entering into partnerships with more independent agencies to deliver public goods and services to improve the general welfare of inhabitants on all spheres of government. The questions of how citizens can be served better, how the production of public services should be organized, how and by whom service delivery systems should be managed and conducted, are being posed as responses to the challenges of governance in contemporary public administration and management. To address this, PPPs are formed, raising particular problems as to the management of these PPPs, how risk will be shared, who will be accountable, productivity issues, and quality assurance of the projects.

4. RESEARCH OBJECTIVES

The objectives of this paper are to determine whether collaboration between the public and private sectors could enhance public service delivery; whether both sectors benefit from these partnerships; should particular guidelines be followed in this endeavor; and how will risks be managed when such collaborations take place.

5. RESEARCH METHOD

The research methodology applied consists of a literature study of appropriate primary sources containing authoritative publications, books, journals, the internet and official

documents such as departmental policies while the field operations include interviews with practitioners and academics in the field of public administration and management.

6. RESULTS AND FINDINGS

Although PPPs increased, particular loopholes still exist with these partnerships, namely a lack of government support for private providers, a lack of oversight, the quality of projects is not ensured, there is a lack of transparency in PPPs, an underdeveloped market of private providers, a lack of buy-ins from constituents, a lack of public awareness and understanding, a lack of political commitment, inconsistent implementation of legislation leading towards more 'informal' PPPs such as Business-Adopt-A-Municipality (BAAM), and limited programme activity. To ensure the success of these projects, should each participant's role thus be defined, proper planning and process focus take place, mutual trust be in place, mutually agreed performance targets and standards be set, and partners be treated equally. Risk should furthermore be managed through a systematic risk management system.

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Apart from the guidelines discussed in this paper, should the government undertake more efforts to make the country more lucrative for foreign and local investments. In this regard more can be done in terms of deregulation and should legislation and regulations which inhibit a free economy be investigated. Politicians should undergo training focusing on general economic principles about creating wealth and the relationship between economic freedom, job creation and increased tax-income. Corruption in the public sector should also be prevented as promised in numerous budget speeches since 2012 as there is a direct correlation between corruption and economic performance. The private sector furthermore represents the source of work creation and tax income accruing to the state. Without employers, trade unions will not be able to exist and should the private sector be involved in the creation and implementation of economic policy as envisaged in the South African National Development Plan 2030.

8. CONCLUSIONS

With an ever-changing environment it is evident that the public sector is not in a position to deliver all services themselves. This reality implies a readiness to enter into

partnerships between government, the private sector, NGO's and the citizens. On local government level this will mean that the management of municipalities should be altered with increased accountability, transparency and responsiveness prevailing; true commitments and trust from all role-players; and the determining of mutually agreed performance targets and standards. However, particular loopholes still exist with these partnerships such as a lack of oversight, the quality of projects is not ensured, there is a lack of transparency in PPPs, a lack of buy-ins from constituents and a lack of public awareness and understanding. A more informal manner of PPP's that was introduced in South Africa ie BAAM was also discussed as the partnerships need not adhere to the stringent PPP prescribed regulations normally associated with PPPs.

Risks are therefore a reality in these partnerships as it can affect the productivity, performance, budget, quality and overall success of a PPP project. To prevent the latter, risks should be managed through a systematic risk management system where risk is conceptualized, assessed, reviewed and communicated through the PPP cycle. In this manner both the public and private sectors gain through their collaborative efforts and can the quality of life of citizens and services be improved.

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**TALENT MANAGEMENT IN THE SOUTH AFRICAN MINING INDUSTRY: A CASE STUDY
OF FREE STATE GOLD-MINING COMPANIES**

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**TALENT MANAGEMENT IN THE SOUTH AFRICAN MINING INDUSTRY: A CASE STUDY
OF FREE STATE GOLD-MINING COMPANIES.**

World-wide the competition for talented employees is intensifying and the South African mining industry is no different. However, the mining industry is not successfully implementing talent management, particularly with regards to the attraction, development, deployment and retention of employees in core occupational categories. If talent management is not well-managed, it can affect an organisation's performance to such an extent that it can cripple its image, service delivery, growth and profit. The South African mining industry has identified talent management as one of their key challenges. This is mainly because critical-skills shortages are being experienced in core occupational categories, which form part of the core business of the South African gold-mining, and these critical skills shortages negatively influence production in the mining industry. Talent management is and will continue to be a limiting growth factor for the South African mining industry, and it is poorly implemented in the mining industry. In addition, there are insufficient talent management strategies in place

because the mining industry is technologically so sophisticated that management have invested much more in machinery than in human capital.

A well-researched and sufficiently thought-through integrated talent management framework is thus needed by the mining industry to respond to, and succeed in the talent war. Against this background the problem that will be investigated within the ambit of this study is how talent management is implemented in the gold-mining companies and to develop integrated talent management framework for the gold mining-companies.

The aim of this study is to contribute to the effective management of talent in the South African mining industry. This will be achieved by developing an integrated talent management framework for gold-mining companies operating in the Free State province of South Africa. The framework will assist gold-mines to deal with the current critical skills (mining engineers and artisans) shortages that they are experiencing and to fulfil the objectives of the Mining Charter in terms of human resource development. The study will also advance the body of knowledge regarding talent management in South Africa, since it has not been adequately investigated. Furthermore, study aims to provide information on the significance of talent management in gold-mines in order to assist them to deal with current skills shortages in a declining economy.

The study will employ inductive research approach. The exploratory case study method will be used as an underlying framework for the research. The population of the study will be human resource specialists working for gold mining companies in the Free State province. . Currently, eleven shafts are operational in the Free State. Purposive sampling will be employed for this study. For the purpose of this study, one HR specialist situated at each of the eleven shafts will be interviewed. Data will collected by means of semi-structured interviews. The research will employ Tesch Eight Steps data analysis process.

**EXPLORING LEADERSHIP'S STRATEGIC THINKING ON MODERN HUMAN CAPITAL
SKILLS AND ABILITIES IN A SMALL- TO MEDIUM-SIZED ENTERPRISE CONTEXT**

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EXPLORING LEADERSHIP'S STRATEGIC THINKING ON MODERN HUMAN CAPITAL SKILLS AND ABILITIES IN A SMALL- TO MEDIUM-SIZED ENTERPRISE CONTEXT

ABSTRACT

The theme of the 2016 World Economic Forum's annual meeting in Davos was "Mastering the Fourth Industrial Revolution", the industrial revolution of our time, which is characterised by rapidly advancing technology and widespread societal disruption. The summit concluded that many traditional jobs and roles will be upturned or rendered entirely redundant by the year 2020. By that time, softer skills and abilities will be demanded, including: complex problem-solving, critical thinking and cognitive flexibility. Business leaders ought to be informed about this change, which is likely to impact their internal environments.

Moreover, it is generally accepted that small businesses are vulnerable and have relatively high failure rates. Lindiwe Zulu (2014) has asserted that the South African failure rate of SMMEs was estimated to be over 70%. The lack of strategic thinking and management are perceived as primary reasons for poor business performance, failure and managerial incompetency. Thus, the overarching question of this exploratory study was whether and how SME leadership strategically thinks about human capital, regarding employees' skills and abilities.

The existing body of knowledge was reviewed regarding the problem and found lacking. Therefore, primary research was undertaken and the exploratory case study design was considered the appropriate mechanism. Moreover, a phenomenological design approach and the in-depth critical case study design were deemed appropriate; thus, this approach and design were selected and implemented. To construct the case study, the purposive sampling technique was used to select an appropriate pool of respondents in the anonymous mid-sized firm selected. The respondents were three senior managers charged with leadership and strategic responsibilities. The methodology achieved the goal of initially exploring the knowledge gap. Respondents were interviewed using a semi-structured format. Subsequently, the data was transcribed and manually analysed for emergent thematic congruencies between interviews.

The study led to the emergence of early, non-generalisable findings. The organisation, a mid-sized firm, was intuitively incorporating many the skills and abilities proposed by the WEF (2016). However, none of the interviewees were aware of the skills and abilities that will be in demand by 2020. Despite the lack of awareness, the firm's intuitive incorporation of soft human capital skills and abilities presented an interesting scenario for initial exploration. Using

this firm's components, we propose some early, untested guiding principles to follow in developing and executing a strategy for such proficiencies. Firstly, these personal competences should be incorporated in the firm's strategic charters or extended mission statements. Secondly, the dedication of time, a position or an outsourced function to this strategy is considered useful in this enterprise. Thirdly, a tiered interview process undertaken over a period, such as a month, offers a span of reviewing the applicant's appropriateness for the position in which these skills and abilities can be tested. Moreover, a stipulated probation period can test the candidate's appropriateness for the job over a longer period. Finally, a long-term strategy may be to utilise smaller internal teams for work projects to give the team leader greater insight into the current state of human capital among personnel.

THE IMPACT OF SOCIAL MEDIA ON KNOWLEDGE SHARING, INFORMATION SHARING AND FIRM PERFORMANCE. A CASE OF COMPANIES IN THE GAUTENG PROVINCE OF SOUTH AFRICA.

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THE IMPACT OF SOCIAL MEDIA ON KNOWLEDGE SHARING, INFORMATION SHARING AND FIRM PERFORMANCE. A CASE OF COMPANIES IN THE GAUTENG PROVINCE OF SOUTH AFRICA

ABSTRACT

Research indicates that the modern business cannot operate in isolation because of the interdependency that exists both within and outside the business environment. As such, communication plays a critical role in coordinating the effort of individual organisations in a collaborative relationship in that it results in a better competitive advantage for the companies. The aim of this study, therefore, is to establish the influence of social media, information

sharing and knowledge sharing on firm performance of companies in South Africa. In as much as the issue of social media communication has received great benefits and growth within organisations, little has been researched about the impact of social media on job performance, knowledge sharing and information sharing among companies in the Gauteng province, South Africa. Structured questionnaires were distributed to both management staff and lower level employees in companies in Gauteng province of South Africa. This study utilised a quantitative research methodology using Smart PLS. This software was employed to test the relationships among the four hypotheses. The results showed that there is a positive relationship between the four proposed hypotheses. Based on the findings of this research, recommendations will be made to both the top- and lower-level employees in the companies in South Africa. This study is expected to have real-world and academic implications to policy makers for the companies. In addition, the study will provide new insights and add first-hand knowledge to the existing body of literature, which is scant in South Africa and the South African companies in particular.

1. INTRODUCTION

Effective communication has been an essential element in the success and smooth running of any organisation (Gupta, Seetharaman & Raj, 2013; Felix, Saboo, Kumar, & Ramani, 2017). In fact, it is a basic prerequisite for the attainment of organisational goals and objectives in terms of customer relationship and organisation's relationship (Pooe, Mafini, & Loury-Okoumba, 2015). The existence of an organisation depends on its effective communication capability (Sidorova, Amaboldi & Radaelli, 2016). Through communication, organisations can achieve high levels of performance, outperform competitors, improve brand reputation, enhance both customer- and employee trust and meet customers' requirements and expectations (Dong & Wu, 2015; Brooks & Califf, 2016; Saboo, Kumar & Ramani, 2016; Sidorova, Amaboldi & Radaelli, 2016). In the present business environment, communication through social media is integral and builds strong organisation relationships with suppliers, which has resulted in win-win advantages (Vasquez & Velez, 2011; Macnamara & Zerfass, 2012; Baruah, 2012; Neves & Errami, 2016). Open communication is one of the key strategies to organisations' knowledge, information sharing and performance.

Many organisations today still find it difficult to understand and explore information and knowledge sharing to enhance performance through social media platforms (Chung, Seaton, Cooke & Ding, 2016). Since social media is seen as the future of communication and as an effective means for knowledge and information sharing within organisations (Badea, 2014), this study set out to investigate the influence of social media on knowledge and information sharing for the enhancement of firm performance.

2. LITERATURE REVIEW

2.1 Social media

The increasing popularity of social media has not only changed the social life of individuals and regular Internet users, but also to a great extent has enhanced organisation growth and productivity both within and outside the organisation (Swani, Milne, Brown, Assaf & Donthu, 2016; Wu, 2016; Wang, Pauleen & Zhang, 2016). The development of social media has become the greatest events in recent years for organisational learning (Moghavvemi, Sharabati, Paramanathan & Rahin, 2017). This is because social media represents a new strategy for organisations to gain competitive advantage and enhance job performance in the contemporary society (Nascimento & da Silveira, 2016). Social media is an aided computer-based technology or an Internet-based application in which members of organisations are able to create knowledge, share relevant information and contents, as well as participate in social networking activities (Rauniar, Rawski, Yang & Johnson, 2014). According to Wu, Li and Chang (2016), social media is defined as “the interactive platforms generated by mobile and web-based technologies on which individuals and communities can share, co-create, discuss and modify user-generated content”. Social media is a countless array of Internet-based tools and platforms that increase and enhance knowledge and sharing of information. For example Facebook, Skype, Wikipedia, Google +, LinkedIn, YouTube and Twitter are social network platforms that allow applications for quick and easy transfer of text, photos, audio, video, knowledge and information sharing (Rauniar, Rawski, Yang & Johnson, 2014; Quinton & Wilson, 2016; Pinho-costa, Yakubu, Hoedebecke, Laranjo, Reichel, Colon-Gonzalez, Neves & Errami, 2016).

2.2 Information and knowledge sharing

Information sharing is referred to as the exchange of data between people, organisations and social media as well as communication technology (Quinton & Wilson, 2016). Social media and the emerging Internet platforms have contributed immensely to the growth of information sharing globally. Previously, the physical transfer of information or data to and among other entities was tedious due to its non-portable format and the inability to import and export data. However, today, information sharing has been made possible through social media platforms. Social media encourages information sharing capability. Organisations need information sharing capabilities in order to respond to market needs effectively and to enhance performance. “Using information sharing platforms intelligently has been shown to be a more effective way to manage any organisation” (Neves & Errami, 2016:19). Efficiency of the organisation can be enhanced through information. Information sharing is important to organisations as it is a prerequisite to customer relationship building. Valuable information

sharing is a useful way of lowering costs, improving overall accuracy of product and services data and as a way of gaining access to relevant information. Information sharing is a prerequisite to knowledge sharing.

Knowledge sharing is an essential part of knowledge management and as such, it is more than just sharing information or exchanging data. Knowledge sharing is the exchange of skills, vision experience and expertise among organisations so that new information can be created, evaluated understood and interpreted for organisational improvement and development (Navimipour & Charband, 2016). However, for knowledge sharing to take place it requires that individuals or organisations involved are willing to share their knowledge in order to receive knowledge (Moghavvemi *et al.*, 2017). Li, Zhang, Zhang and Zhou (2016:33), made it clear that, “Knowledge sharing is a process in which individuals exchange their knowledge and create new knowledge together. It comprises two categories of behaviour: knowledge donating, which refers to passing on one’s own intellectual capital to others and knowledge collecting, which refers to consulting others in order to acquire some of their intellectual capital”.

Therefore, knowledge sharing requires some level of commitment, trust, willingness and collaboration among parties involved for learning and improvement (Tseng & Huang, 2011). Knowledge is the understanding of facts, information and description, as well as the acquisition of skills through experience and education. Knowledge sharing seeks to make information meaningful, accessible and useable among organisations in order to create and gain competitive advantage (Paulin & Suneson, 2012). Therefore, knowledge sharing is important to organisational learning and development.

2.3 Social media influence on knowledge sharing and information sharing

According to Ryden, Ringberg and Wilke (2015) and Rauniar *et al.* (2014), social media is changing and transforming the way organisations communicate with their customers and with each other rapidly. Social media aids the simplification of information and knowledge sharing (Chung, Andreev, Benyoucef, Duane, & O’Reilly, 2016; Quinton & Wilson, 2016). However, in the 21st century, the reverse is the case, where organisations can now schedule their meetings through Skype without having to meet face-to-face (Wu *et al.*, 2016). With social media, information sharing is easy and cost effective, creating opportunities for business collaboration and knowledge sharing, which is accurate, convenient and has effective feedback (Nisaf & Wickramasinghe, 2013). Organisations now advertise and promote their product brands, image and reputation through social media (Chung, Andreev, Benyoucef, Duane & O’Reilly, 2016). According to Swani *et al.* (2016), social media communication “enables marketing organisations to influence brand outcomes and purchase decisions through fan promotion and

popularization of brand content". It is widely known that external collaborative relationships between organisations is essential to enhancing productivity and as such, social media is believed to be important (Nascimento & Da Silveira, 2016). Collaborative relationship between organisations requires continuous information flow, trust, engagement and commitment of which social media plays an essential role (Wang, Pauleen & Zhang, 2016). Social media helps organisations improve on their collaborative strength through flexible participation and quick responses, which in turn may result in learning, information sharing, gaining new knowledge and increased productivity (Wu *et al.*, 2016). An effective strategy that allows organisations to interact easily and conveniently with customers, influence sales, enhance responsiveness, build relationships, increase brand awareness, customers' loyalty and enhancement of information and knowledge sharing is the essence of social media communication popularity among organisations (Gupta, Seetharaman & Raj, 2013; Quinton & Wilson, 2016; Wang *et al.*, 2016). According to Moghavvemi *et al.* (2017), information sharing provides solutions, new insights and mechanisms for knowledge sharing among organisations.

Social media is increasingly growing in popularity among employees and office workers alike for information and knowledge sharing (Tseng & Huang, 2011; Ou, Davision, & Wong, 2016; Razak, Pangil, Md Zin, Azlina, Yunus & Asnawi, 2016). Knowledge and information sharing among employees influence organisation's sustained competitive advantages and business objectives positively (Sivertzen, Nilsen & Olafsen, 2013). As a result, organisations and academic institutions now seek to empower and motivate their employees towards the use of social media technology platforms to communicate with customers and shareholders in order to be more effective on firm performance and productivity (Hansen & Levin, 2016; Ismaeel & Qammach, 2016; Kwahk & Park, 2016). Therefore, social media is an essential source of information and knowledge sharing.

H1: Social media has a significant and positive impact on knowledge sharing.

H2: Social media has a significant and positive impact on information sharing.

2.4 Knowledge sharing influence on firm performance

According to Hove, Sibanda and Pooe (2014:167), business performance refers to how the aggregate technology-enabled performance impacts across all firm activities, such as cost reduction, revenue enhancement and competitiveness. Vieira (2010:49) states that business performance might be defined in terms of doing the work, as well as the results achieved.

Knowledge sharing is considered a valuable resource because knowledge sharing enhances an organisation's capability to manage information and resources effectively, as well as to

enable significant return on investment (Tseng & Huang, 2011; Kuzu & Ozilhan, 2014; Chung, Seaton, Cooke & Ding, 2016). One of the reason for an organisation's decision to be in a collaborative relationship with other organisations is to enable it to access relevant information and knowledge on emerging trends driving market needs and demands that would have been impossible if it was working in isolation (Trivellas, Akrivouli, Tsifora & Tsoutsas, 2015; Olaisen & Revang, 2017). With the shared information, knowledge on how to strategically manage inventory forecast and implement necessary strategy may emerge (Akturan & Gunduz Cekmecelioglu, 2016). A mutual relationship among organisations can generate relevant and competitive information on market ideas, thereby enhancing and improving organisational performance as well as sustained competitive advantage (Razak, Pangil, Zin, Yunus & Asnawi, 2016; Wang, Sharma & Cao, 2016; Llopis & Foss, 2016). Knowledge sharing provides important information and know-how to solve problems and develop new ideas (Ismaeel & Qammach, 2016; Hussain, Konar & Ali, 2016). According to Li, Zhang, Zhang and Zhou (2016), effective knowledge management enables an organisation to gain competitive advantage over rivals due to its positive influence on "cost reduction, new product development, team performance, innovation and organisational performance". Therefore, the following hypothesis is postulated:

H3: Knowledge sharing has a significant and positive impact on firm performance.

2.5 Information sharing influence on firm performance

Researchers and business owners have recognised information sharing as the lifeblood of logistics and supply chain integration, market relationship with key customers and suppliers as well as materials flow (Wu, Chuang & Hsu, 2014; Pooe, Mafini, & Loury-Okoumba, 2015; Tong & Crosno, 2016; Bian, Shang & Zhang, 2016). The lack of information sharing in any organisation may result in a poor performance level, as the organisation may not be able to cope with the market pressure and demands (Srikanth & Jomon, 2013; Munirat, Sanni & Kazeem, 2014). Information sharing enables organisations to satisfy customers' specific needs and requirements (Hatala & Lutta, 2009). It enables efficiency and effectiveness of the organisation resources. This is due to its potential to keep organisations up-to-date and ensuring business competitive performance as well as long-term collaborative relationship improvement with external organisations (Bontis, Richards & Serenko, 2011). Information sharing enhances visibility of products and services supplied (Gil-Garcia & Sayogo, 2016). According to Lotfi, Mukhtar, Sahran and Zadeh (2013:33), "in order to survive and compete effectively in today's global economy, organisations strongly need to create, share and

disseminate up-to-date and appropriate knowledge and information”. Therefore, it is proposed that:

H4: Information sharing has a significant and positive impact on firm performance.

Research Model

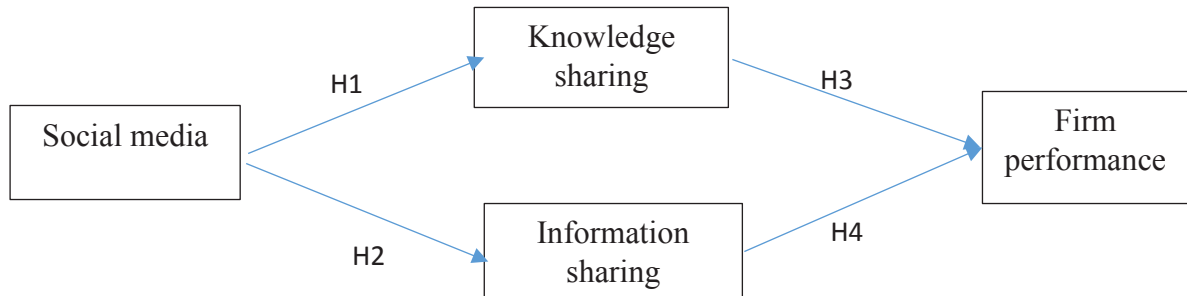


Figure 1: Own Source

3. RESEARCH METHODOLOGY

A quantitative, cross-sectional survey strategy was used to describe the influence of social media on knowledge sharing, information sharing and firm performance among companies in the Gauteng province of South Africa.

3.1 Measurement instruments

Social media was measured using a five-item scale adapted from Hansen and Levin (2016). One item, which is SM 5, was deleted because the factor loading was below the recommended value of 0.5 (Anderson & Gerbing, 1988). Knowledge sharing used a five-item scale measure adapted from Moshabbaki and Jaha'nyan (2009). Information sharing used a five-item scale measure adapted from Wu, Chuang and Hsu (2014). Firm performance was measured using a six-item scale from Tseng and Huang (2011). FP 3 was deleted due to the fact that the value did not meet the recommended threshold. A five-point Likert-type scale was used to measure the instruments, anchored by one (strongly disagree) to five (strongly agree) in order to express the degree of agreement.

3.2 Sample explanation

233 questionnaires were distributed to both management- and lower-level employees in the companies in Gauteng province, South Africa. 222 questionnaires were returned, of which only 185 were usable. This yielded a valid response rate of 79 percent. Descriptive statistics in Table 1 show the gender, age and marital status of employees in the investment companies.

Table 1: Descriptive Statistics

Gender	Frequency	Percentage
Male	97	52%
Female	88	48%
Total	185	100%
Age	Frequency	Percentage
≤30	60	32%
31-60	109	59%
≥ 60	16	9%
Total	185	100%
Marital status	Frequency	Percentage
Married	52	28%
Single	133	72%
Total	185	100%

More males took part in the study as shown in Table 1. They constituted 52 percent of the total respondents, with females making up 48 percent. In terms of the age groups of respondents, 60 individuals were younger than 30 years of age, which is equivalent to 32 percent in the study. Those aged between 31 and 60 represented 59 percent of the total population. The group above 60 years of age constituted 9 percent only. Married participants constituted 28 percent of the sample, while those who were single constituted 72 percent of the total participants.

3.3 Psychometric assets of the measurement scale

Table 2 reports on the psychometric properties of the measurement scale. The table shows the research constructs, Cronbach alpha test, composite reliability (CR), average variance extracted (AVE) and item loadings.

Table 2: Accuracy assessment and descriptive statistics

Research constructs	Descriptive statistics*		Cronbach's alpha test		C.R.	AVE	Item loading
	Mean	SD	Item-total	α Value			
Social media (SM)							
SM 1			0.453				0.460
SM 2			0.602				0.671
SM 3	2.09	1.711	0.806	0.712	0.710	0.550	0.861
SM 4			0.704				0.789
Knowledge sharing (KS)							
KS 1			0.510				0.612
KS 2			0.492				0.583
KS 3	3.11	1.106	0.787	0.820	0.820	0.699	0.830
KS 4			0.798				0.860
KS 5			0.803				0.870
Information sharing (IS)							
IS 1			0.789				0.842
IS 2			0.742				0.822
IS 3	3.55	1.398	0.733	0.858	0.859	0.705	0.805
IS 4			0.722				0.813
IS 5			0.646				0.729
Firm performance (FP)							
FP 1			0.639				0.738
FP 2			0.641				0.753
FP 4	2.30	1.704	0.508	0.800	0.800	0.578	0.545
FP 6			0.687				0.735
FP 6			0.704				0.776
<i>SM=Social media; KS= Knowledge sharing; IS=Information sharing; FP= Firm performance</i>							

The lowest figure item to total loading observed was SM 1 with 0.453. If this figure is rounded off to the nearest whole number, it becomes 0.500, which is within the recommended threshold whilst the highest was SM 3 with 0.806. The lowest factor loading observed was SM 1 with 0.460, which is less than the acceptable value of 0.5, but if this figure is rounded off to the nearest whole number, it becomes acceptable and the highest was KS 5 with 0.870. This shows that the measurement instruments are valid. On the other hand, the lowest Cronbach alpha was 0.712 and the highest was 0.858, which shows that the constructs were internally consistent or reliable and explained more than 70 percent of the variance. In addition, all composite reliability values were above the recommended minimum of 0.7 (Bagozzi & Yi, 1988), which further attests to the reliability of the measurement instrument used in the study. One of the methods used to ascertain the discriminant validity of the research constructs was the evaluation of whether the correlations among latent constructs were less than 0.60. These results are reported in Table 3.

Table 3: Inter-construct correlation matrix

Variables	FP	IS	KS	SM
FP	0.549			
IS	0.410	0.500		
KS	0.300	0.333	0.451	
SM	0.450	0.481	0.442	0.504

SM=Social media; KS= Knowledge sharing; IS=Information sharing; FP= Firm performance

A correlation figure between constructs of less than 0.60 is endorsed in the empirical literature to confirm the existence of discriminant validity (Bagozzi & Yi, 1988). As can be observed from Table 3, all the correlations were below the acceptable level of 0.60. The diagonal values in bold are the shared variances (SV) for the respective research constructs. The shared variance is expected to be greater than the correlation coefficients of the corresponding research constructs. Drawing from Table 2 and 3 above, “the results further confirm the existence of discriminant validity. To ascertain convergent validity, the factor loadings were considered in order to assess if they were above the recommended minimum value of 0.5” (Nunnally & Bernstein, 1994:15). “The factor loadings for scale items (Table 2) were above the recommended 0.5, which indicated that the instruments were valid and converging well on the constructs that they were expected to measure” (Anderson & Gerbing, 1988:33).

3.4 Path modelling outcomes

After checking the reliability and validity of the measurement instruments (reported in Table 2), the study continued to test the proposed hypotheses. In total, there are four hypotheses that are tested. In the path model, social media (SM), knowledge sharing (KS) and information sharing (IS) are the predictor variables and firm performance (FP) is the outcome/dependent variable. Figure 2 provides the proposed hypotheses and the respective path coefficients. The same results of the path coefficients are tabulated in Table 2 depicting the item to total correlations, AVE, CR and factor loadings.

3.5 Path model outcomes and factor loadings

Figure 2 indicates the path modelling results and item loadings for the research constructs. In the figure, SM stands for social media, KS is the acronym for knowledge sharing, IS stands for information sharing and FP is the abbreviation for firm performance.

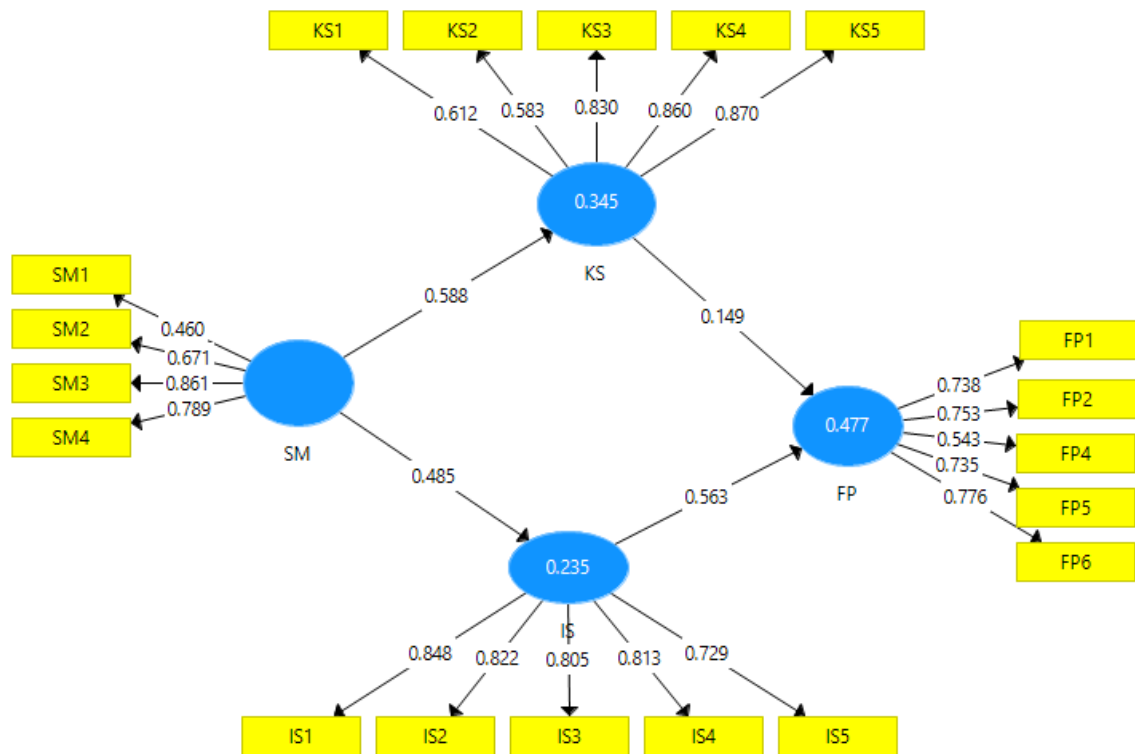


Figure 2: Path modelling and factor loading outcomes

Table 4: Results of structural equation model analysis

Path	Hypothesis	Path coefficients (β)	T-Statistics	Decision on hypotheses
Social media (SM) → Knowledge sharing (KS)	H1	0.588 ^a	8.499	Accept/ Significant
Social media (SM) → Information sharing (IS)	H2	0.485 ^a	7.333	Accept/ Significant
Knowledge sharing (KS) → Firm performance (FP)	H3	0.149 ^a	3.148	Accept/ Significant
Information sharing (IS) → Firm performance (FP)	H4	0.563 ^a	8.231	Accept/ Significant

^aSignificance level p<.10; ^bSignificance level p<.05; ^cSignificance level p<.01.

Table 4 indicates the four hypothesised relationships, path coefficients, the t-statistics and the decision criteria. The value of the t-statistic indicates whether the relationship is significant or not. A substantial association is expected to have a t-statistics that is above two. Drawing from

the results provided in Table 4, four of the hypothesised relationships (H1, H2, H3 & H4) were statistically noteworthy.

4. DISCUSSION OF THE RESULTS

The main objective of this paper was to examine the influence of social media, knowledge sharing, and information sharing on firm performance in companies in the Gauteng province of South Africa. The initial hypothesis stated that social media has a positive influence on knowledge sharing. In this study, this hypothesis was supported. It can be observed in Figure 2 and Table 4 that social media exerted a positive influence ($r = 0.588$) and was statistically significant ($t = 8.499$) in predicting knowledge sharing. This result implies that social media directly influences knowledge sharing in a positive and significant fashion; the higher the level of social media, the higher the level of knowledge sharing.

In addition, the second hypothesis proposed that social media has a positive influence on information sharing. This hypothesis was reinforced in this study. Figure 2 and Table 4 indicate that social media and information sharing were supported. Social media exerted a positive influence ($r = 0.485$) on information sharing and was statistically substantial ($t = 7.333$). This result signifies that social media is related positively and meaningfully to information sharing. Thus, higher levels of social media will lead to higher levels of information sharing.

The third hypothesis, which advanced that knowledge sharing exerts a positive influence on firm performance, was buttressed and acknowledged in this study. It is reported in Figure 2 and Table 4 that knowledge sharing exerts a positive ($r = 0.149$) influence on firm performance, this impact is statistically significant ($t = 3.148$). This outcome advocates that knowledge sharing has a direct positive effect on firm performance; therefore, the more effective the knowledge sharing, the greater the positive firm performance.

Moreover, the fourth hypothesis proposed that information sharing has a positive influence on firm performance. This hypothesis was reinforced in this study. Figure 2 and Table 4 indicate that information sharing and firm performance are supported. Information sharing exerted a positive influence ($r = 0.563$) on firm performance and was statistically substantial ($t = 8.231$). This result signifies that information sharing is related positively and meaningfully to firm performance. Thus, higher levels of information sharing will lead to higher levels of firm performance.

Social media ($r = 0.588$) came out as the highest value amongst the four hypotheses. Social media has great influence on knowledge sharing and companies should try to increase the use of social media on firm performance in South Africa, around Gauteng province. To

increase knowledge sharing, *esprit de corps* should be promoted, including team work and transparency in the workplace.

Information sharing ($r=0.563$) developed as the second highest scoring construct amongst the three factors impelling firm performance. Perhaps, this result could be attributed to the fact that most companies perform better if information sharing is free, correct and valid. Thus, in order to enhance good firm performance, greater emphasis should be placed on good information sharing, which should be very efficient and effective at whatever cost.

5. STUDY LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

A number of shortcomings were observed during this research. First, the study was restricted to four constructs only; forthcoming research could also include other constructs like trust and communication, which can boost firm performance. In addition, the results are based on a small sample of 185 respondents, which makes it problematic to make a generalisations on the results in other contexts of investment companies in South Africa. Prospective studies could make use of bigger sample sizes in order to get views that are more representative. Despite the use of a quantitative approach, imminent studies could also use a mixed-method approach so that in-depth views can also be apprehended.

6. CONCLUSIONS AND MANAGERIAL IMPLICATIONS

The study authenticates that factors such as social media, information sharing and knowledge sharing are instrumental in high firm performance. The study further validates that firm performance is at its peak when the social media, knowledge sharing and information sharing support are highly valued by top management and low level employees (Vieira, 2010). The study has both theoretical and managerial implications. Theoretically, with reference to the model, this study makes a noteworthy progression in marketing theory by methodically examining the interplay between social media, knowledge sharing, information sharing and firm performance. However, the study is an important contributor to the existing literature on this subject.

On the practical front, social media, knowledge sharing and information sharing are instrumental in exerting a positive influence on firm performance and perfection in each of these three factors could promote increased firm performance in investment companies (Hove, Sibanda & Pooe, 2014). Social media can be improved through advertisements and good audience targeting. Knowledge sharing can be improved by self-development and transparency at work places. Information sharing can be improved through eradicating barriers

in communication. Lastly, firm performance can be improved by other means such as induction programmes, avoiding organisational politics and good management practices.

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THE IMPACT OF ORGANISATIONAL CITIZENSHIP BEHAVIOUR AND PERSON-ORGANISATION FIT ON EMPLOYEE TURNOVER INTENTIONS

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Topic: Human Resources Management.

THE IMPACT OF ORGANISATIONAL CITIZENSHIP BEHAVIOUR AND PERSON-ORGANISATION FIT ON EMPLOYEE TURNOVER INTENTIONS

ABSTRACT

The aim of this article is to examine the relationship between OCB and turnover intentions while controlling for the effects of person-organisation (PO) fit. The study was based on a convenient sample of 200 employees from four different companies, and the data were analysed by means of correlation, hierarchical regression, and usefulness analysis. The results suggest that OCB directed at the organisation (OCBO) and PO fit were significantly related to turnover intentions. Contrary to expectations, OCB directed at individuals (OCBI) was not significantly related to turnover intentions. The paper contributes to research by clarifying the nature of the relationship between OCB and turnover intentions, and provides theoretical and practical implications that both researchers and practitioners can implement.

1. INTRODUCTION

Employee voluntary turnover remains one of the major problems in organisations. Costs associated with high turnover include cost of advertising vacant posts;

processing and training of new candidates; hiring temporary workers; assessment of applicants, interviewing, selection and placement of candidates; and loss of expertise of employees who quit the organisation (Mitchell, Holtom & Lee, 2001). It is perhaps these direct and indirect costs of turnover that explain why there is a continued interest in this area. There is therefore a need for organisations to realise the early signs of voluntary turnover in order to deal with it before it manifests itself into a serious problem.

Two of the early signs of actual turnover are arguably high turnover intentions and low organisational citizenship behaviour (OCB) (Chen, 2005). Turnover intention is defined as '*a conscious and deliberate willingness to leave the organisation*' (Egan, Yang & Bartlett, 2004:286). OCB is defined by Organ (1988:4) as '*the behaviour that is discretionary, not directly or explicitly recognised by the formal reward system and that in the aggregate promotes the effective functioning of the organisation*'. Examples of organisational citizenship behaviours include helping co-workers with work-related problems; communicating changes that may affect co-workers; participating in the governance of the organisation; being punctual; performing job duties to levels beyond expectations; refraining from complaining about trivial things; and making creative suggestions (Podsakoff, MacKenzie, Paine & Bachrach, 2000).

Chen and others (Chen, 2005, Chen, Hui & Segó, 1998) were some of the first to note that low organisational citizenship behaviour (OCB) may be a sign of withdrawal in organisations. They posit that because of the discretionary nature of OCB, dissatisfied employees are more likely to disengage in OCB, than to cut back on task behaviour. Following this logic, when employees experience dissatisfaction, but cannot leave the organisation because of lack of opportunities for instance, it is less risky for them to reduce discretionary extra-effort (OCB) than to engage in behaviours that may reduce in-role or task performance (Paillé, Raineri & Valeau, 2015; Paillé & Grima, 2011). This argument makes sense because in-role performance is detailed in job descriptions, and is therefore subject to contractual obligations and punishment for employees that shirk their responsibilities.

Since the reduction of OCB can be viewed as the first step in the withdrawal process, there should be a close relationship between OCB and turnover intentions (potential to leave). The aim of the present paper is to examine the relationship between organisational citizenship behaviour and turnover intentions while controlling the PO fit relationship.

The present paper contributes to literature in at least two interrelated ways. Firstly, the paper adds to an increasing number of studies that explore the relationship between OCB and turnover intentions. There has not only been little research on the relationship between OCB and turnover intentions (Paillé, *et al.*, 2015; Podsakoff *et al.*, 2009), but the existing results as regards the relationship between the two concepts have also tended to be inconsistent. Secondly, the paper examines the association between OCB and turnover intentions while controlling for the relationship between PO fit and turnover intentions. There is evidence that PO fit is related to both OCB (e.g. Wei, 2013; Hoffman & Woehr, 2006) and turnover intentions (e.g. Khaola, Mohapi & Matobo, 2012; Kristof-Brown, Zimmerman & Johnson, 2005; O'Reilly, Chatman & Caldwell, 1991). This is also true for attitudes related to PO fit such as job satisfaction and organisational commitment (Khaola & Letsika, 2013; Podsakoff *et al.*, 2009; Griffeth, Hom & Gaertner, 2000). Unless these established relationships are controlled for, it may be argued that the relationship between OCB and turnover intentions found in earlier studies could be spurious (Podsakoff *et al.*, 2009). In other words, the failure to control for these established

relationships may give false or misleading relationships between OCB and turnover intentions (Hair, Black, Babin & Anderson, 2010).

This article not only controls for this possible spurious relationship, but also examines if OCB adds a unique variance over and beyond the variance explained by PO fit in the explanation of turnover intentions.

Evaluating the unique effects of OCB and PO fit in the explanation of turnover intentions has implications for theory and practice. From a theoretical viewpoint, if each presumed antecedent adds the unique effects as expected, it would then justify more research on the causal mechanisms between each antecedent and turnover intentions. From a practical viewpoint, managers could design interventions that promote both OCB and PO fit to reduce turnover intentions and actual turnover. If in contrast the relationship between OCB and turnover intentions is not confirmed after controlling for the effects of PO fit, there may be less need to rely on OCB as an indicator of turnover intentions (Chiaburu, Lorinkova & Van Dyne, 2013).

The rest of the paper unfolds as follows. The next section presents the relevant literature and hypotheses; followed respectively by the definition of the problem investigated; research objectives; research methodology; findings, managerial implications, and conclusions.

2. LITERATURE REVIEW

2.1 PO fit and turnover intentions

PO fit is defined as the compatibility between an employee and the organisation (Kristoff-Brown *et al.*, 2005; Kristoff, 1996), and focuses on the degree to which an employee fits the entire organisation as opposed to how the employee fits a specific job, vocation, supervisor, or group (Kristoff, 1996).

One of the frequently cited outcomes of PO fit is turnover intention (Verquer, Beehr & Wagner, 2003). According to Person-Environment Fit Theories, people select and fit well in environments that meet their needs and values (Hoffman & Woehr, 2006; Cable & Judge, 1996). It is not surprising therefore that value incongruence between the person and the organisation (low PO fit) tends to result in high intentions to quit, and vice versa. Similarly, the Scheider's (1987) Attraction-Selection-Attrition (ASA) Model posits that people are attracted to, and get selected into organisations that fit their values and personalities. The attrition part of the model suggests that people who do not fit well in the culture of the organisation eventually leave.

Several authors have provided support for the negative relationship between PO fit and turnover intentions (Khaola *et al.*, 2012; Moynihan & Pandey, 2007; Kristoff-Brown *et al.*, 2005; Silverthone, 2004; Verquer *et al.*, 2003; Kristoff, 1996; O'Reilly *et al.*, 1991). Consequently, based on theoretical and empirical arguments, we put forward the following hypothesis:

H₁: *There is a negative relationship between PO fit and turnover intentions.*

2.2 OCB and turnover intentions

The research by Chen and others (Chen, 2005, Chen, Hui & Segó, 1998) suggests the importance of studying the link between OCB and turnover intentions. They posit that low or decreasing levels of OCB in organisations serve as an indication

of attitudinal and behavioural withdrawal of employees. It has been argued that groups or organisations with high levels of OCB foster group cohesion and attractiveness, and as such reduce employee withdrawal behaviours (Podsakoff *et al.*, 2009). Withdrawal intentions and behaviours include voluntary absenteeism, turnover, and turnover intentions.

The work by Chen and others (Chen, 2005, Chen, Hui, & Seago, 1998) and the meta-analytic study by Podsakoff *et al.* (2009) have provided evidence that OCB is negatively related to turnover and turnover intentions. Specifically, Podsakoff *et al.* (2009) found corrected correlations of -0.22 and -0.16 between OCB and turnover intentions, and OCB and actual turnover intentions respectively. Notably, Podsakoff *et al.* (2009) found that the relationships between OCB and the withdrawal criteria studied were not spurious as it could not be entirely attributed to job satisfaction. While these results are promising, to our knowledge, the relationship between OCB and turnover intentions is yet to be examined when the relationship between PO fit and turnover intentions has been controlled for. We therefore provide the following hypotheses:

H₂: *There is a negative relationship between OCB and turnover intentions.*

H₃: *OCB explains additional (unique) variance above and beyond the variance explained by PO fit in turnover intentions.*

3. PROBLEM INVESTIGATED

Despite knowing the potential link between OCB and turnover intentions, there has been little empirical research that explores the relationship between these two constructs. This is surprising because OCB has been significantly linked to a number of concepts related to turnover intentions, including organisation commitment, person-organisation (PO) fit, and job satisfaction (Wei, 2013; Podsakoff *et al.*, 2000). While the growing number of studies provides exciting research and new direction, prior studies not only produced inconsistent results, but have also not controlled for variables that may obfuscate the results (Paillé & Grima, 2011; Podsakoff *et al.*, 2009; Coyne & Ong, 2007).

4. RESEARCH OBJECTIVES

The primary objective of this paper is to examine the relationship between organisational citizenship behaviour and turnover intentions while controlling the PO fit relationship.

5. RESEARCH METHOD

5.1 Sampling and data collection Procedures

A convenient sample of 200 employees from four companies in Maseru (Lesotho) was requested to participate in the study. The human resources managers of the respective companies were approached for assistance. The participants were informed that participation in the study was voluntary, and confidentiality was guaranteed. Of the 200 distributed questionnaires, 120 were returned, thus a return rate of 60%. Of the returned questionnaires, only 108 (54%) were completed in full. Since there were no significant differences in the main variables between employees of these companies, the questionnaires from the different companies were analysed together.

Of the respondent sample, 52% were females, and 82% had tertiary education. The median age of the respondents was between 31 and 40 years; earning a median income of between R6, 000 and R10, 000; and had worked for a median of between 6 and 10 years at the time of study.

5.2 Questionnaire

In addition to biographic data (gender, age, tenure, qualification, income level), the questionnaire also collected information about turnover intentions, perceptions of PO fit, and OCB.

Unless stated otherwise, the variables were rated on a 5-point scale ranging from (1) “strongly disagree” to (5) “strongly agree”.

Turnover intentions: This construct was assessed using five items adapted from Colarelli (1984) and Michigan Organizational Assessment Questionnaire (Cumann, Fichman, Jenkins & Klesh, 1979). The items used were as follows: ‘*I frequently think of quitting my organization; as soon as I find another job, I will quit this organisation; I often think about leaving this organisation; it is likely that I will look for another job within the next six months; and I will probably look for a job outside this organisation within three years*’. The internal reliability (Cronbach’s α) of the scale was 0.89.

PO fit: The perceived PO fit was assessed using a two-item measure adapted from Cable and Judge (1997) and a three-item measure adapted from Cable and DeRues (2002). Cable and Judge’s (1997) items were: ‘*To what degree do you think you fit into the culture of your organization; and to what extent do you think you match or fit your organization and the current employees in your organization?*’. The responses in this case were given on a scale ranging from (1) ‘not all’ to (5) ‘to a very great extent’. Cable and DeRues’s (2002) items were: “*The things that I value in life are very similar to the things that my organization values; my personal values match my organization’s values and culture; and my organization’s values and culture provide a good fit with the things that I value in life*”. The internal reliability of the scale was 0.89.

OCB: OCB was assessed based on items adapted from the scale developed by Podsakoff, MacKenzie, Moorman and Fetter (1990). Two items were used to represent OCB that benefits the organisation (OCBO), and two other items were used to represent OCB that benefits colleagues (OCBI). OCBO items were: ‘*I participate in activities that are not required, but that improve the image of my organisation; and I make an effort to keep myself informed of current developments in my organisation*’. OCBI items were: ‘*I willingly give my time to help co-workers with work-related problems; and I am willing to take time out of my busy schedule to help my colleagues*’. The internal reliabilities of the scales were 0.72 and 0.79 respectively. The aggregate measure of OCB was assessed based on the above four items ($\alpha = 0.79$).

6. FINDINGS

The information on means, standard deviations and zero-order correlations is shown in Table 1.

As shown in Table 1, internal reliabilities of scales were acceptable with values exceeding Nunnally’s (1978) cut-off point of 0.70.

PO fit correlated negatively and significantly with turnover intentions ($r = -0.35, p \leq 0.01$). This result indicates that employees who perceived high congruence between their values and those of their organisations (PO fit) were more likely to express low turnover intentions than those who expressed low PO fit, and vice versa. Hypothesis 1 was hence initially supported by the correlation results.

Although the OCB directed at the organisation (OCBO) correlated negatively and significantly to turnover intentions ($r = -0.35, p \leq 0.01$), the overall OCB and the OCB directed at other individuals (OCBI) were not significantly associated with turnover intentions ($r = -0.16, p \geq 0.05$ and $r = -0.06, p \geq 0.05$ respectively). This result suggests that high levels of OCBO were associated with low turnover intentions, and low levels of OCBO were associated with high turnover intentions. This correlation result partially supported hypothesis 2.

Though not hypothesised in this study, other significant correlations in Table 1 were between age and tenure ($r = 0.70, p \leq 0.01$); age and turnover intentions ($r = -0.30, p \leq 0.01$); tenure and turnover intentions ($r = -0.24, p \leq 0.05$); qualification and income ($r = 0.42, p \leq 0.01$); PO fit and income ($r = 0.20, p \leq 0.05$); and OCBI and OCBO ($r = 0.53, p \leq 0.01$). In summary, these results suggest that older people were likely to have longer tenure; and, relatedly, older people with longer tenure were more likely than their younger counterparts to express low turnover intentions. Furthermore, employees with high qualifications and high PO fit were likely to report high income; and vice versa. Finally, the moderate relationship between OCBI and OCBO suggests that the two dimensions of OCB were related but distinct concepts. This is also reinforced by the fact that the two dimensions correlated differently with turnover intentions.

Table 1: Means, Standard Deviations and Inter-Correlations of the Variables

	Mean	SD	Gender	Age	Qualification	Tenure	Income	PO fit	OCB	OCBI	OCBO	Turnover intent
1. Gender	-	-	-									
2. Age	-	-	-0.08	-								
3. Qualification	-	-	0.01	0.08	-							
4. Tenure	-	-	-0.09	0.70**	-0.09	-						
5. Income	-	-	-0.08	-0.00	0.42**	-0.06	-					
6. PO fit	3.08	1.00	-0.03	-0.06	-0.04	-0.15	0.20*	(0.89)				
7. OCB	3.95	0.64	0.10	0.03	-0.09	0.03	0.02	0.12	(0.79)			
7.1. OCBI	4.01	0.73	0.04	0.03	-0.01	0.04	0.05	0.11	0.87**	(0.79)		
7.2. OCBO	3.90	0.74	0.13	0.02	-0.14	0.02	-0.01	0.09	0.77**	0.53**	(0.72)	
8. Turnover intent	3.26	1.03	0.01	-0.30**	0.10	-0.24*	0.11	-0.35**	-0.16	-0.06	-0.22*	(0.89)

Notes: * Significant at 0.05; ** Significant at 0.01. Cronbach's alphas, where applicable, are shown in parentheses.

To examine the unique effects of each variable while controlling for the effects of other variables, hierarchical regression analysis was conducted. This regression model not only shows the unique effects of each variable, but also shows the additional variance that explains the dependent variable after each step of the model. Biographic (control) variables were entered in step 1; PO fit was entered in step 2; and OCB dimensions were entered in step 3 of the model. The results are shown in Table 2.

Table 2: Results of Hierarchical Regression Analysis

Variable	Turnover intentions		
	Model 1	Model 2	Model 3
Step 1			
Gender	-0.01	-0.02	0.01
Age	-0.29*	-0.24*	-0.23
Qualification	0.11	0.02	-0.02
Tenure	-0.02	-0.12	-0.13
Income	0.06	0.17	0.18
Step 2			
PO fit		-0.42**	-0.41**
Step 3			
OCBI			0.11
OCBO			-0.23*
F	2.52*	6.10**	5.38**
R	0.33	0.52	0.55
R² Change	0.11*	0.16**	0.04*
R²	0.11	0.27	0.31

Notes: * Significant at the 0.05 level; ** Significant at the 0.01 level. Except for *F*, *R*, *R²* change and *R²*, figures denote standardized regression coefficients/betas (β)

Of the biographic variables, only age associated significantly with turnover intentions in models 1 and 2 ($\beta = -0.29$, $p \leq 0.01$ and $\beta = -0.24$, $p \leq 0.05$ respectively). Biographic variables in model 1 explained 11 per cent of variance in turnover intentions ($R^2 = 0.11$). The PO fit explained 16 per cent additional variance over and above the variance explained by all biographic variables ($\Delta R^2 = 0.16$, $p \leq 0.01$), increasing the variance explained from 11 per cent in model 1 to 27 per cent in model 2 ($R^2 = 0.27$). OCB added the small but unique variance over the one explained by biographic factors and PO fit ($\Delta R^2 = 0.04$, $p \leq 0.05$). More importantly, Table 2 shows that both PO fit and OCBO were negative and significantly related to turnover intentions in the final model ($\beta = -0.41$, $p \leq 0.01$ and $\beta = -0.23$, $p \leq 0.05$ respectively). These results suggest that both PO fit and OCBO were significantly related to turnover intentions, and the relationships were not spurious. Overall, the model accounted for 31 % of variance in the explanation of turnover intentions.

To further explicate the incremental effects of OCBO over PO fit in the explanation of turnover intentions, usefulness analysis was conducted (Darlington, 1968). This analysis deploys the hierarchical regression to examine the incremental effects of one antecedent

(e.g. OCB) over other antecedent/antecedents (e.g. PO fit) with respect to a given criterion (e.g. turnover intentions) (Wang, Oh, Courtright & Colbert, 2011). More specifically, the analysis compares changes in R-squared, and sets of independent variables are entered into the hierarchical regression model in separate blocks, and in reverse ordering to determine the incremental validity of each predictor (Coyle-Shapiro & Morrow, 2003). The results are shown in Table 3.

Table 3: Results of Usefulness Analysis

Dependent variable: Turnover intentions	
Overall R^2	0.294
ΔR^2 of demographic variables	0.110*
ΔR^2 of PO fit over demographic variables	0.156**
ΔR^2 of OCBO over demographic variables and PO fit	0.028*
ΔR^2 of OCBO over demographic variables	0.039*
ΔR^2 of PO fit over demographic variables and OCB	0.145**
Notes: * Significant at the 0.05 level; ** Significant at the 0.01 level.	

Table 3 indicates that PO fit explained about 16% of variance ($\Delta R^2 = 0.156$, $p \leq 0.01$) over the one explained by demographic variables, while explaining about 15% of variance ($\Delta R^2 = 0.145$, $p \leq 0.01$) over the one explained by both biographic variables and OCBO. Similarly, OCBO explained about four percent of variance ($\Delta R^2 = 0.039$, $p \leq 0.05$) over the variance explained by biographic variables, while explaining about three percent of variance ($\Delta R^2 = 0.028$, $p \leq 0.05$) over the variance explained by both biographic variables and PO fit.

To conclude, the results of the usefulness analysis (Table 3) indicate that both PO fit and OCBO provided unique effects in the explanation of turnover intentions, and hence both were useful.

7. DISCUSSION

The importance of reducing actual turnover and improving retention rates in organisations is well-documented (Mitchell *et al.*, 2001). Often, voluntary turnover results from turnover intentions, and hence understanding sources of turnover intentions is vital because an employee can move back and forth between dissatisfaction and intentions before they finally decide to quit (Tham, 2007; Griffeth *et al.*, 2000). Chen (2005) and Podsakoff *et al.* (2009) suggest that low OCB can be a useful warning sign of turnover intentions, which can arguably allow managers to deal with causes of actual turnover before it materialises. The results of the present study not only show that PO fit is a strong predictor of turnover intentions, but also that OCB directed at the organisation (OCBO) had a small, but unique effect in the explanation of turnover intentions. This finding is generally in support of the meta-analytic study of Podsakoff *et al.* (2009).

Contrary to expectations, the results of this study showed that OCB directed at individuals (OCBI) was not related to turnover intentions. While the immediate reason for this unexpected result is not clear, several authors have found that altruism (OCB dimension targeted at helping colleagues) does not relate significantly to turnover intentions (Paillé, Raineri, & Valeau, 2015; Paillé and Grima, 2011; Coyne & Ong, 2007).

There are at least two possible explanations for this result. Firstly, various researchers have posited and confirmed that the relationship between variables become stronger

when variables refer to the same target than when they refer to different targets (Khaola & Sebotsa, 2015; Lehmann-Willenbrock, *et al.*, 2013; Lavelle *et al.*, 2009). Following this logic, it is possible that the 'target similarity effects' was in operation because both OCBO and turnover intentions were targeted at the organisation, while OCBI was first and foremost targeted at individuals. Secondly, there is evidence that employees continue to assist colleagues even when they (employees) intend to quit their organisations (Coyne & Ong, 2007), somewhat explaining why OCB was not related to turnover intentions according to the results of this study. In summary, in line with previous studies, the results suggest that OCB targeted at the organisation is a more potent predictor of turnover intentions than OCB directed at individuals. More importantly, the current study extends extant studies by showing that the findings remain significant even after controlling for the relationship between PO fit and OCB, thus suggesting that earlier results were valid and not spurious.

8. LIMITATIONS

When interpreting the results of this study, some limitations have to be noted. Firstly, the cross-sectional nature of the study does not make it easy to infer causality of the variables. For instance, as hypothesized, it is possible that OCBs reduce turnover intentions; but that does not rule out the possibility that employees with low turnover intentions may develop high OCBs. Even though the hypothesized relationships were based on sound theories, future studies can use longitudinal and/or experimental research designs to determine the causality of variables tested in this study. Secondly, the data used in the present study was collected from one source using the same instrument, and the common-method bias may affect the results. While some employee attitudes and behaviours are best known by employees themselves, future studies can benefit by employing different sources of data. Lastly, the study was based on a small sample that was selected based on non-probability sampling technique, and this restricts the generalizability of the results.

9. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

In spite of the outlined limitations, this study has several theoretical and practical implications.

While previous studies have suggested different ways in which turnover intentions could be reduced, including job satisfaction (Khaola & Letsika, 2013; Egan *et al.*, 2004; Griffeth *et al.*, 2000) and PO fit (Khaola *et al.*, 2012; Hoffman & Woer, 2006; O'Reilly *et al.*, 1991); the present study implies that OCB directed at organisations may provide an additional perspective. Specifically, the results suggest that future research could fruitfully examine the role of OCB in signalling and reducing turnover intentions in organisations. This study suggests that OCB provides an additional variance over the variance provided by PO fit in the explanations of turnover intentions. Future studies can examine whether OCB can explain additional variance over the variance explained by other prominent predictors of turnover intentions, including fair treatment, job satisfaction, and organisational commitment.

In addition to implications for research, the findings have practical implications for managers. Firstly, managers can observe changes in OCBs (extra-role behaviours) to determine changes in turnover intentions. For instance, this study suggests that declining OCBs can signal an increase in turnover intentions. This early warning sign is important because it allows managers to deal with employee turnover before it is actualised. Secondly, the results have implications for selection practices. For example, managers

can select employees whose values fit best with those of their organisations (PO fit). Similarly, managers can select employees who have the propensity to go an extra-mile (OCB) on behalf of their organisations. Thirdly, managers can encourage employees to engage in OCBs as a strategy to reduce turnover intentions. Specifically, since OCB is trainable, managers can train their employees to engage in this behaviour (Wang *et al.*, 2011). This study hopes that these simple, yet practical steps can go a long way towards reducing turnover intentions in organisations.

10. CONCLUSIONS

The purpose of the present study was to examine the impact of PO fit and OCB on turnover intentions. Even though OCB and turnover intentions are theoretically related, there has surprisingly been little research on the relationship between these constructs (Podsakoff *et al.*, 2009). Overall, while the results suggest the negative and significant relationships between turnover intentions and both PO fit and OCB directed at the organisation (OCBO), the relationship between turnover intentions and OCB directed at individuals (OCBI) was not significant. The study concludes that both OCBO and PO fit are potent predictors of turnover intentions. Careful selection of employees with propensity to engage in OCBs, and whose values fit those of their organisations are provided as practical implications of reducing turnover in organisations.

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HOW DOES PERCEIVED EXTERNAL REPUTATION INFLUENCE AFFECTIVE ORGANISATIONAL COMMITMENT? A MIXED METHOD STUDY OF SOUTH AFRICAN ACADEMICS

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HOW DOES PERCEIVED EXTERNAL REPUTATION INFLUENCE AFFECTIVE ORGANISATIONAL COMMITMENT? A MIXED METHOD STUDY OF SOUTH AFRICAN ACADEMICS

ABSTRACT

The influence of Perceived External Reputation (PER) on Affective Organizational Commitment (AC) has been relatively under-researched, especially in the higher education context. PER refers to “employees’ understanding of how others view their employing organization”. South African higher education institutions are facing uncertain times, having recently experienced major unrest initiated by student protests. Faculty’s PER may have shifted, thus conceivably affecting their AC to the institution. Nurturing AC is critical since it has been found to be negatively related to Turnover Intention (TI), and in turn, to actual turnover. Therefore, this study seeks to understand the impact of PER on the AC of South African academics to ultimately increase faculty retention.

Several authors have integrated “social exchange theory” and “social identity theory” when studying AC. Previously, the relationships between AC and its antecedents were thought to be based primarily on the social exchange philosophy of reciprocity, i.e. employees develop affective organizational commitment in return for having socio-emotional needs met through organisational rewards. More recently, social identity theory (SIT) has been found useful to explain antecedent relationships with AC. SIT advocates that organizational membership helps individuals develop a sense of social-identity, thereby addressing the “who am I?” question. Organisational Identification (OID), rooted in social identity theory, reflects a feeling of “oneness” with the institution. Studies have shown that OID impacts on AC and often mediates the relationships between AC and its antecedents. For example, OID has been found to

mediate the relationship between Perceived Organisational Support (POS) and AC. This study includes both these variables in a proposed serial multiple mediator model showing pathways from PER to AC, including a previously untested pathway where PER influences POS.

The research design comprises both quantitative and qualitative research, using a sequential mixed methods approach, based on respondents from a single academic institution. The quantitative phase is cross-sectional and utilises an online survey. Analysis will test the proposed relationships between the key variables in the model. Thereafter qualitative primary research will be carried out in the form of 20 face-to-face semi-structured interviews with academic staff. This component will seek to bring fresh insights into the factors that underpin the relationships between the key variables.

This study contributes to theory in two ways: PER replaces “Perceived External Prestige” (PEP), the latter being more common when studying the impact of organizational reputation on OID and/or AC. PER, as operationalised in this study, includes five different dimensions of reputation, whereas PEP is a more general measurement of reputation. A second contribution is the extension of various models that have examined the simultaneous inclusion of social exchange and social identity-based antecedents of AC. Specifically, the model proposes that PER impacts on POS, that in turn, impacts on OID, and finally AC. Understanding the impact of PER is of practical relevance to university managers, who need to know how to improve the AC of academics. Finally, the mixed methods approach provides an empirical contribution since traditionally studies of AC’s antecedents and outcomes have been quantitative only.

**JOB SATISFACTION OF ACADEMIC STAFF AS A HUMAN RESOURCE MANAGEMENT
FACTOR: UNIVERSITY PERSPECTIVE**

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**JOB SATISFACTION OF ACADEMIC STAFF AS A HUMAN RESOURCE MANAGEMENT
FACTOR: UNIVERSITY PERSPECTIVE**

ABSTRACT

The purpose of this study was to determine the most significant factors impacting on academics' job satisfaction at a selected university in South Africa. The study used a quantitative research design. Data were collected through a self-administered questionnaire adapted from a previously validated Job Descriptive Index (JDI) instrument and a literature review. The target population was the academic staff in all faculties of a participating university. Quota sampling was used to collect the data. Two hundred and nineteen (219) responses from a sample of 1752 were received. The findings indicated moderate job

satisfaction among the academics at the university and a positive relationship between departmental management support and the relationships with the colleagues ($r= 0.519$, $n= 207$ $p< 0.01$). The study recommended that improving on the factors will inevitably lead to improved satisfaction of the academics in the university.

1. INTRODUCTION

Academics form the cogs of the university and without them the university would not function effectively. Academics play several roles in the university sector, they perform the tasks that make it possible for the university to survive and therefore they should be treasured and taken care of (Moeketsi, 2013:2). Academics play a mentoring role for their students in the university; their primary motivation is associated with students' learning achievement (Victor & Babatunde, 2014:158). The performance of academics influences the student learning process and it determines the level of student satisfaction (Alhinai & Bajracharye, 2014:14). Academics are playing a vital role in the success of their educational institution in today's competitive environment, managing their students and meeting their demands is a herculean task (Sandhya, Chand & Rajesh, 2015:87). Moreover, academics are first line of contact with students and require complex work in an increasingly demanding environment (Tai & Chuang, 2014:55).

Job satisfaction has an influence on efficiency, productivity and employee happiness, and it plays a role in reducing absenteeism, turnover and psychological distress. These aberrant behaviours among academic staff result in behaviours and reactions at universities and have an adverse effect on the outcomes (Mehrad, Hamson, Redzuan & Abdulah, 2015:575). Some researchers agree that satisfied university staff can contribute to organisational effectiveness, and motivation of staff can trigger better results in student performance, and even higher numbers of talented students (Alondereine & Majauskaite, 2016:144; Aslam, Khan & Fatima, 2011:731). Therefore, job satisfaction of academic staff as a human resource management factor cannot be underestimated.

Job satisfaction of academic staff is crucial as it is related to job performance and turnover. In the 21st century, turnover has become a serious problem in the management of the university (Anil Kumar, 2013:1). The management of the university need to evaluate the job satisfaction of their academics since the business nature of the university involves the cultivation of the future generation (Dhanapal, Mohd Alwie, Subramaniam & Vashu, 2013:129). In a rapidly developing country such as South Africa, particularly within the higher education sector, there is a great need to understand the attitudes of academics

towards their current working conditions (Ntisa, 2015:11). This requires special attention, because when the academics are not satisfied with their job it will have a direct impact on students learning (Naseem & Salman, 2015:2). In this environment, the human resource management practices need to be improved and implemented to enhance the academics level of job satisfaction.

This paper proceeds as follows. Firstly, the literature review on job satisfaction is presented, followed by the methods used in conducting the study. Next is the presentation and discussion of study findings. The article concludes with a number of recommendations and a conclusion.

2. LITERATURE REVIEW

In human resources perspectives, job satisfaction refers to a person's feeling of satisfaction on the job, which acts as a motivation to work (Munir & Rahman, 2016:490). Herzberg (1959) developed motivational model for job satisfaction and through research he found that job related factors can be divided into two categories. Hygiene factors and motivation factors. Hygiene factors (working conditions, supervision quality and level, the company policy and administration, interpersonal relations, job security and salary) can cause satisfaction but they can change dissatisfaction into a short term motivation, whereas motivational factors have long lasting effect as they raise positive feelings towards job and convert no dissatisfaction into satisfaction. Motivational factors (the nature of work, the sense of achievement from their work, recognition, responsibility that is granted to them, and opportunities for personal achievement helps employees to find their worth with respect to value given to them by the organisation. Further this can increase motivational level of employees which will ultimately raise internal happiness of employees and that the internal happiness will cause satisfaction (Raziq & Maulabakhsh, 2015:719).

2.1 Job satisfaction

Govender (2010:12) defined job satisfaction as the extent to which employees like their work. Alonderiene and Majauskaite (2016:144) defined job satisfaction as a set of emotions, feelings or attitudes towards one's working environment. Job satisfaction is a combination of both what an employee feels (affect) about his/her job and what he/she thinks (cognition) about various aspects of his/her job (Rayton & Yalabik, 2014:2386).

Previous research has found that an employee with considerable job satisfaction invariably has a positive attitude to his or her job. A person who is dissatisfied on the other hand, has a negative attitude to his or her job (Rue & Byars, 2010:72; Spagnoli, Caetano & Santos, 2012:6609). Job satisfaction is viewed by some, as a predictor of a positive attitude at work, productivity and, consequently good results for the organisation (Machado-Taylor, 2014:40). Most theories of job satisfaction propose that it is derived from three elements, namely, who the employee is, the kind of working environment and the conditions of employment under which the employee works (Pryce-Jones, 2010:9).

Nor and Hassan (2014:164) argue that job satisfaction relates to the academics' positive feelings about educational process and its results, enthusiasm in the work processes and the relationships with students, colleagues and administration. The academics pleased with their job the healthier and positive climate will be of an institute (Naseem & Salman, 2015:1).

Saba and Zafar (2013:20) identified the factors that impact on job satisfaction of the academics; compensation, promotional opportunities, job insecurity, working conditions, and the work itself have an effect on academics' job satisfaction. Saif, Nawaz and Jan (2012:42) also found that university academic job satisfaction factors include pay, work, supervision, promotion, co-workers, and the environment. Basak (2014:505) mentions that compensation, working conditions, opportunity for promotion, administration and management, supervision and facilities have an influence on the university academics' job satisfaction.

3. PROBLEM INVESTIGATED

Owing to the complexity caused by the university size, multi-campus nature and wide geographic footprint, equity of provisioning and consistent implementation of policies across all learning sites is difficult to achieve and there are severe financial, human, and infrastructural resource implications (University Quality Enhancement Project: Phase 1, 2014:2). According to the 2015–2016 edition of the university ranking by academic performance (URAP) the university investigated in this research is ranked 15th in South Africa and 5662th in the world. Despite appreciable level of its performance, this may not necessarily mean that its academic staff will stay in their job if other considerations are not present. The pressure to increase research output and, at the same time, to increase student throughput by helping disadvantaged students who would have been excluded

from the universities in the past, places enormous strain on academia's personnel resources.

Along with with workload issues and challenges of adapting to changes in the university, the academics find the university environment unwelcoming.

The above has led to the problem in question: What are the most significant factors impacting job satisfaction of academics in a university?

4. RESEARCH OBJECTIVES

The research objectives aim to identify factors impacting job satisfaction of academics in a university. A further objective in this study is to provide human resource management with retention plans that will assist the academics to be satisfied, passionate and proud of working in the university.

5. RESEARCH METHOD

In this section the design, population, sampling, data collection process, measurement instrument and data analysis are presented.

5.1 Research design

A quantitative research method was used. Johnson and Christensen (2012:38) argue that quantitative research relies on the collection of primary data. (Creswell, 2013:16-17) describe it as a way to get to the truth, to understand the world well enough so that we might predict and control it through identifying cause and effect relationships. In this section the sampling, data collection process, measurement instrument and data analysis are presented.

5.2 Population

According to Babbie (2011:186), a population is a theoretically specified aggregation of study elements and can be used to mean the group or collection that the researcher is interested in generalising about. The population comprised all the academics of the university. Academics include heads of departments, professors, associate professors,

principal lecturers, senior lecturers, lecturers and junior lecturers. All academic staff members in all the teaching faculties at all campuses of the university were targeted to complete the questionnaire.

5.3 Sampling

According De Vos (2011:191), a sample refers to a small portion of the total population or set of objects which comprises the subject to be studied. The sample in this study comprised the academic staff in the seven faculties of the university.

A non-probability sampling technique in the form of quota sampling was used. In quota sampling the researcher first identifies relevant categories of people and then decides how many people to include in the various categories of the sample. De Vos (2011:191) argues that non-probability sampling is used to identify participants with relevant knowledge for the study. In this study, the researcher used a quota sampling technique. Using this technique, the population was segmented into mutually exclusive subgroups, and then a non-randomised number was chosen from each subgroup to meet the predefined quota (Cohen, Manion & Morrison, 2002:103).

5.4 Data collection instrument

The researcher used a standardised measuring instrument namely, the Job Descriptive Index developed by Smith, Kendall and Hullin (1969). This instrument assesses the level of employee job satisfaction in terms of five facets: the nature of the job; training and promotion opportunities; salary; leadership; and relationships with colleagues. In addition, the researcher used the job satisfaction literature to develop the questionnaire.

Section A of the questionnaire asked the respondents for demographic data (e.g. gender, age, designation, faculties and years of service). In Section B, the respondents were requested to indicate their level of satisfaction on seven factors (nature of the job, opportunities for promotion, departmental management support, career opportunities and training, remuneration, relationships with colleagues and physical work environment). Each factor had the five sub-factors. A five-point Likert-type scale ranging from 1 to 5 was used, with (1) being “strongly agree” and (5) being “strongly disagree”. A Likert scale is comprised of a set of related declarative statements that express a view-point and respondents are asked to indicate the extent of their agreement (or disagreement) with each statement (Norwood, 2010:278). One benefit of this method is that a number of

different statements can be provided in a list that does not take up much space. Such a questionnaire is simple for the respondents to complete and straightforward for the researcher to code and analyse (Quinlan, 2011:327).

5.5 Validity

In this study, face validity was used to assess the operationalisation of construct subjectivity in order to meet the criterion of content validity (Drost, 2011:116). Content validity was used to measure how appropriate and comprehensive the content and the format of the questionnaire are; consequently the content and face validity of the questionnaire was established. In addition, the questionnaire was reviewed by the research supervisor and the statistician who checked the contents of the questionnaire and the item relevancy to the construct, and whether the items' level of linguistic understandability was acceptable for academic staff. According to Remler and Ryzin (2011:214), conducting a pilot study is crucial for detecting the needs for translation, the rewording of misunderstood or offensive items, and clarifying response instructions.

5.6 Reliability

In order to test the internal consistency of the questionnaire, Cronbach's alpha coefficients were used which ranged from 0.70 to 0.80. Rubin and Babbie (2011:199) agree that a reliability coefficient of 0.70 or higher is generally considered "acceptable" in social science research.

The reliabilities of the scales used in the study are reported in Table 2.

5.7 Research procedure

Permission to conduct the research was granted by the university research ethics committee before the study was launched. Questionnaires were distributed to all the faculties on all the university campuses through the internal mail. The heads of departments and the departmental administrators assisted with the questionnaire distribution. A consent letter accompanied the questionnaire to explain the purpose of the study. The purpose of the consent letter is to explain briefly the purpose of the study and the importance of each person responding (Connaway & Powell, 2010:164. The response rate per faculty ranged from 22 to 66%, while the overall response rate was 43.80%.

5.8 Research ethics

Ethical considerations such as the respondents' right to anonymity and informed consent were adhered to during the administration of questionnaire. The respondents were informed about the purpose and objectives of the study and the main motivation for undertaking the research. Confidentiality was maintained at all times throughout the study.

5.9 Data analysis

All the questionnaires completed were captured and analysed using a data analysis instrument called SPSS 20. According to Sarma (2010:256), Statistical Packages for the Social Sciences (SPSS) has all the major analytical tools for handling a large amount of data and it can perform complicated multivariate analysis. Descriptive and inferential statistical methods were applied to analyse the data and to assess the significance of the findings (Babbie, 2011:190).

6. RESULTS AND FINDINGS

The results obtained from the study are discussed below.

6.1 Factorial Structure of the questionnaire

Principal factor analysis (PFA) with varimax rotation and Kaiser normalisation was conducted to assess the underlying structures of the 33 items for job satisfaction. Factor analysis is a fairly complex statistical procedure that identifies the underlying dimensions or sub-parts of an instrument and assesses instrument validity by statistically identifying whether the items belong together in an instrument designed to measure a specific attribute (Norwood, 2010:262). Based on the PFA, all items had significant factor loadings, as expected, on the main factor. After running the factor analysis, the results indicated seven factors.

Table 1: Seven-factor analysis results of the principal axis factor analysis

Statement in the questionnaire	Factor						
	1	2	3	4	5	6	7
My HoD is a good listener.	.865						
I receive credit from my HoD for a job completed.	.817						
My HoD is tactful.	.803						

My HoD seeks my advice on matters.	.753					
My HoD cares about me as a person.	.690					
I am fairly paid for the job I perform at my university.		.786				
I am satisfied with my remuneration at my university		.667				
My remuneration makes me more productive.		.649				
I believe that my university has a consistent pay administration.		.622				
I work in a pleasant environment.			.882			
My university is concerned about the physical working environment.			.866			
I am satisfied with the physical work environment.			.837			
My workspace provides sufficient privacy to carry out my functions.			.816			
I have the material and equipment I need to do my work.			.777			
In my department academics are provided with equal career.			.293			
My job is challenging.				.575		
My job is rewarding.				.573		
My work allows me to be creative.				.571		

My duties are clearly defined.				.520			
My work is satisfying.	.257		.258	.316			
I believe that my university has a fair promotion policy.					-	.848	
The institution has a clear promotion policy.					-	.847	
In my department, the opportunities for promotion are adequate.					-	.873	
Other departments have better opportunities for promotion.					-	.544	
I have chances for studying at my university.							-.838
I find it easy to apply my academic skills.							-.786
My university communicates with employees about training.							-.515
I feel satisfied with policies on career development.		.322			-	.282	-.439
I feel remuneration is always motivating.							.315
I am satisfied with employee relationship in the department.							.833
My colleagues in the department are helpful.							.807
My colleagues in the department encourage my development.							.796
My colleagues in the department work equally as hard as I do.							.665

My opinions seem to count in the department.	.305						.597
I feel promotion always encourage achievement.							.290

Source: Author’s compilation from analysis.

Factor analysis yielded seven factors as shown in table 2. The factors that emerged were grouped as follows: Factor 1 was labelled as “Departmental management support”, factor 2 as “remuneration”, factor 3 as “physical work environment”, factor 4 as “nature of the job”, factor 5 as “opportunities for promotion”, factor 6 as “career opportunities and training” and factor 7 as “relationships with colleagues”.

Table 2: Reliability and One Sample Mean Test

Scale	Coefficient alpha	N of items	Mean	Standard Deviation
Nature of the job	.653	5	2.1598	.48636
Opportunities for promotion	.845	4	3.6726	.67530
Departmental management support	.944	5	3.1691	.97553
Career opportunities and training	.825	4	3.1566	.79227
Remuneration	.786	4	2.8301	.67643
Relationships with colleagues	.879	6	3.3760	1.00212
Physical work environment	.923	5	3.9941	.90841

Source: Author’s compilation from analysis.

The mean for the facets of job satisfaction indicated a moderately job satisfaction with “nature of the job” with a mean score of 2.15. However, the employees in the sample were moderately not satisfied with “relationships with colleagues” with a mean score of 3.37. The sample was highly not satisfied with physical work environment with a mean score of

399 which leans towards the negative. One could thus conclude that as a group, this sample was moderately not satisfied.

As indicated on the Table 2, the highest (most negative) scores were mostly on factors relating to physical work environment. However, one should not that none of the scales scored at or above a mean of 4.00, which indicates that there is still room for improving job satisfaction levels by increasing analysis of the seven factors. The lowest (most positive) scores were mostly on factors relating to nature of the job.

The Cronbach's alpha values for the seven factors resulting from the factorial structure suggested that the questionnaire was reliable. This allowed the researcher to conclude that the internal level of consistency of the measurement instrument was acceptable for these items. Maree (2010:216) states that a reliable coefficient of 0.70 may be regarded as acceptable in most applications.

6.2 Spearman's correlation analysis

The purpose of this section is to determine if there is a statistically significant correlation between the seven factors. A Spearman's rho was calculated for the seven factors. The results are reported below in table 3.

Table 3: Correlation analysis

		Correlations							
	Nature of the job	Opportunities for promotion	Departmental management support	Career opportunities and training	Remuneration	Relationships with colleagues	Physical work environment		
Nature of the job	rho	.242**	.383**	.155*	.313**	.136*	.089		
	P	.000	.000	.022	.000	.045	.187		
	N	219	207	219	219	217	219		
Opportunities for promotion	rho	.242**	.321**	.232**	.245**	.241**	.206**		
	P	.000	.000	.001	.000	.000	.002		
	N	219	207	219	219	217	219		
Departmental management support	rho	.383**	1.000	.302**	.186**	.519**	.209**		
	P	.000	.000	.000	.007	.000	.003		
	N	207	207	207	207	205	207		
Career opportunities and training	rho	.323**	.302**	1.000	.262**	.372**	.183**		
	P	.001	.000	.	.000	.000	.007		

	N	219	219	207	219	219	217	219
Remuneration	rho	.313**	.245**	.186**	.262**	1.000	-.029	-.039
	P	.000	.000	.007	.000	.	.673	.562
	N	219	219	207	219	219	217	219
Relationships with colleagues	rho	.136*	.241**	.519**	.372**	-.029	1.000	.390**
	P	.045	.000	.000	.000	.673	.	.000
	N	217	217	205	217	217	217	217
Physical work environment	rho	.089	.206**	.209**	.183**	-.039	.390**	1.000
	P	.187	.002	.003	.007	.562	.000	.
	N	219	219	207	219	219	217	219
**.Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

Source: Author's compilation from analysis.

The probability (p-value) was to determine whether the correlation was statistically significant. Significance is indicated when the p-value was less than 0.01 and less than 0.05. Cohen (1993:1151), and Maree (2007:212) suggest that a correlation of 0.5 is large, 0.3 is moderate, and 0.01 is small. Since all correlations in the table above were statistically significant above 0.2, a decision was made to focus on correlations above 0.3 in the discussion.

It appears that the strongest predictors of job satisfaction were departmental management support and relationships with colleagues factor ($p = 0.519$). This implies that HR managers who support their employees and emphasis on good relationships with colleagues are expected to be highly successful in satisfying employees. Other factors that were highly predictive of job satisfaction departmental management support and nature of the job ($p = 0.383$). Another remarkably significant positive correlation was found between physical work environment and relationships with colleagues with a correlation of 0.390. A further significant correlation was found between career opportunities and training, as well as relationships with colleagues with a correlation of 0.372.

All the factors indicted a high score, and are conducive to job satisfaction of the academics at the university under study. The implication is that job satisfaction of academic staff at the university is dependent on the strength of all the factors. This study thus represents a significant new development in the relationship between the factors in the job satisfaction literature.

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

From the findings of the study, the following recommendations are made:

Since physical working environment impacts academics job satisfaction, it is imperative that human resource management is to take into account factors surrounding the work such as the physical work environment and employees' relationships among themselves. The university needs to invest in equipment and facilities and in all areas of the academics' work environment. This will most likely improve their efficiency as they are likely to attend to the key dimensions of job satisfaction and also improves the employee job satisfaction. Raziq and Maulabakshsh (2015:723) demonstrate that a pleasant working environment increases employees' loyalty, level of commitment, efficiency and effectiveness, develops a sense of ownership among employees which ultimately increases organisational effectiveness and reduces prohibitive costs emerging as a result of disaffected employees.

While most academics attribute moderately satisfied with departmental management support, it is important that the human resource management should secure employees with support and cooperation will succeed in creating a harmonious, conducive working environment, leading to a sound labour relationship. When leaders provide support, this can encourage and motivate employees who in turn will work with enthusiasm to do useful work for the organisation (Ariani, 2014:78). The supervisor's availability in times of need, their ability to interlink employees, to stimulate creative thinking and knowledge of worth, their open mindedness in their view of employees, and their ability to communicate with employees are basic supervision traits (Raziq & Maulabakhsh, 2015:719).

The areas where most employees noted dissatisfaction was about the nature of the job and remuneration. Human resource management need to consider a fair promotion policy, paying close attention to academic rank promotion and promotion policy and its fair implementation would be beneficial for the university. Mafini and Dlodlo (2014:3) state that when employees perceive that remuneration is fair, they are more likely to experience a feeling of satisfaction. This is because income helps individuals to meet certain universal needs and, therefore, income, is an antecedent to job satisfaction.

8. CONCLUSIONS

This paper has been conducted to determine the most significant factors impacting on the job satisfaction of academics at a university. Seven factors of job satisfaction were investigated namely, physical work environment, relationships with colleagues, departmental management support, career opportunities and training, nature of the job, remuneration and opportunities for promotion resulted from the principal factor analysis. The findings show that the academics are generally not satisfied with the physical working environment, departmental management support and needs effective attention. As a result of this paper, higher education institutions which focus on improving retention through satisfaction with human resource management alignment might have more successful results. The employees in the university may be better able to understand the situation of their employer and how effective they are in developing the knowledge, skills, and abilities of their human capital. The findings from the present study should heighten awareness of and sensitivity to the most significant factors and the retention plans that could promote and maintain job satisfaction in academics.

Future researchers are recommended to utilize instruments other than questionnaires and compare their findings with this research. Future research should also consider including non-academic staff, more universities, both public and private.

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**THE RELATIONSHIP BETWEEN SELF-ESTEEM AND EMPLOYABILITY ATTRIBUTES:
AN EMPIRICAL INVESTIGATION AT AN INSTITUTION OF HIGHER LEARNING IN
SOUTH AFRICA**

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Human Resource Management

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AN EMPIRICAL INVESTIGATION AT AN INSTITUTION OF HIGHER LEARNING IN
SOUTH AFRICA**

ABSTRACT

The job market is one characterised by radical change. Within such a context, the skills that enhance individual employability attributes are deemed critical not just for personal but also for organisational success. This can be a potential basis for competitiveness. Linked to this, the empirical literature finds self-esteem to be an important construct contributing to an individual's confidence and belief, especially in complex circumstances. One such complex circumstance is of high unemployment, currently characterising South Africa. The study

sought to ascertain the relationship between self-esteem and employability attributes amongst a sample of 159 postgraduate students conveniently selected at an institution of higher learning in South Africa. The study adopted a positivist research philosophy using the quantitative approach through a self-administered questionnaire. The results revealed a positive significant relationship to exist between self-esteem and employability attributes. The implications of this main finding for career counselling purposes is to assist graduates as they seek ways to improve their chances of being employed. Further, personal self-development interventions can be proposed to assist in the development of the self-esteem to enhance employment opportunities.

1. INTRODUCTION

The business environment is in a state of flux (Branko, Dragan & Dusan, 2012; Chinyamurindi & Louw, 2012; Prebil, 2015) requiring a more adaptive response for survival (Prebil, 2015; Branko et al., 2012). Notably for the individual, practical expertise and educational knowledge are deemed to be insufficient within such a context of change (Fallows & Steven, 2000; Savickas, Nota, Rossier, Dauwlder, Daurte & Guichard, 2009). Business organisations thus need to be responsive through investments in the development of their human resources (HR) (Kesti, 2012; Muna, 2012). Hess and Jepsen (2009) argue that within the 21st century quests around creating opportunities for individual and career advancement become key. This can also be manifest in paying attention to employee capabilities such as employability attributes (Bridgestock, 2009:32). These employability attributes are seen to be those skills that assist an individual find an occupation and a career identity (including knowledge of skills) (McArdle, Waters, Briscoe & Hall, 2007). Empirical evidence exists attributing employability attributes to influencing individual success (Asuquo & Author, 2013).

Within higher education issues around employability are resonating. Graduates face the challenge of finding employment upon completion of their qualifications and they are often criticised for lacking in skills needed within the labour market (Archer & Davidson, 2008). Coetzee & Schreuder (2013) note with concern the need to develop skills amongst graduates that make them compatible with labour market demands. Within the wider literature, discussions exist also around the issue of the protean and boundaryless career attitude (Briscoe, Hall & DeMuth, 2006). Subsequently, postgraduate students need to engulf protean and boundaryless career attitudes.

Individuals with a protean career perspective depend on their morals to lead them when making career choices and independently manage their vocational behaviour, while those with

a boundaryless attitude strive to develop their careers across organisational borders (Briscoe et al., 2006). Thus, this shows that if postgraduate students can engulf protean and boundaryless attitudes, they will be able to reach their career goals. According to Serinkan, Avak, Kaymakci and Alacaoglu (2014:4146) protean attitudes explain a high level of self-esteem, which can enhance postgraduate confidence. Therefore, it is possible that an individual's self-esteem can contribute or be in line with his/her ability to socialize and interpret circumstances.

2. LITERATURE REVIEW

2.1 Self-esteem

According to Coetzee, Martins, Basson and Muller (2006) self-esteem is the assessment that individuals make of themselves. Self-esteem also constitutes perspectives of approval or disapproval and the extent to which individuals feel worthy, competent, valuable and effective. According to Serinkan et al. (2014:4155), self-esteem is a psycho-social construct partly constituting "physical emotions that start at birth and change during the life events which occur in the lead up to and during adulthood." In this study, self-esteem is explained adopting Battle's (1992) self-esteem model because it embeds concepts that make it possible for researchers to investigate the self-worth construct in social settings (like school settings) (Potgieter, 2012:4). The self-esteem model describes self-esteem in three dimensions: general self-esteem, social self-esteem and personal self-esteem (Battle, 1992).

Self-esteem is reported to be influenced by one's objectified body consciousness (Noser & Zeigler-Hill, 2014:122) and, according to Coetzee (2005), helping individuals to develop and maintain a healthy and positive self-esteem is a practical application of the knowledge currently available. Caprara, Alessandri, Barbaranelli and Vecchione (2013:865) state that self-esteem can be perceived as a mirror which many people use to assess their experiences and accomplishments in the labour market. Training can assist postgraduates in improving their self-esteem because education is useful in reducing negative feelings of self-worth (Fugate et al., 2004).

2.2 Employability attributes

Wiley, Sung, Chi Man, Lake and Ramos (2013:179) explain employability skills as not just the ability of an individual to get a job but rather they also have a positive effect on a person's

chances to be deemed employable (Bezuidenhout, 2010; Coetzee, 2013). A number of authors have reported that an individual's judgement on his or her employability gives one suitable autonomy to the extent that the individual can secure the most appropriate occupation in the labour market (e.g. Bezuidenhout, 2010; Coetzee, 2011; De Cuyper, Bernhard-Oettel, Berntson, De Witte & Alarco, 2008:507). The framework by Bezuidenhout (2010) and Coetzee (2011) which comprises eight key employability attributes that are essential in the enhancement of an individual's probability of being deemed employable by employers was adopted to help measure employability attributes. The eight key attributes are summarised in Table 1.

Table 1: The employability attributes

Employability attribute	Narration	Source
Career self-management	An individual's propensity to keep his or her job for a longer period as a result of having control over one's career.	Schreuder & Coetzee (2011)
Cultural competence	An individual's ability to intelligently comprehend diverse cultural environments.	Schreuder & Coetzee (2011)
Self-efficacy	Involves judgements that a person makes on his or her ability to manage, perform and prosper in his or her career.	Bezuidenhout (2010)
Career resilience	An individual's capacity to adjust to the dynamism of the career path taken.	Schreuder & Coetzee (2011)

Sociability	An individual's capacity to create and sustain social networks.	Bezuidenhout (2010)
Entrepreneurial orientation	An individual's eagerness to achieve, be creative and risk-taking in creating something valuable.	Bezuidenhout (2010)
Proactive	The extent to which an individual is eager to participate in activities that will result in higher levels of autonomy.	Bezuidenhout (2010)
Emotional literacy	An individual's capacity to manage and organise his or her feelings and also of those around him or her.	Coetzee (2010)

Source: Author's own synthesis

These employability attributes can assist an unemployed person to find an occupation and individuals with high career identity have more knowledge of skills that would make them successful in their careers. Employability attributes were also found to play a significant role in people's achievements and success (Asuquo & Author, 2013:1496). Benson, Mogan and Filippaios (2014:524) concluded that employability attributes are needed by students and that they should be embedded in their curricula and they should develop such skills across their studies.

3. PROBLEM INVESTIGATED

Calls exist within the South African context for continued empirical focus on ascertaining the relationship between self-esteem and employability attributes (Potgieter, 2012:8). Other studies have reported that employability has a moderating role preventing people from suffering from low self-esteem during unemployment, especially if the individuals involved perceive unemployment as an opportunity to start over and maintain a favourable self-esteem

despite not having a job (McArdle et al., 2007:250; Fugate et al., 2004). Similarly, Coetzee et al. (2006:66) reported that people with positive self-esteem have a positive identity and believe that they are in a friendly and safe society; moreover, a positive sense of identity is essential since it influences one's chances of tackling challenges in life. They further explained that individuals with high feelings of self-worth are easily manipulated to improve their efficiency on their tasks. In a study conducted by Van der Heijden et al. (2009), a sample of employees working at a company producing building materials was used. These researchers used the multi-group structural equation modelling to measure employability. They concluded that employability was positively related to career success, could be divided into self-reported employability and supervisor-rated employability, and that age moderated the relationship between employability and objective career success.

The current study is focused on postgraduate students and therefore only literature in an academic set-up is relevant. In this regard, students with high or positive self-worth were found in a study by Di Giunta et al. (2013) to have high beliefs in their potential and ability to do new things. It is therefore implied that an individual's willingness to carry out his/her responsibilities effectively and his/her self-esteem are interrelated. Wouters et al. (2014:143) found that the relationship between innate promotional objectives and self-worth can be described in relation to the extent to which students desire to take charge of their activities or destiny, capabilities and affiliations were satisfied. This is affirmed in a study by Alizadegani et al. (2014:713) in which results showed that teachers with high self-worth were able to cope with their classes, to deliver lessons effectively, organise, evaluate students objectively, and appreciate and tolerate students' differences. The study also concluded that teachers with positive self-worth were driven by challenges brought forward by students and therefore were a primary source of knowledge for students.

Archer and Davidson (2008:10) concluded that employers operating on a global context value a good degree classification more highly (70%) than companies dealing on a local context (52%). This indicates that international employers are more concerned with the nature and quality of graduates they employ as opposed to local employers. Archer and Davidson (2008) further recommended that universities build a closer relationship with employers as they reported that new graduates lacked some employability attributes that would make them more attractive. In a nutshell, the study reflected the need for postgraduate students to focus most of their attention on striking a balance between attending the classes for their degrees and acquiring employability attributes.

Most of the studies done in an academic setting focused on college students who have not attained any degree qualification (Wouters, 2014; Giunta et al., 2013; Archer & Davidson, 2008) and on teachers (Alizadegani et al., 2014). On the other hand, Wyland, Heatherton and Gordon (2002:219) maintain that self-esteem and employability are not related. In this light, this study hypothesised that:

Hypothesis 1: Self-esteem has a significant positive relationship with employability attributes.

Orth, Robins and Trzesniewski (2010:652) found out that females have negative self-worth as compared to males, especially in early adulthood. A study by Shafie and Nayan (2010:121-122) identified some gender differences in terms of how males and females value employability attributes. However, the sample used by Shafie and Nayan (2010) was made up of undergraduate students from a Faculty of Science. Hence, there is a need to conduct a similar study on a sample made up of postgraduate students. In addition, contrasting findings were obtained by Caprara et al. (2013:66) who, across a developmental span of eight years, found self-esteem to moderately and consistently predict levels of self-efficacy among both male and female participants with no significant differences. Pourgaz, Naruei & Jenaabadi (2014) also found no significant differences between males and females regarding emotional intelligence but there was a significant difference between male and female students concerning self-esteem; that is, self-esteem of females is higher than that of males. Noser and Zeigler-Hill (2013:12) concluded from a female-only sample that women's self-esteem decreases with their physical body changes. Chinyamurindi and Louw (2010) hypothesise a gender divide to exist within South African society and the workplace, females being most disadvantaged. It is hypothesised that:

Hypothesis 2: Men have higher ratings than women of employability attributes and self-esteem.

Zuffiano *et al.* (2014:28) reported that self-esteem varied with age and that adults with high global self-esteem may behave pro-socially in order to maintain a general positive self-image. Self-esteem was found in a study by Caprara et al. (2013:866) to be moderately stable between 16 years and 24 years and one could also consistently predict subsequent levels of self-efficacy beliefs. Caprara et al. (2013:866) further reported that adolescents' capacity to express their emotions could be the explanation why self-esteem was so high at that stage; that is, adolescents were able to attract essential elements of self-esteem than their older counterparts (Caprara et al., 2013:866). Similarly, Serinkan et al. (2014:4155) found that students between the ages of 20-23 reported higher levels of self-esteem and that self-esteem decreased with age. Hence, the study also hypothesises that:

Hypothesis 3: Age significantly determines employability attributes and self-esteem.

4. RESEARCH OBJECTIVES & RESEARCH QUESTION

The study is split into primary and secondary objectives. The primary objective of the study was to investigate the relationship between self-esteem and employability attributes amongst a sample of students at an institution of higher learning in South Africa. The secondary objectives of the study were to explore the influence of a) gender and b) age on employability attributes and self-esteem. The research question is set as follows:

What is the relationship between self-esteem and employability attributes amongst a sample of university students at an institution of higher learning in South Africa?

5. RESEARCH METHOD

A positivist approach was adopted in this research hinging on the notion that 'causes' determine the 'outcomes' (Creswell, 2014:7). Subsequently, the research adopted a quantitative design in answering the research question. Quantitative studies can help provide descriptions and make inferences around numerical data generated (Creswell, 2014). In gathering the data, the researchers made use of a self-administered questionnaire given the advantage this instrument has in being cost-effective and allowing the researchers the ability to reach a large number of respondents (Chinyamurindi & Louw, 2010). A convenience sampling approach was used in this study. This was done to access those respondents who were most accessible and available to take part in the research (Churchill & Brown, 2010).

This study's participants comprised of 200 postgraduate students at a rural campus of a university located in South Africa. Students were drawn from the Faculty of Management and Commerce with four participating departments: *Business Management, Industrial Psychology, Economics and Public Administration*. From the 200 questionnaires received, a total of 159 questionnaires were deemed usable, giving a response rate of 79.5%.

The 40-item Culture Free Self-Esteem Inventory (CFSEI2-AD) with a Cronbach's alpha of between 0.79 and 0.92 was utilised to measure self-esteem. The employability attributes' scale (EAS) (Bezuidenhout, 2010; Coetzee, 2010) which comprises of 56 items with an internal consistency between 0.78 and 0.90 was adopted to measure the employability attributes (Potgieter, 2012). Ethical clearance was sought from the participating university.

Further, informed consent was also sought from the respondents. The questionnaires were self-administrative, giving respondents the liberty to answer freely and honestly.

The Statistical Package for Social Sciences (SPSS) was utilised in the data analysis. Tables, charts and graphs were used to present the descriptive aspects of the study such as demographic distribution of the research participants. The study's aim was to test if gender, age, career choice and socio-economic status had any influence on the employability attributes and self-esteem of postgraduate students. In this regard the independent samples test was used to test differences as far as gender of respondents was concerned whilst the ANOVA was used to test differences according to age, career choice and socio-economic status. The main aim of the study was to find out if there was a relationship between the students' employability attributes and self-esteem. The Pearson correlation coefficient was employed as it provides the direction of the relationship, if any, and whether the relationship is significant.

6. RESULTS AND FINDINGS

6.1 Reliability tests

The research instrument was tested for reliability using the Cronbach's alpha test and Table 2 shows the results. Nunally (1978) points out that a Cronbach's alpha of 0.7 is generally considered as a sign of acceptable reliability. This means that the measuring scales for employability attributes and self-esteem were both reliable since their Cronbach's alpha coefficients are 0.961 and 0.886 respectively and are all greater than 0.7.

Table 2: Cronbach's alpha coefficient

Scale	Number of items	Cronbach's alpha
Employability attributes	56	0.961
Self-esteem	40	0.886

6.2 Descriptive results

Based on the analysis, table 3 reports on the descriptive results of the study.

Table 3: Descriptive statistics

Gender	n	%
Male	73	45.9
Female	86	54.1
Age of respondents		
21-25	83	52.2
26-30	65	40.9
31-35	11	6.9
36-40	0	0
Career choice (Department of study)		
Business Management	48	30.2
Industrial Psychology	42	26.4
Economics	43	27
Public Administration	26	16.4
Socio-economic Status (Personal rating)		
High	45	28.3
Middle	66	41.5
Low	48	30.2

6.3 Hypothesis 1: Self-esteem has a significant positive relationship with employability attributes

The main aim of this study is encapsulated in hypothesis 1, aiming to investigate the relationship between postgraduate students' self-esteem and employability attributes. The Pearson's correlation coefficient was used to measure this. Table 4 reports on this.

Table 4: Pearson correlation test

		General self-esteem	Social self-esteem	Personal self-esteem
Employability attributes	Pearson coefficient	0.240*	0.271*	0.076
	Sig. (p-value)	0.004	0.001	0.356

Overall, the results reflect that self-esteem and employability attributes are significantly correlated ($p < 0.05$) as shown in table 4. By observation, a strong correlation existed between self-esteem (*general self-esteem and social self-esteem*) with employability attributes. However, self-esteem as measured through personal self-esteem was found not to be related to employability attributes: Sig ($p = 0.356 > 0.05$) and a correlation coefficient of 0.076. A conclusion can therefore be made that self-esteem and employability attributes are generally related. Thus, it can be expected that a postgraduate student with high self-esteem is likely to possess valuable employability attributes. The results of further tests are depicted in table 5. These results appear to confirm those in table 4 in showing self-esteem and employability attributes to be significantly correlated ($p < 0.05$).

Table 5: Pearson correlation test

Employability Attributes	General Self-esteem	Social Self-esteem	Personal Self-esteem
Career Self Management	Pearson Correlation .206* Sig (2 tailed) .009	Pearson Correlation .290* Sig (2 tailed) .000	Pearson Correlation .023 Sig (2 tailed) .772
Cultural Competence	Pearson Correlation .228* Sig (2 tailed) .004	Pearson Correlation .245* Sig (2 tailed) .002	Pearson Correlation .046 Sig (2 tailed) .566
Self-Efficacy	Pearson Correlation .229* Sig (2 tailed) .004	Pearson Correlation .271* Sig (2 tailed) .001	Pearson Correlation .089 Sig (2 tailed) .268
Career Resilience	Pearson Correlation .246* Sig (2 tailed) .002	Pearson Correlation .276* Sig (2 tailed) .000	Pearson Correlation .067 Sig (2 tailed) .405
Sociability	Pearson Correlation .259* Sig (2 tailed) .000	Pearson Correlation .289* Sig (2 tailed) .000	Pearson Correlation .058 Sig (2 tailed) .172
Entrepreneurial Orientation	Pearson Correlation .307* Sig (2 tailed) .000	Pearson Correlation .307* Sig (2 tailed) .000	Pearson Correlation .114 Sig (2 tailed) .153
Proactivity	Pearson Correlation .248* Sig (2 tailed) .002	Pearson Correlation .264* Sig (2 tailed) .001	Pearson Correlation .060 Sig (2 tailed) .454
Emotional Literacy	Pearson Correlation .197* Sig (2 tailed) .013	Pearson Correlation .222* Sig (2 tailed) .005	Pearson Correlation .151 Sig (2 tailed) .059

*. The mean difference is significant at 0.05

6.4 Hypothesis 2: Men have higher ratings than women of employability attributes and self-esteem.

In order to test the second hypothesis, independent samples t-tests were employed. Independent samples t-tests are tests that are normally used when there is need to measure the means of different groups in relation to a set of continuous variables (Pallant, 2011:239).

In this case, independent samples t-tests were used to test if gender is related to self-esteem and employability attributes. Table 6 reports on this and shows the differences that exist as per the independent and dependent variables. The conclusion here is that females have higher ratings of employability attributes and self-esteem than their male counterparts. Given this, hypothesis 2 is rejected.

Table 6: Means by gender

	Male	Female
1. Career self-management	76.31	76.22
2. Cultural competence	75.62	74.19
3. Self-efficacy	75.75	74.23
4. Career resilience	76.12	77.15
5. Sociability	77.13	76.25
6. Entrepreneurial orientation	77.34	76.24
7. Proactivity	76.12	78.25
8. Emotional literacy	75.71	75.84
9. General self-esteem	66.27	67.26
10. Social self-esteem	68.81	71.22
11. Personal self-esteem	61.34	63.44

Males = 73; Females = 85

6.5 Hypothesis 3: Age significantly determines employability attributes and self-esteem

Table 7 depicts that the p-values obtained from testing differences among the three age groups (21-25, 26-30 and 31-35) for employability attributes and self-esteem. The p-values are above the significant mark of $p=0.05$. Therefore, it can be concluded that there is no significant difference in employability attributes and self-esteem levels amongst postgraduate students on the basis of their age.

Table 7: ANOVA for age

Age	Sig. (p-value)	
	Employability attributes	Self-esteem
21-25yrs	0.183	0.635
26-30yrs	0.284	0.891
31-35yrs	0.792	0.900

7. DISCUSSION OF RESULTS

The results revealed that employability attributes and self-esteem, particularly general self-esteem and social self-esteem, are significantly related. Similar to the findings by Potgieter (2012), Fugate et al. (2004) and Griffins and Hesketh (2005), the significant relationship between employability attributes and self-esteem implies that individuals with higher self-esteem will have higher employability attributes. More specifically, the results of this study reveal a significant relatedness between career self-management and general self-esteem and social self-esteem as was also found by Potgieter (2012). This implies that individuals who highly rate themselves and those who can maintain longer friendly relationships have higher propensities to keep their jobs for a longer period. According to Alizedegani et al. (2014:712), if a person has high self-esteem, the person is more likely to engage in activities that help foster closer relationships with others, improve one's flexibility and boost self-confidence. The findings also reflect that career self-management is an important attribute expected in a graduate student who is deemed ready for work in the professional arena because it exhibits the student's "sense of self-directedness of personal agency in retaining or securing a job or form of employment based on a set of personal career related attributes" (Coetzee & Schreuder, 2013:97).

Cultural competence, as an employability attribute, was found to be significantly related to general self-esteem and social self-esteem. This reveals that individuals are able to reduce problems brought about by working with people from different cultural backgrounds (Chao, Okazaki & Wong, 2011). As was explained by Steven (2007:234), business cycles lead to uneven lengths, phases and amplitudes among industries which also result in industries facing challenges due to unskilled labour and new employees who fail to work with people from different cultures. The significant relationship also suggests that individuals with high social esteem are able to manage change from a personal to professional context, manage relationships with individuals from diverse cultures, and manage to carry out their professional responsibilities.

The significant relationship between self-efficacy and general self-esteem and social self-esteem directly shows that students at the participating institution try to match their employability skills with the general new trends in the business world. These findings are consistent with the conclusions made by other scholars (Hajloo, 2014; Strunk & Steele, 2011) and, in addition, these findings imply that students use social gatherings to enhance their competences to a greater extent. Career resilience and general self-esteem and social self-esteem were found to be significantly related as was reported by Coetzee and Potgieter (2014) and Potgieter (2012). This means that students do not use socialisation only as a means of upgrading their self-efficacy but they also use it to meet the changes in the business environment. However, the lack of correlation between career resilience and personal self-esteem implies that students do not value or rate their importance in respect of others in line with coping with dynamics in the business world.

The significant relationship which was observed between entrepreneurial orientation and general self-esteem and social self-esteem reflect the strength of Maslow (1970) and Alderfer Erg's theory (1969) that individuals seek to achieve higher goals as lower order goals are reached. Furthermore, this implies that as long as students have high self-esteem, they will always want to be innovative and creative. This also means that individuals with high self-worth do not get discouraged easily but rather they are motivated easily (Aswathappa, 2005:362).

The significant relationship between sociability and general and social self-esteem suggests that students with high self-worth are also encouraged to engage in constructive debates and keep longer relationships with others. Personal self-esteem, however, is not related to sociability, implying that students do not value their appearance or selves when starting conversations but rather the knowledge and capabilities they have.

Proactivity was defined as the extent to which an individual is eager to participate in activities that will result in higher levels of autonomy (Bezuidenhout, 2010). Hence, individuals with general self-esteem and social self-esteem are more likely to engage in new associations or harness other business opportunities without fear. This is referred to as boundaryless career attributes (Briscoe et al., 2006:31). These findings thus necessitate the remarks that it is the employees' responsibility to build their intellectual capital and skills that ensure productivity within the organisation (Hess & Jepsen, 2009).

A significant relationship was found between emotional literacy and general self-esteem and social self-esteem. This is similar to Coetzee and Potgieter (2013) who found that emotional

literacy increases an individual's chances of demonstrating employment sustainability. However, employability attributes were not related to personal self-esteem. These findings support the notion that individuals with high emotional literacy can use their feelings to better manage, read and understand others' emotions and in enhancing the strength of their networks or relationships (Potgieter, 2012). The results discussed above imply that general self-esteem and employability attributes are significantly related. However, students seem not to use their personal self-esteem especially in making decisions about their careers. This can also mean that students value the knowledge they have and their respective social contacts or networks more than their individual feelings. Conversely, the results can also be explained in line with why most postgraduate students are finding it difficult to get employed – the reason being that students do not include their personal feelings in making career choices. This then possibly results in frustrations later in their careers and increases the number of unemployed postgraduates.

The findings of this study indicate that higher education educators should engage with postgraduate students in order to enhance their employability attributes and self-esteem. This is supported by Alizedegani et al. (2014:712) who state that self-esteem is a product of interactions with others. In other words, postgraduate students need to have an open minded and not a closed minded viewpoint since employability attributes are an organisation's entry requirement (Rasul, Rauf, Mansor, Yasin & Mahamod, 2013).

Postgraduate students can also form networks with people around them in order to enhance their self-esteem and their ability to cope with change in the organisation (Benson et al., 2014:524). This also entails that postgraduate students need to be individuals who can use social media to edify their employability skills as well as learning changes taking place in the world of work. Put differently, the current study enlightens postgraduate students on the fact that the work world is not a constant arena but that it changes constantly over time (Wiley et al., 2013:179). Hence, for postgraduate students to build a stronger bridge between the work world and adult education, they need to engage in continuous learning especially about their career choices.

The current study also assists career counsellors in advising students on factors to consider when choosing a career path. Counsellors can use the current research in assisting postgraduate students in developing their careers through the use of social media. However, the study will be useful only to students from the Faculty of Management and Commerce as opposed to all postgraduate students. Hence, counsellors cannot necessarily apply the current research findings to other students from other faculties, especially in complicated career

matters. Moreover, this can also enable counsellors in advising students in ensuring sustainable employment opportunities. The reason is that the employer of new graduates increasingly considers social skills and a person's characteristics to be essential rather than academic qualifications (Archer & Davidson, 2008:5). This stresses the point that employability attributes are a necessity in the work place and employees need to have specific employability attributes as an entry requirement (Rasul et al., 2013:242). In addition, counsellors should also know that employability attributes are considered as organisations' most essential raw materials (Perry, 2003:3) and hence the continual need for empirical attention.

8. CONCLUSIONS

The current study was centred on examining the relationship between self-esteem and employability attributes and a significant relationship was found between the two constructs. The context of this study was a rural campus. Future research could further unpack the nature of this relationship and how students go about ensuring continued employability and how this relates to psychological constructs other than self-esteem, the focus of this study. This could be a worthwhile venture especially given the contextual challenges students in South Africa face.

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TOWARDS A LEADERSHIP COMMUNICATION VALUE CHAIN MODEL

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TOWARDS A LEADERSHIP COMMUNICATION VALUE CHAIN MODEL

ABSTRACT

Leadership effectiveness is critical within large organisations. This makes leader communication a critical driver of organisational results. Contemporary organisations and their leaders are continually tasked with finding new ways of creating better value for their stakeholders and improving leadership behaviour. It is therefore essential that organisational leadership consists of capable communicators as this can play a significant role in the value creation process of the organisation. Unfortunately, discussions on the topic of leadership communication are rare which highlights the fact that the field of organisational communication has had limited engagement with the world of leadership. In this study, leadership is seen as a social construct that is relational, and that emerges out of a meaning-making process in a particular context. The attention is directed away from the individual leader to the experience of the

communication that is utilised by the leader. As such, this study focuses on the role of communication in the leadership process. The point of departure is Kaiser and Overfield's the *leadership value chain* (LVC) as this model reflects the link between leaders and organisational effectiveness. Although communication is described as the underpinning foundation of all the leadership domains, it does not feature at any point in the LVC. As the essence of leadership is communication, the goal of this study is to develop a leadership value chain model that incorporates communication.

In order to attain this goal an exploratory qualitative study was undertaken. In this study which unfolded in five phases, a number of strategies were utilised. Phase I, the exploration phase, investigated the context in which the proposed model would be employed and consisted of two sections. In the first section a literature review of the leadership value chain (LVC) was conducted and this was followed by the second section which entailed a literature review of strategic integrated communication as the most effective form of organisational communication. Phase II of the research comprised an evolutionary conceptual analysis of leadership communication. The aim of this analysis was to discover the conceptual foundation and roots of the phenomenon called leadership communication. During phase III the data gathered during the first two phases were synthesised to develop a leadership value chain model that incorporated communication from a strategic integrated perspective. In Phase IV, the empirical phase, a phenomenological research strategy was utilised. This qualitative phenomenological research was employed to describe the lived experiences, perceptions, and interpretations of the participants. A non-probability, purposive sampling strategy was employed. In-depth interviews were held with communication practitioners functioning in the services industry that are members of the PRISA Chapter in the Free State. Ten respondents formed part of the sample. The aim of this phase was to explore these respondents' experiences of the leadership communication phenomenon in order to enlighten knowledge gained during the first two phases. Finally, during the fifth phase of the research, the insights gained from the empirical research were merged with the data from the first two phases to propose a framework and guidelines for integrating communication into a leadership value chain model.

IMPRESSION MANAGEMENT WITHIN THE RECRUITMENT INTERVIEW: A NARRATIVE INQUIRY

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IMPRESSION MANAGEMENT WITHIN THE RECRUITMENT INTERVIEW: A NARRATIVE INQUIRY

ABSTRACT

Job interviews remain a popular platform through which organisations source talent. Interviewees seek to make an impression in interviews such that it may influence the decision to hire or not. Given renewed calls on understanding the concept of impression management within a South African work context, this study explores this within the recruitment interview of an organisation. Organisations need to be aware of those behaviours that can be used by interviewees to give an impression which may not be reality or the actual lived experience. By understanding such behaviour, this may enhance the quality of decisions made on which candidates are recruited. The study hinges on the interpretivist paradigm using the qualitative approach. The research is located within a higher education setting with a university in the Eastern Cape Province of South Africa being used. A total of 20 academics who had been recruited through the interview method were selected to participate in in-depth face-to-face interviews. The analysis of the data was conducted through a narrative analysis, adopting the three levels of meaning-making approach used in previous studies. Three major themes

emerged from the analysed data illustrating how impression management manifests, especially within the recruitment setting. Firstly, the rationale for impression management was through seeking a strategic advantage to influence the decision to hire. Secondly, impression management, as illustrated, may have also to do with also switching attention to issues the interviewee may not want the interview panel to know. Thirdly, the study illustrates the behaviours that accompany impression management. The study provides information in which organisational strategists and recruiters can use to enhance their recruitment decisions. This study contributes to the body of knowledge in an area of study that has received scant empirical focus locally and internationally. This can be a catalyst for future research on impression management.

**THE WORK AND TRANSITION TO MOTHERHOOD EXPERIENCES OF MARRIED
FIRST-TIME MOTHERS IN GAUTENG, SOUTH AFRICA**

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**THE WORK AND TRANSITION TO MOTHERHOOD EXPERIENCES OF FIRST-TIME
MOTHERS IN GAUTENG**

ABSTRACT

The transition to motherhood is an important concern for first-time mothers. This challenge comes with a number of changes including, physical, emotional and financial. The ever increasing number of women entering the workplace means that women are compelled to make a choice between caregiving responsibilities (being a mother) and career aspirations (being an employee). An estimated three quarters of women who enter the workforce are

expected to become pregnant once during their employment period. Employers therefore cannot afford to ignore this issue. The majority of studies available on work and the transition to motherhood is from North America and Europe depicting western notions on the phenomena. These studies do not take into account the marginalising consequences of economic, social and other injustices like apartheid whose impact is still evident today. The purpose of this research was therefore to explore the pregnancy experiences of first-time working mothers who live and work in Gauteng, South Africa. The motivations for this study emanated from the personal, business and professional experiences of the researcher as well as the limited number of studies on this phenomenon from a South African perspective. The findings of this study could contribute to the evolving body of knowledge by provide a better understanding of the pregnancy, maternity leave and return to work experiences of working first-time mother's from African women's perspective in South African. This qualitative and constructivist grounded theory study was conducted within the constructivist paradigm. Constructivist grounded theory believes in multiple realities and not the objectivist view of reality held by other types of grounded theory.

A purposive sample of eight married African women who were first-time mothers with children under the age of five took part in the study. The nominal group technique was employed to gather and analysis the data. The preliminary findings of this paper are; firstly, the findings relate to physical changes where the participants reported the physical changes they experienced which lasted beyond pregnancy such as their shape and size. Some participants were happy about this as a mother was expected to look a certain way in African culture, that is, have a voluptuous body. Secondly, they experienced financial changes which were exacerbated their earnings because they were still expected to financially assist their immediate and extended families. Lastly, their self-worth took a knock during the transition to motherhood period because most people around them were more concerned about the baby and not much about them. They were also felt guilty of leaving their babies behind when they had to return to work. The practical or managerial implications of this study are that a better understanding this phenomenon, South African companies may be in a better position to develop locally impactful, strategies, initiatives and policies to mitigate against some of the South African specific pregnancy issues that working first-time mothers experience. The paper recommends further studies to explore the experiences of first-time mothers of other race groups in the country to determine how similar or different their experiences are to these findings.

LEADING FOR CITIZENSHIP PERFORMANCE: THE MEDIATING ROLES OF JUSTICE AND AFFECTIVE COMMITMENT

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Topic: Human Resources Management.

LEADING FOR CITIZENSHIP PERFORMANCE: THE MEDIATING ROLES OF JUSTICE AND AFFECTIVE COMMITMENT

ABSTRACT

The present study proposed the model in which the positive relationship between leadership and organisational commitment was successively mediated by organisational justice and affective commitment. The study was based on a random survey of 300 employees from a medium-sized public university, and a further sample of 122 employees from public and private sector organisations in Lesotho. Correlations and structural equation modelling techniques were used to analyse data. Even though the results indicated that the hypothesised model fitted data reasonably well, a slightly modified model in which the relationship between leadership and organisational citizenship behaviour (OCB) was partially mediated by justice and commitment in series fitted data significantly better than the hypothesised model. Furthermore, the regression coefficients between the variables were significant as hypothesised. Overall, the results suggest that fairness and affective commitment were effective explanatory variables between leadership and OCB. Managerial and theoretical implications are discussed.

1. INTRODUCTION

There has recently been a marked increase in research on discretionary work behaviours that fall outside the domain of task performance. Organisational citizenship behaviour (hereinafter OCB), originally defined by Organ (1988:4) as 'the behaviour that is discretionary, not directly or explicitly recognised by the formal reward system and that in the aggregate promotes the effective functioning of the organisation', is one of the most

widely published of such behaviours (Podsakoff, Whiting & Podsakoff, 2009; Podsakoff, MacKenzie, Paine & Bachrach, 2000).

Even though leadership (defined here as a process in which a person influences a group or individuals to achieve shared goals; Yukl, 2012) has previously been confirmed as a correlate of OCB (Podsakoff *et al.*, 2000), only more recently has the research literature called for the mediating variables between leadership and OCB (Wang, Oh, Courtright, & Colbert, 2011). Thus despite earlier findings indicating the positive relationship between leadership and OCB, there is much to be gained from examining the exact mechanism through which leadership relates to OCB, especially for practising managers.

The aim of the present study was therefore to develop and test a model that links leadership behaviours to OCBs through the successive mediating roles of organisational justice and affective commitment. The relationships were defined *a priori* and examined through structural equation modelling (SEM) techniques.

The study contributes to literature in at least two ways. First, the study locates organisational justice and affective commitment as factors that may explain the positive relationship between leadership and OCB. Despite previous calls to evaluate explanatory factors between leadership and performance criteria (Wang *et al.*, 2011), little work has been directed towards this line of research, particularly where OCB is defined as performance criterion. If confirmed, the findings can contribute to theory and practice. From the theoretical standpoint, researchers would better understand the relationships between leadership and OCB beyond the simple positive relationships established in prior research. From a practical standpoint, managers would understand specific interventions they need to adopt in order to increase employee engagement in OCBs. Second, the study proposes organisational justice and affective commitment as successive mediators in the positive relationship between leadership and OCB. To our knowledge, this will be the first time such a model is proposed and tested. This model, if confirmed, has a potential to advance knowledge in this area, not least because few studies have to date tested a 2-step mediation model in this line of research.

The article is organised as follows. The next section focuses on literature review and development of hypotheses; followed by problem investigated; research objective; research method; presentation of results; discussion of results; and practical implications respectively. The final section concludes the paper.

2. LITERATURE REVIEW

2.1 Leadership and OCB

The extant literature suggests that leadership is one of the main predictors of OCB (Podsakoff *et al.*, 2000; Organ & Ryan, 1995). This notwithstanding, there have been calls to examine mechanisms through which leadership relates to OCB. Leadership, particularly transformational leadership, is expected to associate positively with OCB because this form of leadership influences followers to achieve performance beyond expectations (Purvanova, Bono & Dzieweczynski, 2006). Furthermore, it is conceivable that a typical employee can readily reciprocate quality leadership by going an extra-mile on behalf of their organisations (OCB).

Consistent with Social Exchange Theory, prior empirical research has found positive relationships between leadership and OCB. These relationships have been confirmed in individual empirical studies (e.g. Purvanova *et al.*, 2006; McKenzie, Podsakoff, & Rich, 2001) and meta-analyses on OCB (e.g. Wang *et al.*, 2011; Ilies, Nahrgang, & Morgeson, 2007; Podsakoff *et al.*, 2000; Organ & Ryan, 1995). For instance, Podsakoff *et al.* (2000) found that leadership was a strong predictor of OCB, and Wang *et al.* (2011) found positive

relationships between individual-level follower performances across different criterion types, including contextual performance (OCB). Based on the above documented theory and evidence, it is plausible to hypothesise as follows:

H₁: *There is a positive relationship between leadership and OCB.*

2.2 Organisational justice as a mediator between leadership and OCB

Organisational justice refers to one's perceptions of fairness of outcome distribution; procedures that undergird outcome decision; and interpersonal treatment and provision of accurate information during the execution of procedures (Colquitt, Scott, Roddell, Long, Zaptat, Conlon & Wesson, 2013). Drawing from Social Exchange Theory, particularly norm of reciprocity (Gouldner, 1960), employees are expected to reciprocate good leadership or fair treatment by going beyond the call of duty (OCB). There is however theoretical and empirical evidence suggesting that leadership influences organisational justice, which in turn influences OCB. Put differently, there is evidence that leadership influences OCB indirectly through organisational justice.

First, both in their individual capacity or as agents of their organisations, leaders are sources of justice in organisations. For instance, most of the Leventhal's (1980) procedural justice criteria (consistency, bias suppression, accuracy, ethicality, representativeness, and correctable judgements) are fostered by leaders (Walumbwa, Wu & Orwa, 2006). George and Zhou (2007) suggest that supervisors provide a supportive context for creativity by demonstrating interactional justice. Similarly, Khazanchi and Masterson (2011) suggest that interactional justice meted by supervisors creates trust in a supervisor. Furthermore, Niehoff and Moorman (1993) propose that leader monitoring methods (observation, informal meetings, and formal meetings) may not only directly and negatively influence OCB, but may also have indirect effects through their positive effects on perceptions of fairness.

Second, organisational justice has not only been considered one of the proximal determinants of OCB (Colquitt et al., 2013; Lavelle *et al.*, 2009), but has also sometimes been taken as a proxy for social exchange (Schroeder, 2010). Put directly, fair treatment of employees can cause them to redefine their employment in terms of social exchange, with OCB as a common exchangeable resource (Colquitt *et al.*, 2013).

Empirically, both Walumbwa *et al.* (2006) and Ehrhart (2004) found that justice climate partially mediates the relationship between leadership and OCB. Along similar lines, Niehoff and Moorman (1993) found that leader monitoring method of observation not only negatively influenced OCB, but also had a positive influence through its effect on perception of fairness.

In sum, since both leadership and organisational justice are theoretically rooted in social exchange theories, justice can mediate relationships between leadership and employee attitudes and behaviours (Walumbwa *et al.*, 2006).

2.3 Affective commitment as a mediator between leadership and OCB

Despite previous calls to examine attitudinal factors that explain the relationship between leadership and OCB (Wang *et al.*, 2011), there has surprisingly been little focus on this issue. As early as 1990, Podsakoff *et al.* (1990) indicated that the aggregate effects of

leadership behaviours on OCBs were indirect, rather than direct. Wang *et al.* (2011) have also recommended the investigation of mediating factors between transformational leadership and different performance criteria, including OCB. Drawing from earlier studies, Wang *et al.* (2011) specifically posited that 'transformational leadership may increase individual-level performance through its effects on follower motivation and attitudes' (p. 251). On a broader level of analysis, and based on Context-Attitude-Behaviour Framework, it is conceivable that leadership (contextual factor) can influence affective commitment (attitude), which in turn can influence OCB (behaviour). Thus the present study proposes affective commitment as an explanatory (mediating) factor between leadership and OCB. Babcock-Roberson and Strickland (2010) found that work engagement fully mediated the relationship between charismatic leadership and OCB. Park, Song, Yoon and Kim (2013) found that the relationship between transformational leadership and OCB was not direct, but was rather fully mediated by psychological ownership, the concept that is closely related to affective commitment.

2.4 Organisational justice and affective commitment as successive mediators between leadership and OCB

While the previous sections have suggested both organisational justice and affective commitment as mediating variables in the positive relationship between leadership and OCB, they did not resolve which of the two mediators temporally and causally occur before the other. This section draws from theory and empirical studies to suggest which of the two mediators comes first.

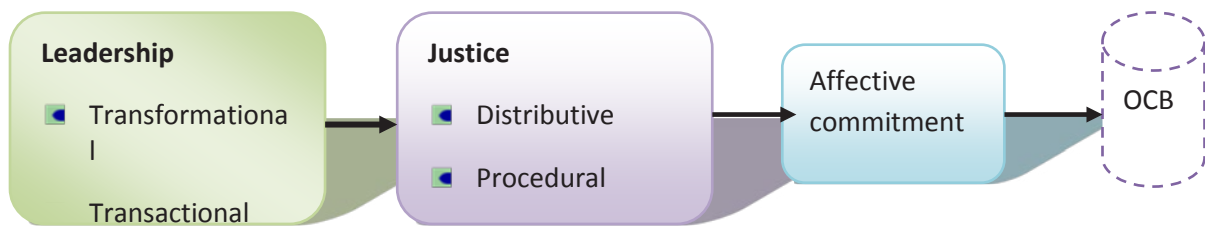
Overall, this study proposes that the positive relationship between leadership and OCB is mediated by organisational justice and affective commitment in series (Lehmann-Willenbrock, Grohmann & Kauffeld, 2013). According to several authors, social exchange processes can coalesce into interlinked processes (Colquitt *et al.*, 2013; Lehmann-Willenbrock *et al.*, 2013; Lavelle, Rupp & Brockner, 2007; Cropanzano & Mitchell, 2005). For instance, in the present case, leader behaviours can create just environments; and in response to fairness, employees can reciprocate by being affectively committed to their organisations; which can ultimately prompt employees to engage in OCBs.

As indicated in earlier sections, as agents of organisations, leaders are responsible for creating fairness in organisations, which in turn may lead to employee attitudes and behaviours (Walumbwa *et al.*, 2006; Ehrhart, 2004). As elements of social context in organisations, leadership and justice are closely related (Zhou & Hoever, 2014). Based on Social Exchange Theory (Colquitt *et al.*, 2013; Cropanzano & Mitchell, 2005; Blau, 1964), just leaders can prompt employees to reciprocate by being affectively committed to their organisations, and in turn, committed employees can engage in OCB as another form of reciprocation. Several authors have proposed and confirmed commitment as a mediating factor between organisational justice and OCB (Colquitt *et al.*, 2013; Lehmann-Willenbrock *et al.*, 2013; Lavelle *et al.*, 2009). In summary, organisational justice is expected to temporally and causally occur before affective commitment. This is because justice is sometimes considered the proxy for social exchange (Schroeder, 2010), and affective commitment is one of the prime indicators of social exchange in organisations (Colquitt *et al.*, 2013; Lavelle *et al.*, 2009). It is therefore plausible, based on logic and previous research, to hypothesise as follows:

H₂: *Organisational justice and affective commitment successively mediate the positive relationship between leadership and OCB.*

The conceptual model is shown in Figure 1.

Figure 1: The Conceptual Model



3. PROBLEM INVESTIGATED

Despite earlier findings indicating the positive relationship between leadership and OCBs, little is known about the exact mechanism through which leadership relates to OCB.

4. RESEARCH OBJECTIVES

The key objective of this study was to develop and test a model that links leadership behaviours to OCBs through the successive mediating roles of organisational justice and affective commitment.

5. RESEARCH METHOD

The current study adopted the descriptive, cross-sectional quantitative research design, and used self-administered questionnaires to collect data.

5.1 Population and sample description

The sample consisted of 300 employees selected randomly from a population of 652 employees from the medium-sized public university, and a sample of 122 employees from two government-owned enterprises and two private sector organisations head-quartered in Maseru Lesotho. The return rates were 56 percent and 57 percent respectively. Since the ANOVA test did not indicate significant differences across various variables among the studied organisations, the two samples ($n = 236$) were pooled and analysed together.

Of the respondent sample, 54 percent were males. In terms of age group, 1.4 percent were from 18 to 20; 28.9 percent were from 20 to 30; 26.1 percent were from 31 to 40; 24.3 percent were from 41 to 50; and 19.3 percent were above 50 years of age. Overall, the participants had an average tenure of 11.28 years ($SD = 6.23$). In terms of highest level of education attained, 25.1 percent had post-secondary school diploma; 28.8 percent had bachelor's degree; and 46.1 percent had post-graduate degrees (honours, Masters and PhD). While non-academic staff accounted for 60.2 percent, academic staff accounted for 39.8 per cent of the respondents. In terms of supervisory responsibilities, 55.8 percent did not have any supervisory responsibilities; 19.8 percent were in lower level management (supervisory level); 19.4 percent were in middle level management; and only 5.1 percent were in top/executive level management. Overall, the respondents had been in their current organisation for an average of 8.71 years ($SD = 8.02$).

Since the missing value analysis (MVA) test indicated that the missing values were few and random; rather than drop cases with missing values; this study adopted an imputation approach (series mean) to fill in the missing values to preserve all 221 cases (Chen, Takeuchi & Shum, 2013).

5.2 Measures

Leadership: The Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 1995) was used to assess the employee perception of leadership. Eight items were used to assess transformational leadership, and two items were used to assess the contingent-reward form of leadership. Participants were asked to assess the extent to which the listed statements described the behaviour of their supervisors on a scale ranging from 0 (not at all) to 4 (frequently if not always). Sample items were 'my supervisor articulates a compelling vision for the future', and 'my supervisor indicates clearly what one can expect when performance goals are achieved'. Avolio, Bass and Jung (1999) reported Cronbach's alphas ranging from 0.74 to 0.92 for dimensions of leadership used in this study. In the present study, Cronbach's alphas of transformational leadership and contingent-reward leadership scales were 0.93 and 0.77 respectively, and that of an *active constructive leadership* (comprising of transformational leadership and contingent-reward leadership) was 0.93.

The confirmatory factor analysis (CFA) suggested that the first-order one-factor model of leadership demonstrated a good fit to data ($X^2(33) = 84.118$, $p \leq 0.001$, NFI = 0.95, TLI = 0.95, CFI = 0.97, RSMEA = 0.08).

Organisational justice: The scale developed by Niehoff and Moorman (1993) was used to assess organisational justice. Overall, six items were used to assess this construct. On a scale ranging from 1 (strongly disagree) to 5 (strongly agree), participants were asked to assess the extent to which they agreed with the listed statements. Sample items were 'I think that my level of pay is fair', and 'to make job decisions, my supervisor collects accurate and complete information'. Niehoff and Moorman (1993) reported Cronbach's alphas of 0.74 for distributive justice; 0.85 for procedural justice; and 0.92 for interactional justice. In the present study, the Cronbach's alphas were 0.81, 0.80, and 0.85 for overall organisational justice, distributive justice and procedural/interactional justice respectively.

The CFA of justice items suggested that the second-order two-factor model demonstrated a better fit to data ($X^2(8) = 30.612$, $p \leq 0.001$, NFI = 0.94, TLI = 0.92, CFI = 0.96, RSMEA = 0.11) than the first-order one-factor model ($X^2(9) = 134.314$, $p \leq 0.001$, NFI = 0.76, TLI = 0.61, CFI = 0.77, RSMEA = 0.252).

Organisational commitment: Five items drawn from the scale of Cook and Wall (1980) to measure affective organizational commitment were used to measure this construct. On a scale ranging from 1 (strongly disagree) to 5 (strongly agree) the participants were asked to assess the extent to which they agreed with the listed statements. Sample item was 'I feel a strong sense of belonging to my organisation'. Cook and Wall (1980) reported Cronbach's alphas of 0.80 and above for this scale. The Cronbach's alpha of this scale in the present study was 0.90.

The CFA suggested that the first-order one-factor model of affective commitment demonstrated almost the perfect fit to data ($X^2(5) = 6.005$, $p = 0.306$, NFI = 0.99, TLI = 1.00, CFI = 1.00, RSMEA = 0.03).

Organisational citizenship behaviour: Ten items developed by Podsakoff *et al.* (1990) to measure OCB and two items from the scale developed by Borman and Motowidlo (1993) to measure contextual performance were used to measure OCB. The items were measured on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). Sample items were 'I volunteer to help others who have heavy workloads' and 'I voluntarily do more than the job requires'. Podsakoff *et al.* (1990) reported Cronbach's alphas ranging from 0.70 to 0.85 for different dimensions of this construct. The Cronbach's alpha for an overall OCB scale in the present study was 0.74.

The CFA suggested that the first-order one-factor model of 12 items of OCB demonstrated the poor fit to data ($X^2(54) = 334.016$, $p \leq 0.001$, NFI = 0.48, TLI = 0.40, CFI = 0.51, RSMEA = 0.154). After systematically and iteratively removing problematic items that had weak, insignificant or cross path loadings (e.g. based on modification indices), seven OCB items ($\alpha = 0.74$) that loaded significantly on their specified factors were retained, and the second-order two-factor model demonstrated a better fit to data ($X^2(8) = 24.848$, $p \leq 0.01$, NFI = 0.93, TLI = 0.90, CFI = 0.95, RSMEA = 0.098) than alternative models.

Measures of skewness and kurtosis (less than 1 in absolute terms), and Kolmogorov-Smirnov test (insignificant figures) suggested no problematic deviation from normal distribution (George and Mallery, 2010). Furthermore, exploratory factor analysis (principal components, varimax rotation) resulted in eight factors explaining 69 per cent of variance, with no single factor explaining more than 50 per cent of the variance in the analysis, suggesting that the common method bias was not a serious problem in this study (Podsakoff, MacKenzie, & Podsakoff, 2012).

5.3 Data analysis

Statistical Package for Social Sciences (SPSS-version 20) was used to analyse data. Specifically, correlation analysis and SEM (AMOS) were used to address the hypotheses. Unlike other multivariate techniques that can examine only a single relationship at the time, SEM can simultaneously evaluate relationships between many variables and the extent to which the model fits data well (Zhang & Bartol, 2010).

6. RESULTS

The means, standard deviations and zero-order correlations of the study variables are shown in Table 1.

Table 1: Means, Standard Deviations and Inter-Correlations of Variables

	Mean	SD	2	3	4	5	6	7	8	9
1. Gender	0.53	0.50	0.02	-0.04	0.14*	-0.02	0.09	0.15*	0.12	0.14*
2. Age	3.29	1.15	-	0.62**	0.33**	0.16*	0.04	-0.05	-0.04	0.03
3. Tenure	8.63	7.98		-	0.22**	0.09	0.06	-0.14	-0.02	0.08
4. Ed	5.11	1.00			-	0.13	-0.13	-0.13	-0.09	0.01
5. MGT level	0.74	0.95				-	0.03	0.04	0.07	0.11
6. Lead	2.28	0.08					(0.93)	0.64**	0.48**	0.24**
7. Justice	2.92	0.83						(0.85)	0.61**	0.25**
8. Commit	3.36	1.01							(0.90)	0.42**
9. OCB	3.78	0.58								(0.74)

Notes: *Significant at 0.05; **Significant at 0.01. Cronbach's alphas, where applicable, are shown in parenthesis. MGT = management, Ed = education, lead = leadership, commit = affective commitment

In aggregate, the results of Table 1 suggest that all scale variables reached acceptable levels of internal reliability exceeding Nunnally's (1978) cut-off point of 0.70. Moreover, hypothesised relationships were significant as expected.

6.1. Hypothesis testing

As indicated in earlier sections, *SEM* was used to test the relationships between the observed variables. In line with the recommendation that multiple model fit indicators should be used to assess model fit (Hooper, Coughlan, & Mullen, 2008), this study reports Chi-square (χ^2), normed fit index (*NFI*), comparative fit index (*CFI*), Tucker-Lewis index (*TLI*), and root mean square error of approximation (*RMSEA*) to examine the goodness-of-fit statistics. Even though prescriptions for cut-off points differ, a model has traditionally been considered a good fit to data if χ^2 is small (not significant for small samples), $NFI \geq 0.90$, $CFI \geq 0.90$, $TLI \geq 0.90$, $RFI \geq 0.90$, $\chi^2/df \leq 3$, and $RMSEA \leq 0.08$ (Bentler, 1990; Hoe, 2008; Zhang & Bartol, 2010).

Following Becker's (2005) recommendation to include only control variables that have significant relationships with criteria; only gender was included in SEM. The model fit indicators are shown in Table 2.

Table 2: Model Fit Statistics

	χ^2	<i>df</i>	χ^2/df	<i>NFI</i>	<i>CFI</i>	<i>TLI</i>	<i>RMSEA</i>
Model 1: 2-step full mediation – hypothesised	16.90**	6	2.82	0.94	0.96	0.89	0.09
Model 2: Direct paths from leadership to justice and commitment , 2-step partial mediation	5.55	2	2.78	0.98	0.99	0.96	0.09
Model 3: Direct paths from leadership, justice and commitment to OCB ($\beta = 0.16$, $p \leq 0.05$; $\beta = -0.18$, $p \leq 0.05$ and $\beta = 0.41$, $p \leq 0.001$)	111.35***	2	55.68	0.58	0.58	-0.27	0.50

Notes: * χ^2 Significant at 0.05; ** χ^2 Significant at 0.01, *** χ^2 Significant at 0.001

As shown in Table 2, the hypothesized model fitted data reasonably well ($\chi^2(6) = 16.90$, $p \leq 0.01$; $NFI = 0.94$, $CFI = 0.96$, $TLI = 0.89$, $RMSEA = 0.09$). However, consistent with Anderson and Gerbing's (1988) suggestions, alternative theoretically plausible models were evaluated (Zhang & Bartol, 2010). Even though the hypothesized model fitted data significantly better than alternative model 3 in which there were direct paths from leadership, justice and commitment to OCB ($\Delta\chi^2 = 94.45$, $\Delta df = 4$, $p \leq 0.001$), model 2 in which there were direct paths from leadership to both justice and affective commitment fitted data significantly better than the hypothesized model ($\Delta\chi^2 = 11.35$, $\Delta df = 2$, $p \leq 0.01$).

In summary, even though the results suggest that the 2-step partial mediation model fitted data significantly better than the 2-step full mediation model, the overall hypothesis of successive mediation involving justice and affective commitment remained valid.

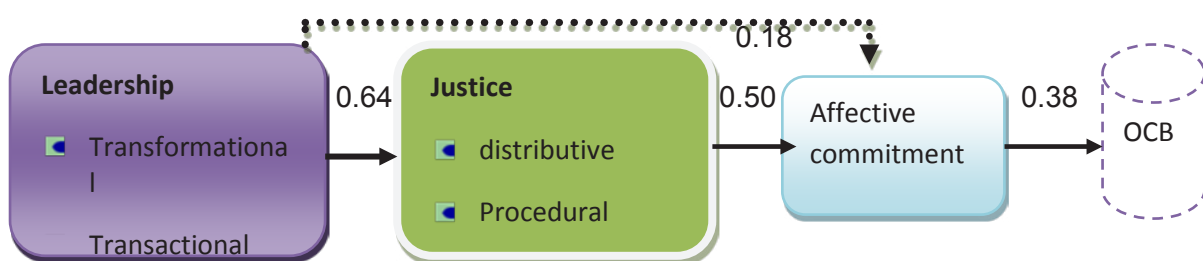
The regression coefficients for each relationship (path analysis) for model 2 are summarised in Table 3.

Table 3: Estimated Path Regression Coefficients (Best Fitting Model)

2-step partial mediation - alternative best fitting model		
	Estimate (β)	Probability
Leadership \longrightarrow Justice	0.64	$p \leq 0.001$
Leadership \longrightarrow Commitment	0.18	$p \leq 0.05$
Justice \longrightarrow Commitment	0.50	$p \leq 0.001$
Commitment \longrightarrow OCB	0.38	$p \leq 0.001$
Gender \longrightarrow OCB	0.08	$P \geq 0.05$

Overall, all hypothesised path relationships were significant as expected. Based on overall results, the hypothesised model can be reformulated as shown in Figure 2.

Figure 2: The Modified Conceptual Model



N.B. Figures represent standardized betas.

7. DISCUSSION

In spite of calls made earlier to examine attitudinal mechanisms through which leadership influences OCB (Wang et al., 2011), little is known about such mechanisms. This study investigated successive mediating roles of justice and commitment in the link between leadership and OCB. Overall, the results suggest that the relationship between leadership and affective commitment is partially mediated (explained) by organisational justice, and in turn, the relationship between organisational justice and OCB is fully mediated by affective commitment.

While the examination of indirect relationship between leadership and OCB (Walumbwa et al., 2006; Ehrhart, 2004; Niehoff & Moorman, 1993; Podsakoff *et al.*, 1990) and between justice and OCB (Colquitt et al., 2013; Lavelle *et al.*, 2009) are by no means new, to our knowledge, the model in which justice and commitment successively mediate (explain) the link between leadership and OCB is yet to be examined. The model close to the present one is that of Lehmann-Willenbrock *et al.* (2013) which proposed and found that trust and organisational commitment successively mediate the positive relationship between procedural justice and OCB. While different, both studies suggest that relationships between contextual factors and OCBs may be explained by attitudes, notably, organisational commitment.

The present study responds to earlier calls to examine attitudinal mediators between leadership and performance criteria (Wang *et al.*, 2011), and specifically provides evidence that leaders may influence OCBs by partly creating fairness and inducing commitment among employees.

8. LIMITATIONS

While the present study hopefully provides useful insights into how leadership links to OCB, it however has some limitations to be noted. First, data were collected based on self-reported data, and this lends itself to common method bias. While Spector (2006) has suggested that common method bias is not serious enough to invalid results, future studies can reduce this bias by using different sources of data. Second, the cross-sectional research design used could not provide evidence of causality between variables. Future studies can use either longitudinal or experimental research designs to provide temporal and causal relationships between the variables of this study. Third, caution should be exercised before the results can be generalised. Even though the university sample was selected randomly, the same was not repeated with the sample from outside campus. Future studies can try to replicate the present findings based on a more diversified sample.

9. PRACTICAL IMPLICATIONS

The results of this study suggest that leadership alone is not enough to influence employee OCBs. Rather, leaders have to be fair to employees, and in response to fair treatment, employees may reciprocate by being affectively committed to their organisations, which in turn may prompt employees to engage in OCBs. To acquire appropriate leader behaviours and fairness, careful selection practices can be used. Specifically, organisations may hire managers with certain traits. For instance, since it is known that transformational leaders are extroverted individuals who are emotionally stable (Wang *et al.*, 2011); personality tests, if used appropriately; can help identify people with potential to develop leadership skills. One direct way of improving OCB is by hiring employees who are committed to helping others, or those with conscientiousness personality trait. Conscientiousness has been identified as a

consistent predictor of OCB (Podsakoff *et al.*, 2000). Training interventions can also be used to assist managers to develop leadership and fairness skills. The present study provides evidence that good leaders may be perceived as fair, and both fairness and leadership influence employee affective commitment, which in turn affects employee OCBs. Fortunately, research indicates that managers can successfully be trained on leadership and fairness (Wang *et al.*, 2011).

10. CONCLUSIONS

The present study investigated the intervening mechanisms through which leadership links to OCBs. Social Exchange Theory (Cropanzano & Mitchell, 2005; Blau, 1964) was used as fundamental explanatory framework. Overall, the results indicated that organisational justice and affective commitment successively mediated a positive relationship between leadership and OCB. It is hoped that these results will stimulate research on other variables that may mediate the relationship between leadership and other extra-role behaviours in organisations.

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LEADERSHIP QUALITIES MOST CRITICAL TO THE RETENTION OF WOMEN

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LEADERSHIP QUALITIES MOST CRITICAL TO THE RETENTION OF WOMEN

ABSTRACT

Women form a critical component of the workforce of South Africa and therefore the issue of retaining women should be a strategic priority for organisations. One of the issues that has a direct influence on women's decision to remain employed involves leadership. This study focused on identifying leadership qualities and behaviours that are valued by women and thus play a pivotal role in their retention. The research examined the retention of women from a leadership perspective. A cross-sectional quantitative research approach was followed. A random sample was drawn from permanent female staff at a higher education institution. Through the process of exploratory factor analysis, four leadership qualities were identified. These qualities included relationship orientation, integrity, involvement and task orientation. Recommendations for retention strategies aimed specifically at women are suggested on the basis of these findings.

1. INTRODUCTION

Women make up a substantial number of South Africa's working population. In the Quarterly Labour Force Survey of September 2011, the labour force participation rate of

women was reported at 48% (Statistics South Africa, 2011). In the second quarter of 2016, the labour force participation rate of women in the country was standing at an impressive 51.4% (Statistics South Africa, 2016). This indicates that the labour force participation rate of women in South Africa has increased by 3.4% over the past five years, and this increase is expected to continue in the future. The 2016 statistics indicated a rate of labour force participation of women of 51.4% (Statistics South Africa, 2016). This development is highly motivating for women worldwide, and the emergence of women in the labour market will certainly change the way organisations compile policies and approach work. The presence of this new talent increases the need for organisations to cater for the needs of a diverse workforce.

Unfortunately, the representation of women in top management positions is still quite low in comparison to the number of males represented at this level – in the private sector, males account for 79.9% of top management positions, while women make up only 20.1%. In the public sector the numbers are a little more optimistic, with women filling 30.6% of top management positions and men 69.4% (SA Department of Labour, 2016).

In South Africa, women account for a dismal 2.4% of CEO positions, 9.2% of chairperson positions, 21.8% of directorships and 29.3% of executive management positions (Businesswomen's Association of South Africa, 2015). These statistics indicate that the need for the advancement of women in the twenty-first century is now a matter of urgency – the status quo must be altered, societal structures with regard to gender roles must be more accommodating, more women must pursue higher level education and more opportunities must be created for women (Businesswomen's Association of South Africa, 2015).

Specifically in the context of higher education, where women were previously seen as fulfilling only teacher or secretary roles, they are now highly represented in academia, which previously was a male-dominated field (Machika, 2014; Cotteril & Letherby, 2005). The Council of Higher Education in South Africa reported that, in 2006, women outnumbered men in public higher education for the first time (Council on Higher Education, 2012). In a survey conducted in 2007, the results showed that, in the South African higher education workforce, women comprised 21% of the Deputy Vice Chancellors and 21% of the Executive Directors (HERS-SA, 2016). This rise, although encouraging, has not created a convincing impact, since there still remains a substantial gender inequality gap at higher education institutions (Machika, 2014).

2. LITERATURE REVIEW

2.1 Retention of women

Perhaps of greater concern to the field of human resource management, are the high numbers of women leaving organisations. More women than men are noted as leaving their organisations, especially at senior levels (Anderson, Vinnicombe & Singh, 2010). Jo (2008) supports this view and notes that women are more likely to leave their jobs for non-economic reasons. According to Deery (2008), emotional exhaustion is a major cause of employee turnover. Research in South Africa shows that organisations are failing to retain their female talent due to their inability to accommodate women's needs. Clark (2007) did a study to determine why executive women flee South African organisations. The following were some of the reasons for leaving their jobs:

- Political acumen: a lack of political insight
- Burnout: feelings of exhaustion and stress
- Social networks: unable to be a part of the 'boys' club' and feelings of isolation
- Lack of organisational support and mentorship: lack of female mentors and assistance from the organisation
- Clash of values: difference of opinion and value systems between respondents and the organisation or between women and immediate supervisor
- Shocks: a specific incident that causes one to resign
- Intimidation: includes a range of factors such as sexual advances, inappropriate language, physical threats and sabotage
- Organisational culture: paternalistic organisational culture

In a separate study, Clarke and Kleyn (2011) identified the following reasons for many women executives resigning:

- Paternalism: male perception of superiority
- Male exclusive networks: exclusive 'old boys' club'
- Lack of influence: inability to enforce decisions and make a difference
- Exposure to intimidation: directly or indirectly intimidated or threatened

Six fundamental factors have been identified as central to the issue of employee retention by Döckel, Basson and Coetzee (2006) namely:

1. Compensation
2. Job characteristics
3. Training and development opportunities

4. Supervision/leadership
5. Career opportunities
6. Work-life policies

One of the key retention factors identified that has specific value to this study is the aspect of supervision/leadership. Employees will likely be retained if their supervisors recognise their work, provide valuable feedback and reward them for their performance. Feedback encourages optimistic feelings towards the organisation and may even help avoid turnover intentions.

Numerous retention models such as Veldsman's Employee Commitment Model (2003), Britton, Chadwick and Walker's (1999) rewards of work model and Das and Baruah's (2013) employee retention and job satisfaction model, emphasise the role leadership and work-life balance play in the retention of employees. Table 1 provides a summary of each of these models' focus.

Table 1: Comparison of Retention Models

Scholar/s	Retention Factor Measurement Scale	Veldsman's Employee Commitment Model	Rewards of Work	Employee Retention & Job Satisfaction Model
Döckel (2003) Döckel et al. (2006)	1. Compensation 2. Career opportunities 3. Supervisor support 4. Training and development opportunities 5. Job characteristics 6. Work-life policies	1. Organisational climate 2. Employee wellbeing 3. Job satisfaction 4. Organisational commitment	Britton et al. (1999) Munsamy and Bosch Venter (2009) 1. Affiliation 2. Work content 3. Career 4. Direct financial 5. Indirect financial 6. Work-life balance	Das and Baruah (2013) 1. Compensation 2. Reward and recognition 3. Promotion and opportunity for growth 4. Participation in decision making 5. Work-life balance 6. Good work environment 7. Training and development 8. Proper leadership 9. Job security
Main Emphasis	South African context. After considerable research, six key retention factors were identified.	Employee retention factors are classified under three broad dimensions that firstly affect one's commitment to the organisation and ultimately one's propensity to stay/leave.	Employees' preferences for rewards provided by their organisations were studied. This research led to an indication of critical retention drivers.	Factors were recognised as central to the issue of job satisfaction. If these factors are present, employees will likely be more satisfied with their jobs, which leads to lower turnover rates and hence increased employee retention.
Relevance to Current Study	Although all six factors could in some way be relevant to the current study, the four factors that stand out are <i>training and development, career opportunities, supervisor support and work-life policies</i> . These factors are undoubtedly related to the current study due to their focus on leadership, growth and work-life balance.	The categories of retention factors found in this model are not openly linked to the current study. However, upon closer inspection it was noted that, since the category of employee wellbeing includes aspects such as <i>opportunities for growth, training and skills enhancement</i> , it is actually associated with the leadership opportunities perspective.	The classifications of <i>affiliation, career and work-life balance</i> are intricately connected to the issues of both leadership perspectives in this study, as well as the context of the twenty-first-century new world of work.	Once again, all the factors identified are associated with retention and the current study by some means. The main factors that could be extracted from this model that have particular relevance to the current study are <i>promotion and opportunity for growth, work-life balance and proper leadership</i> .

Source: Adapted from Moosa (2017)

2.2 Multiple roles of women

For most women, their careers are not the only responsibility that they carry. O'Neil, Hopkins and Bilimoria (2008) propose that work is only a fragment of a women's larger life context. In addition to their work, women are also traditionally seen as the primary caregivers at home. Women continue to carry the greater share of the responsibility of looking after the family, cooking, cleaning and the general maintenance of the household in comparison to their male counterparts (Walters & Whitehouse, 2012). In addition to this, Bianchi and Milkie (2010) add that caring for children remains more so within the scope of a mother's duty than a father's. This means that women are likely to become both high-earning breadwinners and communal primary caregivers (Rudman & Phelan, 2010). The question then arises whether women are capable of performing well in both roles. Harcar (2007) came to the conclusion that dysfunctional behaviours (tardiness, absenteeism, etc.) and employee burnout could result from high levels of interference of one role on the other. Women struggle with feelings of guilt about leaving their children and managing home demands while also having to cope with the persistent stresses of working life. For many women, the stress caused by this can become a serious threat to their mental health (Grice, Feda, McGovern, Alexander, McCaffrey & Ukestad, 2007).

2.3 Work-life balance

Various studies have investigated initiatives taken to increase the balance between work and life. One such study examined the relationship between work-life conflict and employee turnover and was conducted by Maxwell (2005), who found that managers play an instrumental role in enabling employees to maintain a work-life balance. He states that work-life balance policies, which range between improved training, support in terms of work tasks, work breaks and flexible work arrangements, have the potential not only to address the problem of work-life conflict but, more significantly, can help improve employee retention. In another study, Breugh and Frye (2008) found that, when the supervisor is thought to be family-supportive, employees are more likely to make use of family-friendly practices such as flexible hours and family leave. Doherty (2004) also questioned the influence of work-life conflict on turnover with a specific focus on women. She suggests that, to decrease labour turnover, a distinct set of rights should be provided for all employees, focusing not only on women but also taking into account the needs of men so

that a greater work-life balance can be achieved for all employees (Doherty, 2004).

When looking at work-life balance holistically, it seems that employees will be less likely to leave their organisations if their unique needs are considered. In this regard, Thompson and Prottas (2006) observed that, when employees are provided with support on the social front, it incites lower levels of turnover intentions and reduces stress. Deery and Jago (2015) established that work-life balance emerges as a key concept in the retention and management of employees.

Women increasingly need to balance work and life and it is evident that work-life balance practices and flexible work practices are inevitably linked (Fleetwood, 2007). Increasing work-life balance by possibly using flexible work practices is highly advantageous to an organisation, as it could have a direct link to retention. Policies that increase independence and assimilation between work and life are valuable to organisations (Timms, Brough, O'Driscoll, Kalliath, Siu, Sit, & Lo, 2015). Independence and assimilation are also highly beneficial to employees, who will experience greater job satisfaction, lower work-family conflict and lower turnover intentions (Masuda, Poelmans, Allen, Spector, Lapierre, Cooper, & Moreno-Velazquez, 2012). However, it is important to note that work-life balance and flexible work practices are not the only factors that may have an impact on the retention of women, nor do they function independently. The retention of women is a complex issue that will require a combination of strategies in order to be effective. One such strategy involves leadership that empowers and enables female employees to succeed in the workplace (Knights & Willmott, 2012).

2.4 Leadership

The issue of people leaving their organisations due to poor relationships with their managers is perpetual. It is now widely accepted that people no longer quit their organisations, but that they rather quit their leaders. Lipman (2015) reports on this same issue by examining the prevalence of and reasons why people are leaving because of their managers. He explains that, if the wrong person is placed in a management position, the consequences could be detrimental (Lipman, 2015). In an extensive research project, Hay (2002) reports that, when ranking factors that contribute to employee turnover, an unpleasant relationship with one's supervisor ranked as the second highest. In

another study that was conducted in South Africa, it was found that management style emerged as the leading retention factor (Meyer, 2005).

Leaders have been found to have a great influence on the workplace attitudes and behaviours of employees and organisations as a whole (Burton & Hoobler, 2011). The relationship of employees with their leaders is one of the most significant relationships in their lives because it has a direct effect on their psychological and emotional wellbeing (Thau, Troster, Aquino, Pillutla, & De Cremer, 2013). Also, considering the amount of time that is spent at work, the health of this relationship is essential for employee satisfaction and motivation. Leadership also has an ethical dimension, which relates to the behaviour that leaders should display and the interpersonal relationships they form with their employees through two-way communication, reinforcement and decision making. This means that leaders should act consistently with general expectations and behave in a fair, honest, principled and trustworthy manner (Piccolo, Greenbaum, Den Hartog & Folger, 2010). Bearing in mind the critical role leadership plays in the wellbeing of employees, and in particular in employees' decision to remain with the organisation, this study focuses on the extent to which leadership qualities and the behaviour displayed by leaders influence women's intentions to remain with the organisation.

2.4.1 *Trait theory*

Various leadership theories attempted to explain what leadership is about. One of the oldest theories is the trait theory. According to the trait theories, leaders have certain personality characteristics and attributes (Kane, 2015; Crainer & Dearlove, 2014). One of the main concerns of the trait approach to leadership suggests that the traits of leaders are innate, thus simply stating that leaders are born and not made (Roe, 2014). The belief that some people are instinctive leaders who possess certain intrinsic traits which are not possessed by others is central to the trait theory (Yukl, 2013).

2.4.2 *Behavioural theory*

In response to the large volume of criticism with regard to the trait leadership theory, the behavioural approach surfaced with a completely different outlook and focus (Cutler, 2014). The essence of behavioural theories is that good leadership will be determined more by abilities, skills and behaviour than by personal (physical, emotional or mental) traits (Newstrom, 2015). The first and earliest research regarding behavioural studies of leadership was conducted

by Lewin, Lippitt and White (1939), who identified three types of leadership styles – autocratic, democratic and laissez-faire.

According to the Ohio State study, leader behaviour was categorised according to two dimensions namely 'consideration' and 'initiating structure' (Newstrom, 2015; Quick & Nelson, 2013). Similar to the Ohio State study was the Michigan leadership study that identified two types of leaders namely employee-oriented and production-oriented leaders (Quick & Nelson, 2013). The Blake and Mouton managerial grid also considered leadership from two perspectives and identified two categories namely leaders' concern for people and leaders' concern for results. These behavioural theories all identified three significant characteristics of leaders namely task orientation, relationship orientation and participation.

2.4.3 *Contingency/situational theories*

Newer approaches to leadership involve the contingency/situational theories which focus on leadership as being dependent on the situation. According to the contingency theory, diverse contexts require different inputs, and leaders must be able and willing to adjust their leadership style as needed. Some of the most known situational theories include Fiedler's contingency theory, the path-goal theory, Hersey and Blanchard's situational leadership theory, and the leader/member exchange theory.

2.4.4 *Transactional leadership*

The trait, behavioural and contingency theories have been based primarily on the perspective of 'transactional leadership'. These early leadership theories explained leader behaviour in terms of exchange relationships between leaders and their followers, in which leaders provided guidance and support and also strengthened the behaviour of followers (Walumbwa & Wernsing, 2013). From this standpoint, leadership is seen as a process of social exchange between leaders and followers which arises when a leader endeavours to apply influence or simply decides to lead (Roe, 2014).

2.4.5 *Transformational leadership*

Transformation leadership is said to have a powerful psychological impact on followers that goes far beyond the impact of transactional leadership (Antonakis & House, 2014). Burns (1978) originally described the notion of transforming leadership as arising when leaders and followers uplift each other

to higher degrees of morality and motivation. Bass (1985) went on to modify the concept into transformational leadership that portrays the leader's influence on followers, and not the other way around. Transformational leaders aim to inspire and motivate followers to the achievement of exceptional outcomes and, at the same time, to develop their own leadership abilities (Roe, 2014). This type of leadership intends to transform individuals by using more than rewards and punishments. Where transactional leadership is task-centred, transformational leadership is person-centred. Followers feel a sense of pride, respect and trust towards a transformational leader and, as a result, they are determined to do more than expected (Yukl, 2013).

3. PROBLEM INVESTIGATED

Women make up a significantly large portion of the talent pool in South Africa. In the context of higher education, the numbers of female academics are on the rise and they are contributing extensively in many fields, but there still is a long way to go until women are on an equal footing to men. This calls for employee retention research that focuses primarily on women.

With regard to the leadership perspective of the study, it is not clear whether the type of leader that women work for has any influence on the employment relationship. This study therefore aimed to determine which leadership qualities are valued by women.

Unfortunately, the number of skilled and professional women leaving organisations or the labour force altogether is alarming. The main problem encountered by organisations is the loss of such an important source of talent. With the purpose of nurturing women as an essential resource, organisations need to make every effort to manage the employment relationship. One way in which this can be done is by looking at the role of leaders in this relationship. Therefore, the purpose of the research was to identify leadership qualities most valued by women.

4. RESEARCH OBJECTIVE

The primary aim of the research was to determine which leadership qualities are regarded as the most important by women.

5. RESEARCH METHODOLOGY

This research followed a quantitative design approach. The research method included both the literature review as well as the empirical study. An exploratory factor analysis of the questionnaire was conducted. In order to apply the appropriate statistical procedures, categorical and frequency data (means and standard deviations) were determined for the total sample. This helped in the assessment of the internal consistency reliability of the measuring instrument. Descriptive statistics such as the Cronbach's alpha were utilised.

5.1 Sample and population

The empirical study took place amongst female employees at a South African higher education institution. The total population constituted of approximately $N = 2\,732$, which was the total number of permanent female employees working at the university. The population comprised women only and included women of different ages, races, marital status, staff categories and educational levels. Probability sampling was used and every unit of the target population had an equal and specified possibility of being selected in the sample. A simple random sample of $n = 2\,000$ permanent female employees was drawn. A total of 311 questionnaires were completed, resulting in a response rate of 15.6%. The sample therefore represented 11.4% of the total population.

5.2 Measuring instrument

In line with the quantitative approach, a survey research method was chosen and an electronic questionnaire was sent to the sample of female employees. After a careful review of the literature on the topics of women retention and leadership, a questionnaire, based on what women expect from their leaders, was developed. A six-point Likert-type scale consisting of the following 6 dimensions was used: Strongly disagree, Disagree, Slightly disagree, Slightly agree, Agree, Strongly agree. A six-point scale was used in order to reduce the effect of central tendency.

5.3 Reliability and Validity of the measuring instrument

Content, construct and factorial validity of the leadership questionnaire were established by the results of the exploratory factor analysis. The internal consistency reliability of the leadership questionnaire was ascertained by the Cronbach’s alpha coefficients (Cronbach, 1951).

6. ETHICAL CONSIDERATIONS

The research was conducted by adhering to strict ethical guidelines and standards of the higher education institution. Ethical clearance was obtained from the institution where the research was carried out. The informed and voluntary consent of every participant was required and documented. Confidentiality was ensured throughout the process. No harm or victimisation fell on any person who took part in the research. The researcher remained as objective as possible and used her integrity to guide this research project.

7. RESULTS

7.1 Factor analysis

Before the factors could be identified for the leadership category using the principle-axis factor analysis, the suitability of the data for factor analysis first had to be established by analysing the results of the KMO and Bartlett’s test. As indicated in Table 2, there was enough correlation for the principle-axis factor analysis to take place.

Table 2: KMO and Bartlett’s Test: Leadership qualities

		Leadership qualities
Kaiser-Meyer-Olkin measure of sampling adequacy		.965
Bartlett’s test of sphericity	Approx. Chi-square	9309.623
	df	528
	Sig.	.000

The principal axis factor analysis revealed the presence of four factors with eigenvalues exceeding 1.0, which cumulatively explained 62.1% of the variance in the data (shown in Table 3).

Table1: Leadership qualities of manager: Total Variance Explained (second run)

Factor	Initial Eigenvalues	Extraction Sums of Squared Loadings	
	Total	% of variance	Cumulative %
1	17.356	51.348	51.348
2	2.344	2.007	53.355
3	1.513	4.764	58.120
4	1.127	3.002	61.122

Once the number of factors and the total variance was explained, the factor loadings in the pattern matrix were analysed with reference to the theory in order to name or categorise each factor. Four factors were established and the factors were labelled as follows:

Factor 1: Relationship orientation

Factor 2: Integrity

Factor 3: Involvement

Factor 4: Task orientation

Table 4 indicates the items that loaded under each factor and the names given to the factors for Leadership qualities. Items 17 and 29 did not load onto any of the factors.

Table 2: Leadership qualities of Manager - Pattern Matrix

	Item Description	Factor			
		1 RELATIONSHIP ORIENTATION	2 INTEGRITY	3 INVOLVEMENT	4 TASK ORIENTATION
1	Has widespread influence at the institution.	.420			
2	Acts in an ethically responsible manner.		-.643		
3	Is a person of integrity.		-.582		
4	Is very strict when enforcing rules and procedures.		-.321		
5	Allows us to take responsibility for decision making.	.765			
6	Is skilled in resolving conflict in an objective, fair and impartial manner.	.710			
7	Is more concerned about results than people.				.341
8	Does his/her best to create a pleasant, sociable work environment.	.809			

	Item Description	Factor			
		1 RELATIONSHIP ORIENTATION	2 INTEGRITY	3 INVOLVEMENT	4 TASK ORIENTATION
9	Promotes mutual trust and respect within our section.	.678			
10	Outlines tasks and roles in great detail.				.495
11	Is prepared to "roll up his/her sleeves" to assist with tasks.			-.506	
12	Closely supervises people reporting to him/her.				.586
13	Recognises good performance.	.806			
14	Has confidence in the abilities and skills of individuals reporting to him/her.	.933			
15	Supports further development and growth of individuals in his/her section.	.795			
16	Takes personal interest in the well-being of people reporting to him/her.	.915			
17	Ensures that individuals have the necessary resources to complete tasks.	Excluded			
18	Is concerned about how favourably he/she is viewed by others.				
19	Always puts the task ahead of relationships at work.				.536
20	Uses rewards to pressure individuals into achieving goals.				
21	Is an 'absent' manager who shows little interest in either the tasks or people in his/her section.			.597	
22	Is mostly concerned about his/her own advancement.			.556	
23	Leads by example.	.558			
24	Encourages teamwork with the aim to establish a "family" culture.	.767			
25	Is able to adapt his/her management style according to the demands of the situation.	.669			
26	Treats everyone reporting to him/her in a fair manner.	.749			
27	Delegates tasks and authority in an attempt to empower individuals.	.734			
28	Is prepared to defend individuals reporting to him/her.	.887			
29	Is worthy of his/her position.	Excluded			
30	Is prepared to express his/her beliefs, motives and values despite pressure to conform.	.686			
31	Places the needs of others above his/her own.	.575			
32	Unjustly delegates tasks to lighten his/her own workload.			.624	
33	Assigns significant and important tasks to those he/she favours.			.526	
34	Takes the happiness of individuals reporting to him/her at heart.	.850			
35	Uses networking to gain power status			.493	

Relationship orientation (Factor 1)

Relationship orientation refers to managers who value the people they work with, believe in their capabilities and are inclined towards enhancing relationships as a tool for effective management. This factor also refers to the ability of a leader to resolve conflict in an objective and fair manner. Leaders are also expected to create a pleasant, sociable work environment in which employees trust and respect each other. Employees are empowered and provided with opportunities to demonstrate their capabilities and are recognised for good performance. Relationship orientated leaders encourages teamwork, creates a family culture and takes personal interest in the well-being of people under their command.

Integrity (Factor 2)

Integrity refers to managers that have strong moral principles and adhere to such principles, no matter the circumstances. This factor refers to the need to do what is right without prejudice or preferences influencing decisions. Given the history of discrimination in the past, female employees regard integrity of leaders as extremely important.

Involvement (Factor 3)

Involvement refers to managers who take an interest in the tasks or people in their section, who fulfil their duties and who are not only concerned with their own advancement. Involved managers are prepared to “roll up their sleeves” and assist with tasks.

Task orientation (Factor 4)

Task orientation refers to managers with a primary focus on the task at hand and results. Tasks and duties are outlined in detail and subordinates are closely supervised.

7.2 Reliability

The Cronbach's alpha coefficients of each factor identified in the EFA were analysed to determine the reliability of the scale as a whole. Where factors did not meet the required reliability criteria set for this study (.60), such factors were excluded from further analysis and did not form part of the overall scale. The internal consistency reliability of the different scales of the leadership qualities appears in Table 5.

Table 5: Internal Consistency Reliability of Leadership qualities

	Dimension name	Cronbach's Alpha	No of items
Leadership qualities of manager			
Factor 1	Relationship orientation	.97	18
Factor 2	Integrity	.84	3
Factor 3	Involvement	.81 <i>*item deleted</i> 11	5
Factor 4	Task orientation	.66 <i>*item deleted</i> 7	3
	Total number of items:		29

7.3 Descriptive statistics

In terms of leadership qualities, the factor with the highest mean score was integrity (M = 4.36, SD = 1.21), and the lowest score was involvement (M = 3.04, SD = 1.19).

The skewness values indicated that, with regard to leadership, the scores were positively skewed (bounded to the left) but the skewness of all factors ranged from -.95 to .54, which is within the normal range of 1 to +1 set for these coefficients. The kurtosis values for all sections ranged between -.98 to .81, which is considered normal. Table 6 indicates the descriptive statistics for each of the factors for leadership qualities.

Table 6: Means, Standards Deviations, Skewness and Kurtosis

Construct	Mean (M)	Standard Deviation (SD)	Skewness	Kurtosis
Leadership qualities of manager				
Relationship	3.96	1.30	-.62	-.65
Integrity	4.36	1.21	-.87	.15
Involvement	3.04	1.19	-.37	-.58
Task orientation	3.74	1.10	-.48	-.07

7.4 Integration and interpretation of results

Four factors were extracted as regards to leadership qualities, namely relationship orientation, integrity, involvement and task orientation.

A leader who has a high relationship orientation falls into the democratic and participative category of leaders. These leaders involve their employees in the decision-making process and encourage input from all sides, this type of

leadership helps to develop people skills and motivates employees by making them feel as if they are a crucial part of the team or organisation (Bhatti, Maitlo, Shaikh, Hashmi & Shaikh, 2012). Relationship orientation could also be linked to transformational leadership, which is seen as a person-centred approach to leadership, where the needs of the followers are aligned to those of the organisation (Tyssen, Wald & Spieth, 2014). Women indicated that they slightly agreed with the items comprising this factor ($M = 3.96$). The sentiments expressed in the questionnaire regarding this dimension focused on the emphasis placed on relationships by some managers, such as increased responsibility for decision making, confidence in the abilities of team members, being supportive of development and growth and placing the needs of others above their own.

The factor of integrity could be linked to authentic leadership, in which the ethical principles and morals of a leader are valued above all else. Leaders who follow this approach must be true to their intrinsic nature and always try to maintain their best qualities, regardless of the situation or circumstances (Cutler, 2014; Roe, 2014). The fact that integrity was identified as a factor is interesting, as it shows that women value morality and ethical practices in their leaders. This factor also received the highest mean score ($M = 4.36$), which shows that the women agreed with these sentiments and placed high value on the integrity of their managers.

The involvement of managers comprised the third factor in this section. Involvement refers to leaders who do not purposefully dodge their responsibilities and who do not only consider themselves and their own advancement or promotion within the organisation. Women indicated that they valued the fair distribution of tasks that gave all an equal opportunity to perform. This factor obtained the lowest mean score in this section ($M = 3.04$), which indicates that women tended to slightly disagree with the items expressed by this factor. This is partially due to the fact that the questionnaire items had to be reversed scored.

The final factor in this category is task orientation. Task-oriented leaders focus more on the job that needs to be done than on relationships or people. Such leaders usually enforce strict rules and provide little autonomy. This factor is associated with leaders who are autocratic or transactional in nature. Autocratic leaders are dominating and firmly adhere to the rules when carrying out tasks

(Cutler, 2014; Quick & Nelson, 2013). Transactional leaders also focus on fulfilling the task, with the relationship between a leader and a follower being based on the concept of exchange (Roe, 2014). In this type of relationship, a manager's primary role is to assist his/her employees in carrying out the task or job at hand. Women indicated that they slightly agreed with this factor ($M = 3.74$), signifying that some of the managers at the institution have task-oriented or autocratic tendencies or traits. Women thus felt that managers should focus more on the unique needs of women.

8. **MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS**

As regards to leadership qualities, four factors emerged: relationship orientation, integrity, involvement and task orientation. The findings indicate that supervisors should focus on creating strong, affirming relationships with their subordinates. Leaders who show concern for others and take the time to provide guidance and support are valued and required. Women require leaders who act with integrity and adhere to ethical morals. Involvement refers to the extent to which leaders are engaged in the activities of their employees and are active participants in the fulfilment of their duties. Highly involved leaders were seen as effective, in contrast to absent managers who neglected their duties and left subordinates to fend for themselves. Lastly, women valued some degree of task orientation on the part of the leader. This means that leaders must assist with tasks and provide the necessary resources to achieve goals. Of the four factors identified, the results indicate that relationship-oriented leaders are highly desired and valued by women.

When developing organisational strategies aimed at retaining women, the following recommendations should be considered:

- The leadership style of supervisors should be managed. The findings of the study showed that, a relationship-oriented style of leadership is closely related to retention. Supervisors could attend training to develop their interpersonal and communication skills. Supervisors should also show integrity in decision making and treat specifically women in a fair and just manner.

- Organisations must cater specifically to the unique needs of women. It is evident that the needs of women differ significantly from those of men and, as such, a one-size-fits-all approach to retention will not be effective.
- Women should be provided with stimulating tasks and opportunities to develop their skills.
- Organisations should strive to provide work conditions that promote work-life balance and fulfil the needs of their female employees. Aspects such as increased flexibility, healthy relationships and unique reward packages could lead to increased retention.
- Relationships between supervisors and female employees should be nurtured and managed. The nature of the relationship between a supervisor and an employee has a significant impact on retention. A healthy relationship will help retain women in an organisation.
- Organisations should try to provide their female employees with the necessary support to effectively manage their time and their workload. Overburdened employees who receive no help from their organisations are likely to become burnt out and stressed, thereby giving rise to turnover intentions.

9. CONCLUSION

As with every organisation, the quality of the work produced depends largely on the quality of the workforce. South African higher education is no different. In a recent report entitled *The SABPP Women's Report 2012*, an entire chapter is dedicated to women in South African academia (Boshoff & Bosch, 2012). It shows that women in the academic arena are of utmost importance. According to Boshoff and Bosch (2012), academics play a significant role in serving the needs of society. The report further states that greater involvement of female academics will have a vast impact on not only the composition of the workforce, but also on the structure of organisations and the future of society as a whole (Boshoff & Bosch, 2012). Unfortunately, women are not as well represented in academia as one would hope. Organisations thus need supportive strategies to help retain women (Boshoff & Bosch, 2012). One of the strategies to retain the services of women could include having compassionate and competent leaders.

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THE EFFECT OF PSYCHOLOGICAL CAPITAL ON WORK ENGAGEMENT AMONG EMPLOYEES WORKING IN RETAIL BANKS IN THE FREE STATE

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THE EFFECT OF PSYCHOLOGICAL CAPITAL ON WORK ENGAGEMENT AMONG EMPLOYEES WORKING IN RETAIL BANKS IN THE FREE STATE.

ABSTRACT

This study examined the effect of psychological capital (hope, optimism, self-efficacy and resilience) on work engagement amongst employees working in bank branches in the Free State Province. It also investigated the differences in levels of work engagement with regards to educational level. Using a non-probability convenience sampling procedure 303 employees participated in the study. Data was analysed using the stepwise regression analysis and results demonstrated that psychological capital explained a significant 68.6 percent variance in work engagement, with hope being the largest contributor to the model. Contrary to that resilience was not a significant contributor to work engagement. In addition, using the t-test the different educational level groups were compared and significant differences in levels of work engagement were discovered, results suggesting that higher education levels are associated with higher levels of work engagement. It is therefore recommended that banking sector managers should foster the development of psychological capital in the work place in an attempt to facilitate the growth of additional work related outcomes such as work engagement. Additionally, employees should be encouraged to advance their education to enable them to gain more knowledge about their work and boost their work engagement levels.

1. INTRODUCTION

Work engagement levels across the world has been declared a huge crisis with serious and potentially lasting and devastating repercussions for the global economy (Mann & Harter, 2016). In the South African context, Roberts (2013) noted that only 9% of the employees in the country are engaged, 46% are not engaged and 45% are actively

disengaged. Nigah, Davis and Hurell (2012) noted that South Africa is experiencing serious work engagement challenges with the adverse impact of disengagement witnessed by the huge numbers of employees who are slowly becoming liabilities to organisations. This is further witnessed by low productivity, decrease in profits, high turnover and customer dissatisfaction experienced in both public and private sectors. With the current economic turmoil South Africa is facing, Tshilongamulenzhe and Takawira (2015) are of the opinion that, skilled competent and engaged workforce is key to the survival of the organisations. A recent survey indicated that, 20% of lost business to competitors is due to poor service caused by this disengagement (Dale Carnegie Training Institute, 2014). Considering that employee engagement is an important aspect for organisations to survive internationally, disengagement is an adverse threat to organisational productivity and economic success (Mann & Harter, 2016).

Even though work engagement challenges are experienced across the country, the finance and banking industry seem to experience serious problems since they are operating in highly competitive scenarios (Sadlier, 2014). In addition to that, the financial meltdown, depreciation of the rand, political instability witnessed by the constant change of finance ministers as well as the economic recession has unquestionably tarnished the reputation of the banking sector and placed heavy work demands on employees imposing strict regulations to uphold at nearly every corner (Bersin 2015). There are high client expectations leading to constant stress levels from clients coupled with long working hours. Above that, frontline banking sector employees receive very low salaries and spend extensive time sitting on the desks staring at computer screens doing same activities daily which gives less meaning to their work (Dale Carnegie Training Institute, 2014). Erciyes, Burke, and Fiksenbaum (2006) confirmed that in the financial sector only 17% of employees are engaged, similarly Mozammel and Haan (2016) confirmed that low levels of engagement were recently discovered in the banking sector.

Recent efforts to improve work engagement and organisational performance have begun to emphasise positive organisational behaviour and positive emotions (Macky & Boxall, 2008). Nurturing positive organisational behaviours foster engaged employees and this is the key to ensuring high performance and lowering the risk of losing important talent and maintain organisational effectiveness (Bonner, 2016). Psychological capital (PsyCap) introduces a new and more positive view towards strength focused sides of people and aims to increase people's development and performance (Larson, Norman, Huges & Avey, 2013). Nielsen and Daniels (2012) also indicated that, PsyCap provides an opportunity for organisations to improve employees' work environment and consequently, enhance their work engagement. It has therefore become critical for modern firms to recruit employees who are psychologically connected to their work, are proactive, willing and able to invest fully in their roles (Mortazavi, Yadzi & Amini 2012). Sihag and Sarikwal (2014) noted that increasing PsyCap may directly improve work engagement thus, firms have begun to utilise psychological capital dimensions as some of the ways to improve work engagement (De Waal & Pienaar, 2013).

2. PROBLEM INVESTIGATED

Despite the endless efforts, money and time invested to develop banking sector employees, prevailing evidence suggest that banks still struggle with engaging and keeping talent (Sadlier, 2014). The banking sector present unique cases for employee disengagement due to ongoing demands, strict laws and regulations and high client expectations (Sadlier, 2014). Large numbers of customers are switching banks and insurance companies due to poor customer service caused by disengagement (Sadlier, 2014). Retaining a strongly engaged workforce has become a top priority for many

contemporary organisations (Neininger, Lehmann & Henschel, 2010). Thus firms are embracing PsyCap as some of the best ways to aid in enhancing engagement. However most organisations are still struggling with problems relating to disengagement. It is therefore crucial at this stage to investigate the individual effect of PsyCap dimensions on work engagement within the banking sector environment to enable organisations to prioritise training programmes for those PsyCap dimensions with a significant effect on work engagement within the banking sector environment. Therefore the study seek to investigate the effect of Psychological Capital dimensions of hope, self-efficacy, resilience and optimism on work engagement among employees in the banking sector?

3. RESEARCH OBJECTIVES

Primary Objective

To determine by means of non- experimental research design whether Psychological Capital (hope, self-efficacy, resilience and optimism) explain a significant proportion of the variance in work engagement among employees working in retail banks.

Secondary Objective

To determine by means of non-experimental research design whether statistical significance differences exist in levels of work engagement among employees working in retail banks.

Null Hypothesis (H0):

Variances in Work Engagement scores cannot be statistically explained by Psychological capital (hope, self-efficacy, resilience and optimism) among employees working in retail banks.

Alternative Hypothesis (H1):

Variances in Work Engagement can be statistically explained by Psychological capital (hope, self-efficacy, resilience and optimism) among employees working in retail banks.

Null Hypothesis (H0):

There are no statistical significant differences in scores achieved on levels of Work Engagement with regard to educational level among employees working in retail banks.

Alternative Hypothesis (H1):

There is a statistical significant difference in scores achieved on levels of Work Engagement with regards to educational level among employees working in retail banks

4. LITERATURE

4.1 The nature and definition of work engagement

The first definition of work engagement in the academic literature was introduced by Kahn (1990) in his ethnographic study of the psychological conditions of personal engagement and disengagement at work. Kahn (1990) defined work engagement as the harnessing of organisation members' selves to their work roles in which individuals employ and express themselves physically, cognitively, and emotionally during their role performances. This definition implies that to be engaged means to be psychologically as well as physically present when occupying and performing an organisational role (Rich et al., 2010). Kahn (1990), further indicated that, when individuals are engaged in their work, they bring all

aspects of themselves to the performance of their work roles. Thus, to be fully engaged means that employees display their full selves within the roles they are performing. Another school of thought involving Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002:71) defined work engagement as “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption. According to this definition engagement is not a momentary and specific state, but, rather, a more persistent and pervasive affective cognitive state that is not necessarily focused on any particular object, event, individual, or a certain behavior (May, Gilson & Harter, 2004). Hence, engaged employees possess high levels of energy and are enthusiastic about their work and are fully immersed in their work and diminish their response to distractions (Bakker & Demerouti, 2008).

Although these definitions have some similarities and overlap, especially in terms of portraying engagement as being a motivational state, they also differ in several respects. Particularly, Kahn’s (1990) definition is much more encompassing, as it includes the notion of personal agency as well as the authentic self (Chen & Lim, 2012). For the sake of this study, focus will be on the work engagement definition by Schaufeli et al.’s (2002) who defined work engagement as focused energy that is directed towards organizational goals, a transient, positive, fulfilling and work-related state characterised by vigour, dedication and absorption. This definition is in line with the theoretical framework of the study and summarise the dimensions of work engagement that will be used to measure the construct.

4.2 Dimensions of Work Engagement

Vigour

Drawing attention to the physical component of work engagement, *vigour*, Chughtai and Buckley (2008) postulate that higher levels of vigour suggest an individual’s increased readiness to devote effort within their work by not becoming easily fatigued, and developing the tendency to remain resolute in the face of task difficulty or failure. According to Bakker and Demerouti (2008) vigour refers to high levels of energy and mental resilience experienced by employees while working, therefore it is high energy invested in work performance, even in cases where performance is challenging.

Dedication

Dedication constitutes the emotional component of work engagement characterised as putting one’s heart into the job and typifies an individual’s strong sense of identification with their work (Chughtai & Buckley, 2008). It also encompasses feelings of enthusiasm, passion, pride and challenge and indicates individuals’ psychological involvement in their work, combined with a sense of significance (Geldenhuis, 2009). As noted by Broughs and Biggs (2014) dedicated individuals are strongly involved in their work and experience a sense of significance, enthusiasm, and challenge. Such individuals are inspired by work tasks and work to the best of their ability for the benefit of the organisation.

Absorption

The cognitive component of work engagement, which is often interchangeable with the absorption dimension, is characterised by being fully concentrated and happily engrossed in work, and feeling like time flies when working (Petrou, Demerouti, & Hetland, 2012; Schaufeli & Bakker, 2004). Absorbed individuals are completely immersed in their work so that time appears to pass so rapidly and they forget everything else that is around them and they often find it difficult to disengage or detach themselves from their work

(Chughtai & Buckley, 2008). This component of work engagement refers to the full concentration, satisfaction and engrossment that individuals receive from performing their job-related tasks. All these dimensions result in highly engaged employees who perform their best and contribute to the success of the organisation.

4.2.1 Nature and Definition of Psychological Capital

PsyCap is a second order, multi-dimensional construct reflected by four psychological resource capacities which include: self-efficacy, hope, optimism and resilience (Luthans & Youssef, 2004). PsyCap emphasise on the positive nature and strengths of individual employees and the role this has on fueling their growth and work-related performance (Luthans, Avolio, Walumbwa & Li, 2008). PsyCap was first defined as the study as well as application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in the modern workplace (Luthans, 2002a). In 2005, Luthans and colleagues explicitly defined PsyCap as the core psychological elements of individuals' general positive nature, which is specifically represented as the state of mind to comply with the standards of positive organization performance. In this definition, it is clearly outlined that PsyCap is beyond human and social capital, and is able to make individuals obtain competitive advantages through the targeted input and development.

Luthans et al. (2007) came up with a detailed definition of PsyCap as the individual's positive psychological state of development characterized by hope, optimism, resiliency and self-efficacy. They further provided an explanation for the dimensions pointing out self-efficacy as having confidence or ability to attain a goal and put in the necessary effort to succeed. Optimism as making a positive attribution about succeeding. Hope as persevering towards goals and, when necessary, redirecting paths to goals in order to succeed. Finally, resiliency: when beset by problems or adversity, sustaining and bouncing back to attain success. This definition was also supported by, Mortazavi, Yazdi and Amini, (2012). This study focused on the definition provided by Luthans et al. (2007) because it is consistent with other scholars (Wright & Cropanzano, 2007, Mortazavi et al., 2012), provides a combined motivational effect that is broader and impactful than the other definitions, and fully explain the four individual components of PsyCap which will be used to measure the construct.

4.3 Conceptualising PsyCap components

Resilience

Resilience is defined as the developable capacity to rebound or bounce back from adversity, conflict, failure, or even positive events, progress, and increased responsibility (Luthans, 2002). It is arguably the most important positive resource to navigating a turbulent and stressful workplace like the contemporary banking sector. According to Luthans et al. (2007) resilience refers to the ability to recover from adversary and to positively progress and increase in work. Resilient individuals have a firm acceptance of reality, a deep belief, often buttressed by strong values that life is meaningful and an astounding ability to improvise and adapt to significant change. They use adversities as a springboard to reach higher ground (Masten, 2001). Luthans, Avolio, Avey and Norman, (2007) indicated that there are possible links between resilience, commitment and work engagement. Youssef and Luthans (2007) also discovered a positive link between resilience and work happiness. In line with the above, resilience has also been empirically linked to more effective coping mechanisms and behaviours that facilitate growth and development (Luthans et al. 2007).

Self-efficacy

The second dimension of PsyCap is self- efficacy, it is based on Bandura's (1997) social cognitive theory. Self-efficacy was first defined as beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments (Bandura, 1997). In several meta-analysis reports, self-efficacy has proved to be a crucial component of PsyCap since it is positively related to work performance (Malinowski, & Lim, 2015). Bandura & Locke, 2003). Efficacy has also been discovered to be related to the socialization and retention of new employees (Bauer, & Erdogan, 2014) and the organizational commitment and turnover intentions of existing staff. Rothmann (2010) also found that positive psychological constructs such as self-efficacy could have a mediating effect on occupational stress, burnout as well as work engagement.

Hope

Hope is defined as the positive motivational state based on an interactively derived sense of successful agency and pathways (Snyder, 2002). It has two dimensions (pathways and willpower). Willpower is an individual's agency or determination to achieve goals. 'Way power' is one's ability to devise alternative pathways and contingency plans in order to achieve a goal in the face of obstacles (Simons & Buitendach, 2013). Hope enables individuals to be motivated to attain success with the task at hand by looking for the best pathway (Avey et al. 2010). Researchers discovered that hope predicted job performance beyond cognitive ability and self-efficacy (Peterson, Walumbwa, Byron & Myrowitz, 2009). Youssef and Luthans (2007) reported a positive relationships between hope and profitability, leadership and supervisor-rated performance, organisational commitment and work happiness. Hopeful individuals persevere toward goals protecting their perceptions of vulnerability, uncontrollability and unpredictability and sustaining employee wellbeing (Snyder, 2002).

Optimism

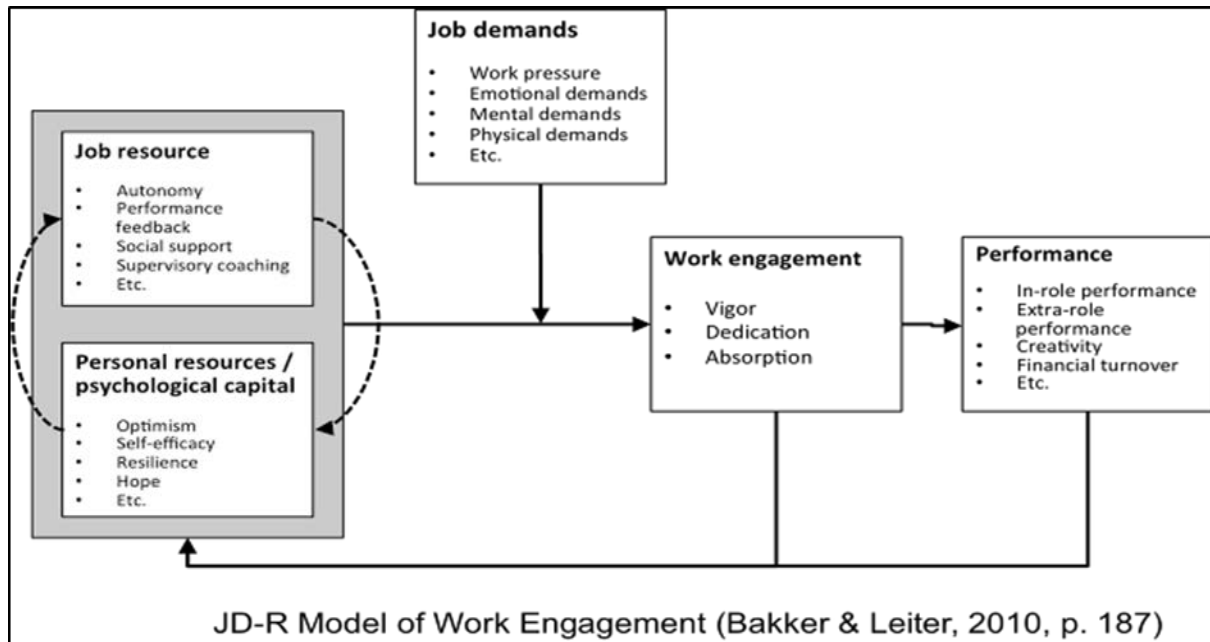
Optimism is defined as an attributional style that explains positive events in terms of personal, permanent, and pervasive causes as well as negative events in terms of external, temporary, and situation specific ones (Peterson, Luthans, Avolio, Walumba, & Zheng, 2011; Seligman, 2000). As noted by Youssef, et al. (2007), optimism is both realistic and flexible. Individuals with an optimistic outlook see setbacks as challenges and opportunities that can eventually lead to success (Luthans et al. 2005). Optimism is positively linked to several favourable workplace outcomes like job satisfaction, organisational commitment and work happiness (Luthans et al. 2005; Youssef & Luthans, 2007). According to Arakawa and Greenberg (2007) optimism positively correlates with work engagement and employee performance.

4.4 Work Engagement and PsyCap

Several research studies have discovered the existence of a positive relationship between PsyCap in general and work engagement (Xanthopoulou et al. 2009; Bakker et al. 2012; Simons & Buitendach, 2013), however, the individual effect of PsyCap dimensions on work engagement within the banking sector in the South African context has not been adequately addressed. Available literature, has shown that psychological resource capacities have a positive impact on work-related outcomes such as work engagement as well as organisational commitment (Youssef & Luthans, 2007). Dimensions of PsyCap are states and not traits, their presence in an individual can be influenced over time thus states are something to be trained and cultivated in an individual (Luthans et al., 2015). In a recent study Simon and Buitendach (2013) identified that the PsyCap construct of

optimism and self-efficacy displays a significant positive relationship with work engagement among call centre employees (Simon & Buitendach, 2013).

Figure1: Theoretical Commonalities for Work Engagement and Psychological Capital



Source: (Bakker & Leiter, 2010, p.187)

PsyCap and Work engagement can be explained based on the Job-Demands-Resource Model (JD-R) as indicated on figure 1 above. The JD-R model present a clear link between the dimensions of PsyCap (as personal resources) and the components of work engagement as outcomes that buffer the effects of job demands (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). According to the JD-R model, daily job resources like supervisor coaching and team atmosphere contribute to employees’ personal resources which, in turn, contribute to work engagement. Albrecht (2010) noted that, among others, self-efficacy, resilience, locus of control, and the abilities to perceive and regulate emotions are personal resources which positively predict work engagement. Individuals who are engaged are highly self-efficacious; and believe that they can meet the demands they face in a broad array of contexts (Bandura, 2008). The JD-R model has also been expanded (Bakker & Leiter, 2010) to include personal resources, referring to those aspects of self that are generally linked to resiliency and to individuals’ sense of ability to control and impact upon their environment successfully (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Personal resources are individual differences, including, self-efficacy, optimism, as well as organizational-based self-esteem which assist to buffer the effects of high job demands thus add to and activate job resources thereby improve work engagement (Bakker & Leiter, 2010, Xanthopoulou et al. 2007).

5. RESEARCH METHOD

5.1 Research Design

The study adopted a quantitative research framework involving a systematic, scientific investigation of data and their relationships (Pallant, 2007). A quantitative survey approach was used because it applies objective data collection for statistical analyses (Burns & Burns, 2008). Following Pallant, (2007) the empirical aspect of the study utilised

a cross-sectional survey design to collect quantitative primary data from the respondents by using self-report questionnaire to achieve the objectives of the study.

5.2 Sampling and Participants

The sample comprised employees working in selected retail banks in the Free State Province. Respondents were recruited through the non-probability convenience sampling procedure thus there was no element of randomness. However, this technique was deemed appropriate for this study as the data collected was intended for investigating relationships between variables rather than to accurately estimate population parameters (Burns & Burns, 2008; Cozby, 2009). A total of 422 questionnaires were distributed to eleven selected retail bank branches in the Free State Province. 313 questionnaires were returned of which 10 respondents did not complete more than 75 per cent of any of the scales on the questionnaire and their responses were thus omitted from the data (Pallant, 2007) leaving 303 questionnaires which were usable obtaining a response rate of (71.8%). The participants age ranged from 19-25 (category 1), 26-30 (category 2), 31-40 (category 3), 41-50 (category 4) and 50 years old and above (category 5), with most of the respondents falling into category 2 (26 – 30) years. Of these participants, 178 were female (58, 7%) and 119 were male (39.3%). The sample consisted of employees of various ethnicities: White (14, 9%), Coloured (17.5%), Indian (9.9%), and African (57.1%). For the educational level, individuals with matric constituted (12, 2%), diploma (41.3%), Degree (36, 0%), post graduate qualification (8.9%) then other (0.3%). With regard to the job level, the sample consisted of 9 participants (3%) within the executive job level, 68 participants (22.4%) with the senior job level, 131 participants (43.2 %) within the middle job level and 92 participants (30.4%) within the operational job level.

5.3 Procedure

Ethics clearance was applied for and obtained from the Ethics in Research Committee of the Faculty of Economic Management Sciences of the University of Free State. As initially discussed, hard copy questionnaires were distributed manually with the help of a research assistant. The data collection process started in August 2016 till February 2017.

5.4 Measures

The first section of the questionnaire consisted of questions on the demographic characteristics of the participants. The remainder of the questionnaire consisted of 41 items divided into two subscales, the Utrecht work engagement scale and the PsyCap scale. The Utrecht work engagement scale (UWES) developed by Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002) has 17 items, and is scored on a 7-point frequency scale ranging from 0= Never to 6 = Always. The UWES is well recognised self-rated instrument and includes three sub scales of engagement namely dedication, vigour and absorption. The scale has well established construct validity and reliability (Schaufeli, et al. 2002).

In order to measure the dimensions of psychological capital, the PsyCap scale developed by Luthans, Avolio, Avey, and Norman (2007) was used (PCQ-24). This scale comprises of 24 items, with a response format ranging from 1 = strongly disagree to 6 = strongly agree, and the possible scores on this scale ranging from 24 (lowest) to 144 (highest). Each of the four sub-dimensions of psychological capital which include hope, resilience, optimism and self-efficacy is represented by 6 items respectively. This scale has demonstrated adequate internal consistency and reliability (Luthans, Youssef, & Avolio, 2007).

6. RESULTS AND FINDINGS

All statistical analysis were conducted using the Statistical Package for the Social Sciences (SPSS) version 24. The research hypotheses proposed were explored using a range of inferential statistics. In an attempt to investigate hypothesis 1 i.e. Variances in Work Engagement can be statistically explained by psychological capital (hope, self-efficacy, resilience and optimism) among employees in the banking sector, multiple regression analysis was used. In addition, in an attempt to examine hypothesis 2 i.e. there is a statistical significant difference in scores achieved on levels of Work Engagement with regard to education level among employees in the banking sector, both ANOVA and T-tests were used.

Descriptive Statistics

Mean, standard deviations, minimum, maximum and reliability co-efficient's for each of the variables were computed. (Table 1). The mean scores for components of psychological capital were relatively similar with hope reporting the highest mean score (M= 4.20, SD= .84) and optimism reporting the lowest mean score (M= 3.99, SD=.70). The mean score for the total Work Engagement scale indicated that participants in the sample experienced an above moderate level of work engagement (M= 11.5, SD= 2.7), with the dedication subscale reporting the highest mean score (M= 3.9, SD= .97) and the absorption subscale reporting the lowest mean score (M= 3.8, SD= .96). With regard to the reliability co-efficient's, all scales reported high levels of internal consistency, with the optimism scale reporting the lowest level of internal consistency of $\alpha = .77$. As a result it can be concluded that all scales possessed adequate and satisfactory levels of internal reliability.

Table 1: Descriptive statistics for PsyCap and Work engagement scales (n=303).

Scale	N	Mean	Standard Deviation	Minimum	Maximum	Cronbachs' α
Self-Efficacy	303	4.1214	0.91798	1.33	5.83	.91
Hope	303	4.2033	0.84022	1.50	6.00	.89
Resilience	303	4.0816	0.72413	2.33	5.83	.81
Optimism	303	3.9984	0.70904	1.83	5.67	.77
Total Work Engagement	303	11.5940	2.71517	1.00	17.30	.95
Vigour	303	3.8521	0.91369	0.33	6.00	.86
Dedication	303	3.9335	0.97332	0.00	6.00	.87
Absorption	303	3.8084	0.96402	0.33	5.83	.88

Multiple Regression Analysis

In an attempt to examine hypothesis 1 proposed by the current study i.e. variances in work engagement scores can be statistically explained by self-efficacy, hope, resilience and optimism amongst employees in the banking sector, multiple regression analysis was conducted. In order to determine if the assumption of multicollinearity has been violated an examination of the inter-correlations between variables was conducted. Using Burns and Burns (2008) criteria of .8 as a cut off, the correlation co-efficient's ranged from .6 -.7 i.e. below .8. This implied that the independent variables i.e. hope, self-efficacy, resilience and optimism were not strongly correlated with each other and that there was no violation of the

multicollinearity assumption. The multiple regression (Table 2) revealed that 68.8% of the variance in work engagement could be explained by the model consisting of hope, self-efficacy, resilience and optimism ($R^2 = .686$). An analysis of the significance level revealed that the model is statistically significant ($p = .000$).

Table 2: Regression Analysis examining the effect of Hope, Self-efficacy, Resilience and Optimism on Work Engagement (n=303)

Model Summary ^e										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.769 ^a	.591	.590	1.73906	.591	435.162	1	301	.000	
2	.809 ^b	.654	.651	1.60303	.063	54.253	1	300	.000	
3	.826 ^c	.682	.679	1.53894	.028	26.505	1	299	.000	
4	.828 ^d	.686	.682	1.53130	.004	3.994	1	298	.047	1.642
a. Predictors: (Constant), Hope										
b. Predictors: (Constant), Hope, Optimism										
c. Predictors: (Constant), Hope, Optimism, Self-Efficacy										
d. Predictors: (Constant), Hope, Optimism, Self-Efficacy, Resilience										
e. Dependent Variable: Work Engagement (Total)										

In order to examine the contribution of each of the independent variables towards work engagement the r squared values were analyzed. Results revealed that hope made the largest contribution to the variance in work engagement ($R^2 = 59%$) whilst resilience made the smallest contribution ($R^2 = 0, 04%$). Three of the variables i.e. hope, self-efficacy and optimism made a significant contribution to the variance in work engagement ($p < 0.05$), whilst resilience was not a significant predictor ($p = 0.47$). As a result, hypothesis 1 proposed by the current study i.e. Variances in work engagement can be statistically explained by Psychological capital can be supported.

Analysis of variance and T-Tests

To assess hypothesis 2, one way analysis of variance was used. The Levine’s test for homogeneity of variance which tests whether the variance in scores is the same for each of the groups that make up education level, indicated that the assumption of homogeneity of variance was not violated in the current sample as the significance level was greater than .05 ($p = .87$). The Analysis of variance table (Table 3) indicated that there was a significant difference in work engagement with regard to education level as $p < .05$. According to Pallant (2013) a significant p value indicates a significant difference somewhere among the mean scores in the dependent variable i.e. work engagement.

Table 3: Analysis of variance in work engagement with regards to educational level (n=303).

Analysis of variance					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	238.090	5	47.618	7.089	0.000

Within Groups	1988.299	296	6.717		
Total	2226.390	301			

However, the researcher was unable to determine between which groups the difference exists as post hoc tests were not available for the current sample due to at least one group in the education level variable having at least less than 2 cases i.e. the 'other' group. In order to ensure meaningful comparisons, the researcher examined all 5 education levels and concluded that the matric, postgraduate and 'other' level had too few respondents for it to add value to the analysis i.e. n= 37, n= 27 and =1 respectively. As a result, the diploma (n= 125) and degree (n=109) levels were compared using an independent samples t-test (Table 4) below. Results of the independent samples indicated that the groups were significantly different (p=0.01) with participants who possessed a degree scoring higher on work engagement (M= 12.27, SD= 2.64) than participants who possessed a diploma (M= 11.13, SD=2.49). As a result, the alternative hypothesis i.e. 'there is a statistical significant difference in scores achieved on levels of work engagement with regard to educational level among employees in the banking sector' is supported.

Table 4: Independent Samples T-Test indicating differences between education levels.

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Work Engagement (Total)	Equal variances assumed	0.000	0.991	-3.393	232	0.001	-1.14081	0.33621	-1.80322	-0.47840
	Equal variances not assumed			-3.379	223.205	0.001	-1.14081	0.33762	-1.80615	-0.47547

Discussion and practical implications

With regard to the main hypothesis results of the current study revealed that the model consisting of hope, self-efficacy, resilience and optimism contributed 68.6% of the variance in work engagement. Hope, was the largest contributor to this variance whilst resilience contributed the smallest % to the variance and was insignificant. This suggests that three components of psychological capital (hope, self- efficacy and optimism) does indeed have an effect on components of work engagement. This is significantly higher than Ferreira (2015) who reported that psychological capital only explained 43% of the variance in work engagement. Harris (2012) reported similar results amongst automotive dealers in South

Africa where psychological capital explained a variance of 53% in work engagement. According to Simons and Buitendach (2013) psychological resource capacities such as self-efficacy, hope, and optimism have a positive impact on work related outcomes such as work engagement and job commitment. According to Luthans, Avolio, Walumbwa and Li (2005) psychological capital places emphasis on the positive nature and strengths of employees and the role this has on fuelling employees' growth and performance. This emphasis is expected to ignite higher levels of work engagement as the employee begins to feel energised and focused on work related aspects. Findings of the current study indicate that organisations should invest in the development of psychological capital. This can be done through positive psychological interventions and training sessions that focus on fostering self-efficacy, hope, resilience and optimism in the workplace. According to Simons and Buitendach (2013) the development of organisational interventions may increase employees' personal resources which will, in turn, increase their levels of psychological capital and facilitate increased employee wellness and work engagement. The significant relationship between psychological capital and work engagement indicates that the development of psychological capital and positive employee attitudes and behaviours are expected to contribute to positive work-related outcomes i.e. work engagement (Donaldson & Ko, 2010). As a result, organisations are encouraged to foster the development of psychological capital in the work place in an attempt to facilitate the development of additional work related outcomes such as work engagement.

In an attempt to test hypothesis 2, the mean scores of work engagement for several education levels was examined i.e. Matric, Diploma, Bachelor's Degree, Postgraduate Degree and Other. Results revealed that there was a significant difference in levels of work engagement with regard to education level as participants with a degree scored higher on work engagement ($M= 12.27$, $SD= 2.64$) than participants who possessed a diploma ($M= 11.13$, $SD=2.49$). This suggests that high educational qualification is related to high levels of work engagement. Findings, of the current study are inconsistent with the findings of Lawrence (2011) who reported that in a Sample of American nurses, there was no significant differences in the levels of work engagement with regard to educational levels. However, in a study conducted amongst a Belgian sample, researchers revealed that that a more highly educated workforce, along with job autonomy and work environment resources, (e.g., adequate staffing), predicted an intention to stay within a position and higher levels of work engagement (DeLange, DeWitte, & Notelaers, 2008). Similarly, in a study conducted amongst office workers in Ireland, education level was significantly correlated with the three engagement scales and with job grade suggesting that those with higher qualifications had higher work engagement and were in higher grade jobs (Munir, Houdmont, Clemes, Wilson, Kerr & Addley, 2015). A possible reason behind the differences in work engagement with regard to education level is that highly educated participants experience greater levels of workflow due to the high levels or responsibility and challenging work that is usually associated with high education level jobs. The practical implications of this finding suggests that organisations should promote internal staff development programs that provide employees with the opportunity to improve their education level. In addition, organisations must make additional provisions for the creation of jobs that provide challenge and high level of responsibility that is associated with high education levels. By implementing initiatives that encourage attaining higher qualifications, organisations can create a work environment that will foster work related engagement.

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The findings of the current study suggests that organisations need to take initiative to ensure that psychological capital in the workplace is enhanced in an attempt to increase

the levels of work engagement. Schein (2010) argues that research has continuously proven that embedding the drivers of psychological capital in a work culture can not only foster happy, healthy employees, but it can also play a significant role in achieving excellent performance. Hence, if attempts are made to enhance psychological capital in the work place it should begin with a comprehensive analysis of the prevailing organisational culture. Schein (2010) goes on to add that culture constitutes the basic assumptions that underlie the values and observable features of a workplace or workgroup. These unspoken assumptions serve as the foundation of thought and behaviour in an organization and can strongly foster an environment conducive to the nurturing of psychological strengths. Schein (2010) supports this argument by stating that to the extent that organizations desire employees full of hope, optimism, confidence and resilience, it behoves them to engineer cultures that promote psychological capital.

Also pertinent to the managerial implications of this article is the need for organisations to recognise and suitably address the need for enhanced workplace optimism. The significant influence of optimism on work engagement as indicated by the results of this study suggests that organisations should implement practices which facilitates and enhances optimism. Optimism is said to facilitate stronger relationships within the context of an encouraging work environment that is viewed positively by employees and management. A dominant belief is that hard work leads to great possibilities for the employee, the team, and even the organization and its customers. Employees believe they are making a contribution, and that their work matters. Schein (2010) maintains that organizational policies and practices can go a long way toward creating a culture with optimistic employees. For example, a properly managed pay-for-performance compensation plan can lead employees to believe that their hard work will result in desirable rewards. An employee who works hard, makes her numbers, and earns an expected bonus will recognize that the bonus is her own doing, will believe that she'll earn another if she continues to work hard, and may also expect that she will get a promotion down the road. Such policies and practices encourage optimistic assumptions.

8. CONCLUSION

The increasing role of work as a dominating factor in the lives of most employees suggests that organisations should start acknowledging and acting on the importance of human factors in the work place. The results of the current study suggests that interventions and training programmes that help build psychological strengths will be beneficial for South African employees and organisations as it will foster an environment that facilitates work engagement. Literature in the field of work engagement (Tabaziba, 2015) suggests that work engagement is an antecedent of job performance and job satisfaction. As a result, the increase in levels of work engagement is expected to create a more satisfied and high performing workforce. Providing employees with an environment that enhances self-efficacy, hope, resilience and, optimism will potentially lead to employees who are immersed in their work and enthusiastic about their jobs.

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EMPLOYEE ENGAGEMENT: THE MAGIC BULLET FOR ALL CORPORATE ILLS

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EMPLOYEE ENGAGEMENT: THE MAGIC BULLET FOR ALL CORPORATE ILLS

ABSTRACT

The purpose of this paper is to illustrate how a broader knowledge of academically sound HRM approaches provide a more holistic and realistic picture of employee engagement, which ultimately informs more robust and efficient human resources strategies.

The ascent of employee engagement on the human resources agenda has drawn numerous academics and business consultants to study and write about the topic, leading to multifarious conceptualisations and measures thereof. In business, consultants tout their proprietary methods as the nostrum for all business ills and the key to success. This paper argues that these magic bullet approaches to employee engagement, fragment and confound employee engagement and lead to misinformed strategic decisions.

This paper reviews employee engagement literature and conducts a study on a small business. The results are discussed. During interpretation of the results, and the discussion of recommendations for management, the value of drawing from a broader spectrum of scholarly literature instead of a single model is demonstrated. The paper concludes that practitioner literature guides poor interpretation and strategy when compared with analysis guided by a broad spectrum of scholarly literature.

1. INTRODUCTION

Employee engagement is hailed by practitioners to be beneficial for talent retention, motivation, job satisfaction, productivity and overall profitability. Deloitte (2015) has identified culture and engagement as the most important of the top ten global human capital trends in 2015, up from second place and surpassing leadership identified the year prior. The firm announces that human resources leaders have begun to prioritise the understanding of employee engagement within their organisations in order to retain talent and empower people (Deloitte, 2015).

Similarly Gallup (2013) estimates that in the United States of America, the annual cost of lost productivity caused by disengaged employees is between \$450 billion and \$550 billion, and that such employees undermine the potential accomplishments of their engaged colleagues by monopolising managers' time, accounting for more workplace accidents, quality defects and absenteeism.

The ascension of employee engagement along with its link to profit has enticed consultants and internet bloggers to jump on the bandwagon in order to position themselves as close as possible to the centre of attention. In the fray, new employee engagement questionnaires, models and quasi-research have proliferated.

Countless human resources practitioners each proclaim their own methodologies to be pivotal in unlocking business success. Accordingly, they formulate models in which they designate the factors that combine to produce a more engaged workforce, replete with questionnaires that produce quantifiable measures of the designated factors. The

aggregated scores inform rudimentary, descriptive analyses, guiding the selection of interventions aimed at improving the scores in subsequent surveys. The models are largely proprietary, licensed, unavailable for peer review, and consequently narrow.

In contrast, an analysis based on a broader and empirically sound knowledge base has the potential to derive better analysis, which in turn guides the most appropriate strategy.

This paper aims to illustrate how the use of a broader knowledge base provides a more holistic analysis of employee engagement. In order to accomplish this, the first step is to review employee engagement literature.

2. LITERATURE REVIEW

The review of the literature commences with an overview on the development of the definition of employee engagement, followed by various perspectives on employee engagement theories.

2.1. Definition of employee engagement

A number of definitions of employee engagement have been published. Kahn (1990:700) using the term “personal engagement” states that the engaged employee will “simultaneously convey and bring alive self and obligatory role.” Kahn (1990, p. 694) also refers to employee engagement as “the harnessing of organization members’ selves to their work roles”, claiming further that engaged employees “employ and express themselves physically, cognitively, and emotionally during role performances.”

Employee burnout theory researchers use the term “work engagement” and define it as ... a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption. Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective-cognitive state that is not focused on any particular object, event, individual, or behaviour (Schaufeli & Bakker, 2003:4).

Macey and Schneider (2008:4) divided employee engagement into three areas, namely: trait, state and behavioural engagement. They describe “trait engagement” as the inclination to see the world from a particular vantage point. This, in turn, is reflected in the individual’s “state engagement”, the consequence of which is “behavioural engagement”. Behavioural engagement is defined as the exertion of discretionary effort (Macey & Schneider, 2008:6).

In congruence with the definition of behavioural engagement by Macey and Schneider (2008), a commonly cited definition purports that employee engagement consists of an “employee’s willingness to expend discretionary effort on their job” (Towers Watson, 2014:3). The aspect of “willingness” concurs with Kahn (1990), that employee engagement requires a degree of psychological availability.

Robinson, Perryman and Hayday (2003:ix), define employee engagement as “a positive attitude held by the employee towards the organisation and its values. An engaged employee is aware of the business context, and works with colleagues to improve performance within the job for the benefit of the organisation.” This definition does not account for the more pervasive and sustained state observed by Schaufeli and Bakker (2003:4) and Kahn (1990:703).

The Gallup Organisation submits that: “The term employee engagement refers to an individual’s involvement and satisfaction with as well as enthusiasm for work” (Harter, Schmidt & Hayes, 2002:269). While capturing the same gist as other definitions, this definition combines engagement with other distinct constructs. Consequently, a response to a lack of engagement might aim to improve enthusiasm or job satisfaction, without necessarily improving engagement.

Definitions emanating from academia, might appear to diverge at first glance, however their common thread is the pervasive state in which psychological, emotional and physical effort are applied to one’s work. Practitioner literature generally positions engagement as attitudinal, or related to job satisfaction. Saks (2006:600) argues that definitions from practitioners have their basis in practice rather than empirical research.

2.2. Engagement theory

While the Gallup organisation is generally credited for coining the term, Kahn (1990) published the first scholarly article on the topic (Schaufeli, 2013). The then new construct would thereafter become the subject of much academic research. The most prominent academic theories are discussed first.

2.2.1. Development of the engagement theory from Kahn’s perspective

According to May (2004), it was Kahn who first conceptualised employee engagement at work in his 1990 paper on the personal engagement and disengagement of people at work. With role theory forming the backbone of his paper, Kahn (1990:700) questioned why

people applied varying degrees of their physical, cognitive and emotional selves to these roles, and so developed a framework that he termed “self-in-role” (Kahn, 1990:692). This provided a framework for a qualitative study in which he observed the fleeting moments where people engaged or disengaged with their tasks at work. The study identified three psychological conditions, namely (1) meaningfulness, (2) safety and (3) personal availability, as the driving factors of employee engagement.

Meaningfulness refers to the perception that one is receiving a return on investment of one’s physical, cognitive and emotional energy (Kahn, 1990:704). Safety refers to the experience of employees being able to apply themselves to a task without fear of negative consequences for their self-image, career or status (Kahn, 1990). Availability refers to the sense of having the necessary emotional and physical energy as well as the sense of security and self-confidence required to engage at any particular moment. It is therefore a measure of one’s readiness to engage (Kahn, 1990).

Kahn (1990:695) reasons that these three psychological conditions are mediated by a number of factors, such as task and role characteristics, work interactions, relationships, group dynamics, management style and organisational norms (Kahn, 1990:705). Kahn (1990:715) further notes that employee engagement draws from people different levels of exhaustible physical and emotional energy. He also records that a person’s sense of security about work and status and a person’s outside life could also occupy the energies that may otherwise be used for work engagement.

Kahn’s paper did well to suggest a definition of employee engagement as well as the antecedents thereof. However, it lacked clear constructs required for the operationalisation of engagement. Some of these problems were confronted in subsequent empirical research, such as in the work of May (2004), who was the first to empirically test Kahn’s model (Saks, 2006:602).

The point of departure for May’s (2004) research is the following three fundamental questions that, according to Kahn (1990), people ask in each role situation: i) how meaningful would it be for me to bring myself to this performance, ii) is it safe for me to do so, and iii) how available am I? (May, 2004). These questions were fundamental in the development of the Work Engagement Scale (WES).

Employees who respond to Kahn’s (1990) three questions in the affirmative will demonstrate greater levels of employee engagement. In addition to the correlations discussed, May (2004) also determines that self-consciousness and resources related directly to employee engagement and are not necessarily mediated by the three psychological dimensions.

The results imply that a revision of the original antecedents proposed by Kahn (1990) may be necessary. While Kahn focused on role theory, a more recent paradigm has emerged from burnout research. This framework also examines conditions that cause engagement. The work of the authors Maslach, Leiter, Schaufeli and Bakker is described next.

2.2.2. The burnout antithesis approach

Two schools of thought developed from the burnout antithesis approach. The initial consensus was that employee engagement is the opposite of burnout (Simpson, 2008:1018), while an argument for the uncoupling of the two constructs emerged later (Schaufeli & Bakker 2003).

According to Maslach, Schaufeli, Leiter and Michael (2001:402), burnout has three elements, namely exhaustion, cynicism and a low sense of professional efficacy. Exhaustion is characterised by a lack of mental energy associated with stress. Cynicism is a cognitive aspect of burnout and is characterised by negative attitudes towards one's work and co-workers. A lack of professional efficacy is characterised by a doubt in one's competency at work. Accordingly, low scores on the Maslach Burnout Inventory-General Survey (MBI-GS) for exhaustion and cynicism and a high score for efficacy are measures of employee engagement (Admasachew & Dawson, 2011:4). For this reason, employee engagement appears at the positive extreme of a continuum featuring burnout on its negative extreme (Schaufeli & Bakker, 2003:4).

The shift towards positive organisational psychology also brought with it a greater focus on empirical research, an aspect left wanting in Kahn's initial conceptualisation of employee engagement. Concomitantly, constructs such as employee engagement were operationalised more conscientiously (Schaufeli & Bakker, 2003:3).

As the burnout-antithesis assumption became the subject of scrutiny, so emerged the contention that employee engagement is a discrete construct (Gruman & Saks, 2011:125). Gruman and Saks (2011:125) refer to aspects of Leiter and Maslach's (1998) definition, specifically the energetic experience of involvement and the personally fulfilling activities that enhance the sense of professional efficacy. These are not necessarily antipodes of the three characteristics of burnout, however.

The argument by Gruman and Saks (2011:125) supports Schaufeli and Bakker's (2003:4) argument that the likelihood that burnout and employee engagement are mutually exclusive does not necessarily mean that they are the same construct on a common continuum. Schaufeli and Bakker (2003:5) therefore posit a three-dimensional definition of employee

engagement that is uncoupled from burnout. The three dimensions are vigour, dedication and absorption.

Vigour is characterised by high energy as well as mental resilience. People who work with vigour are willing to invest effort in their work. They are able to persist, even when presented with challenges. Their positive attitude is pervasive, and they demonstrate an enthusiasm for their work. Finally, they do all of the aforementioned without easily being fatigued (Schaufeli & Bakker, 2003:5).

Dedication is portrayed through the sense of significance an employee derives from work. A dedicated employee feels enthusiastic, proud and inspired. To such an employee, the task is viewed as a challenge (Naude & Rothmann 2014:516). A dedicated employee demonstrates persistence and active involvement (Jacobs, Renard & Snelgar, 2014:3).

Absorption is characterised by the degree to which one experiences a sense of joy and immersion in work. Absorbed employees find it difficult to detach themselves from their work (Naude & Rothmann, 2004). When absorbed, employees become engrossed in their work. They may even be unaware of the amount of time that passes while they concentrate on the task fully (Jacobs et al., 2014:3).

In order to assess employee engagement as an independent construct, Schaufeli and Bakker (2003:5) developed a self-report questionnaire called the Utrecht Work Engagement Scale (UWES), a widely used tool.

In the year to follow, using the job demands-resources model, Schaufeli and Bakker (2004:294) determined that there was indeed a moderate negative correlation between burnout and engagement.

Job demands refer to the inherent demands of a job regarding what must be done. These demands are the aspects that require physical and psychological effort. Due to their ability to cause strain and anxiety, they are associated with burnout. Job resources are those aspects that mitigate these demands and are useful for achieving work goals as well as stimulating personal growth and development. Job demands and the lack of job resources predict burnout, while the availability of job resources predict engagement (Schaufeli & Bakker, 2004:294).

Other studies, also using the job demands-resources model, show that burnout and engagement have different antecedents (Schaufeli, 2013), thus strengthening the case for studying employee engagement independently from burnout.

The academic conceptualisations of Kahn (1990) and Schaufeli and Bakker (2003) both propose a physical energy, or vigour, and an emotional-cognitive component, or absorption. Both acknowledge the exhaustible nature of this energy. Both examine the antecedents of employee engagement. Neither paradigm explains why the various conditions influence employee engagement (Saks, 2006:125). A different paradigm, the Social Exchange Theory (SET), argues that employee engagement is a form of repayment for resources provided by employers (Pati & Kumar, 2011:264).

2.2.3. Engagement and social exchange theory

One of the fundamental tenets of the SET is that relationships evolve over time to enable employees to form loyal, trust-based commitments. Towards this end, both parties in the relationship must abide by principles of exchange. These principles are eventually adopted by both parties as relationship norms (Cropanzano & Mitchell, 2005:275). In organisational behaviour, a reciprocal relationship between managers is founded on these norms, and by implication, managers and their subordinates are reciprocally interdependent.

Contrasting the two approaches, Saks (2006:129) observes the burnout-antithesis model as a causal relationship between employee engagement and certain conditions, whereas the SET paradigm suggests that engagement is a personal response and therefore a choice. On this basis, Saks (2006:129) argues that the SET provides a strong theoretical rationale for employee engagement.

Saks (2006:127) points out that employee engagement's ascent in popularity since Kahn's paper, spawned volume of literature claiming that the presence of engagement was a predictor of various beneficial outcomes, such as employee performance, shareholder return, employee retention and general organisational success. Saks (2006:127) laments the lack of academic research, noting that much of the existing literature was produced by practitioners at consulting firms. The concern was that employee engagement in practitioner literature regularly overlapped with other constructs. In response, Saks (2006) published a study on the antecedents and consequences of employee engagement, which discerned employee engagement from other concepts.

The study by Saks (2006) uses SET to account for Kahn's observation that some people felt obliged to bring themselves more fervently to their roles than others. Saks (2006:129) concludes that the degree of cognitive, emotional and physical energy that an employee would devote in the performance of a specific role is an act of reciprocation for the economic and socio-emotional resources provided by the employer. For that reason, when

employees experience enriched and challenging jobs, they will obligatorily respond with a higher level of engagement (Kumar & Swetha, 2011:232).

By examining antecedents and consequences, Saks (2006:129) explains that engagement mediates the relationships between the antecedents and organisational outcomes such as job satisfaction, commitment, organisational citizenship behaviour and intentions to quit. Saks (2006:133) also distinguishes job engagement from organisational engagement. Job engagement, which is the same as employee engagement, focuses the performance of an employee in the assigned role, whereas organisational engagement centres on general extra-role efforts (Kumar & Swetha, 2011:233).

The study also allayed speculation that employee engagement was merely a management fad. It also lent academic strength to the notion that employee engagement should or could be fostered and enhanced by the organisation (Saks, 2016:615). Finally, the study cleared the path for employee engagement to be studied independently as a construct, rather than one that overlapped with others.

Studying the antecedents and consequences of employee engagement, Rich, Lepine and Crawford (2010:2164) observe that a link exists between job performance, job involvement, job satisfaction and intrinsic rewards, but also argue that such theories show these factors are able to operate independently to a significant extent. Citing Saks (2006), Kumar and Sweetha (2011) conclude that there are sufficient grounds to argue that employee engagement correlates with but is distinct from other organisational behaviour constructs such as organisational commitment, organisational citizenship behaviour, job involvement and job satisfaction. Finally, these, along with intention to quit, are consequences of employee engagement (Kumar & Swetha, 2011:266).

The impact of employees' engagement on the bottom line of a business, attracts human resources consultants. A discussion of practitioner studies on employee engagement follows.

2.2.4. Commercial entities and practitioner research

Deloitte (2015) reports the global ascent of employee engagement on the management agenda in its annual publication on global human capital trends. Its ascent may have been a consequence of the awareness created by introducing employee engagement to the survey the year prior, rather than actual exigency.

By capturing employee engagement under the heading "Culture and Engagement" (Deloitte, 2015:4), Deloitte (2015) confounds the topic. It is unclear which construct actually

drove the trend. According to Deloitte (2016), culture is the sense of how things are done, while engagement refers to how employees feel about how things are done. Deloitte (2016) expands the concept to include people's feelings about the future of the organisation, a measure of corporate health, and an indicator of the potential to support change while referring to research that clearly shows that empowerment and a sense of ownership are key drivers of employee engagement. Employee engagement descended to fourth on the agenda in the 2016 report. Still fourth in 2017, engagement was denoted as employee experience (Deloitte, 2017). Accordingly, the location of employee engagement's priority on the management agenda is difficult to track if the construct is reframed continuously.

The Gallup organisation claims to have pioneered "the employee engagement movement" in the late 1990s and that they "remain at the forefront of employee engagement" (Gallup, 2016, para 4). Gallup has introduced what it proclaims is the premier tool for measuring engagement, referred to as the Gallup Q¹².

The Gallup organisation has a commercial interest in employee engagement research as well as a motive to identify clients who need assistance to improve employee engagement. The organisation may have earned its credibility through its globally acquired volume of data. The data is so voluminous that it is tempting to quote its statistics as empirically sound or representative. Gallup also publishes the authoritatively titled annual "State of the Global Workplace" report in which the link between employee engagement and financial gain is emphasised. For example, "Countries that double the number of engaged employees in every company will be best positioned to win the lion's share of the US\$140 trillion" (Gallup, 2013:2).

Schaufeli (2013) laments that the Gallup definition intermingles employee engagement with job satisfaction. Indeed, a Gallup Q¹² Meta-Analysis states, "criterion-related studies were combined into a meta-analysis to study the relationship of employee satisfaction and engagement (as measured by Q12)" (Harter, Schmidt, Killham & Asplund, 2006). As a measure of employee engagement, the Q¹² correlates strongly with job satisfaction ($r = 0.91$) (Harter, Schmidt & Hayes, 2002; Schaufeli, 2013). Saks (2006) and Rich et al. (2010), also confirm that these factors operate independently.

As reports and blogs commix employee engagement with other concepts, employee engagement becomes an umbrella term and something of a panacea. Less credible practitioner literature exacerbates this concern.

Son (2015) writing for employee survey software firm, TINYPulse, puts forward a list of 20 questions which she asserts are essential for an organisation's engagement survey. The questions were categorised under headings such as workplace satisfaction, intention to

quit, work-life balance, feeling appreciated, the ability to recite organisational values, organisational culture and even fun.

In its 2016 Global Human Capital Trends publication, Deloitte (2016) contends that due to the changing nature of careers, employers need to accelerate career development and job promotional cycles in order to experience greater employee engagement. Deloitte (2016) cautions further that employers that fail in this regard, will lose their millennial employees. Rigoni and Nelson (2016) in Gallup (2016) argue that only 29% of millennials are engaged, a threat considering that the current generation will constitute 75% of the workforce by 2015. The argument collapses when the same organisation warns that 87% of employees worldwide are disengaged (Gallup, 2017).

Global consulting firm, Blessingwhite (2012) touts in its X-model, that employee engagement is the intersection of personal job satisfaction, defined as liking one's work and doing it well, and job contribution, defined as the contribution towards organisational goals. Accordingly, the firm classifies employees in to one of five levels on a scale. The scale denotes the a) disengaged; b) the crash and burners, who are engaged but experience low job satisfaction; c) the honeymooners and hamsters who are satisfied at work but offer low contribution; d) the almost engaged featuring employees that contribute highly and are satisfied; and finally e) the engaged, who demonstrate high satisfaction and contribution (Blessingwhite, 2015).

Depending on an employee's placement on the scale, the firm selects an HR intervention from its prospectus. Items on the prospectus address one or more of three areas, namely leadership, professional development and engagement. The firm advocates the use of their tried-and-tested solutions over personalised programmes, arguing the time and cost efficiencies thereof (Blessingwhite, 2017).

Bersin (2014) writing for Forbes advises that it is time to rethink employee engagement. While blurring the distinction between employee engagement and job satisfaction, Bersin (2014) advocates research data that is claimed to help companies become irresistible organisations. Such organisations in turn are characterised by meaningful work, great management, growth opportunities, inclusivity, flexibility and fun, and finally, trustworthy leadership. He furthers the argument, claiming that the term employee engagement is limiting as it influences managers to think that it is their responsibility to reach out to employees rather than to building meaningful, fulfilling and fun organisations. While the intermixing employee engagement with retention is common, pitting employee engagement as an intention or behaviour, contradicts academic consensus that employee engagement

is better characterised as a pervasive state in which psychological, emotional and physical effort is exerted.

Without a clear understanding of employee engagement, the practitioner community tends to focus on the results or antecedents of engagement instead of the construct itself. A results-based approach may have face value for business application, if one is prepared to overlook inherent self-confirmation bias. An antecedent based-approach is also convenient because it focuses on other well-recognised and related constructs. However, without a clear and operationalised understanding of the construct itself, it is impossible to derive reliable or valid assessments. Invalid assessments will produce meaningless findings. Consequently, interventions based on such findings have no rationale.

Simply re-packaging job satisfaction, culture, leadership, wellness, ergonomics or employee motivation activities as engagement strategies does nothing to advance the study of, or the potential gains attainable from employee engagement research. In practitioner literature, employee engagement is a blanket term for innumerable HR constructs and seems to be the magic bullet for all corporate ills.

Ultimately, as seen in Bersin's (2014) article, the muddled and re-bundled concept loses its meaning and seems better left abandoned. Schaufeli (2013:5) cautions that the research methodology and even questionnaires of consulting firms are proprietary, guarded intellectual property, which precludes them from being peer reviewed.

3. RESEARCH OBJECTIVE

The objective of this paper is to illustrate how the use of a broader knowledge base provides a more holistic analysis of employee engagement.

In order to achieve this, a small-scale study was conducted at a family owned accommodation business in order to gain a snapshot of employee engagement, using an academically sound instrument. The results were analysed drawing from a broad knowledge base of employee engagement research.

4. RESEARCH METHOD

The subject of the research was a family owned accommodation business in South Africa. The business experienced enormous growth over the span of 20 years. Initially, as a small guest lodge, it grew into a large business with over 160 hotel rooms, 225 townhouses, conference facilities and 1120 residential flats. As the business grew, the founding family

members increasingly needed to focus on broader executive functions. Accordingly, they appointed new managers for the general business functions.

From the once close-knit family-style, business evolved an organisational structure, characterised by greater distance in the relationships between the founding family member managers, and their staff members. It became taller, more complex and less personal. More recently, management reported that staff seem dissatisfied and burnt out and that there were concerns regarding employee absenteeism. The link between these concerns and work engagement formed the basis of this study.

This research was based on the objectivist epistemology. The study took place in the natural environment in which the employees function, during the natural course of business, thus constituting a non-contrived setting. A quantitative design was adopted.

The population constituted the full staff complement of the business. The sample comprised the full population of 40 employees. All elements of the population had an equal chance of being selected, and were conveniently available as employees of the business hence the study making use of non-probability, convenience sampling.

The Utrecht Work Engagement Survey (UWES) was used in this study. In order to reduce potential social desirability response bias which may arise from connotations with the concept of “work engagement”, the term “work engagement” was omitted from the title, with the more neutral title, “Work and wellbeing survey – UWES”, being used instead.

4.1. Reliability and validity of the UWES

There is a volume of literature that ratifies the validity and the reliability of the UWES internationally and in South Africa.

From a sample of 2313 respondents, Schaufeli and Bakker (2003:14) determined the Cronbach alpha for the UWES-17 to be within the following ranges: vigour, 0.81 to 0.9; dedication, 0.88 to 0.95; and absorption, 0.70 to 0.88. Schaufeli and Bakker (2003:14) measured the internal consistency of the three subscales using Cronbach’s alpha and found there to be a total score of 0.93 for the UWES-17. Cronbach’s alpha increases with test length, and varies by only 0.01 for two of the dimensions when comparing the 15-item scale with the 17-item scale. It is therefore possible to compare studies that used different versions of the UWES.

Schaufeli and Bakker (2003) also gathered data on test-retest reliability. When administered twice in one year to two different occupational groups in Australia and

Norway, no significant differences in stability were found to exist between the three dimensions.

Schaufeli and Bakker (2003) record that confirmatory factor analysis reveals the three-factor structure of the UWES to be superior to a one-factor model in tests across various nationalities.

In a literature review, Rothmann and Rothmann (2010) refer to a study by Storm and Rothman (2003) that determines UWES to be internally consistent and valid for the work engagement construct in different research populations in South Africa. An examination of Cronbach's alpha has confirmed the UWES reliability when the scale was used on a sample of members of the South African Police Service as well as emergency medical technicians in Gauteng. This population spanned different genders, languages and occupational positions. In this case, there was internal consistency for the three subscales where vigour was 0.78, dedication was 0.89 and absorption was 0.78. Rothmann and Rothmann (2010) have therefore confirmed that the UWES is an internally consistent and valid test for measuring engagement as a construct in South Africa.

One point of concern was pointed out by Rothmann and Rothmann (2010). The result of exploratory factor analysis with target rotations identified problems in the construct equivalence of the three scales, particularly with respect to items 9, 10 and 14. In item 9, which reads, "I feel happy when I am engrossed in my work", the word "engrossed" might not be understood by all respondents. In item 10, which reads, "I am proud of the work that I do", racial differences accounted for differences in responses among members of the South African Police Service. Lastly, item 14, which reads, "I get carried away by my work", was identified as potentially problematic because it employs a metaphor. However, after removing these items from the analysis, the result was acceptable. Rothmann and Rothmann (2010) suggest that future studies should consider re-phrasing the question or translate it into other South African languages.

Similarly, Goliath-Yarde and Roodt (2011:10) confirmed the overall reliability of the subscales of the UWES-17 for different South African cultural groups. The study found differential item functioning on all three dimensions and concluded that the UWES-17 should not be used comparatively for employment decisions of different cultural groups. The differences were estimated to have occurred due to levels of education or language proficiency.

Given the validity and reliability of the various versions of the UWES, it was decided to proceed with the English UWES-17, with the intention to be observant for item bias.

4.2. Ethical considerations

The organisation participated willingly in the study and assisted in administering the questionnaires. Ethical positions taken by the researcher were impressed upon management. Accordingly, all members of the research sample were provided with a brief description of the research procedure and the expected duration thereof. The identity of the researcher and contact details were made available in case any of the respondents wished to query any aspect of the questionnaire before deciding whether to respond or not. Finally, no inducements were made in order to solicit responses. The survey took place during working hours, therefore respondents were requested to complete the questionnaire when convenient or permitted by management.

4.3. Statistical procedures

The three subcomponents of engagement, namely vigour, dedication and absorption, as well as overall engagement were constructed as variables. The internal consistency and inter-item consistency of these variables were confirmed using Cronbach's alpha coefficient.

Each of the questionnaire items pertaining to a specific dimension of engagement were tested to ascertain whether or not they actually measure the associated variable. Thereafter the three subcomponents of engagement were tested to establish whether or not they measure overall engagement. A Cronbach's alpha equal to or exceeding 0.6 was set as the threshold for determining the reliability of the variable.

Pearson's correlation coefficient, denoted as r was used to test the direction and strength of correlations between variables. A perfect positive correlation is represented by 1.0, a negative correlation by -1.0 and no correlation by 0.0. A correlation does not indicate causation (Sekaran & Bougie, 2013:290). The correlation between the biographical variables age and tenure and the variables pertaining to engagement was established. The p -value was used to identify the significance of these correlations.

Due to the sampling size, it was necessary to combine some of the biographical variables into broader sub-groups. Languages were combined into Afrikaans and other. Similarly, the population groups White and Coloured were combined into one group and compared with Black respondents. There were no Asian respondents. This meant that there were always two subgroups for the nominal biographical variables.

The means for each group were calculated. The subgroups for the nominal biographical variables were subjected to an independent samples *t*-test in order to determine the statistical significance of any differences between the means of the various biographical groups.

5. FINDINGS AND RESULTS

After constructing the variables, the descriptive statistics – specifically mean, mean percentage, and standard deviation – were computed.

As shown in Table 1, all of the variables had a Cronbach's alpha exceeding 0.6, except for absorption. It was established that if item 14, "I get carried away when I am working", was removed, then absorption's alpha exceeded 0.6. Therefore, the absorption variable was constructed without question item number 14.

Table 1: Cronbach's alpha

Variables	Cronbach's alpha	Number of items
Vigour	0.792	6
Dedication	0.805	5
Absorption	0.591	6
Absorption (excluding question 14)	0.734	5
Engagement	0.875	17

5.1. Tests for normality

The Kolmogorov-Smirnov (KS) test was used to ascertain whether or not these variables are normally distributed. Where *p*-values are less than 0.1, the variables are considered to be normally distributed. Only absorption was normally distributed. This influenced test selection. The *t*-test and Pearson's correlation coefficient were used for vigour, dedication and overall engagement, while the Mann-Whitney test and Spearman's rho were used for absorption.

Mean percentages were used in order to interpret levels of employee engagement. Where the highest possible score for an item is six, the mean percentage provides an average measure of the variables for each of the respondents. For example, the mean percentages of 66.7% and 100% correspond to a score of four and six respectively. The results are presented in Table 2.

A lay-person's interpretation of the mean scores in Table 2 might conclude that absorption is lower than the other dimensions. However, the figures must be read in conjunction with UWES-17 percentage norms, which have been bracketed for classification, ranging from very low to very high. As seen from the norms in Table 3, the scores for each of the three variables, as well as overall engagement are in fact average. Therefore, while absorption appears to be an outlier, the score is not practically significant.

Table 2: Descriptives per item

Variables	Items	Mean	Mean %	Standard Deviation
Vigour	At my work, I feel bursting with energy	4.47	74.5%	1.319
	At my job, I feel strong and vigorous	4.63	77.1%	1.289
	When I get up in the morning, I feel like going to work	4.78	79.7%	1.338
	I can continue working for very long periods at a time	4.88	81.3%	1.238
	At my job, I am very resilient, mentally	4.19	69.8%	1.533
	At my work, I always persevere, even when things do not go well	5.00	83.3%	1.481
Factor result		4.656	77.6%	4.9%
Dedication	I find the work that I do full of meaning and purpose	4.52	75.3%	1.411
	I am enthusiastic about my job	4.77	79.6%	1.407
	My job inspires me	4.61	76.9%	1.606
	I am proud of the work that I do	4.97	82.8%	1.251
	To me, my job is challenging	4.19	69.9%	1.600
Factor results		4.613	76.9%	4.8%
Absorption	Time flies when I'm working	4.97	82.8%	1.150
	When I am working, I forget everything else around me	3.81	63.5%	1.958
	I feel happy when I am working intensely	4.66	77.6%	1.359
	I am immersed in my work	4.25	70.8%	1.704
	I get carried away when I'm working	3.63	60.4%	1.661
	It is difficult to detach myself from my job	3.78	63.0%	1.581
	Factor results		4.182	69.7%
Overall Engagement		4.476	74.6%	7.3%

Table 3: UWES-17 mean percentage norms.

(N = 2313)	Vigour (%)	Dedication (%)	Absorption (%)	Engagement (%)
Very low	≤ 36.2	≤ 26.7	≤ 26.7	≤ 19.9
Low	36.3 – 53.3	26.8 – 50.0	26.8 – 45.8	32.3 – 51.0
Average	53.5 – 80.0	50.2 – 81.7	46.0 – 73.3	51.2 – 77.7
High	80.2 – 93.3	81.8 – 96.5	73.5 – 89.2	77.8 – 92.2
Very high	≥ 93.5	≥ 96.7	≥ 89.3	≥ 92.3

5.2. Biographical variables and engagement levels

5.2.1. Language, population groups and occupational level

No significant differences for engagement and language were observed. There were also no significant differences between population groups for any of the engagement variables.

With respect to occupational level, 72% of the employees in the sample were non-managers while 28% were managers. No significant difference for engagement exists between managers and non-managers. Therefore, every employee, regardless of occupational level, had an equal chance of experiencing all of the dimensions of engagement, or overall engagement.

5.2.2. Gender

Table 4: t-test results for gender

Variables	Gender	N	Mean	Mean difference	t-statistic	p-value
Vigour	Female	16	4.99	0.73	-2.32	0.03
	Male	20	4.26			
Dedication	Female	16	4.99	0.63	-1.67	0.20
	Male	20	4.37			
Absorption	Female	16	4.38	0.24	-0.7	0.49
	Male	20	4.14			
Engagement	Female	16	4.80	0.59	-2.14	0.05
	Male	20	4.21			

As seen in Table 4, female respondents, representing 44% of the workforce, demonstrated significantly higher levels for vigour and overall engagement than male respondents. There were no significant differences between gender for dedication and absorption. That 56% of

the workforce showed lower engagement on two of three variables may certainly tempt some to draw conclusions from this. However, further analysis revealed that that mean differences were less than one standard deviation, and therefore held little practical significance.

5.2.3. Age and job tenure

Figure 1 provides a graphical representation of respondents by age. Employees below the age of 30 who are regularly referred to as millennials, form the largest group. The correlations of age and tenure with engagement appear in Table 5.

Figure 1: Representation of respondents by age

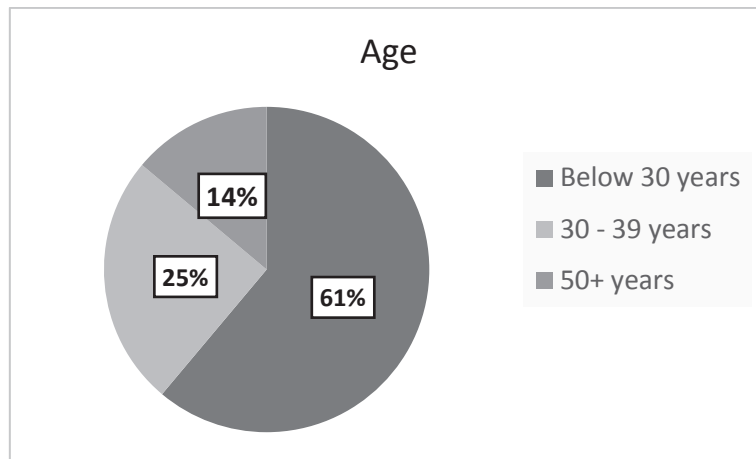


Table 5: Correlations with age and tenure

Variables	Age		Tenure	
	Correlation	<i>p</i> -value	Correlation	<i>p</i> -value
Vigour	0.134	0.437	0.144	0.402
Dedication	0.334	0.046	0.291	0.085
Absorption	0.144	0.401	0.146	0.395
Engagement	0.204	0.233	0.223	0.190

Correlations with age proved weak and insignificant thus indicating that employees' preparedness to engage with work is not dependent on their age.

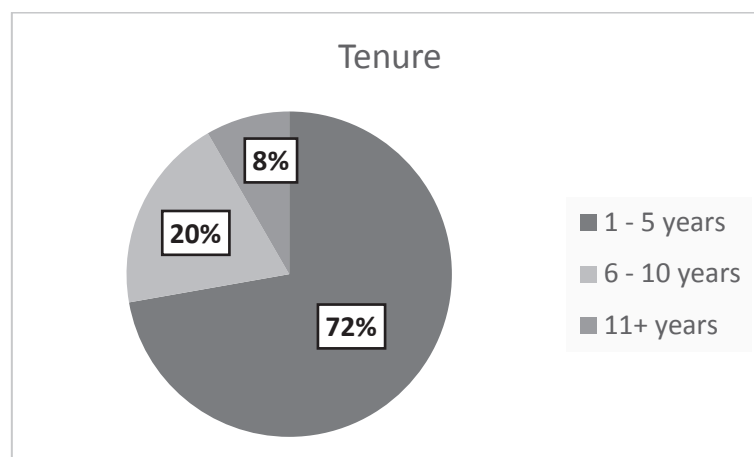
Other studies have found a link with engagement and age. Jacobs et al. (2014) have identified a significant positive relationship between all three engagement variables and, consequently, overall engagement. Similarly, Schaufeli and Bakker (2003) have identified positive, albeit weak correlation between age and engagement.

5.3. Tenure and occupational levels

Figure 2 illustrates the representation of respondents by tenure. Notably, employees with a tenure of 1 to 5 years are the majority, due to the rapid expansion of the family business in the last couple of years. No significant relationship between tenure and engagement is observed in these results. However, when one consider the statistics from consulting firms', conclusions are drawn from worldwide data sets, possibly ignoring contextual factors that might influence employee engagement.

It might seem logical to infer that that the longer employees work for a company, the more engaged, or at least the more dedicated they will be. However, this was not observed because, the prospective impact of employees' tenures is outweighed by the effects of the short tenure under their supervisors.

Figure 2: Representation of respondents by tenure



A fundamental tenet of SET is that employee relationships evolve over time before employees form trust-based commitments with their own norms. Therefore, the relatively short relationships with new managers affects the degree of cognitive, emotional and physical energy that employees would devote to their roles. A correlation between tenure and engagement will not feature in such an environment.

The next section examines how these results could guide strategy formation.

6. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The results of this study almost evaded any meaningful interpretation. Even though there were differences in scores for different variables, there was little statistical significance in any of the findings. This would have been problematic, as the organisation had legitimate concerns related to engagement. It was only through a broader consideration of the academic literature that useful conclusions could be drawn. These will be singled out and discussed.

6.1.1. Considering the measuring instrument

Being aware of language pitfalls of a questionnaire facilitates a more valid appraisal of engagement. Being a South African organisation, it was necessary to be aware of literature that had previously identified language concerns with some of the items in the questionnaire.

Management should ensure that an employee engagement questionnaire measures the construct employee engagement, rather than the antecedents or consequences thereof, as is seen in practitioner literature.

6.1.2. Considering a range of academic theories in interpreting results

The use of a single theory is limiting. In contrast, the UWES builds on prior academic theory, specifically the burnout antithesis theory. Even though the UWES provided a sound, empirical measurement of employee engagement, interpreting the results with the SET provided a more holistic analysis.

6.1.3. Engagement strategies for various generations

The weak correlation between age and employee engagement was not sufficient to merit a special focus on new techniques that engage millennials. In a more commercially motivated environment, the less-than-high engagement scores might automatically have prompted the deployment of engagement strategies. Given the sizes of the slices on the age pie chart, a solution that targets the millennial cohort would have seemed well founded.

By automatically implementing systems, models and strategies to drive millennial engagement, the organisation might have alienated the non-millennials, or 39% of its workforce. If 39% of the workforce can avoid the struggle to adapt to new methodologies

aimed at a different generation, the organisation may even avoid a sales pitch for some change management programme designed to facilitate the implementation of new engagement strategies.

6.1.4. Considering the background and context of the organisation

A thorough understanding of the organisation's history was required in order to make sense of the tenure, and by implication staff retention picture. If the questionnaire had been the point of departure, interpretation of the data would have been completely meaningless.

Blessingwhite would not necessarily recommend a customised solution in favour of their tried and tested suite of programmes. While their initiatives would probably have a positive impact on engagement, it is a broad-stroke approach that would ultimately demand more organisational resources and consume more time than necessary.

It turns out, that the most efficient, and cost effective solution that can be derived from this study would be a programme that allows managers and employees to establish relationship norms and reciprocal trust. On the basis of this study, the recommendations to the firm drew upon SET.

Although the recommendations are applicable to the specific contest, they illustrate how drawing from broader theory enhances employee engagement strategy. The nature of those recommendations are outlined in brief.

Future appointments should be made mindfully of the impact they would have on the engagement of employees. It is thus recommended that management should promote a culture of management recruitment from within its own ranks, in preparation for future appointments. This will ensure that established relationship norms required for better engagement are already in place when managers are appointed.

Where it becomes necessary to appoint managers from outside, a period of orientation is recommended in order to familiarise new managers with the prevailing culture and norms that drive engagement.

SET also purports that being engaged is an act of reciprocation for the economic and socio-emotional resources provided by the employer. The analysis therefore indicates that strategies that focus on enrichment and challenge will be beneficial.

7. CONCLUSIONS

To conclude, this paper has theoretical as well as practical value. In terms of theory, this study has collated the key academic models of employee engagement and has highlighted their empirical strength. Furthermore, the models have been shown to be mutually supportive. In contrast, some of the most widely published practitioner literature was reviewed and crucial flaws were illuminated.

This paper also highlighted how a magic bullet approach to engagement leads to the fragmentation and confounding of engagement, which has its basis in sound academic literature. It also illustrated how a broader knowledge engagement theory and more rigorous methodology provides a more holistic and realistic picture of engagement, which ultimately informs more robust human resources strategy.

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**EXECUTIVE PERFORMANCE EVALUATION AND REMUNERATION IN SOUTH AFRICA
(2002-2015)**

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**EXECUTIVE PERFORMANCE EVALUATION AND REMUNERATION IN SOUTH AFRICA
(2002-2015)**

ABSTRACT

Performance-based incentives, such as cash bonuses and share options, have long been used to align managers' interests with those of shareholders. A substantial body of literature has, however, emerged which cautions against the use of share options. Scholars show that executives whose remuneration is tied to a company's share price tend to focus on short-term results and are more inclined to engage in excessive risk-taking and speculative behaviour.

As this kind of behaviour contributed to the 2007-2009 global financial crisis, shareholders have become more critical of the composition of executive remuneration packages. To make informed decisions, shareholders and other stakeholders, notably policy makers and trade unions, require greater transparency from companies.

With the exception of a few studies, limited research has been conducted on the nature and depth of information disclosed on executive remuneration policies and practices in South Africa. The researchers thus set out to investigate how executive performance is evaluated among a sample of 260 companies listed on the Johannesburg Stock Exchange (JSE) and whether executives' pay is linked to performance.

A total of 2 153 firm-year observations were analysed over the period 2002 to 2015. Most of the considered companies operated in the Industrials and Consumer Services industries. Content analysis was used to code information contained in the annual/integrated reports of the sampled companies. Descriptive and inferential statistics were employed to analyse the quantitative data. Six semi-structured personal interviews were also conducted with directors serving on remuneration committees in the Financials industry. The qualitative data were analysed using thematic analysis.

Not only did significantly more companies report on executive performance evaluations towards the end of the research period (92,1% vs 22,3%), but the acceptability of these disclosures also increased significantly (89,21% vs 18,99%). Acceptability was measured in terms of recommendations contained in the King II and King III reports.

Fisher's least significant difference tests revealed significant improvements in disclosure and acceptability from 2002 to 2003. This finding might be attributed to the introduction of King II in 2002. A similar observation was made after the introduction of King III in 2009. Most companies relied on short-term financial metrics to evaluate executives' performance.

Significantly more companies reported linking their executives' pay to performance in 2015 than in 2002 (90,65% vs 63,3%). Listed companies typically had higher disclosure and acceptability scores and were more likely to link their executives' emolument to performance compared to their delisted counterparts.

Although more JSE-listed companies disclosed details on executive performance evaluations and the pay-performance link, disclosures generally lacked depth. Performance benchmarks should be expanded beyond the short-term financial measures which are currently used. Executive performance should be measured against the needs of a broader range of stakeholders over a longer time frame, especially when used to link executives' remuneration to performance.

DOES MONEY MATTER? THE EFFECT OF SALARY POSTING ON ONLINE JOB APPLICATIONS

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DOES MONEY MATTER? THE EFFECT OF SALARY POSTING ON ONLINE JOB APPLICATIONS

ABSTRACT

In a world of scarce skills, online job advertisements (OJAs) have been shown to be an effective method of attracting the correct job seekers to apply for a company's vacancies. When creating each OJA, firms and recruiters have several content choices to make regarding how to attract the right talent. With comprehensive information and research on each factor of an OJA, an organisation is better equipped to receive applications from vacancy-relevant and high-calibre job seekers. Using data from two prominent online job portals in South Africa (n=143,379), this cross-sectional quantitative study investigated the effect of including a salary or wage on an OJA on both the quantity and quality of applicant responses. Findings included clear correlations between salary posting and a higher number of applications. These applications were found to be from candidates with a higher level of both qualifications and experience. Practical implications are discussed.

1. INTRODUCTION

Recruitment itself can be defined as the activities and practices of an organisation with a goal is to attract and identify suitable candidates and encourage them to become an organisational member (Allen, Mahto & Otondo, 2007; Breaugh & Starke, 2000). The general phases of recruitment, as described by Barber (1998), are to generate applicants for a vacant position, maintain their interest during the recruitment process, and influence their eventual job choice. This study focussed on the first phase, namely that of generating applicants (often called “attraction”), that can be seen as the most important since without it the rest of the recruitment function cannot occur.

Different countries have seen varying levels of job advert media being utilised but online job advertisements (OJAs) have improved the recruitment capabilities and channels for companies on the whole with some companies performing better than others in this regard (Brenčič, 2012, 2014; Brenčič & Norris, 2010, 2012; Kuhn & Mansour, 2013). Job applicants also have more opportunity to find jobs online, both in their countries of residence and abroad. The benefits of using online job advertising are numerous, both in the financial and operational areas of human resource and recruitment practice. As early as in the start of the twenty-first century, Goldsborough (2000:22) mentioned that “[o]nline recruitment ... can save a company up to \$8,000 per person hired [which] breaks down into \$2,000 saved in advertising costs and \$6,000 saved in time spent looking for a new hire.”

Further benefits are that online job advert pricing is relatively inexpensive when compared to print advertising options (Brenčič & Norris, 2012; Fister, 1999; Khan, Awang & Ghouri, 2013), OJAs have space for a more comprehensive advertisement when compared to print, OJAs can be published at any time on any day and that the screening process starts digitally, meaning fewer paper résumés for the recruiters to sift through (Fister, 1999). Other benefits well-documented in the literature include Smith and Rupp's (2004) evidence of shortened hiring times, an acceleration of the recruitment process and the ability to hire both locally and globally. Some online job boards even enable background checks, storage of digital candidate documents for retrieval later, and a smoother recruitment process for both active and passive candidates and firms, in which companies can schedule interviews and decline applicants through applicant tracking systems (ATS) (Tong & Sivanand, 2005). Online job seekers require information to make sound decisions on which OJAs to respond to while companies need assistance in understanding what the creation of an OJA entails to elicit the correct amount and quality of applications (Brenčič & Norris, 2012). The number of applications received has increased through online or e-recruitment methods, specifically around OJAs. A few studies showed this can be manipulated by making changes to adverts during the recruitment process by giving more, or less, information to candidates and by using various other options (Marinescu & Wolthoff, 2014). The number of applications is also important to recruiters who wish to maximise the influx of quality candidates as these applications can be utilised across other positions where vacancies exist (Ryan, 2015).

This study investigated whether the quantity of applicants was affected by including or excluding a stated salary on an OJA, regardless of the salary amount or range. The purpose of the research was to investigate the relationship between posting a salary and the quantity of applicants that an OJA draws. This relationship is further explained by considering the applicant's education level and level of experience (in years), to ascertain evidence of the quality of the applicants drawn by OJAs with a salary posting versus those that do not contain indication of expected remuneration. It has been shown that education and experience influence the quality of the candidates received from an OJA (Marinescu & Wolthoff, 2014).

This research is decidedly relevant to organisations and recruitment firms, as companies currently work on assumptions when selecting to either include or exclude salary in OJAs (Michelacci & Suarez, 2006). This research is valuable in both a global and South African context since, although the data stems from two South African job portals, many of the

criteria and assumptions are applicable to job boards internationally. Companies and recruitment firms, among others, would benefit from identifying the key components when writing and creating an OJA that attracts the best candidates from the limited pool available. Through conducting explanatory research from secondary data, this study is the first of its kind in South Africa as far as it could be established.

2. LITERATURE REVIEW

2.1 Online Job Advertisements

While employer brand can gain firms access to certain quality job seekers (Allen *et al.*, 2007), job advertisement reach is essential, that is ensuring job adverts posted by the company are seen by the highest number of suitable individuals. The advent of online search has greatly increased the ability of firms to have their vacancy adverts noticed (Kuhn & Mansour, 2013). For applicants, the opportunity cost of looking for and finding relevant vacancy listings dramatically decreases in the online environment (Cober, Brown, Blumental, Doverspike & Levy, 2000). Since the Internet offers excellent reach for companies to gather applications (Sharma, 2011; Smith & Rupp, 2004), creating the ideal job advertisement becomes a key factor in the recruitment process (Brenčič & Norris, 2010). The ideal job advert would thus both attract the most suitably qualified applicants relevant to the job and the highest number of them (Grobler, van der Schyf, Carrell, Elbert, & Hatfield, 2012). Deciding what components of OJAs can be tweaked to elicit more applicants is of great importance to firms across all industries (Brenčič, 2012; Brenčič & Norris, 2010). There is little coverage regarding the creation of job advertisements online and the factors that make them more effective despite online recruitment websites and methods becoming well and widely utilised. What information an OJA must show is therefore still debatable and could be dependent on many characteristics of the vacancy posting, such as organisational reputation, job title, location, expected salary, etc. (Lee & Brusilovsky, 2012). Although information overload could cause indecision, the more information a job advertisement offers, the better the reach and response (Rozelle & Landis, 2002).

2.2 Salary Posting and Applicant Quantity

In the literature it is generally assumed that salary posting affects an applicant's decisions. While it seems that more information on OJAs is better (Brenčič & Norris, 2010; Rozelle & Landis, 2002), many firms still omit salary from the advert or simply state "market related" or similar vague and unclear wording. An actual posted figure is important as applicants are not trusting of clauses like "salary will be commensurate with qualifications and experience" or "salary negotiable" (Armstrong & Taylor, 2014; Kosinski, 2014; Ryan, 2015). Doyle and Wong (2013) found that posting salaries on OJAs was interpreted by potential applicants as showing an implicit commitment to paying at least the posted wage figure or potentially better. Some companies assume that salary posting will affect how fast they can fill the position. This is not necessarily true with various findings reporting mixed results (Brenčič, 2012).

Marinescu and Wolthoff (2014) refuted that salary even makes much of a difference, citing job titles as the explanation for upward of 90% of variation in posted wages. The authors concluded that higher wages are associated with fewer applications to an online job advert, yet that, within business title, higher wages on job adverts give rise to higher application amounts. Their findings were contradictory to Brenčič (2012) who noted that companies were less likely to post a salary during a search for more skilled personnel. Many organisations also argue that salary posting gives away negotiating power (Ryan, 2015), yet they pay higher salaries for other methods of candidate attraction. DeVaro (2005) showed that those recruitment methods that take more time than other options, such as referrals through colleagues, contacts, or friends, end up in hires with higher starting salaries. That said, salary posting on job adverts also

affects wage bargaining further down the line. Related research by Michelacci and Suarez (2006) showed that firms cannot win once salary information is known, as this initiates salary negotiations from an inferior position. However, through declaring remuneration, companies do hire better candidates. This may indicate that the inclusion of salary increases the skill level of applications, albeit it at a higher price. This finding is valuable for companies when deciding to post a salary or not.

2.3 Salary posting and applicant quality

Companies that wish to place the best candidates in their firm must attract and recruit not only a fair number of applicants (Breaugh, 2013; Cober *et al.*, 2000), but also the best quality of employee possible (Carlson, Connerley & Mecham, 2002). Applicant pool quality is not easy to measure through merely using a set of rules and is often a bespoke exercise (Rynes, Bretz, & Gerhart, 1990). A US study by Pin, Laorden and Sáenz-Diez (2001) of approximately 500 firms indicated that 20% of managers value the pre-screening done by online recruitment methods and ATS. This pre-screening was mostly done automatically through keyword searching in résumés. It is critical therefore to attempt to measure quality early in the recruitment process (Carlson *et al.*, 2002) and to find a measure that suits the firm, the market and the vacancy (Boudreau & Rynes, 1985). Marinescu and Wolthoff (2012) found strong evidence that salary posting on OJAs improved candidate quality, also defined as a measure of education and work experience. Applicant quality is an obvious factor in online recruitment and any means of identifying this would greatly aid managers and recruiters (Breaugh, 2013). It is assumed that, through the literature reviewed, that the two best measures are the applicant's education level and years of experience.

Part of being a suitable match for a vacancy involves having a qualification that exceeds the minimum deemed necessary by the organisation (Cober *et al.*, 2000). Naturally, in reviewing applicants, human resources professionals or ATS must determine who of these have the minimum qualifications required (Grobler *et al.*, 2012). Online recruitment has offered companies a higher quality of applicants overall (Bartram, 2000; Bingham, Ilg & Davidson, 2002; Holm, 2010). However, contrary results show an increase in unqualified candidates through e-recruitment methods (Bartram, 2000; Brenčič & Norris, 2010; Brooke, 1998; Pin *et al.*, 2001). These contradictory results may point to a mediating variable that influences how e-recruiting delivers applicants. Yet regardless of this, the qualified applicant set currently requires more effort to attract from the general employee pool (Cober *et al.*, 2000). Around 59% of job postings on CareerJunction (2016) specify a tertiary qualification in the advertisement.

Education level plays a substantial role in recruiting the right individuals and in the recruitment process overall (Rankin, 2005). Attracting applicants with the correct qualifications is obviously essential (Grobler *et al.*, 2012), but whether salary posting affects this outcome is still debatable. Salary posting could also encourage candidates to apply for positions that they would usually have overlooked, since salary is a determinant of job class or level (Doyle & Wong, 2013). Generally, online recruitment methods post higher salaries for more highly qualified requirements (Dhar, 2008). Deillon (2014) found that for a Swiss firm, online recruitment methods improved the reach of and the resultant amount of highly qualified and suitably experienced individuals. The challenge facing companies is to find qualified job seekers in a larger pool of applicants (Cober *et al.*, 2000). Yet the corresponding challenge for job boards to deliver adequate candidates is even higher (Dhamija, 2012) and, due to the percentage of qualified individuals in the overall employable population in South Africa (Statistics South Africa, 2016), even more so for selection committees in this country.

In general, education level is a determinant of applicant quality. Similarly, suitably qualified applicants will be required to have some sort of experience in their field (Grobler *et al.*, 2012). Logically, the higher the level of experience in a field, the more likely a candidate is to be of better quality and more suitable to a generic position (Albrecht, Gautier, & Vroman,

2003), since they will more likely meet the minimum requirements of the vacancy (Grobler *et al.*, 2012). Experience level is often measured in years and is not to be confused with skills or skill level. The years of experience an applicant has can be measured both in terms of their entire career (work experience) or within a specific skill set or job post (Blau & Khan, 2007). Job adverts will often state a measure of experience in some field or career and applicants are sifted according to this factor. Whether this affects the quantity or quality of applicants is not entirely clear, with the literature giving opposing views on what online recruitment in general has delivered in terms of candidate experience from OJAs. Pin *et al.* (2001) suggested that fewer experienced candidates have been received from online recruitment efforts, while Bartram (2000) specifies that companies are offered a higher level of experience of applicants from online sources. Whatever the medium used to advertise a vacancy, attracting experienced applicants is more difficult than in the past. Research currently shows candidates need information about the vacancy to make decisions and that salary information helps them to place the job's level on a comparative scale (Armstrong & Taylor, 2014; Brenčić & Norris, 2010). Furthermore, candidates apply to OJAs with a salary posting before those without (Kudlyak, Lkhagvasuren, & Sysuyev, 2013). Since applicants view and apply to a finite amount of vacancies, a company would want its vacancy to be on such a list (Albrecht *et al.*, 2003). Barber (2006) suggested that jobs advertised in online media attract a wider diversity of applications. Since Abel (2011) claimed that diversity in applications includes varying levels of experience – which benefit recruiters and companies alike in their search for the right employee – one can see that using job boards enhances the experience level of applications. But does the incidence of a salary posting alone draw a better level of experience of applicant? Marinescu and Wolthoff (2012) provided positive evidence showing that candidates with 11 years or more of experience applied more often for higher salaries.

3. PROBLEM INVESTIGATED

The study investigated whether the quantity and quality of job applicants were affected by including a stated salary on an OJA regardless of the salary amount or range.

4. RESEARCH OBJECTIVES

The aims of the study were to investigate the following hypotheses:

H₁ A salary posting in an online job listing increases the amount of applications made to the listing

H₂ A salary posting in an online job listing increases the number of qualified applicants

H₃ A salary posting in an online job listing increases the level of experience of applicants.

5. RESEARCH METHOD

The research took a cross-sectional deductive approach. The study utilised quantitative data provided by two prominent South African online job portals that responded positively to the request for participation in the study. The large data set received from these sources was drawn from the period between January and September 2016 (n=143,379). The sources of the data gave a strong sense of authority since the companies running them are established with millions of page views, Internet users and clients monthly. Although cross-sectional studies mostly lack the ability to easily infer trends or new knowledge, the study had several advantages that might well have overcome this inadequacy: the size of the data set, the number of actions by applicants on OJAs and the time span over which the data were gathered. With regards ethical concerns, no individual job seeker could be identified by the data supplied and there was no breach of anonymity or POPI (Protection of Personal Information) legislation. Due to the sensitivity of the topic and requests from the two organisations, no company identifiable data were used in the study. Job

advertisements were labelled as including salary (Y) or not including salary (N) and the applications to each analysed for a correlation with how skilled the job seeker was. As a measure of validity of results and heterogeneity, descriptive statistics were drawn to describe the sample and ensure that a variety of industries and job seekers (age, gender, education, experience, location, etc.) were present. Histograms were created to describe the data sets before testing. Variables for all the hypothesis statements were the number of applicants on an OJA, education level, salary posting, and the level of experience. For purposes of the study, only stated salaries including figures (single number or ranges) counted as the salary being included (Y) in the job advertisement. Failure to comply with the above terms or a lack of salary denoted a non-disclosure of salary (N).

The findings of the statistical analysis were measured and calculated by more than one method to attempt to obtain an objective and replicable result (See Table 1).

Table 1. Statistical Testing for Hypothesis Testing

Hypothesis	Description	Statistical tests
H ₁	A salary posting in an online job listing increases the amount of applications made to the listing	Independent Samples t-test Normality Test Nonparametric Tests
H ₂	A salary posting in an online job listing increases the number of qualified applicants	Independent Samples t-test Normality Test Nonparametric Tests
H ₃	A salary posting in an online job listing increases the level of experience of applicants	Independent Samples t-test Normality Test Nonparametric Tests

6. RESULTS AND FINDINGS

Since the tests followed similar logic and produced similar results, these are summarised in Table 2 to provide an overview of the findings. Each hypothesis statement underwent five tests, namely an F-test for unequal variances, a t-test for the difference in means, a Kolmogorov-Smirnov test for normality and two non-parametric tests, namely the Mann-Whitney and Mood's Median tests.

Table 2. Hypothesis test results for all variables from both data sets

Variable	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>dF</i> ₁	<i>dF</i> ₂	<i>F</i> (1, <i>dF</i> ₂)	<i>p</i>	<i>α</i>
Applications	73.80	143.22	27.64	55.82	1	158819	6.58	.000	.01
Education	6.43**	0.92	6.19	1.04	1	143377	0.77	.000	.01
Experience	3.57***	0.91	3.68	0.87	1	143377	1.10	.000	.01

Note: All *F*-tests utilised a two-tail statistic for the equality of variance hypothesis test.

Hypothesis 1

For the main research question, statistical hypothesis testing was used to compare the number of applicants on both salaried and unsalaried OJAs. A test for equal/unequal variances was completed, as well as the corresponding t-test to determine whether the

means of the number of applicants for salaried and unsalaried OJAs differed or not. Determining this involved first grouping and calculating the amount of all applicants per OJA as above, and assigning them as an applicant of a salaried OJA or not. Thereafter the number of applicants per OJA was recorded and whether the OJA contained a salary figure or not. Two groups were formed and the hypothesis testing was done as mentioned above.

The results were a t -statistic of $t(121009) = 88.00$ and a resultant p -value of $.000$, thus rejecting the null hypothesis that the mean or salary posted OJAs is the same as that of unsalaried OJAs. This test was completed after ascertaining a difference in variances through an F -test, $F(1, 716555) = 6.58$, $p = .000$. Means were 73.80 for OJAs with salary postings ($SD = 143.22$) and 27.64 for those without ($SD = 55.82$).

A Kolmogorov-Smirnov normality test gave a p -value under $.010$ ($D(18) = .310$ & $D(11) = .303$), rejecting the null hypothesis that the data are normally distributed. Thus, nonparametric testing was completed to ensure validity of results. The Mood's Median ($Mdn = 14$, $p = .000$) and Mann-Whitney ($W(dF) = 7542034712.5$, $p = .000$) tests both rejected the null hypothesis. The same result was obtained through all three comparison tests and the research finding statistically is confidently stated as: OJAs with a salary posting received more applications than those without salary ($\alpha = .01$).

Hypothesis 2

For the education question, a t -test was used to compare the mean job seeker's education level for both salaried ($M = 6.43$, $SD = .92$) and unsalaried OJAs ($M = 6.13$, $SD = 1.04$). The f -Critical statistic ($F(1, 143377) = .77$, $p = .000$) and relevant t -statistic ($t(143377) = 45.04$, $p = .000$, $d = -.24$) rejecting the null hypothesis and evidencing a difference in means. This determined with a significance level of 0.01 ($\alpha = .01$) that salary posting attracted better educated individuals regardless of the monetary amount that was shown. Thereafter, as the data gave the impression visually that they could be non-normally distributed (Pett, 2015), the test for normality was completed, concluding a non-normal distribution by rejecting the null hypothesis with a p -value of less than $.010$. Thereafter, Mood's Median and a Mann-Whitney test were used as nonparametric tests. Both tests gave the same result with p -values of $.000$ ($W(143377) = 4389911133$, $p = .000$). This concludes significantly ($\alpha = .01$) that the incidence of a salary posting increased the average education level of the applicants that apply to the OJA.

Hypothesis 3

A t -test was also used to compare the mean job seeker's level of experience for both salaried ($M = 3.68$, $SD = .91$) and unsalaried OJAs ($M = 3.57$, $SD = .87$). The results were a t -statistic of 23.67 ($p = .000$, $d = -.13$), after ascertaining unequal variances in an F -test ($F(1; 143377) = 1.10$, $p = .000$). The p -value of these tests was both 0.000 , which holds confidence in the findings at the $\alpha = .01$ significance level. Again, the Kolmogorov-Smirnov normality test gave a result indicating a non-normal distribution ($D(3.8) = .81$ & $D(3.6) = .61$, $p = .000$) and Mood's Median and a Mann-Whitney test were utilised (both $p = .000$). This determined that salary posting attracted more experienced individuals, regardless of the amount that applied or their corresponding education levels ($W(143377) = 4795737285$). In other words, this finding evidenced a relationship, though not causality, whereby salary posting on OJAs increased the experience levels of the applicants when compared to the experience levels of applicants applying to OJAs without a salary posting.

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The hypothesis testing clearly indicated that a salary posting increases the amount of applications to the OJA. This is significant to management professionals creating OJAs throughout the recruitment industry. For example, based on the findings, job boards would be able to increase not only the amount of online traffic to their websites, but also the efficiency of the traffic. Companies can be assured that these findings confirm that salary posting brings better results for online job advertisements that look for qualified and experienced individuals. However, salary posting cannot be used as confidently for offline

vacancies or low-skilled positions. Whether the applications received by companies and recruiters through the job boards made better (or any) matches with the vacancies advertised was not tested at all.

The statistical analysis strongly indicates that education levels of applicants increase for those who apply to OJAs with a salary posting. Therefore, companies can, with more reliability, post salaries when searching for candidates that are required to have a higher qualification. However, not all positions require a qualification, nor are applicants without qualifications necessarily a poor match for a vacancy (Bartram, 2000). Furthermore, applicants without a qualification or with a lower qualification than is specified in the OJA may still be able to do the job required in practice (Grobler *et al.*, 2012). Unfortunately, without a very granular look at the data, the true effect of salary posting on the qualification level of applicants is still somewhat vague.

OJAs containing a salary posting are, from the hypotheses testing done in this study, more likely to receive applications with a higher experience level. Thus, in general, according to the model used, better quality applicants apply for OJAs with salary postings. As with education, many positions do not require experience, nor do the number of years of experience guarantee the skills required for the job. Even experience within a certain field does not ensure that an applicant matches a certain vacancy's requirements (Armstrong & Taylor, 2014).

While there are probably more than four types of stakeholder interested in the current research, job boards are looked at first. These are, for the purposes of this discussion, defined as any website that allows its corporate users to post job advertisements and thereby receive applications (i.e. not necessarily require job seekers to register, create profiles and save résumés). Without a doubt, the tests regarding applications will be of interest to job boards, who have clients paying them to assist in attracting candidates (Brenčič & Norris, 2010; Smith & Rupp, 2004), and where metrics within the companies are to increase clicks to the OJAs, page views on the OJAs and to ensure as many applications to the clients as possible (Tong & Sivanand, 2005).

This leads the discussion to companies that would benefit from knowing how best to craft their OJAs to effect the right response. Overall, from the statistical findings, it would appear that job listings should always carry a salary posting; however, companies may not always wish to receive more applications of a higher educational and experiential level. Possibly, a position for a low-skilled person could mean that a company should not post a salary at all (Delacroix & Shi, 2006). Furthermore, this research has focussed on online positions, while some jobs are best advertised in other media in which the right job seekers are better attracted (Zickuhr, 2013).

At this point it is important to emphasise the actions of companies regarding salary posting. While this focus has been suggested as a new avenue of research, the main reasons that are quoted for companies not supplying a salary figure are that a) they do not have to; b) they wish to have more negotiating power; c) they may cause competition between current employees; and d) they may endure competition from other companies in their industry and beyond (Heathfield, 2016; Vyvial-Larson, 2013). In addition, some firms believe that applicants will apply simply because the pay is attractive and will not be a match for the vacancy itself or even be able to do the work (Melhuish, 2014).

However, those looking for jobs online are presently working harder to submit each application (Vyvial-Larson, 2013) and applying for jobs takes more time now than it did when the activity was mostly done offline (Melhuish, 2014). Job seekers argue strongly that they do not wish to waste their or a company's time and effort when they are not in fact willing to accept the unknown salary available for the position (Heathfield, 2016). Companies must walk a fine line between experiencing the above risks and receiving unsuitable applications on the one hand, and on the other, losing out on many qualified applicants. Heathfield (2016) purports that all OJAs should contain a salary posting, as this factor communicates to job seekers that companies are only interested in spending valuable time with applicants whom they can afford to employ. The larger issue for firms

here may well be that the right candidates are moving past those job advertisements once they do not see a salary figure that makes the application process worthwhile.

The leads to the next recipient of the findings: recruiters. Recruitment companies and agencies wish to receive candidates through advertising that they can match with the vacancies from clients for whom they are searching (Vyvial-Larson, 2013). It would seem logical that they would want the most qualified and experienced candidate (Grobler *et al.*, 2012). In South Africa, this would be especially relevant, since most recruitment companies are tasked with finding the rarer skills that companies cannot locate themselves.

Recruiters are often at the whim of their clients when it comes to a decision on a salary posting. However, with the knowledge gained from the current study, recruitment organisations and human resource departments could persuade firms to agree to have salaries posted with the firm's name withheld. A quick review of any job board would show that this is currently how many OJAs are uploaded by recruitment consultants. Recruitment professionals in larger organisations and recruiters in agencies are often not as concerned about receiving large amounts of applicants even if many of them are unsuitable for the vacancy at hand since some of these may be good matches for other vacant positions (Graylink, 2016).

Finally, job seekers would also benefit indirectly from the findings of this research, in that their actions are somewhat better understood by bolstering the evidence behind the benefits of salary posting. Job seekers in today's environment have more work to do in applying for jobs and do not wish to endure the process of cover letters and interviews, only to reject an unsatisfactory offer later down the line (Heathfield, 2016; Vyvial-Larson, 2013). Applicants are constantly assessing OJA details to find those that they feel are a match in terms of the benefits that are offered (Armstrong & Taylor, 2014). The best candidate for a specific position may therefore not apply to its OJA if it lacks a salary figure to assess that match.

8. CONCLUSIONS

The research is clearly of use to management professionals, most notably in the human resource and recruitment areas of management. This area is critical to most companies, since hiring the right staff is key to success (Cober *et al.*, 2000; Faberman & Menzio, 2015) whatever the type of employee sought. Improving the methods of attracting such employees is therefore helpful to managers (Breugh, 2013). The findings shed valuable light on the relationship between the number of skilled applicants and OJA salary posting showing that salary posting increases three valuable metrics: applications to OJAs, the education level of applicants, and the experience level of the applicants. Human resource and recruitment professionals can now add to their armoury the knowledge that salary posting offers more benefits than disadvantages provided it happens in an online world. Locating the right skills for an organisation is becoming an increasingly challenging task (Breugh, 2013; Cober *et al.*, 2000; Faberman & Menzio, 2015), and management professionals will find this research important, whether they be recruiters, employers, or the operators of job boards (Heathfield, 2016).

Future research directions would be to look at finer points of the data, or, as many authors have done, use a further dataset from other job boards or portals. One such avenue would be hypothesis testing within different types of salary posting. Other possibilities include considering variables such as level of experience and education, age, location and so forth, to see which job seekers are most affected by a salary posting. These insights would also greatly aid human resource professionals in crafting OJAs. A notably interesting future study could include the current salary figures of applicants. This variable would allow researchers to explore how the salary figure on OJAs compares with those applying for the vacancy. This proposed study would answer questions around how applicants react to salary figures on OJAs in relation to their own current income.

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**EMPLOYEE MOTIVATION AND ORGANIZATIONAL JUSTICE IN PREDICTING
JOB SATISFACTION AMONG NURSES AT A HOSPITAL IN THE EASTERN
CAPE PROVINCE, SOUTH AFRICA**

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**EMPLOYEE MOTIVATION AND ORGANIZATIONAL JUSTICE IN PREDICTING
JOB SATISFACTION AMONG NURSES AT A HOSPITAL IN THE EASTERN
CAPE PROVINCE, SOUTH AFRICA**

ABSTRACT

Healthcare systems cannot function effectively without a strong foundation of skilled human capital. Within the South African context, the health care system is characterised by a shortage of nurses. The nursing profession in South Africa currently faces a climate of uncertainty and change as governments struggle to contain

healthcare while improving access, equity and health outcomes. There is increased brain drain as well as early resignations of newly graduated nurses because they cannot cope with the demanding job, thus crippling the profession more. The increased turnover rate at the hospital has led to a great depletion of the nursing staff and a shortage in vital areas to the extent that some important departments are losing their viability. Without a highly motivated workforce an organisation will not realize its goals for staff mobility will be high. The aim of this study was to explore the predictive role of employee motivation and organizational justice in determining job satisfaction among nurses at a hospital in the Eastern Cape Province, South Africa.

A cross-sectional study was conducted and a total number of 130 questionnaires were distributed to a population on a purposive sample of 170 individuals of which 75 usable questionnaires were returned. Simple linear regression models were used to determine the predictive power of the individual explanatory variables on job satisfaction. Hierarchical regression approach using a multiple linear regression model was then opted to test whether employee motivation adds unique variance in predicting job satisfaction above and beyond that which is predicted by organizational justice. The simple linear regression revealed that organizational justice had a positive significant effect ($\beta_1=0.784$; $t=23.089$; $p<0.0001$) on job satisfaction; so as employee motivation ($\beta_1=0.770$; $t=19.312$; $p<0.0001$). The hierarchical regression model for the significance of adding employee motivation to organisational justice in predicting job satisfaction showed that employee motivation significantly increases the variance explained by organisational justice ($R^2=0.573$, $R^2\Delta=0.134$, $p<0.0001$) to the model. Thus employee motivation adds unique variance in predicting job satisfaction above and beyond that which is predicted by organisational justice. The fact that the present study has shown that job satisfaction is strongly associated with the employee motivation and organisational justice is strongly associated with employee motivation which means that to promote the nurse's motivation at the hospital the employer must thrive to promote job satisfaction and organisational justice

There are intrinsic and extrinsic job satisfaction factors that can be provided by the hospital management to stimulate motivation among the nurses at the hospital. The intrinsic motivations factors for job satisfaction are the opportunities for achievement,

improving the work itself, task responsibility and career advancement opportunities. The extrinsic motivation factors for job satisfaction factors are increased pay, improved interpersonal relationships, improved supervision and company policies that are favourable to nurses. Management must also strive to treat all its personnel with equity and fairness. Fair procedures and practices can either be in promotion, rewarding, dismissing or whatever human resources practice must be fair such that nurses will not get dissatisfied or demotivated. To stimulate more job satisfaction and employee motivation the management must embark more on improving distributive justice and procedural justice more than interactive justice, since their impact on job satisfaction and employee motivation is higher than the impact of interactional justice.

**WAGE DETERMINATION AND JOB CREATION IN THE FREE STATE AGRICULTURE
SECTOR: EMPLOYERS' PERSPECTIVE**

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**WAGE DETERMINATION AND JOB CREATION IN THE FREE STATE AGRICULTURE
SECTOR: EMPLOYERS' PERSPECTIVE**

ABSTRACT

As a member state of the International Labour Organisation, South Africa (SA) subscribe to the decent work agenda. Decent work addresses the concepts of enough work and quality work. In addition to this, the decent work deficits identified in SA are employment opportunities, productive work, conditions of freedom at work, equity at work, dignity at work and security at work. The National Development Plan (NDP) specifically formulates the addressing of decent work as a major objective subsequently seeking to eliminate poverty and inequality through the creation of 11 million jobs between 2012 and 2030. Agriculture need to contribute 1 million of these planned jobs. To reach the goals of the NDP, economic growth at an average of 5.3% per annum is required for the period. Economic growth of 1%

was recorded for 2016 with further reports of SA experiencing a technical recession in 2017. Moreover SA is currently experiencing the effects of severe drought conditions further inhibiting job creation in the agriculture sector.

Farmers, as employers in SA are confronted with a 91.19% increase in labour cost since the 2013 strike in the Western Cape. If the proposed National Minimum Wage (NMW) of R3500 per month is implemented in agriculture in May 2018 the cumulative increase would be 132% placing affordability of labour further under pressure. Although alleviation of working poverty and social inequality serves as justification for the implementation of the NMW the displacement of workers due to unaffordability and subsequent increased unemployment could contradict the objectives of the NMW. The NDP objective of the development of sustainable rural economies are fundamentally placed out of reach.

The current study will be conducted within the interpretivist paradigm and will be qualitative in nature. Document analysis will form the basis of the study and will inform a semi-structured interview to be conducted with farmers. There are currently 7515 farming units, and 19 municipal districts in the Free State province. Cognisance is taken of various farming activities that are found in the Free State province. The premise of the research is that these farmers will have different needs in term of staffing levels determined by the nature and seasonal trends of farming activities. In addition to this, the study will include mega-farmers as well as emerging farmers and their farm workers.

The overall aim of the study is to design a model to manage the implementation of NMW in the agriculture sector in order to reduce poverty and social inequality, and to promote the decent work agenda. Furthermore, to inform policy makers regarding the implementation of the NMW. It can also imply amendments to be made to current labour legislation.

Theoretically, there is a dearth of research studies focussing on the NMW since it was only proposed in 2016. This is mainly because the promulgation of a NMW in South Africa is a completely new development within the management of employment relations. Although studies were done in anticipation of the determination of the NMW, the implementation thereof is likely to take place in May 2018.

**A CENTRALIZED TALENT MANAGEMENT APPROACH AT A MINING COMPANY IN
SOUTHERN AFRICA**

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Human resource management

**A CENTRALIZED TALENT MANAGEMENT APPROACH AT A MINING COMPANY IN
SOUTHERN AFRICA**

ABSTRACT

The war for talent escalated to a fundamental shift in the business environment, requiring organizations to adjust the way they manage employees. Despite all that is known about the importance of talent management, the mining sector still struggle to fill key positions.

The purpose of the research was to investigate the perceived effectiveness of a centralized talent management approach in implementing talent management initiatives. A quantitative research approach using survey design was employed. Structured questionnaires were

distributed to a random sample of 300 employees. Descriptive statistics were used to describe the data set, and T-tests and ANOVAs were used to test for statistically significant differences between the different biographical groups. A principal factor analysis was employed to identify common themes.

The major findings show that different demographic groups had significant differences in perceptions on the overall effectiveness of the talent management process. The most significant differences were based on gender, position in the organization and academic qualification.

1. INTRODUCTION

In a world where the only constant is change, organisations are implementing different business strategies to gain competitive advantages. These strategies require the organisation to create structural models that are positioned best to optimise the organisations scarce resources; these strategies require alignment with other operational strategies to ensure overall success. The Chartered Institute of Personnel and Development (CIPD) (2006a:7) argues that despite all that is known about the importance of attracting, developing and retaining talent, and the great sums of money dedicated to systems and processes that support talent management, an astonishing number of organisations still struggle to fill key positions and implement talent strategies, which puts a considerable constraint on their potential to grow. In this research the aim is to find the perceptions that influence talent management strategy and its implementation. From previous research there's has been a lack in a clear definition of talent management and as a result organisations struggle on the best method to use to implement it. In this study we aim to delve in the perceptions of employees and how those perceptions can be best used to help in e implementation of talent management strategy.

According to Chambers, Foulon, Handfield-Jones, Hankin and Michaels (1998:44), the war for talent has been raging since the 1980s with the birth of the information age and it is predicted to continue. In addition, with the war of talent raging, the importance of hard assets such as machines and capital declined relative to the importance of intangible assets such as intellectual capital, brands and talent (Michaels, Handfield-Jones, a& Axelrod,2001:48.) The forces of the war for talent add up to a fundamental shift in the business environment, requiring organisations to radically adjust the way they manage people.

In addition, few, if any, organisations today have an adequate supply of talent (CIPD, 2006a:10). Gaps exist at the top of the organisation, in the first- to midlevel leadership ranks, and at the front lines. Talent is an increasingly scarce resource, so it must be managed to the fullest effect. Pablos (2004:488) indicates that human capital, relational capital, and structural capital can all provide long-term competitive advantage but the most significant evidence favours human capital.

Talent management is one strategy that can be used as a tool to achieve the organisation's strategic goals and create a sustainable competitive advantage. However, talent management strategy can benefit from different organisational structures depending on the overall goals of the organisation. According to Olson, Slater and Hurl (2005:58), organisations that match structure and behaviour to strategy, fare better than those that do not. Some of the identified organisational structures utilised are centralisation and decentralisation.

2. LITERATURE REVIEW

According to Collings and Mellahi (2009:304), since a group of McKinsey consultants coined the phrase the War for Talent in 1997 (Michaels, Handfield-Jones, & Axelrod, 2001:47), the topic of talent management has received a remarkable degree of interest from practitioners and academics alike. Despite all that is known on talent management and its importance in the organisations there's still a lack of a universal definition of talent management from most research reviewed. Below are some of the definitions that have been coined for talent management.

According to Lewis and Heckman (2006:139), given the number of consulting organisations engaging in talent management and the growing number of articles and books on the topic, people may perceive "talent management" as being a well-defined area of practice supported by extensive research and a core set of principles. However, this is not the case. A review of the literature focused on talent management reveals a disturbing lack of clarity regarding the definition, scope and overall goals of talent management.

Blass (2007:4) states that in considering the studies carried out to date, and the cases published as articles in the management press, it becomes clear that different organisations are seeking to achieve different outcomes from their talent management systems, while all are seeking to achieve some form of talent management. CIPD (2006:7) states that the definitions of talent management are often based on selective self-reports of executives and not on data or research-based findings. It is even argued that talent management is just a rephrasing of already existing phenomena, for example, the standard solutions to HR practices.

For the purpose of this research the definition by Hopkins (2011:1) that defines talent management as a set of integrated organisational HR processes designed to attract, develop, motivate, and retain productive, engaged employees. The goal of talent management is to create a high-performance, sustainable organisation that meets its strategic and operational goals and objectives will be utilised.

2.1 Business structure

Hao, Kasper and Muehlbacher (2012:47) identify that business structure can either strengthen the implementation of any business strategy or pose as a barrier to its effectiveness. Louw and Venter (2011:541) add that it is pointless to have a good strategy on paper but that is not practical to implement. Organisational structure is one element that can pose as a limitation and render the implementation of the strategy unpractical.

A centralised organisation often houses its primary decision makers or executives in a central headquarters with offices and meeting areas for leaders to discuss business. This can become a challenge in talent management, because talent management is about the employees and for the employees hence should not be far removed from them. However, a centralised approach can theoretically provide an advantage by ensuring that there is a shared common vision and that all operations move towards achieving it.

3. PROBLEM INVESTIGATED

Reilly (2000:9) maintains that different business structural models exist which organisations could consider to improve their service delivery, reduce costs and enable them to focus on their core business. It is important for organisations to contextualise the various business structural models to establish which models will be the most appropriate within their business environment and ensure overall strategic success. To understand the problem it was important to understand the environment within which this study was conducted.

Debswana Diamond Company (Pty) Ltd is a unique partnership between the Government of the Republic of Botswana and the De Beers Group (Anglo Platinum has recently acquired the De Beers Group). The primary activity of the company is diamond mining and associated processes. Debswana operates the Orapa, Letlhakane, Jwaneng and Damtshaa Mines. The four mines have contributed enormously to the economic growth of Botswana through diamond revenue. Debswana's mining operations have been largely responsible for

transforming Botswana from an agriculturally based economy in the 1960s to a country that has consistently displayed one of the highest economic growth rates in the world.

Debswana as an organisation recently changed its strategy in pursuit of being a high performing organisation; as a result, it had to move towards a more centralised approach to talent management in alignment with its overall business strategy. As part of this movement, a business review was conducted and its key findings indicated that there was substantial fragmentation and duplication, spans of control were low and the ratio of core to support personnel was substantially below global benchmarks. This review necessitated the need for organisational realignment. The organisational restructuring necessitated the move from a more decentralised model to a more centralised model.

Shah (2010:289) argues that as shown through literature, organisation can benefit from either decentralisation or centralisation. When a move is made towards either structure, it is important to determine the implications or effects on implementing the organisational strategy and all other operational strategies. Hao, Kasper and Muehlbacher (2012:47) identify that the business structure can either strengthen the implementation of the strategy or pose as a barrier to its effectiveness.

The problem being investigated in this study is the influence of perceptions of employees on the implementation of talent management and also to determine if the change in structure has an impact on how talent management is implemented in the organisation.

4. RESEARCH OBJECTIVES

The main purpose of this study was to get an understanding of whether the centralised approach had an impact on the perceived effectiveness of talent management implementation and to identify other factors that could contribute to the success of talent management. The specific research objectives were:

The **aim** of the research study was:

- Research objective 1: To investigate the overall perceived effectiveness of a centralised talent management approach in implementing talent management initiatives. Research objective 2: To determine the challenges faced by the HR/training/talent management department in implementing talent management policies and strategies in a centralised organisation.

5. RESEARCH METHODOLOGY

Research approach, sampling and procedure

Because the researcher wanted to ensure that the sample had respondents from different groupings (general workers, HR/training/talent management practitioners, line managers and supervisors as well as senior management), stratified random sampling was chosen as the appropriate method of sampling. During stratified random sampling, the population is divided into different groups, called strata, and a simple random sample is taken from each stratum (Bless & Higson-Smith, 1995:91). From each stratum a sample, of pre-specified size, is drawn independently. Then the collection of these samples constitutes a stratified sample. If a simple random sample selection scheme is used in each stratum, the corresponding sample is called a stratified random sample. Strata should be internally homogeneous and should differ very much from each other.

Every stratum has its own sample size. Taking into consideration all the above factors about sampling methods and sample size, the researcher distributed structured questionnaires to 300 identified employees. The employees in the organisation have different bands depending on their operational level in the organisational hierarchy. The researcher divided the sample by position in the following categories: General workers, HR/training/talent management practitioners, Supervisors, Line managers and Senior management. The sample was calculated as follows: eligible population size for survey (N) = 3956 and the targeted sample size (S) = 300, therefore, sampling fraction = $300 / 3956 = 0.0758$. 250 questionnaires were received back from the 300 distributed. Hence, the response rate from the sample was 83%.

Measures and data analysis

The Statistical Package for the Social Sciences (SPSS) was used for analysis of all the numeric data in the study and quantitative content analysis was used to analyse the textual data. Statements from the open-ended questions, where relevant, were used to support the respondents' perceptions. The following methods of data analysis were utilised:

Descriptive statistics were used to describe the numerical data and extract common themes from the responses

To analyse data from the open-ended questions, quantitative content analysis was used to extract common themes through frequency counts on the open-ended question. The researcher made use of themes, but answers were not pre-coded as this would lead to bias of answers. By looking at the responses of each question the researcher was able to identify

the common themes in the answers and group them together according to the codes as determined by the researcher and interpret the results in percentages.

For research objective 2, To determine the challenges, quantitative content analysis was conducted using frequency counts on an open-ended question 5 of section C in the questionnaire. This was supported by cross tabulation of the quantitative information.

RESULTS AND FINDINGS

Factorial structure of the questionnaire and reliability

A principal axis factor analysis with a direct oblimin rotation was conducted on all the 11 items of section B closed ended questions of the questionnaire. Before conducting the factor analysis a Kaiser-Meyer-Olkin (KMO) test was conducted and according to (Kaiser 1970:412), sampling adequacy should be at least 0.60. In this research it was = 0.913, the Bartlett's tests of sphericity was significant ($P < 0.00$) which implied sampling adequacy meaning that the variables were related and suitable for structure detection.

Table 1: Total variance of the questionnaire

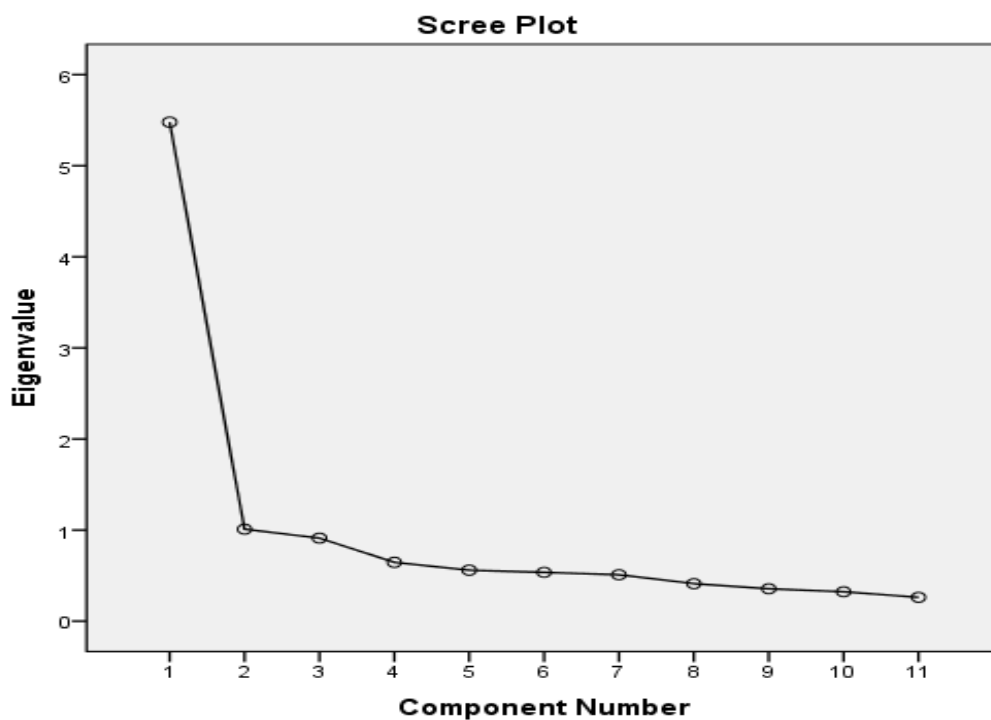
Components	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.48	49.80	49.80	5.48	49.80	49.80
2	1.09	9.18	58.98	1.09	9.18	58.98
3	.91	8.29	67.26			
4	.65	5.87	73.14			
5	.56	5.09	78.22			
6	.54	4.87	83.09			
7	.51	4.63	87.72			
8	.41	3.74	91.46			
9	.36	3.23	94.69			
10	.32	2.93	97.62			

11	.26	2.38	100.00			
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Only the items with high eigenvalues were utilised to identify the important factors contributing to perceived centralised talent management effectiveness. As can be seen from Table 1, there are only two factors above 1 although the first one is much larger with total variance of 49.80% while the second one has 9.17%.

These results indicate that there is a strong first factor. Thus, for the purpose of this research only one factor will be extracted, namely the implementation of talent management. This was important for the research, as the questionnaire had been intended to measure one underlying factor. The main factor under study was the overall perceived effectiveness of the implementation of a centralised talent management approach.

Figure 1: Screeplot of the factors extracted from the questionnaire



The total variances and scree-plot showed that two factors could be extracted but it is clear that there was only one strong factor, attributing 49.80% of the variance. Hence, only one factor was extracted and this factor was termed implementation process.

The reliability analysis was performed on the one factor as determined by the factor analysis results and the result was 0.91. Besides the analysis on the one factor, item analysis was also

performed and all items were above 0.85 which is good. The correlation per item show that the average score was above .60 and the results are indicated below.

Table 2: reliability and validity of questionnaire

Item description	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation
I understand what it means to be defined or labelled as talent by my organisation. (B1)	.89	.67
I have a full understanding of what talent/training management department does. (B2)	.89	.68
Talent management is freely and openly communicated to all employees at all levels in the organisation. (B3)	.89	.69
Talent management initiatives are of benefit to me E.g.; training and development. (B4)	.88	.74
I am satisfied with the way these talent management initiatives are implemented. (B5)	.89	.67
The line managers responsible for implementing talent management consider it a top priority. (B6)	.89	.55
Talent management strategy is implemented at operational level. (C7)	.89	.60
Talent management is driven with such importance in Debswana. (C8)	.88	.70
The talent function contributes to the success of the organisation as a whole. (C9)	.89	.63
The organisation has the necessary talent internally to grow. (C10)	.90	.45
The talent programme builds a detailed profile of your employees. (C11)	.89	.55

Research objective 1: The Overall perceptions of centralization of talent management function and determine the factors that influence the perceptions

To determine the overall perceptions the results on the perceptions of centralization of talent management were analysed using descriptive statistics and inferential statistics. The research question was, what are the overall perceptions of talent management and its implementation in the organisation? The results are illustrated in table 3 below.

Table 3: Content analysis on the overall effectiveness of centralized talent management

	Themes	Frequency	Percentage
1	Very effective	79	30%
2	Not effective	89	36%
3	Not sure how effective it is	56	22%
4	Others	26	12%
	Total	250	100%

From Table 3 it is evident that 36% of respondents felt that talent management implemented on a centralised basis was not effective and 22% stated that they were not so sure how effective it was, while only 30 % thought it was effective. Overall, respondents considered talent management on a centralised basis as not being effective. However, to give a broader view on talent management and its overall effectiveness on a centralised basis, different biographical groups were tested to check for significant differences in perceptions. The results are presented in Table 4 below.

Table 4: Overall perceptions of centralization of talent management function

Probability of differences between sample groups at $p \leq .05$. (Chi-Square test co-organisation that data is normally distributed)						
DIFFERENTIATORS	GROUP A	GROUP B	GROUP C	GROUP D	Significance	Decision
Gender	Men Mean= 34.12 Sdv =7.89	Women Mean= 30.77 Sdv = 7.93			.001 (Independent samples T-test)	Reject Null hypothesis
Age (years)	18-25 Mean = 31.33 Sdv =6.54	26-35 Mean= 32.99 Sdv=8.43	36-50 Mean= 32.93 Sdv=8.01	Above 50 Mean= 37.25 Sdv=7.46	.245 (Independent samples Kruskal Wallis tests)	Retain Null hypothesis
Qualification	Form 5/Matric Mean= 30.26 Sdv=6.96	Post Form 5 certificate Mean= 30.30 Sdv=7.95	Apprentice ship Mean= 33.47 Sdv=7.38	Universty degre/dp Mean= 34.53 Sdv=8,58	.000 (Independent samples Kruskal Wallis tests)	Reject Null hypothesis
Area	Gaberone Mean= 31.26 Sdv=8.43	Jwaneng Mean= 32.87 Sdv=7.43	Orapa/lth Mean= 34.09 Sdv=8.57		.006 (Independent samples Kruskal Wallis tests)	Reject null hypothesis
Position in organisation	General worker Mean= 29.95 Sdv=7.27	Human Resources Mean= 33.15 Sdv=7.80	Supervis/l managrs Mean= 33.26 Sdv=7.99	Managem ent Mean= 40.30 Sdv= 6.25	.000 (Independent samples Kruskal Wallis tests)	Reject Null hypothesis
Length of employment (Years)	-10 yrs Mean= 33.45 Sdv=7.90	11-20yrs Mean= 32.88 Sdv=7.60	21-30yrs Mean= 31.25 Sdv =8.73	30+ yrs Mean= 33.75 Sdv=8.12	.399 (Independent samples Kruskal Wallis tests)	Retain Null hypothesis

A significant difference was found between the perceptions of males and females ($p=.001$). Male respondents were more positive about the effectiveness of talent management on centralised approach, showing a mean of 34.12 compared to women, who showed a cumulative mean of 30.78. Respondents holding different academic qualifications also

perceived talent management differently ($p=0.000$). Those who were employed by the mine through apprenticeship and those who have university qualifications, perceived talent management more positively than those with only matric and post-matric certificates. University degree or diploma holders showed a mean of 34.53, followed by apprenticeship holders with a mean of 33.47, post-matric certificate holders with a mean of 30.30, and lastly those with only a matric certificate had the lowest mean of 30.26.

There was also a significant difference in perceptions of talent management based on position ($P=0.000$). Senior management held a more positive perception, showing a mean of 40.30, followed by line management /supervisors with a mean of 33.26, human resource practitioners 33.15 mean and lastly general workers with a mean of 29.95. The perception of talent management also differed significantly when analysing results based on location, Orapa/Lethlakane showed a high mean of 34.11, followed by Jwaneng with a mean of 32.87 and lastly Gaborone with a mean of 31.26.

From the research conducted it was evident that talent management implementation in the organisations using a centralised approach was perceived as ineffective by some respondents and effective by others in different demographic groups.

Senior management, line managers and supervisors perceived talent management on a centralised level to be very effective as it allowed for uniformity in policies and functions and reduced duplication of roles. It allowed management to provide effective leadership, however general employees perceived it ineffective as it created a gap between them and management and it excluded certain groups of employees. Below is a list with the five most frequent-statements on effectiveness made by respondents.

In this study, gender played a huge role regarding perceptions. Male respondents overall perceived talent management more positively than female employees. The reason could be that the research was conducted in mining organisations and males dominate the mining industry. This means the ratio of men to women was higher in the sample. In addition, when women are in a male dominated environment they tend to feel overlooked and unrecognised in most of the initiatives implemented in the workplace.

Respondents in different positions also accounted for the most significant differences in perceptions. The reason is that communication about talent management is limited to line managers, human resource practitioners and top management. The general workers are not aware of talent management and are therefore unable to gauge its effectiveness.

Dries and Pepermans (2009:212) argue that talent management, as a process requires differentiation of employees by grouping employees into either high potential or non-high potential. It is this differentiation that may cause other employees to be disgruntled with talent management practices, especially those in the non-high potential group of employees. Gelens, Dries, Hofmans and Pepermans (2013:350) conducted a study that focused on perceived organisational justice and its effect on talent management. They found that high potentials and non-high potentials could have different perceptions of the distributive justice of talent management practices.

Research objective 2: Challenges in implementation of centralised talent management

The HR department is the talent custodian and this role is integrated with other HR functions that support talent management implementation, such as training and development, performance management, and succession planning, failure in one aspect therefore rules out their overall effectiveness.

The results are shown in Table 6 below.

Table 6: Challenges faced in the implementation of a centralized talent management strategy

	Themes identified	Frequency	Percentage
1	Resource allocaton, talent management tools	63	34%
2	Role of line and to management	41	22%
3	Communication and feedback system	34	18%
4	Shared ownership	48	26%
Total		186	100%

From table 6 above the following were identified as challenges in the implementation of talent management strategy within centralized organisations.

Shared ownership: Respondents identified talent ownership as one major challenge for HR in the implementation of a centralised talent management approach. Many line managers' view it as an HR function while HR practitioners believe it should be a shared responsibility between the two. From the findings of this study it is evident that talent management is a shared responsibility and that lack of cooperation between these parties will render the talent strategy ineffective. In a centralised organisation where there is a wider gap between line managers

and the HR function, there is a need for more concerted effort to ensure cooperation between these parties in implementing talent strategies.

From the results it can be noted that most respondents did not understand the role of line management or were not sure of the role they played; as a result they answered this question in a neutral way. The results show a gap in communication about the implementation of talent management between the custodians of talent management and those who should benefit from its implementation. Such a gap will have to be closed to insure successful implementation. Line managers need to be active in talent management implementation process, because they are the ones who work closely with employees and who can rate the employees' performance.

6. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

It is important to note that a talent management strategy cannot be implemented in a vacuum but it needs to be aligned with the business strategy and its purpose must be to assist the organisation in reaching its strategic goals. From the research it can be noted that the organisational structure has an impact on how talent management is implemented and as result how its perceived by the stakeholders in the organisation. It is therefore recommended that:

- Communication of talent management should be open and flow across all levels of Employees.
- Line management should work in cooperation with HR to ensure successful implementation.
- A comprehensive monitoring system with key measuring tools at each level should be put in place to measure the robustness of the program and its effectiveness in identifying, developing, rewarding and retaining talent.
- Line managers should offer support to HR and form partnership with HR in implementing the talent management strategy to ensure its success as they are the ones who work closely with employees.
- The organisation should also create a system that allows for all talent at operational levels to be identified and developed; the talent programme should not only apply to a select few.

7. CONCLUSIONS

The main purpose of this study was to get an understanding of whether the centralised approach had an impact on the perceived effectiveness of talent management implementation and to identify other factors that could contribute to the success of talent management. The specific research objectives were:

To investigate the overall perceived effectiveness of a centralised talent management approach in implementing talent management initiatives.

To determine the challenges faced by the HR/training/talent management department in implementing talent management policies and strategies in a centralised organisation.

It is evident from this research that talent management is not a passing fad but it is part and parcel of the overall growth strategy of the organisation. As a result, organisations are restructuring their organisational strategy to ensure integration of talent management into their organisations. There is a close link between driving improved business performance and identifying, developing and retaining talented people. Talented people drive their organisations forward owing to their ability to execute effectively, deliver results and challenge status quo.

Even though the organisational structural model has an influence on how talent management is implemented and on the perception of its effectiveness, there are other various factors that contribute to the success of talent management. The findings of this study indicate that certain factors influence the implementation of talent management and they are integration with other HR functions, alignment with strategy, communication, resource availability, and ownership of the program.

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EN ROUTE: A STAKEHOLDER INCLUSIVE APPROACH FOR MULTIPLE STAKEHOLDER ENGAGEMENT

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EN ROUTE: A STAKEHOLDER INCLUSIVE APPROACH FOR MULTIPLE STAKEHOLDER ENGAGEMENT

ABSTRACT

Amidst challenges of economic uncertainty, resource constraints, social movement and unrest, increased pressure is placed on organisations to address diverse stakeholder expectations. Stakeholders are central to the success of organisations, which necessitates engagement, transparency and responses to stakeholder concerns. The concept of stakeholder engagement represents organisational endeavours to involve strategic stakeholders in decision-making through participation and mutual influence of actions to ensure organisational sustainability and competitive advantage.

The digital network revolution brought about a 'collaborative turn' that allows innovative and engaging opportunities to obtain valuable information from stakeholders through two-way conversations. These forces stimulated a shift from modern to postmodern or critical ideology. In this context, the strategic communication function is not only a tool to achieve the objectives of organisational management, but an all-encompassing process focusing on purposeful communication to ensure inclusiveness of all voices. The role of the strategic communication professional is to facilitate a stakeholder engagement strategy that elicits dialogue, consultation

and reciprocal relationships that are evolutionary and mutually defined. To achieve this, stakeholder inclusivity is crucial to give stakeholders a right to be heard and simultaneously accepting the responsibility of accountability.

Despite consensus in existing literature on the significance of effective stakeholder engagement, no common understanding on what it entails exists. Another gap is to approach stakeholder engagement from multiple stakeholder vantage points and the role of the strategic communication professional in facilitating the stakeholder engagement process. To address this need for theory building in the field, this study proposes a stakeholder engagement process model from a critical, strategic communication perspective to provide a strategy for continuous engagement with strategic stakeholders and short-term secondary stakeholder engagement.

This research project consists of two phases. Firstly, a conceptual framework for stakeholder engagement will be developed based on an exploration of existing literature and a document analysis of selected JSE listed organisations' sustainability and annual reports to identify the key elements necessary for a multiple stakeholder engagement process. Secondly, quantitative testing will be done through survey research to test the pragmatic relevance of the proposed framework in practice at JSE listed organisations to build forth towards a stakeholder engagement process model.

The proposed model is aligned with the concept of stakeholder inclusivity, a philosophical underpinning of the King IV Report and the AA1000APS principles of materiality and responsiveness. The stakeholder engagement process outlined by the AA1000SES will provide guidelines on the purpose, scope and stakeholders involved in the particular engagement and outline a process for the organisation to plan, prepare, implement and evaluate the engagement. The model allows for both high-level engagement towards sustainable relationship building and low-level engagement to foster working relationships. From a critical perspective, the strategic communication function becomes the single coordinated effort in which all communication activities work collectively to create synergy through strategic communication.

Various considerations are arguably required to integrate a stakeholder engagement strategy: organisational and leadership agility, organisational culture, the existence of organisation-stakeholder relationships and the contemporary role of the strategic communication professional as facilitator to create platforms for dialogue and participation.

PSYCHOLOGICAL CAPITAL AND WORK ENGAGEMENT... CONNECTING THE DOTS IN A SOUTH AFRICAN POULTRY HATCHERY.

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PSYCHOLOGICAL CAPITAL AND WORK ENGAGEMENT... CONNECTING THE DOTS IN A SOUTH AFRICAN POULTRY HATCHERY.

ABSTRACT

This study supplements the growing body of research on Positive Organisational Behaviour by providing insight into how the relationship between psychological capital (PsyCap) and work engagement manifests within a South African poultry industry context among a sample of predominantly black, female employees (N=183).

A quantitative, cross-sectional design was used. Participants were assessed by means of the Psychological Capital Questionnaire and the Utrecht Work Engagement Scale. Results indicated that there is a positive relationship between PsyCap and work engagement and that PsyCap can predict work engagement.

On a practical level, findings could provide the organisation with a competitive advantage through its employees, therefore, it should consider training interventions to enhance the

psychological capital levels of employees as a pathway towards the promotion of work engagement.

1. INTRODUCTION

The poultry industry in South Africa is the largest segment of the agricultural sector and contributes more than 16% of its share of Gross Domestic Product (GDP); approximately 108 000 people are directly and indirectly employed in this sector (Bolton, 2015:17). This particular industry is under pressure to compete in global markets, as the current supply of chickens is not adequate to satisfy the demand. This results in supplementing the shortfall by cheap imports from other countries, for example the United States of America. Although South African poultry farmers are efficient, high feeding costs, rising electricity tariffs and other expenses cause South African farmers to be less competitive. Continuous weakening of the rand will furthermore increase the cost of imported inputs and equipment which will expand the barriers to expansion and entry to the market (Bolton, 2015:18).

Considering the hurdles mentioned, it is no wonder that managers in today's challenging business landscape increasingly realise that economic capital alone is not sufficient to ensure sustained job performance and work engagement and that there is a significant positive impact when the value of human capital correlates with the corporate strategy (Luthans *et al.*, 2004a:45). In fact, human capital, which entails "developing and managing employees' knowledge, experiences, skills and expertise" is increasingly regarded as a key factor for success in obtaining a competitive advantage (Luthans *et al.*, 2004a:45).

To give organisations a competitive advantage, it is crucial to have employees who are engaged in their work; employees who are devoted and skilled to reach the organisational goals. Work engagement plays a significant role in an organisation as disengagement of the employee leads to a lack of motivation and commitment - emotions which impacts negatively on an organisation. The understanding of the relevance and importance of the Psychological Capital (PsyCap) constructs and the relevant interventions to enhance these constructs, could be the answer to problems relating to work engagement.

This study examines the relationship between Psychological Capital levels and work engagement among a sample of predominantly black female employees in the South African poultry hatchery industry. No similar study has ever been conducted in this specific sector and the study aims to establish whether the benefits of psychological

capital in relation to job performance as suggested by previous research, could be confirmed in this target group.

In what follows, relevant previous research findings in the literature will be highlighted, followed by an outline of the study purpose and research method. The article concludes with a discussion of findings and recommendations for future research.

2. LITERATURE REVIEW

2.1 Psychological capital

PsyCap is defined as “an individual’s positive psychological state of development and it is characterised by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive contribution (optimism) about succeeding now and in the future; (3) persevering towards goals, and when necessary, redirecting paths to goals (hope) in order to succeed, and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success” (Luthans, Youssef & Avolio, 2007b:3; Youssef-Morgan, 2014:132).

Luthans *et al.*, (2004a:46) state that PsyCap encompasses more than human and social capital and foremost consists of ‘who you are’ rather than ‘what or who you know’. A similar view is expressed by Luthans, Luthans and Avey (2014:191) who state that psychological capital goes beyond economic capital (what you have), social capital (who you know) and what you know (human capital) ... it is rather a matter of ‘who you are’ and ‘what you have become’. Luthans *et al.*, (2007a:542) theorise that there are certain criteria which must be met for a resource to be defined as psychological capital, namely theory and research-based, be validly measurable, state-like (therefore open to change and development) and have performance impact. The four resources which met these criteria best were efficacy, hope, resilience and optimism; it follows that state-like constructs can be developed and enhanced through training and other interventions (Luthans *et al.*, 2010:44; Luthans *et al.*, 2014:194).

Slocum and Hellriegel (2011:87) posit a simple definition for **hope**, namely *hope = mental willpower + way power to achieve goals*. However, hope has taken on a more defined and theoretical meaning when in 1991, Snyder and colleagues defined hope as “a positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed energy), and (b) pathways (planning to meet goals)” (Snyder, 2002:250). Snyder states that agency and pathways, or simply put “the will and the way” are interrelated and operate in a combined process (Luthans & Jensen, 2002:306). Snyder (2002:251) posits that although the components of agency and pathways are

complimentary, they are not synonymous and each of these components indicates different characteristics of the thought process. Neither of these two components on its own is sufficient to constitute hope as their intentions differ, as set out in the previous paragraphs.

To understand the relationship between agency and pathways, Nel and Boshoff (2014:2) as well as Luthans and Jensen (2002:306) explain the following: pathways thinking focuses on a person's ability to find an alternative way to reach a goal when the original path has become obstructed. Nel and Boshoff (2014:2) posit that high-hope people have more confidence in finding an alternative route and are more decisive in their actions. Agency thinking refers to having the motivation and desire to find an alternative route to reach a goal and 'to stick to it' when challenges arise (Luthans & Jensen, 2002:306). In challenging times when stress levels are high and excellent work performance is required, it is of critical importance that employees display heightened sense of both willpower and way power (Luthans & Jensen, 2002:307). Luthans, van Wyk and Walumba (2004b:516) state that in an organisational setting, the lack of hope can have a destructive effect and therefore it is crucial that leaders and managers enhance and develop a sense of hope among their employees.

Bandura (1997:42) defines **efficacy** as "an individual's perceptual judgement or belief of how well one can execute courses of action required to deal with prospective situations" and furthermore state that "it is not a decontextualized trait". Stajkovic and Luthans (1998:66) describe self-efficacy as an individual's ability to activate his/ her motivation and internal resources to execute a specific task, stemming from the conviction and belief of the individual that he/ she can do what is necessary.

With regards to the impact / results of efficacy, Luthans (2002b) found that efficacy leads to *inter alia* positive choices, motivational effort, perseverance, positive thought patterns and resistance to stress. Luthans (2002b) furthermore states that high levels of efficacy results in high levels of goal setting, performance and achievement. This is confirmed in research done by Stander, Diedericks, Mostert and de Beer (2015:3) which found that highly efficacious individuals are committed to their goals, show strong perseverance and confidence in challenging circumstances and are focused on acquiring knowledge and new skills to overcome their shortcomings. On the other hand, individuals with low self-efficacy tend to avoid challenging tasks, are non-committal and would rather focus on their own negative feelings when facing adversity than proceed with the task at hand.

Schaufeli and Salanova (2013:400) have found that work-related efficacy correlates with work engagement as it leads to great commitment to the task at hand and the desire to spend time and energy in reaching the desired outcomes. To enhance efficacy, Bandura (1997) has identified four sources of efficacy development namely: task mastery,

modelling successful individuals, persuasion by respected others to be more confident and psychological / emotional wellness (Luthans *et al.*, 2010:46).

In earlier years, resilience was thought to be an extraordinary quality that only few people possess, but Masten (2001:235) posit that **resilience** comes “from the everyday magic of ordinary, normative human resources... and has profound implications for promoting competence and human capital in individuals and society.” In layman’s terms, resilience is regarded as an individual’s ability to ‘bounce back’ from adversity, uncertainty and conflict (Luthans, 2002a:702). Luthans *et al.* (2014:193) are of the opinion that on the one hand, hope, efficacy and optimism are the proactive constructs of PsyCap, whilst resilience, on the other hand, is more of a reactive construct on which individuals draw upon when they face adverse circumstances.

In their research, Luthans *et al.*, (2007a:546) discovered that in adverse circumstances, resilience is enhanced by positive emotions and that individuals become more resilient each time they ‘bounce back’ effectively from a setback. This indicates that resilience has a state-like quality, which is a criterion of a PsyCap resource.

Another study by Luthans, Avolio, Walumba and Li (2005:269) focusing on the relationship between resilience and performance, revealed that there was a direct relationship between the resilience of Chinese workers and their job performance.

The deduction can therefore be made that resilience, together with hope and self-efficacy as discussed in the previous sections, are integral to an individual’s cognitive and emotional state of being and the level of these constructs has a direct impact on the level of performance in the work environment.

Seligman (1998:4) defines **optimists** as people who perceive negative events confounded to a specific event, something that is not their fault and beyond their control. They are unfazed by setbacks and see misfortune as challenges. Carver and Scheier (2002:232) on the other hand believe optimism relates to the expectation that an increase in effort will result in a desirable outcome. Furthermore, they posit that when individuals have this kind of positive expectancy they will continue to increase effort, even when facing adverse circumstances. Pessimists on the other hand, often lack the desire for a positive outcome in such a degree that there is no effort coming forth to reach their goal. From this, they deduce that optimists will fare better than pessimists in the workplace as optimists have the drive to put effort in reaching the desired outcome.

Research has found that optimism has also been applied in organisational settings and therefore that the abovementioned attributes of optimism impacts on a person’s performance in the workplace (Luthans & Youssef, 2004:154). Luthans *et al.* (2007b:89) state that in favourable conditions, optimists tend to be thankful for their successes and continue to capitalise on opportunities whilst developing new skills and abilities. In

adverse circumstances, optimists learn from their mistakes, identify what can and cannot be changed and therefore optimistic employees are regarded as assets to organisations as they are more equipped to deal with challenges in the workplace. Finally, Luthans *et al.* (2014:193) state that the result of high levels of PsyCap in individuals is most noticeable in their hopeful demeanour when establishing goals, their optimistic expectations, the confidence to succeed and embrace new challenges and the resilience to work through adversity.

2.2 Work engagement

Engagement at work is conceptualised from diverging perspectives that may refer to it, for example, as a state, a trait, a behaviour, or in variations of the concept such as “work engagement” and “employee engagement” (Rothmann, 2017: 318). According to Schaufeli (2014) as quoted by Rothmann (2017:318), “the term work engagement refers to an individual’s relationship with his or her job, while employee engagement refers to the individual’s relationship with his or her job as well as organization”.

The relational model of employee engagement as originally developed by Kahn considers psychological conditions of meaningfulness, safety and availability, which are embedded in relationships at work, as vital to foster engagement (Kahn & Heaphy, 2014:164). This study, however, is primarily focused on engagement as a work-related state which is characterised by a positive attitude, high levels of energy and commitment to work which results in optimal job performance (Bakker & Demerouti, 2007:309). For this reason, the study finds best alignment with the definition of Schaufeli and Bakker (2002:74), who define work engagement as “a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption...(and) refers to a more persisted and pervasive affective-cognitive state that is not focused on any object, event, individual or behaviour”. The vigour component refers to a high level of energy, a strong sense of work ethic, mental resilience in the workplace, the desire to put effort and time into one’s work and the ability to persevere when times become challenging (Schaufeli & Bakker, 2002:74). Schaufeli and Bakker (2002:74) state that dedication is characterised by feelings of inspiration, pride and a sense of significance. The third component of engagement, absorption, is characterised as “being fully concentrated and deeply engrossed in one’s work, whereby time passes quickly and one has difficulties with detaching oneself from work” (Schaufeli & Bakker, 2002:75).

Bakker and Demerouti (2007:312) developed the job demands-resources model which positions work engagement as an antipode for burnout. This model posits two factors which impact on vigour, dedication and absorption, namely (1) job resources, and (2) job

demands. According to Bakker and Demerouti (2007:312), job resources refer to physical, psychological, social and organisational aspects of the job that (a) assist in goal achievement; (b) lessen job demands; and (c) enhance personal growth and development. Job demands, on the other hand, refer to the physical, psychological, social and organisational aspects of the job that requires consistent cognitive and emotional skills and effort which could result in adverse work conditions e.g. high work pressure, an unfavourable environment and emotionally draining experiences. It can be deduced that PsyCap is regarded as a job resource as it encompasses all the necessary requirements to achieve goals and enhance personal growth by the presence of the four PsyCap constructs: hope, resilience, optimism and efficacy.

2.3 Relationship between constructs

Previous research has indicated that the presence of PsyCap elements strongly correlates with organisational outcomes. Avey, Reichard, Luthans and Mhatre (2011:149) conducted a meta-analysis of the impact of positive psychological capital on employee attitudes, behaviours and performance. The results provided evidence-based support that PsyCap plays an important role in predicting the attitudes and behaviours of employees and that PsyCap has a strong and significant correlation with employee performance and other desirable organisational outcomes. In a study conducted by De Waal and Pienaar (2013:7), there was a positive relationship between PsyCap and work engagement. Their study results concurred with findings of a study that was conducted in 2007 by Cordery, namely, that work engagement is a strong predictor of hope, efficacy and optimism. Bakker and Demerouti (2008:221) posit that engaged individuals are “willing to go the extra mile” and that the presence of elements such as vigour and dedication constitutes high levels of work engagement.

Regarding the relationship between efficacy and work engagement, Sweetman and Luthans (2010:59) believe efficacy relates directly to each of the three components of work engagement: vigour, dedication and absorption, as research has indicated that high levels of efficacy increases the levels of energy and effort an employee exhibits when completing a task, as well as resulting in an employee becoming so engrossed in his work that he / she forgets about time.

Sweetman and Luthans (2010:60) also propose that optimism relates directly to the components of dedication and absorption of work engagement, as an employee with high levels of optimism feels in control during task management and this serves as a buffer against job demands. The deduction can thus be made that, since the optimist expects a

positive outcome, he / she therefore puts effort into the task, which in turn leads to higher levels of engagement with the task at hand.

Hope and work engagement, and specifically the components of vigour and dedication, are directly related, according to Sweetman and Luthans (2010:60). The authors define hope as “the motivated, persistent pursuit of goals and proactively determined pathways to goals” and is perceived to be an antecedent to vigour, as hope enables the energy to be determined to meet a goal; to stay motivated in adverse circumstances and to stay focused and dedicated. Furthermore, the authors indicated that hope could be regarded as a requirement for work engagement, as the absence of hope results in no willpower to accept challenges and no way-power to find a path to achieve the necessary goals (Sweetman & Luthans, 2010:61).

The authors (2010:61) posit that the fourth construct of PsyCap, namely resilience, relates directly to all three components of work engagement: vigour, dedication and absorption. Resilience comes into operation when the individual is motivated by his / her work engagement and thus exhibiting the vigour of persistence and perseverance. According to Sweetman and Luthans (2010:62), resiliency resources furthermore produce a ‘buffering’ effect, whereby an individual continues to be engaged with his / her work, even when job demands are high. Frederickson as cited by Sweetman and Luthans (2010:62) has found that not only does resilience act as a buffer against job demands; the presence of resilience can also undo the negative impact of stress of past adversity. This is done by broadening one’s cognitive strategies and by understanding and interpreting the current environment, which in turn leads to building endurance and perseverance.

3. PROBLEM INVESTIGATED

According to Luthans et al., (2004b:512) countries worldwide must balance fear and despair with hope and opportunity, and the poultry industry in South Africa is certainly no exception for it, too, is subject to this balancing act.

Given two decades of research on work engagement with no substantial improvement in employees’ levels of engagement at work, it is important that researchers need to make a concerted effort to develop a more comprehensive understanding of the drivers, psychological processes and conditions that would enhance engagement at work (Rothmann, 2017:335). Studies related to PsyCap in the South African context would be highly beneficial particularly as a potential predictor of work engagement as South Africa provide unique organisational context which has not yet been explored in depth in this respect. Most of the research in the field of PsyCap was conducted by researchers in first world countries such as the United States of America and thus there is a need for

research to be conducted in other countries and contexts to generalise the importance thereof in the workplace. Existing empirical research on PsyCap conducted across the world are, for example, based largely on White samples, and there is little research focused on race and ethnicity or individuals at the intersections of gender, race, and ethnicity (Rao & Donaldson, 2015:272). A few South African based studies attempted to address some of the gaps noted (see for example De Waal & Pienaar, 2013), but it is not clear how the relationship between PsyCap and work engagement might manifest within the sector of interest to this study.

In view of what has been said thus far, it would be of interest to determine the nature of the relationship between PsyCap levels and work engagement amongst a sample of predominantly African females in the poultry industry. More specifically, the study aims to answer the following questions: Is there a positive relationship between each of the sub-dimensions of PsyCap and work engagement and if so, could PsyCap predict work engagement in the sample group of interest?

4. RESEARCH OBJECTIVE AND HYPOTHESES

This study aims to examine the relationship between Psychological Capital levels and work engagement in a South African poultry hatchery. With the set objective in mind, the research aims to test the following hypotheses:

- H1-0: There is no relationship between PsyCap and work engagement ($b=0$).
- H1-1: There is a statistically significant positive relationship between the aggregate concept PsyCap and work engagement.
- H1-2 There is a statistically significant positive relationship between the sub-dimensions of PsyCap – a) hope, b) efficacy, c) resilience, d) optimism – and work engagement.

Results will afford managers with deeper insight into ways in which employees can be supported to be mentally and emotionally prepared for the workplace challenges so that they are devoted and skilled to reach organisational goals despite the challenges experienced in the poultry hatchery industry.

5. RESEARCH METHOD

5.1 Research approach

A quantitative research approach and a non-random, convenience sampling strategy was followed to uncover potential relationships between the variables of interest. It is important to note that this type of sampling was chosen due to limited resources in terms

of time, money and personnel and the easy accessibility of the sample group, but, due to disadvantages such as that it lacks sampling efficiency and precision, findings cannot be generalised to the larger population and should be considered only relevant to the sample group instead (Etikan, Musa and Alkassim (2016:1).

5.2 Research procedures

The empirical study was carried out in a poultry hatchery in the North-West Province. Respondents were selected based on their availability and willingness to participate in this study. The sample (n = 183) consisted predominantly of female respondents (73%) and mostly between the ages of 30-39 years. The largest portion of the sample was Black (89%) and unmarried (70%) with an education level of mostly Grade 11 or less (54%).

The data collection consisted of a biographical data sheet and two scales. The biographical information included participants' gender, age, marital status, years working within the organisation and highest qualification attained.

The Psychological Capital Questionnaire (PCQ) (Luthans *et al.*, 2007b; Youssef-Morgan, 2014:133) comprises 24 items including four subscales namely hope, efficacy, resilience and optimism. Acceptable reliability coefficients (Cronbach alpha values) have been reported in studies conducted in South Africa for the four subscales of PsyCap, ranging from .69 (lowest value) to .91 (highest value) in the respective studies of De Waal & Pienaar (2011:5) and Simons and Buitendach (2013:6).

The Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2002) is a 17-item self-report questionnaire that measures work engagement by means of three subscales namely vigour, dedication and absorption. The UWES has been found to have acceptable reliability coefficients as reported in South Africa and internationally and reliability for the three constructs ranged between .78 and .89 in a South African study (Simons & Buitendach, 2013:6). In this study, items from both questionnaires were measured on a 6-point Likert scale.

After obtaining clearance from the ethics committee of the North West University and permission from the managing director of the company where the research was conducted, the Human Resource Manager of the company was asked to distribute the questionnaires among employees. Respondents were working different shifts throughout a 24 hour cycle and were selected on the basis of their availability at a particular point in time and willingness to participate in this study. Questionnaires in hard copy format were handed out to employees per specific shift, which they were asked to complete individually in their own time. The researcher agreed to collect the completed questionnaires by an agreed target date.

The Statistical Package for the Social Sciences program (SPSS version 2.23) was used to carry out the statistical analysis. Descriptive statistics were used to describe the data. Cronbach alpha's coefficients were used to assess the internal consistency or reliability of the measuring instruments. Spearman's correlation coefficients were used to test the relationship between PsyCap and work engagement and simple linear regression analysis was conducted to determine whether PsyCap and work engagement hold predictive values.

6. RESULTS AND FINDINGS

The primary aim of this study was to investigate the relationships between PsyCap levels and work engagement in the poultry hatchery industry. Further to this objective, the study aimed to ascertain whether PsyCap can predict work engagement. A total of 183 questionnaires were returned by the agreed target date, translating into 9.1 percent of the group targeted. The descriptive statistics calculated based on the variables included in the questionnaires are portrayed in Table 1.

Table 1: Descriptive statistics for the PsyCap and UWES Questionnaires

	N	Minimum	Maximum	Mean	Standard Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std Error	Statistic	Std Error
Self-efficacy	183	2.17	6.00	4.44	.78	-.41	.18	.04	.35
Hope	183	2.33	6.00	4.62	.76	-.83	.18	.43	.35
Resilience	183	1.20	6.00	4.17	.90	-.57	.18	.21	.35
Optimism	183	1.25	6.00	4.40	.92	-.94	.18	.76	.35
PsyCap	183	2.83	5.71	4.28	.55	-.30	.18	.07	.35
Vigour	183	1.00	6.00	4.45	1.08	-.64	.180	.46	.35
Dedication	182	1.00	6.00	4.74	1.11	-.83	.180	.31	.35
Absorption	181	1.00	6.00	4.36	1.10	-.21	.180	-.43	.35
Work Engagement	183	1.00	6.00	4.49	.97	-.55	.180	.81	.35

The results in Table 1 indicate that most participants scored high average levels of PsyCap (scored on a Likert scale ranging from 1-6; $M = 4.28$ and $SD = .55$). The deduction is therefore made that the participants perceive their levels of PsyCap to be above average. When examining the four constructs separately, it is deduced that

participants agree that they have the necessary confidence (self-efficacy) to take on challenging tasks ($M = 4.44$ and $SD = .78$); participants are inclined to persevere to reach their goals and are willing to seek different paths in order to succeed, thus hopeful ($M = 4.62$ and $SD = .76$). When participants are faced with challenging situations they are inclined to bounce back and persevere to reach their goals (resilience) ($M = 4.17$ and $SD = .90$). Participants indicate above average levels of optimism indicating their willingness to make a positive contribution to their work environment ($M = 4.40$ and $SD = .92$).

The distribution of the data was also explored with statistics relating to skewness and kurtosis as most statistical analysis assumes that the data is normally distributed, which necessitated a test for normality to verify this assumption. Regarding skewness, the four constructs of PsyCap as well as PsyCap ranges between $-.30$ and $-.94$, all being negative values. This indicates that there is a tendency of skewness to the left / negative skewness indicating that most of the values occurred on the right end / high end of the scale (1-6). In a normal distribution, the values of skewness or kurtosis are 0. This data thus indicates a deviation from a normal distribution. With regards to kurtosis, the data indicates that there is a degree of peaked distribution based on the data. The constructs with peak distributions were hope and optimism with scores of $.43$ and $.76$.

Table 1 further indicates that most participants scored high average levels of work engagement, which was scored on a Likert scale ranging from 1-6. The mean for work engagement was 4.49 with a standard deviation of $.97$. It is therefore deduced that participants perceive their levels of work engagement to be above average. From the data relating to the three elements of work engagement it is deduced that participants have higher than average energy levels and enthusiasm to fulfil their tasks (vigour: $M = 4.45$ and $SD = 1.08$). Participants are loyal and dedicated towards their work environment and tasks ($M = 4.74$ and $SD = 1.11$) and agree that they are focused on their goals and work at hand ($M = 4.36$ and $SD = 1.10$).

An analysis of the internal stability and consistency of the measurement instruments revealed that both the PsyCap questionnaire ($\alpha = 0.77$) and the UWES ($\alpha = 0.84$) demonstrated Cronbach's alpha values above the minimum acceptable levels proposed by Field (2009:678).

Closer inspection of the subscales showed that three of the four subscales of PsyCap met the minimum acceptable alpha coefficient of $.60$ (Malhotra, 2010:319). The reliability coefficient of the constructs self-efficacy and hope were $.60$, and $.67$ respectively. The PsyCap constructs of resilience (question 13) and optimism (questions 20 and 23) contained reversed scored items. It is noted that some items showed item-total correlations below 0.3 and the implied subscales had a lower coefficient when these questions were included in the data analysis (Field, 2009:678). There was however no

significant change when the variable was deleted, except for cases where the mentioned reversed score items were involved. Once the reversed score questions were excluded, the coefficients of the resilience- and optimism subscales increased to values of .57 and .62 respectively.

It is interesting to note that the reliability of resilience, which is lower than the rest of the PsyCap dimensions, is also evident in the research conducted by Amunkete (2015:43) in Namibia. Furthermore, Pallant (2010:100) notes that Cronbach alpha values are sensitive to the number of items in the scale and values below 0.5 are commonly found in scales with fewer than ten items. In view of these considerations, the score of .57 obtained for the resilience scale after deletion of one problematic item (Item 13) is deemed acceptable for the purposes of this study.

All three constructs of work engagement rendered acceptable Cronbach's alpha - vigour, dedication and absorption scored internal reliabilities of .70, .67 and .67 respectively. From this it is deduced that the reported data is suitable for analysis.

Spearman's correlations were used to determine the nature and strength of the correlations between item responses. From the findings, it is deduced that apart from resilience, the four PsyCap constructs individually as well as total PsyCap, have a positive correlation with work engagement. Total PsyCap has the highest correlation with work engagement ($r = .255, p < 0.01$), whereas hope, self-efficacy and optimism all have a correlation coefficient of .23 ($p < 0.01$). With a p-value of .60 and correlation coefficient of .03, resilience was not statistically significantly related to work engagement. H1-0 is rejected; H1-1 is accepted; H1-2 is partially accepted as H1-2a, 2b and 2d are accepted.

From Table 2 below, it is evident that there is a small to medium strength statistically significant and positive relationship between total PsyCap and WE. This confirms the research done by *inter alia* Xanthapoulou, Bakker, Demerouti and Schaufeli (2007:137) as well as follow up research done by Xanthapoulou *et al.* (2009:196), indicating that employees who are engaged in their work have high levels of self-efficacy and optimism. From these findings, it is posited that engaged employees display psychological capital which assist them to have a positive impact in their work environment. The findings were also confirmed in research conducted by Hodges (2010:63) and Simons and Buitendach (2013:8) which found that there is a positive relationship between PsyCap sub-dimensions and WE sub-dimensions. In the current study, however, it is interesting to note that resilience has the lowest reliability score and is also not statistically significantly correlated with work engagement, which suggests that further investigation of this scale in future studies is warranted.

Table 2: Spearman’s correlation coefficient for PsyCap in relation to work engagement

	Spearman’s correlation	Sig (2-tailed)	N
Self-efficacy	.23	.001	183
Resilience	.03	.60	183
Hope	.23	.001	183
Optimism	.23	.001	183
PsyCap	.255	.001	183

Values of ± 0.1 indicate a small effect, ± 0.3 indicate a medium effect and ± 0.5 indicate a large effect (Field, 2009:170).

To establish whether work engagement can be predicted by means of total PsyCap, standard multiple regression was utilised. The results of the multiple regression with work engagement as the dependent variable are portrayed in Table 3.

Table 3: Beta coefficient for the sample with work engagement as dependent variable

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	99.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,346	,549		4,277	,000	,918	3,774
	PsyCap	,502	,127	,282	3,948	,000	,171	,833

a. Dependent Variable: UWES

The standardised beta coefficient in Table 3 indicates that there is a statistically significant positive correlation between PsyCap and work engagement. The correlation between the two variables in this instance is .282. We can furthermore see that PsyCap is a statistically significant predictor of work engagement ($p < 0.01$) - H2-0 is rejected. This finding is consistent with the results of previous studies which investigated the predictive nature of PsyCap on WE *inter alia* Herbert (2011:159), Simons and Buitendach (2013:9) and Bakker and Demerouti (2008:214). In the current model, the R-square value nevertheless suggests that only 7.9% of the variability in work engagement can be

explained by PsyCap. This indicates that there are also other potential predictors that need to be taken into consideration to effect optimal levels of work engagement.

7. CONCLUSIONS

The key findings from this study revealed the following:

- total PsyCap has the highest correlation with work engagement;
- hope, optimism and self-efficacy has a positive correlation with work engagement;
- the reliability of the resilience sub-scale is relatively poor and the scale did not have a statistically significant relationship with work engagement; and
- PsyCap can predict WE.

In conclusion, the findings of this study, which are found to be consistent with previous research findings, indicate that total PsyCap plays a statistically significant and important role in enhancing work engagement. This study contributes to the literature on positive organisational behaviour constructs as the results of the study confirm previous findings which indicate that there is a positive relationship between total PsyCap and work engagement within a South African context. As far as it could be ascertained, no studies have been conducted in the poultry hatchery industry in South Africa containing the constructs of PsyCap and work engagement.

Finally, the predictive nature of PsyCap on work engagement underpins the benefits which an organisation could gain when investments are made in the enhancement of the PsyCap constructs and particularly by cultivating hope and optimism and by developing employees' sense of efficacy. By taking cognisance of the findings, the organisation would benefit by providing interventions to enhance PsyCap, as it would promote a productive environment where employees can immerse themselves in their work.

8. MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

As mentioned previously, PsyCap is a state-like construct and can therefore be developed and enhanced through training and other interventions. These constructs – hope, self-efficacy, and optimism in particular - can thus be developed in employees which will lead to greater work engagement and better organisational output. To enhance **self-efficacy**, Luthans et al., (2004a:48) propose the following approaches: mastery experiences or performance attainments; vicarious experiences or modelling; social persuasion and psychological and physiological arousal.

In order to build **hope** for positive psychological capital, Luthans *et al.* (2004a:48) propose the following guidelines: set specific and challenging organisational and personal

goals; break down the goals to make it more manageable; develop alternative or contingency pathways; acknowledge the enjoyment in the process of working towards a goal; persist in the face of challenges; use skills to distinguish when and which alternative pathways to choose; use skills to know when and how to set new goals when necessary.

To build **optimism**, Luthans *et al.* (2004a:49) suggest the following: identify beliefs that are self-defeating when dealing with challenges; evaluate the accuracy of these self-defeating beliefs and replace self-defeating beliefs with constructive beliefs.

To develop **resilience**, it is proposed to avoid negative thinking when faced with challenges; test the accuracy of beliefs and remain calm and focused when facing stressful situations (Luthans *et al.*, 2004a:49). However, some concerns regarding the resilience construct have been noted. The research done in this study as well as the research done by Amunkete as mentioned earlier - both in a Southern African context and therefore more applicable – indicates a low reliability score for resilience and invites further research to be done on this dimension of PsyCap.

8.2 Study limitations and recommendations for future research

Due to the data collection method, findings of this study should be applicable to the specific sample group within the poultry industry and has limits in terms of generalisation. The cross-sectional design does not allow for causality between the different variables to be established beyond any doubt. The data collection was conducted within a limited timeframe and from a limited group of participants and therefore only provides a snapshot of the variables at a particular point in time. The sample drawn was biased since the majority of the respondents were females; future studies could more strongly focus on obtaining male inputs as well.

As the variables are state-like and thus open for change, replication is needed over time to establish the value of PsyCap as a predictor of work engagement with more certainty. For this purpose, a longitudinal research design would be most suitable.

A further limitation of the study was that data collection took place by means of self-report measurement instruments. This method is criticised as it is prone to social desirability bias where respondents report admirable traits and refrain from reporting undesirable traits. Future studies could include additional variables for verification purposes, such as manager and co-worker's ratings.

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Competing interests

The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in conducting this research.

Author's contributions

S.B. (North-West University) was the main researcher and M.H. (North-West University) was the supervisor.

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CHALLENGES WOMEN MANAGERS ARE EXPERIENCING IN MALE-DOMINATED WORKING ENVIRONMENTS: A SOUTH AFRICAN STUDY

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Key words: African women managers, male-dominated working environments, challenges, male dominance

Abstract

The promotion and advancement of women in male-dominated environments is a topic that has raised many questions, expectations, public interest, and hope. Even though much has been done to open or create platforms for women to enter and advance in the workplace, many private organisations in South Africa remain male-dominant, especially on managerial level. The South African government plays an active role in promoting women advancement through legislation and the establishment of the Commission on Gender Equality which aims to promote gender equality and to advise and make recommendations to parliament and any other legislature with regard to any laws or proposed legislation which affects gender equality and the status of women. Despite various national and international interventions, women remain grossly under-represented at managerial levels. In male-dominated workplaces, there is a lack of women in upper-management positions, and as such ideas about the values and cultures of these organisations are formed by men because they have more resources and definitional power. Previous international research studies have found that male-dominated corporate cultures are the greatest barrier for women progression and that the dynamics that exist in male-dominated environments are substantially different from those that exist in more mixed-gender or female-dominated environments. Therefore, the study sought to explore the challenges that women managers are experiencing in male-dominated working environments in the South African context.

This qualitative study comprised a sample of seven female managers between the ages of 24 and 43, working in male dominated working environments in various industries such as legal, manufacturing, educational, and mining industries. Data were collected through one-on-one interviews and were thematically analysed. The findings of the study revealed that respondents are facing the following challenges: the requirement of out-of-role behaviour (i.e. respondents needed to adapt to male behaviour in order to succeed or be taken seriously in their respective working environments), a lack of support among women, male beliefs, and male dominance and patriarchy. The most unexpected finding of the study was that women managers in male-dominated environments often sabotage each other, which implies that women managers themselves hold each other back from advancement. It was also mentioned that just as men often form a “male clan”, women managers sometimes imitate this political behaviour, forming alliances with other males, to the detriment of other women. Given the challenges that the participants are experiencing, it is necessary that organisations develop a more active and authentic commitment to gender equality. Some suggestions are that

organisations should become more flexible and creative when structuring salary packages and when considering fringe benefits. Consideration should also be given to employee assistance programmes and formal mentorship programmes in order to bring about gender transformation. The importance of including transformation targets in corporate objectives and performance management systems remain critical. Male-dominated organisations should also consider promoting peer relations. The findings of the study confirmed that females are experiencing various challenges in male-dominated working environments and as such it is necessary to consider the effectiveness of current initiatives to promote gender equality.

**EXPATRIATE MENTORING: WHY IS IT AN ESSENTIAL IMPERATIVE FOR
MULTINATIONAL CORPORATIONS?**

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**EXPATRIATE MENTORING: WHY IS IT AN ESSENTIAL IMPERATIVE FOR
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ABSTRACT

The modern organisation finds itself in a competitive global setting which is a powerful agent for positive economic change. Globalisation implies the cross-border connection and integration of societies, economies and cultures. This is not a new phenomenon - what is new is the scale and speed of globalisation over the past 20 years. The opening of geographical boundaries of countries due to new and fast changing technologies (notably Information Communication Technology or ICTs) has increased the pressure on organisations to be more effective and efficient. In the modern business environment, companies are expected to be dynamic and competitive on a global scale.

The pervasiveness of globalisation has led to the development of multinational corporations (MNCs) that employ large numbers of expatriates. The United Nations Conference on Trade and Development (UNCTAD) reports that there are around 889,146 MNCs worldwide. Skilled expatriates are an integral part of the workforce of MNCs, yet the failure rate of expatriates remains high. This includes premature termination, unsatisfactory work performance and expatriates who are unprepared or ill-adjusted to the new setting. This implies that expatriates are not adequately prepared for international assignments. According to a 2013 report, 42% of overseas assignments were judged unsuccessful. While formal training (whether pre-departure, post arrival or cross cultural training) has been a dominant strategy to prepare expatriates, not much emphasis has been placed on expatriate mentoring plans.

These challenges also apply to the MNC under investigation - a large oil and gas MNC in Abu Dhabi, United Arab Emirates (UAE). They employ a large expatriate work force of about 7 000. The main aim of the study is to design an expatriate mentoring plan for the company and the Identity Development Theory of Chickering and Reisser (1993) served as theoretical framework. The objectives of the study include the following:

1. To determine the demographic profile of expatriate employees.
2. To ascertain the work-related adjustments of expatriate employees.
3. To ascertain the personal-level adjustments of expatriate employees and their families.
4. To measure the extent to which expatriate employees formed a new identity.

Due to the nature of the study, mixed methods will be employed (thus both quantitative and qualitative methodologies). The quantitative phase of the study involved administering a structured questionnaire to all expatriate employees of the company under investigation. The data collection phase is currently in progress and all expatriate employees with 2 or more years' work experience were targeted. After the statistical analysis of the research findings the researchers will compile an expatriate mentoring plan and present it for discussion to a focus group (qualitative phase). After collating the inputs of the focus groups an integrated expatriate mentoring plan will be presented to management.

**AS SIMPLE AS ABC?
THE IMPACT OF ATTITUDE ON INVESTMENT DECISION-MAKING**

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**AS SIMPLE AS ABC?
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ABSTRACT

In stark contrast to the assumption that investors make rational investment decisions when operating in an ideal market, behavioural finance theory provides a psychological perspective to investment decision-making in an attempt to understand the impact of irrational behaviour on volatile and inefficient markets. These two distinct developments in financial theory are categorised as the neoclassical and the behavioural revolution. While proponents of neoclassical finance argue that market anomalies that contradict the efficient market hypothesis are caused by asset pricing theories or pure chance, supporters of the behavioural approach propose that these anomalies occur due to investors' irrational behaviour.

Instead of focusing exclusively on the risk-return characteristics of investment opportunities to arrive at an optimal investment decision, investors' emotions may also influence their investment decision-making. It is therefore important that potential investors are familiar with their emotions and attitudes towards investment to understand how these "irrational" factors influence their investment behaviour. Although the impact of attitude on consumer behaviour has been researched extensively in fields such as marketing and advertising, neoclassical finance theories are not equipped to incorporate the impact of investor attitude on investment decisions.

The primary objective of this study was to address this limitation associated with neoclassical finance theories by investigating the effect of attitude on investment decision-making. Attitude can be divided into three components, namely an affective, behavioural and cognitive component. Each of these three components have been known to have a distinct impact on human decision-making processes. To assess whether attitude influences investment decision-making, primary research in the form of an online questionnaire was conducted. Respondents were provided with information to trigger the three separate components of attitude. Firstly, familiar and unfamiliar companies were presented to test whether respondents chose to invest in familiar companies in accordance with the affective component. Respondents were then provided with additional financial information to assess whether they changed their initial intent to invest in a company to assess the behavioural component. Finally, respondents were provided with corporate social responsibility ratings to determine whether the cognitive component resulted in an adjustment of their initial choices.

Respondents were selected by means of convenience sampling. In total, 126 respondents representing students from the Faculty of Economic and Management Sciences at Stellenbosch University completed a set of three experiments each. Specific data analysis conducted to generalise the results obtained included the Stuart-Maxwell Chi²-test and the Mann-Whitney U-test.

The results indicate that the affective component appears to influence investment decision-making. This finding is based on the observation that the majority of the respondents initially selected to invest in the more familiar companies. The behavioural component also appears to have an effect, since the additional information provided triggered an adjustment in respondents' initial investment intent. Finally, the cognitive component was also found to influence investment intent, albeit it exhibits the smallest influence of the three components. When presented with information regarding the companies' corporate social responsibility

performance, respondents only adjusted their investment preferences if it did not cause a decline in their financial performance.

EXPLORING CONSUMERS' ATTITUDES, KNOWLEDGE AND PERCEPTIONS OF THE NATIONAL CREDIT ACT

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ABSTRACT

The current research paper investigated customers' level of knowledge and perception of the influence of NCA towards a selected micro lender in an effort to prevent consumers from over-indebtedness. A quantitative research methodology in the form of survey questionnaire was implemented for the purposes of the study. Following data completion with consumers of a micro lender, a total of 232 responses were considered for further statistical analysis. The findings of the study established that respondents possessed favourable attitudes, knowledge and perceptions regarding the application of the NCA in regards to the micro lender. These results can further assist financial institutions and policy makers to instil positive attitudes, better knowledge and higher level of understanding towards the implementation of the NCA in South Africa.

1. INTRODUCTION

In the plight of increased cost of living and consumers need to maintain their social needs in an emergent economy of South African often comes with demand to sustain their consumption for goods and services (Fin24, 2014). In this regard, consumers often look to financial institutions such as micro lenders to facilitate their credit requirements in order to fulfil their consumption for such products, which in turn leads to increased spending and credit growth in the economy (Fin24, 2014). Previous literature by Adewale (2014:368 Chipeta and Mbululu (2012:216) and Steyn (2013) support this view and argue that there is a positive relationship

between economic development and increased levels of consumption by consumers. Although economic development and consumption is advantageous, the means consumers use to access the resources necessary to purchase goods and services has come under scrutiny. This is because consumers end up accumulating bad debts as a consequence of higher consumption for credit in an effort to maintain their higher cost of living in the marketplace (Fin24, 2014; Steyn, 2013). However, there are limited sources of income available to gratify consumers' desires, and as a result, many consumers resort to credit to extend their line of income (Chipeta & Mbululu, 2012:216). Although, credit is seen an essential component in consumers lives through assisting them to meet their financial obligations and to maintain their lifestyles but it promotes debt trap as consumers are forced to borrow and spend credit beyond their means(Fin24, 2014).

De Wet, Botha and Booyens (2015:84) argue that credit plays an important role in the financial empowerment of consumers, and that it gives them the option of obtaining necessary goods and services without having to pay for them immediately. This financial empowerment has both good and bad consequences. The major advantage of credit is that it extends the income life line of consumers, allowing them to maintain their consumption patterns, but a disadvantage is that most of these consumption patterns are hedonistic and excessive in nature in most parts of the world (De Wet et al., 2015:84). In contrast to other nations, Japan is depicted to have no tradition of evolving credit amongst consumers hence it serves as an unattractive market for credit as consumers tend to borrow when necessary(Euromonitor, 2016). Another drawback to micro-lending is that it reduces the little income that consumers have through interest rates, which are excessive for certain customers (Adewale, 2014:368).

In South Africa, the facilitation of appropriate credit applications and access between consumers and micro lenders contributes to credit growth and the overall growth of the economy through stimulating consumption patterns. However, the prevalence of consumer credit within the micro-lending sector of the country has been under the spotlight since the year 2007 (Adewale, 2014:367). This is attributed to absolute levels of debt-to-disposable income, which were at 74.6% for the year 2016 and 78% in 2015 (South African Reserve Bank, 2016).

Lending institutions have established a trend of bestowing credit recklessly at individuals and household levels, and this has become a major concern for governments especially in South Africa as citizens are becoming over-indebted (Chipeta & Mbululu, 2012:216). Among the consequences of indebtedness are psychological frustration, which can lead to depression, mental illness, dispossession of valuable assets, and a breakdown in relationships. In addition, consumers are faced with unanticipated interest costs and unforeseen contingencies (Chipeta & Mbululu, 2012:216). Therefore, a government intervention was necessary, and this came in the form of the National Credit Act which was primarily implemented to replace outdated legislation of the Apartheid era (Adewale, 2014:368).

The Act has provided consumers with various remedial actions to assist them to get out of debt. One of the remedies proposed by the National Credit Regulator (NCR) report (2012) was that consumers attend debt counselling. Fin24 (2014) reports that an average of 6 500 consumers apply for debt counselling monthly, totalling more than 700 000 consumers since the inception of debt counselling in June 2007 (Fin24, 2014). Businesslive (2017) agrees with this perspective and suggest that these are good numbers, but more consumers need to go through debt counselling to avoid spending beyond their means, and financial institutions have a role to play in providing this service to their customers to ensure that they understand and apply for necessary credit that meets their financial obligations.

To reiterate, this research paper aims to contribute to the investigation of customers' attitudes towards, as well as their level of knowledge and perceptions of the NCA, in an effort to develop strategies and curb against over-indebtedness within the micro lending industry of South Africa. The study will contribute to academic understanding of the effectiveness of the NCA. In

addition, the findings will assist financial advisors, government, and financial literacy stakeholders to develop responsive strategies in preventing the over-indebtedness of consumers.

The article first provides a literature review on the nature of micro-lending, an overview of the NCR and the research problem is then outlined. The reader is subsequently introduced to the research methodology of the study and thereafter the results of the study are briefly outlined. Lastly, the article outlines the practical conclusions, managerial implications and possible avenues for future research.

2. LITERATURE REVIEW

Over-indebtedness has always been present in both developing and developed nations since the emergence of micro lending practices dating as far back as 2000 (Euromonitor, 2016). Currently, over 11 million consumers who are able to acquire credit have been classified as over-indebted by the SAHRC (Staff Writer, 2016). According Hurwitz and Luiz (2007), in the South African context, broader over-indebtedness began at the end of the apartheid era, because more people could then legally borrow money from financial institutions. Naturally, the increased number of people had an impact on debt levels in households, and this over-indebtedness has affected South African society in a negative manner (Fin24, 2014). More specifically, Steyn (2013) argues that higher levels of indebtedness lead to weak credit health amongst micro lenders and increased consumers' reckless lending behaviour due to poor savings behaviour.

Indebtedness refers to 'the state of being in debt, without regard to the ability or inability of the party to pay the same' ("Indebtedness") (Law dictionary, 2017). Most people have a certain degree of debt because their household assets such as properties and motor vehicles have been bought on credit hence the increased demand for asset backed finance amongst micro lenders in the South African market (Adewale, 2014:371). However, buying goods and services on credit is not an ideal situation as consumers find themselves caught in more bad debts as a result of excessive accumulation of credit, but consumers do not have enough to income to sustain their lifestyles. Instead, consumers should result to using credit for investment purposes whereby they can gain additional funding in future and avoid unnecessary spending for products and services that do not provide financial stability.

This section provides a review of the scholarly literature which addresses the attitude, knowledge and perceptions towards NCA amongst consumers within a micro lending perspective. It then provides a brief discussion on the credit market, highlighting the issue of over-indebtedness, after which it contextualises the effectiveness of the NCA in South Africa.

2.1 A brief profile of the credit market in South Africa

The end of the Apartheid era saw significant growth in the number of people who were able to borrow from the various financial institutions. The resultant increase in micro-lending and unsecured debt transactions has coincided with an increase of approximately 14% credit growth in post-Apartheid South Africa (Dilotsotlhe, 2016). The current situation in the credit market is worrisome, but with the downgrade of South Africa's investment status to junk status, it is speculated that interest rates will increase within the range of 3% to 6%, making the consumers more constrained since home and vehicles loans will be more costly due to higher costs of lending (Fin24, 2014). The middle class could be the most affected by the downgrade, since they hold the most loans for housing, motor vehicles and other assets (Fin24, 2014).

Micro-lending is a term used to describe the practice of borrowing finance or taking out small loans (Shreiner, 2002:591). Additionally, micro-lending refers to the provision of short-term loans to consumers at lower interest which are supposed to be repaid within a given time with interest added (Van Heerden, 2008). Consumers in South Africa who opt for short loans are those of the low- and middle-income brackets (Van Heerden, 2008). In this regard, a micro-

lender is a credit grantor and is essential to the maintenance of lifestyles of these consumers (Shreiner, 2002:591).

The micro-lending sector has played a positive role in the growth credit within the financial services sector, as it services mostly low-income earners, who were not previously reached (Van Zyl, Botha & Skerritt, 2006:116). Due to the limited income that the 'poor' receive per month, micro-loans assist in relieving temporary financial challenges (Wright & Haynes, 2005:94). Most customers who participate in micro-lending use the money to stretch their salary over the duration of the month. This is not an ideal situation, as consumers need to learn how to live within their means. Such borrowing behaviour creates a debt spiral, which is extremely challenging to emerge from.

2.2 Benefits and Risks to Lenders

Micro-lenders seem to have found a gold mine in stimulating unsecured lending and leading to the expansion of bad debts (Rom, 2014). Unsecured lending refers to all credit transactions where the lender is not guaranteed safety (Fin24, 2014). Rom (2014) support this notion and adds that unsecured loans have contributed to the sustainability of micro-lenders, and observes that the percentage of unsecured lending increased between 2009 and 2014 by 44%, while mortgage loans grew by only 4% in the same period. Micro-lenders have thus increased their revenue streams astronomically which in turn indicates business risk as continuous accumulation bad debts amongst consumer's leads to higher level of over indebtedness. This increase has come at a cost however, as consumers in the market are in many cases unable to meet their repayment obligations on time due to over-indebtedness (Fin24, 2014). In 2014, the market of unsecured loans was worth over R20 million, and almost half of the market's consumers had difficulties in meeting their obligations and were thus considered to be 'bad debts' (Fin24, 2014; SARB, 2013). Bad debts are a great risk to Financial Services Providers (i.e. banks) and as a result micro-lenders have felt the pinch of impairments more than other service providers in the industry (Rom, 2014). There have been three types of unsecured loans which have been generating the most attention: personal loans, credit cards, and store card facilities. At one point in time, consumers in the marketplace were unable to pay back their unsecured loans which resulted in lenders such as major banks having to reduce their budget of unsecured loans by more than half (50%) on average (Rees, 2013). The retail sector has been the biggest benefactor of unsecured lending, as they have had increased sales through unsecured store cards, which consumers use to buy clothes which they could not otherwise afford (Rom, 2014). Furthermore, it is evident that unsecured lending is a prominent issue as consumers are investing in high risk loans which will affect their long-term survival and maintenance of financial obligations.

In South Africa, while micro-loans benefit lenders by generating revenue streams, they are also attractive to borrowers because they enable many such consumers to improve their circumstances and experience better lives if obtained for responsible causes (World Economic Forum, 2013). Within the context of unsecured lending, unsecured credit transactions have emerged. The Rand value of unsecured credit granted increased to R18.88 billion (9.14%) for the quarter which ended in December 2016. On a year-on-year basis, the rand value of unsecured credit agreements increased by R2.62 billion (9.91%). In addition, statistical information that has been received by the NCR (statistical returns from credit providers) (NCR, 2016) indicates that credit granted in the form of unsecured personal loans has grown.

2.3 The nature of over indebtedness

In the light of the aforementioned perspective on the growth of credit grants and unsecured transactions coincides with issues of over-indebtedness in South Africa. This is because consumers are not risk adverse when it comes to taking out unsecured loans to facilitate their financial obligations in the marketplace and further leads them in more debts. Over-indebtedness occurs when a borrower can no longer service all of his/her debts within the

required specifications, thereby causing a depletion in their household income and consumption (Goodwin-Groen, 2006). Currently, the South African household debt-to-disposable income is estimated to be at 74.4%, and is considered to be aggressive and a major cause for concern (SARB, 2016). Over-indebtedness amongst South African consumers in particular remains a very acute problem. The following section provides a discussion on how credit providers can play a role in addressing over indebtedness in South Africa.

2.4 Responsibility of Financial Credit Providers

A credit provider must not enter into a reckless credit agreement with a consumer as this behaviour perceived to increase their risk of accumulating bad debts. The NCR (section 81, 2006) states that, before entering into a credit agreement, a credit provider must first take reasonable steps to assess the consumer's general understanding of the risks and costs of the proposed credit, as well as the consumer's debt repayment history, existing financial means, prospects and obligations. The consumer must fully and truthfully provide the requested information. A credit agreement is reckless if (NCR, 2006):

- at the time it was concluded the credit provider failed to conduct the necessary assessment, irrespective of what the outcome of such assessment might have been; or
- the credit provider entered into the agreement despite information being available to the credit provider that revealed the consumer did not generally understand the risk, the costs, or obligations under the proposed credit agreement, or the conclusion of the agreement, would cause the consumer to become over-indebted.

The extent of over-indebtedness amongst South African consumers is revealed in recent information/statistics released by the South African Reserve Bank, and it poses a risk to the financial stability of the country (Ombudsman, 2017; SARB, 2013). More recently, Staff Writer (2017) established that approximately 1.64 trillion debt is owed to micro lenders in South Africa. High levels of debt will leave consumers too exposed to a range of external market shocks, which may reduce their responsiveness to unanticipated changes in the macro-economic environment (Debelle, 2004:56; Alan, 1996:1).

Therefore, the next section provides a discussion on the purpose of the NCA and its implications for the credit market in South Africa.

2.5 Overview of the National Credit Act of South Africa

The National Credit Act (NCA) is the one of the most effective pieces of such legislation in the world for addressing the regulation of over indebtedness and credit growth in emerging countries such as South Africa (Rom, 2014). The NCA was established to protect the consumer from reckless lenders, and hopes to foster the well-being of consumers (Gordon, 2011). The importance of consumers' knowledge of the NCA is important to their well-being and their management of financial obligations in order to make sound decisions that will prevent them from engaging in unsecured transactions.

According to the findings of the South African Department of Trade and Industry (2003:4), the main reasons behind the establishment of the NCA were:

- Outdated legislation
- Ineffective consumer protection with particular reference to consumers that are in low income groups
- Limited access to credit
- Rising levels of consumer indebtedness
- Reckless lending behaviour by credit providers and the exploitation of consumers

The NCA comprehensively regulates the management and function of the credit industry in South Africa. The NCA applies to all individual consumers, to partnerships and close corporations and with a turnover of less than R1 million, as well as to trust establishments that have more than three trustees, and to credit providers who have a credit book of R500,000 or more and who have entered into 100 or more credit agreements (Kelly-Louw, 2007:148). In general, the NCA encompasses all transactions related to credit application and accessibility. From a consumer perspective, three of its essential stipulations are in relation to: credit agreements, credit records and the Act's governing structures.

The policies of the NCA are put in place to ensure that the consumers are protected against reckless lending and accumulating more credit than desired, which leads to over-indebtedness. Credit providers such as micro lenders are now forced to do a check on an applicants' credit and debt repayment habits every time there is an application for a credit facility. The credit provider is mandated under this act to have a proper collection process in place to recover defaulted loans without penalising clients (National Credit Act 34, 2005). The inception of the NCA has led to consumers having improved rights that are enforceable by the National Credit Regulator, access to formal channels for disputed credit agreements, and debt counselling.

De Wet et al. (2015:84) assert that a major contributing factor to consumers being highly indebted is their high vulnerability to accumulating more credit and the need to maintain their higher costs of living. The shift from being highly indebted to being over-indebted occurs when a highly indebted consumer is presented with an unforeseen adverse external market shock and is subsequently unable to tolerate the impact, resulting in them being unable to service their due obligations timeously (De Wet et al., 2015:84). In an effort to deal with the rising concern of credit growth and indebtedness, the South African Reserve Bank suggested the application and use of an effective policy instrument to address an unsustainable credit record. Furthermore, the NCA seeks to regulate the granting of credit by financial institutions through the National Credit Regulator (NCR), which facilitates the role of a national consumer tribunal, and a debt counselling service (Chipeta & Mbululu, 2012:216; NCA, 2005). Although the NCA has been identified as sound policy framework to address the level of credit and bad debts, there is limited research on the perceived influence of the NCA on consumers' attitudes, knowledge and perceptions. For instance, empirical studies of Chipeta and Mbululu (2012:216), De Wet et al. (2015:84) and Adewale (2014:368) have mainly focused on the use of existing economic data to investigate the influence of NCA on indebtedness, consumer credit levels and economic growth.

2.6 Perceptions and Attitudes of credit consumers

South Africans have a rooted culture of debt rather than savings due to the rising need for credit to facilitate their needs for consumption of goods and services (Adewale (2014:370). Evidence by Van De Walt and Prinsloo (1993:26) argues that consumers' spending power towards material and social needs in order to maintain their desired standard of living has landed majority in more debt due to their bad attitude towards credit provisions. Notably, previous research speculates that there are lower levels of perceptions of consumers towards over-indebtedness due to low education levels, weak disclosure and deceptive marketing practices amongst micro lenders which results in unaffordable credit contracts and has further led to more social problems (Stoop, 2009:366). Although this is the case, there is limited research from consumers' perspectives on their attitudes and perceptions towards engaging in over-indebtedness. Therefore, the NCA has been implemented to influence consumers' attitudes and perceptions towards taking up unnecessary credit policies to maintain their lifestyles.

In summary, the literature as discussed here contends that assessing the level of over-indebtedness is critical to understanding how the NCA can provide a solution to addressing the increment of bad debts within the credit market of South Africa.

3. PROBLEM INVESTIGATED

Over-indebtedness is a serious dilemma that most consumers face, especially lower- to middle-income consumers (Staff Writer, 2017). Over-indebtedness results in various challenges, and is a result of both reckless lending by financial institutions and reckless borrowing from consumers. According to the report by FinMark Trust (2009), over-indebtedness also results from low levels of knowledge, and a lack of enforcement.

Indebtedness is perceived to be a root cause of poor financial management amongst micro lenders, which can come about as a result of a lack of financial education and regulation (Old Mutual, 2017). The knowledge, attitudes and perceptions of consumers are essential in abating indebtedness.

4. RESEARCH OBJECTIVES AND PURPOSE STATEMENT

In order to address this research problem, the following objectives were identified:

- To determine the overall attitudes of clients of a selected micro-lender towards the implementation of the NCA
- To determine the levels of knowledge that the customers of a selected micro-lender have of the NCA
- To determine the perceptions that the customers of a selected micro-lender have regarding the benefits of the NCA

The purpose statement of the study needs to support the stated research problem and research objectives. Therefore, the purpose of this research study is to investigate micro-lender customers' level of knowledge, attitudes and perception of the influence of NCA on the degree over-indebtedness.

5. RESEARCH METHOD

The research plan for the study incorporates the sampling approach, data collection method and data analysis is extrapolated in the sub-sections that follow.

A descriptive and quantitative research design was employed for the purposes of this study. Non-probability sampling was adopted, and a judgement sampling approach was used, and these were deemed to be appropriate to address the research problem. Structured questionnaires were administered in Johannesburg, where a pilot of the study was conducted to test the quality of the measurement instrument. In total, all 232 responses were deemed useful for conducting data analysis in accordance to previous studies that used a sample range of 200 to 500 respondents regarding the NCA (Adewale, 2014:368; Chipeta & Mbululu, 2012:216; De Wet et al., 2015:84). This provided quantitative data which when analysed statistically, allowed the comparison between key variables, determination of correlations, and other relevant factors.

The research adhered to sound ethical guidelines as observed in scientific literature in order to uphold respondents' privacy, confidentiality, dignity, rights and anonymity when collecting and analysing the survey data. The quantitative data analysis was conducted using SPSS 23. To validate the adopted scale items for this study, an exploratory factor analysis was employed through the use of an inter-correlation matrix and eigen values to measure the strength of association among the variables. In addition, factor analysis produced Cronbach alpha coefficients that were reliable (<0.60) and equal to 1, as suggested by Cooper and Schindler (2001:591).

5.1 Sample profile

The sample profile of the respondents who agreed to take part in this study, including gender, age, ethnic group, income level, level of education and are summarised in Table 1 below.

Table 1: Sample profile

Gender		Frequency	Percent
Valid	1 Male	129	55,6
	2 Female	103	44,4
	Total	232	100,0
Age		Frequency	Percent
Valid	Younger than 35 years	114	49,1
	36 – 49 years	86	37,1
	50 years and older	31	13,4
	Total	231	99,6
Missing	System	1	,4
Total		232	100,0
Income level		Frequency	Percent
Valid	1 Less than R7 999	61	26,3
	2 R8 000 – R14 999	95	40,9
	3 R15 000 or more	76	32,8
	Total	232	100,0
Level of education		Frequency	Percent
Valid	1 Grade 11 or lower	3	1,3
	2 Grade 12 (Matric)	70	30,2
	3 Post-matric Diploma/Certificate	121	52,2
	4 Baccalaureate Degree(s)	32	13,8
	5 Post-graduate Degree(s)	5	2,2
	Total	231	99,6
Missing	System	1	0,4
Total		232	100,0

Source: Author's construct

From Table 1, it is clear that of the 232 respondents, 55.6% were male (n=129) and 44.4% were female (n=103). It is also evident that respondents' mean age was 37.09 years with a standard deviation of 9.473. The youngest credit receiver was 20 years old, and the oldest credit receiver was 59 years old. Owing to the wide distribution of age, the total sample was divided into three main age groups, namely, younger than 35 years, 36-49 years and 50 years and older. It is furthermore evident that the majority of the respondents were black (78.9%), followed by coloured (13.8%), Indian or Asian (3.9%) and the white respondents constituted the smallest proportion of the sample (3.4%). Importantly, this representation is in line with the population distribution in South Africa as established in literature and industry reports' further analysis found that the largest group in the sample (52.2%) holds a post-matric diploma or certificate, followed by a group that has completed Grade 12 (30.2%), while 13.8% of respondents had a degree (Table 4.5). Only 1.3% did not have a matric. Thus, 98.3% of the respondents had at least a matric qualification.

5.2 Reliability and Validity

To determine construct validity of the measuring scales adopted for the purposes of the study, exploratory factor analysis was performed. The measure of sampling adequacy was higher than 0.60 (<0.91) at 5% level of significance, and thus 91% of the variance was explained by the underlying dimensions for each measurement scale. It can therefore be concluded that factor analysis can be used on the sample. With regard to eigen values, the researcher followed the Kaiser's criterion, in which components with eigen values of 1 or more should be considered for extraction (Pallant, 2013:191). To determine how many components meet this criterion, it is necessary to peruse the total variance-explained table. Principal components analysis exposed the presence of three components with eigen values exceeding 1, which explains 39.7%, 10.2% and 7.0% of the variance respectively. Consequently, from the Promax rotation, it was also reported that factor 1 represents *knowledge of the act*, factor 2 indicates *attitudes towards the act* and factor 3 highlights *perception towards credit in general*. The reliability of the scale items was determined through calculation of Cronbach Alpha values for each respective scale. Therefore, all the adopted scales were deemed to be reliable, as the Cronbach Alpha values were reported to be above 0.60 (Pallant, 2013:191). Table 2 and 3 provide a summary of the underlying dimensions uncovered from factor analysis and the reliability scores for the measuring scales.

Table 2: Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6,354	39,714	39,714	5,783	36,144	36,144	5,202
2	1,643	10,269	49,983	1,177	7,355	43,499	4,086
3	1,124	7,023	57,005	,503	3,145	46,644	4,443

Source: Author's construction conclusion, the results from Factor Analysis employed through the Promax rotation and Eigen values exceeding one, three factors namely, *Knowledge of the Act*, *Attitudes towards the Act* and *Perception towards credit in general* were identified, which together explained 47% of the variance for the entire set of variables

Table 3: Reliability analysis of the measuring scales

Construct/Factor	Cronbach Alpha values ($\alpha > 0.60$)
Attitudes towards the Act	0.680
Knowledge of the Act	0.693
Perception towards credit in general	0.875

Source: Author's construct

6. RESULTS AND FINDINGS

In this section, the results of the study are outlined through tabulating the results. The results are then discussed. This section is critical to understanding the levels of knowledge, as well as the perceptions and attitudes towards credit and the NCA.

All the items were measured on a 5-point Likert-type scale with 1 indicating 'strongly disagree' and 5 indicating 'strongly agree'. For the purposes of this article we have rearranged the Likert scale to show only three of levels of agreement, namely, agree (combining the level of response of strongly agree and agree responses), neutral, and disagree (combining the level of strongly disagree and disagree responses). Therefore, the higher the average scores, the higher the general agreement in the group on the specific questions.

Table 4: Perception towards credit in general

Perception towards credit in general	Disagree	Neutral	Agree
I understand how credit works	9%	13%	78%
I understand my rights as a borrower	11%	26%	63%
I understand my responsibilities as a borrower	0%	11%	89%
I know where to go when in trouble with debt	43%	11%	46%

Source: Author's construct

The borrowers' scores indicated that they were in agreement with statements relating to understanding their rights and responsibilities as consumers, and how credit works. They were although not fully in agreement (46%) with the statement regarding knowing where to go when in trouble with debt. This could well mean that the information given to consumers regarding the availability of debt counsellors is inadequate, and this in turn could be the reason for an increase in customers' impaired records and a decrease in credit health, as explained in Section 2 of the literature review, as they do not know where to seek help should they face financial difficulties. A good result is that consumers feel that there are responsible for their credit behaviour, given that no consumer disagreed with this point.

Table 5: Knowledge of the NCA

Knowledge of NCA		Frequency	Percent
Valid	1 Yes	230	99,1
Missing	System	2	0,9
Total		232	100,0

Source: Author's construct

Concerning the level of awareness of NCA, most of the respondents (99.1%) indicated aware of the National Credit Act. Even those who did not recognise the name itself had basic understanding of what the National Credit Act is all about. In addition, 89% of respondents stated that they became aware of the Act through their own institutions. Although this is commendable, there are various additional factors which could contribute to this high level of education of the sample size. For example, the majority (68.2%) of respondents possess a post-matric qualification, and 98.3% possess at least a matric. Therefore, good literacy corresponds with a better awareness of the NCA

Table 6: Understanding of NCA

How well they know the National Credit Act	Disagree	Neutral	Agree
	e		

Being aware of the Act has allowed me to better manage my finances	55%	20%	25%
I have a right to be given written documentation relating to my credit transaction	0%	8%	98%
As a customer, I am entitled to one free credit report from credit bureaux per year	66%	4%	30%
I have the right to access and challenge information held by a credit bureau	26%	5%	69%

Source: Author's construct

The scores from the customer questionnaire indicated that customers knew that they are entitled to copies of the contract agreement, and they can challenge the information held by the credit bureau. The scores also showed that customers were not fully in agreement with statements regarding their entitlement to a free credit report per year, as well as statements that assert that NCA knowledge has allowed them to better manage their finances. This could be interpreted as a result of a lack of information pertaining to the services of a credit bureau. These results confirm the literature, which states that an increased number of people in our country remain in the dark about their credit status until they decide to apply for credit. Regarding whether knowledge of the NCA contributes towards better management of their finances, the scores could mean that being aware of the NCA has made little difference in respondents' lives, as they are still struggling financially to make ends meet due to several reasons, including slow economic growth. These scores are further substantiated by the report on consumer vulnerability conducted by UNISA Bureau of Market Research (2013) and discussed in literature review.

Attitude towards the National Credit Act	Disagree	Neutral	Agree
The Act promotes a fair and non-discriminatory marketplace for accessing credit	7%	5%	88%
The Act limits my chances of accessing credit	19%	13%	68%
The Act protects me from unfair credit and credit marketing practices	65%	0%	35%
The Act promotes responsible credit granting and use and for that purpose prohibits reckless lending	14%	3%	83%
The Act regulates interest rates and fees to ensure that customers are not overcharged by credit providers	81%	4%	15%
The Act ensures that consumers are provided with reasons should a credit application be declined	39%	4%	57%
The Act provides debt re-organisation, to enable restructuring of debts for over-indebted consumers	3%	0%	97%
The Act ensures credit providers use simple language in credit agreements that the consumer can understand	37%	4%	69%

Source: Author's construct

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

This research paper aimed to investigate the customers' attitudes towards, as well as their level of knowledge and perceptions of the NCA, in an effort to find ways to prevent over-

indebtedness. Firstly, the findings established that consumers have good perceptions relating to understanding their rights and responsibilities and as well as how credit works. Secondly, majority of participants indicated that they have knowledge on the NCA and are thus aware of its core purposes. Lastly, consumers understood and have favourable attitudes towards their contractual obligations towards the NCA. Therefore, it can be noted that participants showed an acceptable level of agreement regards to attitude, knowledge and credit.

In the light of these findings, it is clear that financial education needs to be outlined in order to decrease the levels of indebtedness amongst South Africans, and it is the responsibility of micro-lenders to educate and not to develop knowledge that serves their own purposes. Policy makers need to assist with the enforcement of the NCA as the positive attitudes, perceptions and high levels of knowledge have not translated to decreased levels of indebtedness and impaired consumers.

The limitations associated with this study should be highlighted in order to gain broader knowledge of the phenomenon under study. First, this research focused only on the perceptions of the customers of micro-finance in Johannesburg, which limits the generalisability of the sample entire micro-lending industry of South Africa. Secondly, as the study was conducted among customers through the use of questionnaires, the respondents could often present biased information to depict the organisation and their responses in a favourable manner. The study looked at knowledge, perceptions and attitudes regarding the NCA but did not test the behaviour of the respondents. An understanding of behaviour is crucial to grasping the magnitude of indebtedness of South Africans.

The following recommendations are made for future research:

- Further research could include a larger and broader sample that is more representative of the population, looking at the impact that the NCA on the behaviour of consumers who claim to have knowledge of the Act and their indebtedness.
- A comparison of data could be undertaken involving the income and level of education of credit receivers in order to ascertain whether borrowing is influenced by these factors.
- Future studies can include bias measures or scales in order to understand the level of bias that consumers have. In this study, respondents would have tailored their responses to create the impression that they understand finance, as there is considerable social prestige associated with such understanding
- A longitudinal study looking into the changes in behaviour will also assist in understanding the behaviour of respondents.
- Understanding borrowers' psychology: why do people become habitual borrowers?
- The study could be expanded to other geographical areas and industries to validate the measuring instruments.

8. CONCLUSIONS

In conclusion, the respondents have favourable perceptions and understanding of the NCA with regard to knowledge, attitudes and credit in general. The customer scores indicated that the respondents were in agreement with most of the statements, except those relating to the regulation of interest rates and fees and protection against unfair credit and credit market practices. This could mean that customers feel that they pay very high instalments and that the NCR is not doing enough to ensure that they are not overcharged by credit providers. Regarding the protection against unfair credit and credit market practices, the scores could be interpreted to indicate that the customers feel that they are bombarded with a lot of enticing adverts to get loans which is evident in previous works of Adewale (2014:367) and Chipeta and Mbululu (2012:216). The scores could also indicate that the NCR is unable to fulfil some

of its mandates of protecting the consumer and regulating interest rates and fees especially amongst the students.

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**COMPARING THE BEST AND WORST INDEXED RISK MODELS FOR ASSET PRICING:
AN UNEXPECTED RESULT**

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**COMPARING THE BEST AND WORST INDEXED RISK MODELS FOR ASSET PRICING:
AN UNEXPECTED RESULT¹**

ABSTRACT

This paper investigated the predictive abilities of two well-known traditional risk models that both utilise published indices, namely (i) the CAPM model and (ii) the two-factor 'Resi-Findi' RS-APT model adapted from Van Rensburgh and Slaney (1997). The objective was to determine which model is 'better' at predicting daily equity returns, and if the null hypothesis of no predictive difference between the models held over the sample period. The initial premise of interpretation is that the lower the alpha, the better the risk model was at predicting the actual returns because the predicted return was closer to the actual return. The JSE Top 40 constituents at the end of 2015 was chosen as the sample, representing a group of well-

¹ The author would like to thank Mr. MJ Dippenaar for his contributions with the literature review of this paper.

researched and efficiently priced shares. The 41 shares contained in the index's price history from 1 January 2000 was used to perform the analysis. In total, 259,932 regressions were completed to build the database of alphas, or forecasting errors. Both models produced pockets of outperformance over the other model, and the CAPM slightly outperformed the RS-APT model in 10 of the 16 years. The average alpha-difference fluctuated between -0.16 per cent and 0.10 percent, with an average alpha-difference of -0.02 per cent over the entire sample. The magnitude of alphas also did not have any explanatory power between the two models when using the RS-APT alphas as interval-benchmarks, while an inverse linear relationship was visible above and below zero per cent when using the CAPM alphas for the intervals. The most significant finding was that the lines-of-best fit for every share indicated that the CAPM alphas were generally the smaller of the two models, indicating a superior predictive power of daily raw share returns.

1. INTRODUCTION

Risk models and the necessity thereof was first promulgated by Markowitz (1952) in his widely recognized work on Modern Portfolio Theory (MPT), and furthered upon by Tobin (1958). Tobin made a significant contribution by introducing the risk-free rate in conjunction with an optimal portfolio of risky assets. Both Tobin and Markowitz tried to gauge how risks affected the return of the portfolios and if the risk could be quantified. Together they laid the foundation for what is today known as the Capital Asset Pricing Model, or 'CAPM' in short.

Further research popularising the CAPM followed over the next 10 years (see Treynor 1961, Sharpe, 1964, Lintner, 1965, and Mossin, 1966). Their additions included diversification as an essential part of MPT and the introduction of short selling and borrowing with no limits by individuals to achieve desired risk and expected return - assumptions critical to the practical application of the CAPM. In essence, the CAPM is said to be based on the fundamental premise that not all risks influence all asset prices equally, and that the expected return of an asset is related to its normalized covariance with the market portfolio, known as its Beta (Lhabitant, 2006).

The CAPM has also been widely criticised, and various other models have been proposed. Early in the twentieth century, Van Rensburg (2002) proposed that the JSE's Financial-Industrial and Resources indices may be used as "observable proxies for the first two leading components extracted from the covariance matrix of JSE returns". Van Rensburg suggested that these indices replace the Industrial and All-Gold index in future applications

of the two-factor APT that Van Rensburg and Slaney (1997) initially developed together. Van Rensburg (2002) concluded that, within the South African context, omitted variable bias and downwardly biased t-statistics influence conventionally conducted market model regressions. His research ultimately implied that the traditional CAPM is not the most reliable risk model for the JSE (Van Rensburg, 2002), and this theory was subsequently confirmed by Ward and Muller (2012). The two-factor Van Rensburg model is widely regarded as better than the CAPM for the South African context.

This paper investigated the best versus the worst in index-based asset pricing models by comparing the goodness of fit of the traditional CAPM versus the two factor RS-APT model, referring to the 'Resi-Findi' model adapted from Van Rensburg and Slaney. The empirical analysis was conducted on the shares listed in the JSE Top 40 over a period starting on the 1st of January 2000 until the 31st of December 2015.

2. LITERATURE REVIEW

2.1 The birth of asset pricing risk models

The Efficient Market Hypothesis (Fama, 1970) and the Capital Asset Pricing Model (CAPM) have remained an integral part of finance and international investment teachings. The assumptions that markets contain profit opportunities (Fama, 1970) and that an optimal combination of risky assets can be used to construct a diversified portfolio (Markowitz, 1952) are still commonly held in practice and form part of assumed knowledge in the investment industry.

Treynor (1961) and Sharpe (1964) furthered Markowitz's literature into an economic theory through constructing an asset pricing model, the Capital Asset Pricing Model. The CAPM model relies on the notion that the average expected return of a particular asset depends almost solely on its sensitivity to undiversifiable risk, referred to as market risk or systematic risk (Ross, Westerfield & Jaffe, 1996). The CAPM is presented in Equation 1:

$$E(R_i) = R_f + \beta_i (E(R_m) - R_f) \quad \dots \text{(Eq. 1)}$$

Where:

$E(R_i)$	the expected return on the asset
R_f	the risk-free rate
β_i	the sensitivity of the asset's return to the market return
$E(R_m)$	the expected return of the market, and
$E(R_m - R_f)$	the market premium, or market risk premium.

The Beta is an indicator of the sensitivity of an assets return to that of the market return (Sharpe, 1962), where a higher Beta will imply greater returns and volatility than the market index.

The Beta can be estimated by means of applying a linear regression analysis to asset returns (dependant variable) and market returns (independent variable). If the Beta is not derived from the regression model's outputs, it can be calculated as shown in Equation 2:

$$\beta_i = \text{Covariance } (R_i, R_m) / \text{Variance } (R_m) \quad \dots \text{ (Eq. 2)}$$

The CAPM model therefore contextualises share performance relative to market sensitivity, or Beta (β). The CAPM derives its assumptions from the Efficient Market Hypothesis and Modern Portfolio Theory, and, in essence, disregards the idiosyncratic characteristics associated with individual assets. A fully diversified portfolio's return is therefore only based on the sensitivity towards the market, disregarding other complex factors and individual share specific risks. The advantages of the CAPM lie in its simplicity and intuitive appeal (Ward & Muller, 2012).

Finally, The CAPM has a particular set of assumptions essential to the interpretation and application of the model. These assumptions include that all investors aim to maximize economic utilities, all investors are risk-averse, and all investors can trade with zero transaction or taxation costs, to name a few examples. Under these conditions, the CAPM assumes that the required rate of return is given by a linear function of the assets' Betas, which is simply the relationship of the assets' regression coefficients against the market portfolio (Ross, 1976).

2.2 The second 'wave' of risk models

Even though there was wide spread use of the CAPM and other risk models through the 1970s and 1980s, the empirical reasoning behind these models were not really fundamentally challenged until 1992, when Fama and French (1992) proposed a ground-breaking new risk model. Fama and French isolated the role of Beta in association with returns by initially introducing company specific variables, such as size and valuation levels. The prominence of the Beta coefficient was also disputed by Fama and French, who proved no correlation in the market Beta and subsequent share performance.

Fama and French concluded that the CAPM's one-dimensional quantification of risk through a single risk factor was not best practice. Fama and French's findings had a profound impact on both the theoretical underpinning of the CAPM to investment theory, and the application of the CAPM in practice. The variables used in risk-models have increased exponentially over the years, and a multitude of models are currently available. A recent investigation into the current state of risk models by Hou, Xue and Zhang (2016) revealed 437 variables have currently been proposed to be used in models, and their analyses showed that 276 of the variables did not produce a significant high-minus-low average return for the specific variable.

The choice of a risk model can therefore be a difficult decision with all the models and variables available, and therefore both students and practitioners may rather choose a model for which the data is available and the results are easy to interpret.

2.3 The South African context for index-based models

The JSE traditionally had a heavily biased market with gold mining and industrial sectors historically accounting for a large proportion of returns (Van Rensburg and Slaney, 1997). Researchers followed the lead of the international literature by focusing on the impact of deviating from the specifications of the single factor model. The unique South African mining-industrial separation has its own impact on Beta estimation and was discussed in depth by Van Rensburg (2002). His research provided evidence to support the rationale that asset-pricing models on the JSE rather be specified within the APT framework, as opposed to the CAPM framework. Van Rensburg and Slaney (1997) proposed a two-factor APT model that included a Gold index, whereafter Van Rensburg (2002) identified the Resources Index and the All-Share ex-Resources Index as the best factors that should be used for the South African context.

The 'Resi-Findi' RS-APT model was later applied by Prayag and van Rensburg (2006) in a portfolio context, and they stated the RS-APT time series regression model as:

$$R_{pt} - R_{ft} = \alpha_p + \beta_{1p} (R_{RESIt} - R_{ft}) + \beta_{2p} (R_{ALSI \text{ ex } RESIt} - R_{ft}) + \epsilon_{pt} \quad \dots \text{ (Eq. 3)}$$

Where:

R_{pt} the return of portfolio p during period t,
 β_{1p} the sensitivity of return to the Resources Index,

β_{2p}	the sensitivity of return to the All-Share ex-Resources Index,
R_{RESIt}	the return on the Resources Index,
$R_{ALSI \text{ ex } RESIt}$	the return on the All-share ex Resources, and
R_{ft}	the effective short term risk-free rate.

For the purposes of this study, the APT model will be applied to single assets and not portfolios, and will be referred to as the RS-APT (similar to the notation by Basiewicz and Auret, 2010).

2.4 In conclusion

The sophistication of risk models have changed significantly over the past 70 years (see Hou et al., 2016), and the traditional CAPM model has been reported to not work as well as other models because of it applying only a market risk factor. On the other hand, the best index-based risk model for the South African context is reported to be the one adapted from the research done by Van Rensburg and Slaney (1997), which has been widely applied in local academic literature.

3. PROBLEM INVESTIGATED

This study compares the historic accuracy of both the CAPM model and the two-factor RS-APT (Resi-Findi) model in predicting daily share price moves over time, under the assumption that a better risk model will deliver a lower alpha (deviation from expected return) because it will be more specific in modelling the systematic risk portion of an efficiently priced company's returns. The null hypothesis is that the two risk models had no predictive difference in estimating future returns.

4. RESEARCH OBJECTIVES

This study compares the forecasting- or predictive ability of the two supposed best and worst index-based risk models available by analyzing the alphas of the two-factor Resi-Findi RS-APT model and the traditional CAPM. The main objective of the comparison is to research if any of the two models can be assumed to be better than the other model in predicting daily price moves. The two models are pitted against each other per calendar year, per share, and per CAPM alpha interval, in order to investigate if there are general tendencies or specific pockets of accuracy. Further research questions related to the secondary objectives asked (i) if the predictive ability of the models was stable over time,

if (ii) the magnitude of the alphas had an influence on possible variation between the two models, and (iii) if the two models had the same predictive ability across all the shares in the sample.

5. RESEARCH METHOD

This paper compares the goodness of fit of the CAPM model to the RS-APT model by analyzing predicted daily returns. The CAPM and RS-APT models described in Equations 1 and 3 respectively are thus applied to South African data. A sample of large capitalization shares was chosen to pit the models against each other in an environment where there was enough liquidity and market attention to the shares to assume a strong measure of efficient pricing. The shares contained in the JSE Top 40 index at the end of 2015 was included in the main sample, and their respective daily closing prices from the 1st of January 2000 to 31st December 2015 used. Shares that were not listed yet at the start of the period in 2000 are added to the sample as they became available for trade on the secondary market. The study does therefore contain a form of survivorship bias as a result of this process, and results should be considered in this light. All share prices and time series that are described in this section were downloaded from I-Net/BFA (name subsequently changed to IRESS). The time-series of the individual share prices were used instead of portfolios to measure how well the two models performed against each other when firm-specific risks are not diluted due to diversification.

Both the CAPM and the RS-APT models were applied by first estimating the respective Betas and intercepts (referred to as pricing errors by Basiewicz and Auret, 2010) by means of a regression analysis using daily data over a six-month period, and then applying the models to get an estimated or expected return on the following working day. In total 259,932 regressions were needed to calculate the full sample of daily alphas. The difference between the share's actual return and the respective models' expected returns were called the 'CAPM alpha' and the 'RS-APT alpha'. The 'alpha-difference' was defined as the CAPM alpha minus the RS-APT alpha. A negative alpha-difference would therefore imply that the RS-APT alpha was larger than that of the CAPM, or that the expected return of the CAPM was closer to the actual return of the share than that of the RS-APT model.

The CAPM model requires a risk free rate and a market return index, while the RS-APT model requires a risk free rate, a resources index, and an index that excludes the resources from the market return index. The daily returns of the STEFI-index was used as a proxy for the risk-free return for each day, and the JSE ALL-SHARE Index (J203) was

used as the market index for the CAPM. For the RS-APT model, the Resources Index (J000) and the All- share ex-Resources Index (J250) were downloaded from IRESS. The J000 was amended with the J258 index on IRESS due to a reclassification of the specific index.

After the alpha-differences for each share was calculated for each day in the sample period, the number of days that the alpha-difference was greater than zero or less than zero were counted. There were no instances of the alphas being exactly the same.

5.1 Alpha-difference quartile intervals

The paper uses a progressive approach in displaying the results in order to build an argument and understanding of the results. The alpha-differences are therefore first displayed per share for 2015 in a stacked bar chart. Figure 6.1 provides a visual overview of how various shares had different instance occurrence percentages between positive and negative alpha-differences during 2015.

The alpha-difference instance occurrence percentages per share were grouped in quantiles, and measured per calendar year over the entire sample period. The number of shares in the sample listed on the JSE during each calendar year were also counted and is displayed the right-most column of Table 6.1. This calendar-year overview was calculated to provide an idea of the stability of any relationship between the CAPM and RS-APT alphas over all of the 129,994 daily alpha differences that were calculated. The average alpha-difference per year was also calculated.

The aforementioned process was then repeated, but the 76,641 alpha-differences that were greater than or equal to -0.5 per cent and smaller than or equal to 0.5% were excluded in order to judge if other patterns emerged when investigating outlier alpha-differences.

5.2 Alpha-difference hypothesis testing

The next research question asked if there were any intervals where the CAPM did not predict higher returns that are statistically significantly higher than those of the RS-APT model at the five per cent level. The alphas were calculated and grouped into 0.5 per cent intervals, and the null hypothesis that the alpha-difference is equal to zero was tested for each share in each interval using a t-test.

The number of shares per interval with statistically significant alpha-differences at five per cent significance was then determined, and counted according to whether the statistically significant alpha-difference per share was positive or negative. Furthermore, the null hypothesis was tested for each interval's overall alpha-difference level, again using a t-test.

5.3 Lines of best fit

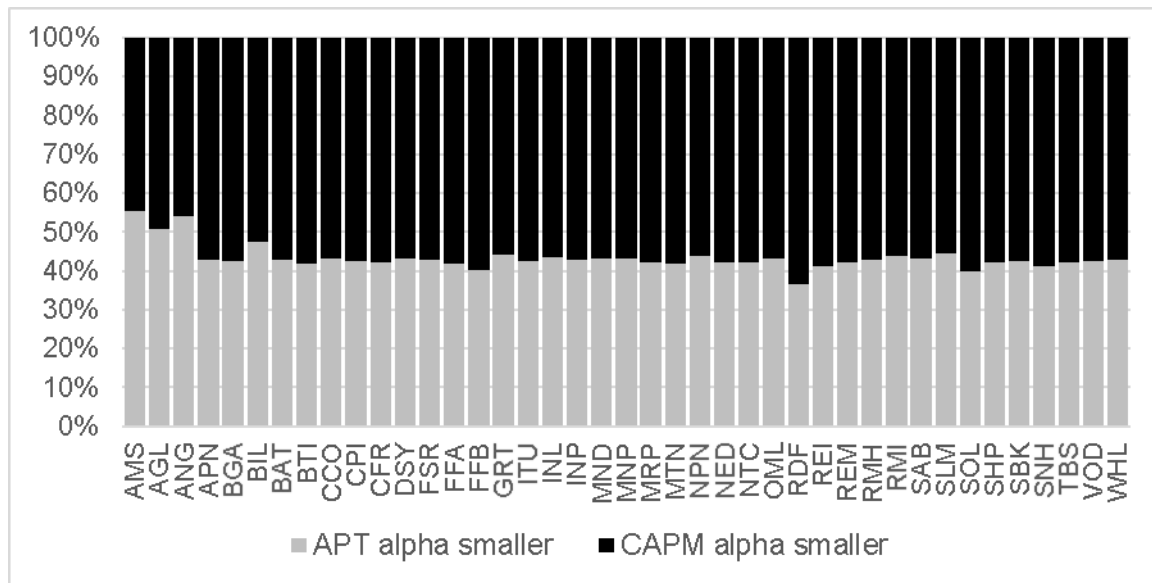
The last phase of the analysis produced a summary visual representation of the aforementioned results in the form of 41 lines of best fit for each share's alpha-difference profile, with the CAPM alphas on the y-axis and the RS-APT alphas on the X-axis. An ordinary least squares regression was applied to fit a linear line through the predicted alphas of both the models per share. All the lines of best fit were displayed together in Figure 6.2, as well as a dotted 45-degree line which represents a perfectly correlated prediction between the two models. The dotted line represents a benchmark for the null-hypothesis, where a line of best fit that is close to or on the dotted line would imply that the same alphas were predicted by the CAPM and RS-APT models.

The aforementioned regression and graphing procedure was repeated, but this time only for instances where both models' alphas were within the -0.5 per cent and 0.5 per cent bounds. For instance, if the RS-APT value was 0.6 per cent and the CAPM alpha was 0.4 per cent, the instance would be excluded from the analysis.

6. RESULTS AND FINDINGS

The alphas generated by the two-factor Resi-Findi RS-APT model was compared to that of the traditional CAPM, and the results of the investigation are presented in this section of the paper. The findings will first be presented as a series of sub-results ahead of the overall results from the full 2000 to 2015 sample in order to build a foundation for the interpretation of the overall result. Figure 6.1 represents each share's percentage instances during 2015 where either the CAPM alpha was less than the RS-APT alpha, or the RS-APT alpha was less than the CAPM alpha.

Figure 6.1: Percentage of daily instances per share where alpha differed (2015)



Source: IRESS data modelled in Microsoft Excel

The predominant pattern visible here is that the CAPM daily alpha was less than the RS-APT daily alpha during 2015, except for AMS, AGL and ANG. The other 38 large capitalization shares had an average of 57 per cent of their instances where the CAPM delivered a smaller daily alpha than the RS-APT model. Table 6.1 displays the results for every year in the sample when grouping the instance occurrence percentages in four different intervals.

Table 6.1: Number of shares per instance occurrence percentage interval where CAPM alphas < RS-APT alphas (full sample)

Year	Average alpha difference	Instance-occurrence percentage intervals				Shares with statistically significant average alpha-difference?		n
		60-100%	50-60%	40-50%	0-40%	< 0	> 0	
2000	0.07%	0	6	22	0	6	22	28
2001	0.10%	0	5	23	0	6	22	28
2002	-0.01%	0	24	5	0	6	3	29
2003	0.00%	0	23	6	0	4	3	29
2004	-0.06%	0	25	4	0	23	1	29
2005	0.07%	0	7	22	0	5	24	29
2006	0.02%	0	11	18	0	4	13	29
2007	0.03%	1	5	24	0	5	21	30
2008	-0.02%	0	25	5	0	2	4	30
2009	0.04%	0	29	7	0	5	27	36
2010	-0.01%	0	32	7	0	1	3	39

2011	-0.02%	0	8	32	0	32	3	40
2012	-0.05%	2	35	4	0	37	2	41
2013	-0.05%	0	37	4	0	36	4	41
2014	-0.08%	0	37	4	0	35	4	41
2015	-0.16%	0	38	3	0	38	3	41

Source: IRESS data modelled in Microsoft Excel

The average alpha-difference fluctuated between -0.16 per cent and 0.10 percent, with an average alpha-difference of -0.02 per cent over the entire sample. Table 6.1 also shows that the RS-APT model produced a smaller number of alphas during six of the 16 year history, while the CAPM's alphas were smaller during the 10 of the years, predominantly from 2008 onwards. Notably, there were only three instances where the CAPM delivered smaller alphas more than 60% of the time during any given year, and none for the RS-APT. That said, the number of shares with statistically significant negative alpha-differences only increased from 2011 onwards, while the RS-APT model often produced smaller alphas until 2009. Neither of the CAPM and RS-APT models therefore consistently produced a smaller alpha across the 129,994 daily returns analysed in the full sample.

Twenty-eleven (2011) was the only year where outliers in the data caused the number of shares with statistically significant alpha-differences to be inversely related to the instance distribution. The 29 shares that fell in the "40-50%" interval but had a negative average alpha-difference had an average of 49.3 per cent of its instances produce a negative alpha difference, and were therefore very close to be included in the "50-60%" interval.

The next step in the analyses was to measure if the 53,353 alphas that had an alpha-difference of greater than 0.5 per cent or less than -0.5 per cent continued the same pattern as in Table 6.1. These alpha-differences instances therefore represent days where larger than normal differences between the RS-APT and the CAPM alphas occurred. The results of this analysis are displayed in Table 6.2.

Table 6.2: Number of shares per instance occurrence percentage interval where CAPM alphas < RS-APT alphas (absolute alpha-differences of greater than 0.5%)

Year	Instance occurrence percentage intervals				n
	60-100%	50-60%	40-50%	0-40%	
2000	1	1	10	13	28
2001	4	1	3	20	28
2002	1	19	9	0	29
2003	2	16	10	1	29
2004	5	19	4	1	29
2005	1	4	21	3	29

2006	0	8	21	0	29
2007	2	7	20	0	29
2008	0	21	9	0	30
2009	0	11	23	2	36
2010	0	31	5	1	37
2011	6	29	3	1	39
2012	10	25	4	2	41
2013	3	33	5	0	41
2014	8	28	4	1	41
2015	2	36	3	0	41

Source: IRESS data modelled in Microsoft Excel

A similar pattern to Table 6.1 occurred in Table 6.2, but the results were much more pronounced and many more instances of high or low alpha-difference categorisations were measured. The CAPM and RS-APT models both dominated the lower alpha criteria more than 60% of the time, with 45 instances apiece. The CAPM again seems to have performed better from 2010 onwards and the RS-APT model until 2009. The two middle-intervals for 2011 are also now aligned to the number of shares with statistically significant average alpha-differences in Table 6.1 because the noise around the average was omitted from the sample for Table 6.2.

The next research question asked if there are any intervals where the CAPM does not predict higher returns that are statistically significantly higher than those of the RS-APT model. The alphas were calculated and grouped into 0.5 per cent intervals from minus three per cent to three per cent, and the null hypothesis that the alpha-difference is equal to zero was tested for each share in each interval. Two outlier intervals were also created to capture the 7.13 (13.59) per cent of CAPM alphas (RS-APT alphas) that fell outside of the plus and minus three per cent interval limits. The results of this analysis are displayed in Table 6.3, and statistically significant values are indicated with an *.

Table 6.3: CAPM alpha interval tests

Intervals	CAPM intervals		RS-APT intervals		Number of shares (n=41) with statistically significant alpha-differences (>0 vs. <0)	
	Total (n)	Alpha-difference average	Total (n)	Alpha-difference average	CAPM intervals	RS-APT intervals
-31%<= to <-3%	4,311	0.48%*	8,563	-0.06%*	11 vs. 0	1 vs. 3
-3%<= to <-2.5%	2,469	0.45%*	3,502	-0.01%	16 vs. 0	0 vs. 2
-2.5%<= to <-2%	4,033	0.34%*	5,052	-0.02%	20 vs. 0	0 vs. 0
-2%<= to <-1.5%	6,642	0.25%*	7,328	-0.02%	20 vs. 0	1 vs. 1
-1.5%<= to <-1%	10,830	0.19%*	10,180	-0.02%	22 vs. 1	0 vs. 1

-1%<= to <-0.5%	15,549	0.11%*	12,881	-0.02%	17 vs. 0	0 vs. 3
-0.5%<= to <0%	21,538	0.02%*	16,287	-0.03%	1 vs. 0	0 vs. 5
0%<= to <0.5%	20,277	-0.09%*	16,256	-0.03%	1 vs. 25	0 vs. 5
0.5%<= to <1%	15,388	-0.16%*	13,615	-0.02%	1 vs. 30	0 vs. 4
1%<= to <1.5%	10,448	-0.21%*	10,339	-0.01%	0 vs. 30	1 vs. 0
1.5%<= to <2%	6,692	-0.26%*	7,630	-0.01%	0 vs. 25	0 vs. 2
2%<= to <2.5%	4,324	-0.32%*	5,492	-0.02%	0 vs. 21	1 vs. 1
2.5%<= to <3%	2,537	-0.35%*	3,743	0.01%	0 vs. 13	3 vs. 2
3%<= to <31%	4,956	-0.54%*	9,098	0.07%	0 vs. 21	1 vs. 0

Source: IRESS data modelled in Microsoft Excel

The results of the interval analysis indicates a strong trend in the relative performance of the CAPM and the RS-APT models when grouping instances according to the CAPM, namely that each performed better than the other relative to how positive or negative the interval was. In other words, the CAPM produced progressively smaller alphas than the RS-APT for the positive intervals, while the APT produced progressively smaller alphas than the CAPM in the negative intervals. This pattern disappears completely when working with the RS-APT intervals, with all the averages much closer to the -0.02 per cent sample average alpha-difference than for the CAPM model and the number of shares with significant alpha-differences also diminishing markedly. All of the average alpha-differences per interval were statistically significant, even the 0.02 per cent average in the “-0.5%<= to <0%” interval due to a large sample size and very small variation.

Other noteworthy patterns observed in Table 6.3 are:

- i. that the number of individual shares with statistically significant alpha differences tapered off the further the intervals are away from zero for the CAPM intervals, indicating that the alpha-differences probably became more varied as the alphas increased and sample sizes decreased; and
- ii. that the distribution of the instances in the RS-APT intervals are more equal than that of the CAPM, showing that the CAPM expected returns were within one per cent of the actual return much more often than those generated by the RS-APT model.

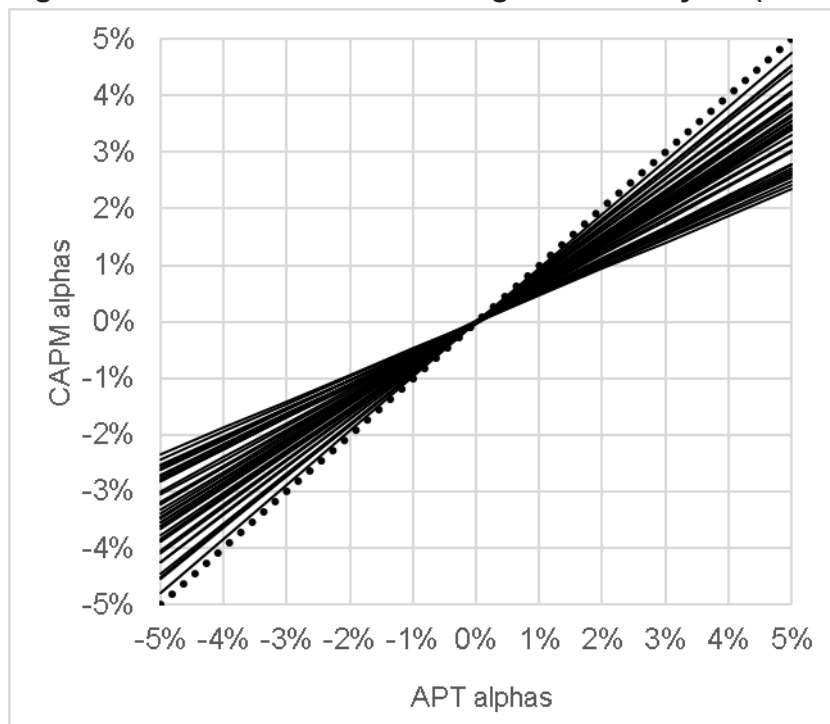
The last phase of the analysis tried to produce a collective visual representation of the aforementioned results. An ordinary least squares regression was applied to fit a linear line through the predicted alphas of both the models. Figure 6.2 contains a dotted 45-degree line which represents a similar prediction between the two models, and 41 thin lines representing each of the 41 shares in the sample's line of best fit produced by the regressions.

Each and every share's line of best fit starts above the dotted 45-degree line on the left and ends below the dotted line on the right in Figure 6.2. This visual result confirms Table 6.3's pattern showing that the CAPM alphas were generally lower than RS-APT alphas across all shares. In other words, it indicates that all of the shares in the sample produced lower CAPM alphas than RS-APT alphas for their entire history from 2000 to the end of 2015.

While Figure 6.3 shows that the CAPM again produced smaller alphas than the RS-APT model, the lines of best fit generally had a much lower Beta, or slope, than in Figure 6.2. This implies that the CAPM predicted returns better than RS-APT model when both models estimated returns close to the actual return of the share.

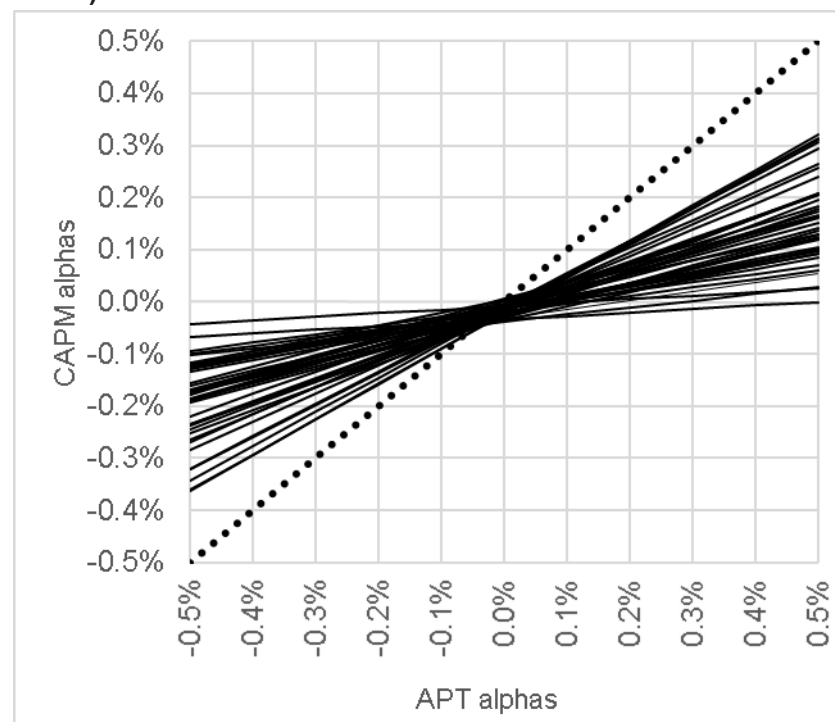
Overall, all of the results indicate that the CAPM did indeed produce expected returns that were slightly closer to the actual return.

Figure 6.2: Lines of best fit from regression analyses (All alphas)



Source: IRESS data modelled in Microsoft Excel

Figure 6.3: Lines of best fit from regression analyses (only alphas within -0.5% to 0.5%)



Source: IRESS data modelled in Microsoft Excel

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Two well-known predictive models were used side-by-side to compare the alphas they generated for daily share prices over an extended period of time. While the CAPM consistently produced lower alphas than the RS-APT model from the visual line-of-best analysis, the other tests showed that the relationship between the two models is not entirely predictable. Managers and researchers should therefore be aware that the CAPM may generally overstate the expected return compared to that of the two-factor RS-APT model, especially when small alphas are produced by the models. The use of the RS-APT model therefore understates the systematic risk element of returns relative to that of the CAPM for both positive and negative returns, and leaves more space for the unsystematic or specific risk portion of returns to be generated by a share.

It is recommended that these two models should be used with the knowledge that the CAPM may generally deliver smaller alphas than the RS-APT model, but that the relationship is unpredictable per day and per year. Further research into the factors driving the respective models' accuracies should also be conducted as no apparent pattern was visible in this study.

8. CONCLUSIONS

The CAPM model and the RS-APT models both showed good predictive abilities over time, with the CAPM model slight outperforming the APT model on a daily basis over the 16 year sample period. That said, most of the tests did not deliver a conclusive 'knock-out blow' to the RS-APT, and both models had periods of superior accuracy. Overall, the CAPM model therefore had an edge in predicting the effect of the systematic contribution of risks to the overall return of a share, and might be doing so because it does not have the two separate risk factors as found in the RS-APT model. The annual results did not show a conclusive pattern, but the CAPM did show increasingly stronger predictive abilities than the RS-APT model from 2010 onwards.

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**THE IMPACT OF THE GLOBAL FINANCIAL CRISIS ON THE CASH FLOW SENSITIVITY
OF INVESTMENT: SOME EVIDENCE FROM THE JOHANNESBURG STOCK
EXCHANGE LISTED NON-FINANCIAL FIRMS.**

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OF INVESTMENT: SOME EVIDENCE FROM THE JOHANNESBURG STOCK
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ABSTRACT

The relationship between a firms' investment behaviour, financial constraints and the level of internally-generated cash flows has been a subject of extensive discussion in finance literature. This inconclusive discussion revolves around the effectiveness of investment cash flow sensitivity (ICFS) as a suitable measure of financial constraints. There is also no consensus on the best firm-specific proxy to distinguish financially-constrained firms from unconstrained firms. The argument is whether the classification should be based on qualitative or quantitative criterion. The 2007 to 2009 global financial crisis provides a natural experiment to test if ICFS is an appropriate proxy for measuring financial constraints. It is expected that the firms' ICFS's should have increased during this period as most of the firms were constrained as a result of the funding constraints. The study will firstly seek to establish a suitable firm-specific criterion between firm size, dividend pay-out and cash holding level to

distinguish firms into financially-constrained versus financially-unconstrained. It will then establish the impact of the 2007 to 2009 global financial crisis on the ICFS amongst South African JSE-listed non-financial firms extending the period of review to include years prior (2003 to 2006), during (2007 to 2009) and post the crisis (2010 to 2016) to establish three panel data sets. Lastly the study will establish the effectiveness of ICFS as a measure of financial constraints. The study will use standardised annual financial statements for the periods 2003 to 2016 that will be obtained from the INET BFA database. A total of 287 JSE-listed non-financial firms will be included in the study. Financial firms will be excluded in the study sample because their capital structures are regulated. Non-financial firms with three or more years of missing variables will not be included in the sample as well. The study will utilise the system generalized moments method (GMM) regression model that yields consistent estimates even with unbalanced panel data sets. The study expects that, dividend pay-out is the best firm-specific proxy to distinguish firms into financially-constrained and financially-unconstrained firms. It also expects that prior the global financial crisis of 2007 to 2009, the ICFS for both constrained and unconstrained firms should have increased as firms were starting to feel the signs of an eminent financial crisis. During the crisis, ICFS should increase for both constrained and unconstrained firms. Lastly, post the crisis, the study expects that ICFS would decrease but remain positive for financially-constrained firms whereas for unconstrained firms ICFS, would be positive but insignificant.

NRF RESEARCHER RATINGS IN MANAGEMENT: IS SCIENCE REALLY SERVING PRACTICE?

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The knowledge economy and the wisdom era

NRF RESEARCHER RATINGS IN MANAGEMENT: IS SCIENCE REALLY SERVING PRACTICE?

ABSTRACT

South Africa's National Research Foundation (NRF) system rates the country's academics, including those in the Management field. Whether explicitly or not, these ratings are part of submissions academics make for promotions and for employment in South African universities. As such, assessment of the validity of this system is important. This paper seeks to conceptually evaluate certain characteristics of this system against certain general principles of reliability and validity. On the basis of the results of this evaluation, it is argued that assumptions that the NRF rating system is always valid or reliable as a differentiator of individual academics cannot be made unconditionally. This paper identifies certain validity issues associated with the current NRF rating system relating to Management science, and makes recommendations for how subjective measures can be replaced by objective ones. In

an era of Internet-enabled objective measures, reliance on subjective assessments of impact are no longer necessary.

1. INTRODUCTION

If one sought to identify dominant tensions in the literature relating to the progress of science, a candidate for this would be the tension between Popper's (1963) falsifiability thesis and Kuhn's (1970) thesis that science progresses as much as a result of changes in human shared values as on the back of scientific advances in their own right. According to Kuhn (1970:2), "science does not develop through the accumulation of individual discoveries and inventions" but through changes in the values and beliefs of scientists, termed 'paradigms' which typically resist evidence-based change until evidence has accumulated sufficiently to tip this balance of beliefs.

According to Still and Dryden (2004:273), Kuhn's theory "seemed to put a distance between nature and scientific practice, and to undermine Popper's principles of demarcation." What is of critical importance about Kuhn's (1970) contribution is perhaps the way human subjectivity is placed centre-stage in what was considered 'objective' natural science, invoking academic scrutiny around the role of subjectivity in holding back the progression of scientific progress, notwithstanding social scientific critique of objectivity itself and other questions around the legitimacy of the goal of scientific progress itself (Sokal and Bricmont, 1998).

It has long been known that systems theory underlies the workings of human systems, particularly in the research contexts of Management science (Boulding, 1956), and that there are fundamental differences between the natural and social sciences, not only in methodological approaches but also in terms of focus (Latour, 2000), which have important implications for the tensions between monodisciplinary versus non-monodisciplinary research. This tension is summarised by Besselaar and Hemeriks (2001:1) as follows: Interdisciplinarity is an important and complex issue. It is important as modern society increasingly demands application-oriented knowledge, and the usability of scientific knowledge generally requires the combination and integration of knowledge from various scientific disciplines. Traditionally, the disciplines have been very dominant in the organisation of the science system, in the reward system, and in the career system. Nevertheless, funding agencies are increasingly stressing the social relevance of research results, and consequently a new mode of application-oriented research is emerging, on top of traditional academic research.

These changes have therefore essentially given rise to two modes of knowledge production, and to a differentiation of research according to the extent to which it is disciplinary versus interdisciplinary (Besselaar and Hemeriks, 2001). This longstanding differentiation is highlighted by Gibbons, Limoges, Nowotny, Schwartzman, Scott and Trow (2002:1), who argue that these trends “amount, not singly but in their interaction and combination, to a transformation in the mode of knowledge production,” which in turn “is profound and calls into question the adequacy of familiar knowledge producing institutions.” Given the differentiation between modes of research described here, and the growing need for applied research seeking to solve societally important problems, which is defined more by the problem than disciplinary origin, and therefore necessarily interdisciplinary (Besselaar and Hemeriks, 2001; Gibbons et al., 2002), it is argued here that researcher rating systems that are applied in such a way as to discriminate against interdisciplinary research can cause harm, as they might disincentivise societally important research in favour of monodisciplinary research, and may give rise to conditions which incentivise ‘gaming,’ or where research is conducted for the express purpose of meeting the goals of a system, or prioritising these goals at the expense of societal contributions. It is argued in this paper that the societal costs of such a system might be particularly salient in the South African context, or similar contexts, in which localised knowledge is particularly important, yet where localised contexts can be poorly represented in international high-impact journals.

Alvesson and Gabriel (2013:245) decry the standardisation of research and publications “into formulaic patterns that constrain the imagination and creativity of scholars and restrict the social relevance of their work,” and which therefore result in the proliferation of non-innovative research publications. This criticism is echoed in criticisms of the culture of ‘publish or perish’ (Richard, Plimmer, Fam & Campbell, 2015), which seems to contribute to wasteful publication and unethical practices (Rawat & Meena, 2014). In light of the serious limitations associated with a system that creates a culture of accumulating points and impact factor scores, and which rejects ratings applications on account of a lack of monodisciplinary focus, notwithstanding societal contribution, this paper seeks to strike a cautionary note, and to offer certain insights on the basis of the literature, which might be usefully incorporated into such a competitive system to reduce the harm it may cause. Drawing from the relevant literature, this paper seeks also to make the argument that a system that rates academics through subjective rather than strictly objective evaluation might lack sufficient validity to be used to create perceptions as a differentiator of the quality of academics, based on their research. Similarly, given evidence that strong cross-

disciplinary differences exist in terms of the relationship between objective criteria and the subjective NRF rating system's ratings (Fedderke, 2012), research into ratings in the Management field is considered important, and perhaps timely. Fedderke (2012:3) found, for example, that, on average, "C-rated scholars in the Biological Sciences have the same h-index as A-rated scholars in the Social Sciences," and that ratings in the business sciences were the most difficult to attain for individuals with high h-indices, only exceeded in difficulty by those in the Medical and Biological Sciences. Arguably, such attempts to prescribe a rating to an individual can suffer from a host of biases well considered in the scientific literature. This paper therefore seeks to identify certain potential biases associated with the application of the South African National Research Foundation's (NRF) rating system, and to link these potential biases to a discussion of the consequences of such a system, as well as to how these consequences accrue differently to different stakeholders, particularly societal, who might be the most powerless in the face of a system that might not incentivise societal problem solving. These societal costs are expected to also result from decision criteria which subjectively deviate from relatively more objective measures of research performance. A justification for the research is now offered.

2. JUSTIFICATION OF THE RESEARCH

The arguments made in this paper are considered important, for the following reasons. *First*, the violation of central tenets of the academic process of gatekeeping itself might be considered in turn a violation of academic ethics, in that principles of anonymity and confidentiality of identity are not upheld in NRF rating assessments. This is perhaps especially problematic given the intensity of identity politics (Friedman, 2014), and the racially oppressive history of the country associated with institutional racial discrimination on the part of the Apartheid regime (Carrim, 1998; Habib and Taylor, 1999; Crush, 2001). Given this historical context, to have the racial and gender identity of an individual known to assessors is perhaps unethical, given the historical context of the country, and given the career implications of rating. This is especially concerning if the objective evaluations of one's published work has already been evaluated by expert peers in the topic areas of journals, and therefore already vetted under conditions of anonymity.

Second, a similar violation of the principles of anonymity might relate to issues of academic freedom. The requirement for a 'coherent stream' of research has arguably been widely interpreted to suggest an applicant's research should fall into a 'silo,' or into largely

monodisciplinary stream of research that does not deviate in its focus. Because an individual's entire portfolio of research is 'declared,' any deviation from silo focus can be penalised. This is at odds with principles of academic freedom, for a number of reasons. Arguably, in doing so, the NRF rating system as applied in Management science effectively shapes the growth of research to remain in silo areas, which might stunt important multidisciplinary or transdisciplinary innovations, as already stated above. This harks, perhaps, to Lysenkoism (Hossfeld and Olsson, 2002), in that shaping research to grow in silos, or 'straight monodisciplinary' lines, might deny important changes in research trajectories, or might mitigate against important scientific advances in applied social sciences, particularly in socially important areas, particularly given that the 'second mode' of social science knowledge creation (Gibbons et al., 2001) is associated with applied interdisciplinary research that is necessarily defined by the (typically societally important) practical problems that Management science seeks to address in applied research. This might not be as big a problem for the natural sciences, as monodisciplinary work is arguably less suited to social research and the multiple influences that can come to play in causing social conditions. Applied research in the social sciences, and in Management, can in many cases require transdisciplinary approaches, and for grant funding purposes, a multidisciplinary focus is often necessary. If Management researcher rating applications are rejected on account of a lack of a monodisciplinary focus, this issue should be the topic of further research.

Similarly, how scientific is it of a rating system to potentially penalise changes in a researcher's trajectory, away from a singular monodisciplinary focus, or even toward another? Arguably, if a researcher can be denied rating due to changes in trajectory (and hence a lack of a 'coherent' focus) this could potentially count as harmful practice, as it can incentivise lack of innovation and constrain natural changes in the trajectory of an individual's research interests. Such systems might operationalise the exact problems identified by Kuhn (1970).

Third, another violation of the principles of academic freedom might be associated with the prescriptive nature of research 'authorities' in general. By not allowing subsidy for many good journals, yet officially including 'bad' journals in official lists, the stage is set for perverse incentives. It is common knowledge that journals that were identified as 'predatory' by Beall's (2016) list, were in the same year still fully accredited for subsidy by the South African Department of Higher Education and Training (DHET). Beall's list was taken down at the start of 2017, however (Strielkowski, 2017), leaving academic staff, particularly those new to the system, at the mercy of official lists.

Indeed, who can forget the case of a journal fully accredited by the DHET (and IBSS indexed) being de-accredited retrospectively, two years after South African academics had (perversely) accounted for a large share of its contents. One has to ask; has the NRF through its rating system not further reduced social science academic activity to that of a 'game?' Gamification of the system is hugely problematic if this results in the proliferation of ever-growing volumes of non-innovative research that is simply targeted at formulaic journal publication (Alvesson and Gabriel, 2013). Have we created a monster? The test of this would perhaps be the extent to which research publication genuinely contributes to the benefit of societal stakeholders. If much of the research produced is not read by many, then what of the high levels of investment in the production of barely read research? If such a system incentivised innovative research or societally important research findings, it is possible that the system might be less wasteful. The NRF rating system, at least to the extent it relates to the rating of Management academics, might do well to take cognisance of these issues.

One may ask, who gets hurt in such games? Is it those established in publication, or is it the emerging cohorts of young academics who rely on the mentorship of those more established? Is the NRF rating system one which facilitates inclusion and development, or is its effect the opposite, acting as a mechanism of exclusion, or penalising innovative or societally-oriented interdisciplinary research? Similarly, is this rating system acting as a catalyst to create a culture of competition which differentiates publically between 'winners' and 'losers' in an academic game? If submission to such a system would result in societal good, or be aligned with societally important needs, then tolerating such a system would be justified. If not, then this should perhaps be a spur to further research into this topic. It takes courage, perhaps, to speak truth to power, or to take a stand on issues that affect an academic's career progress, or 'putting one's neck out' in the face of a powerful system many are invested in. Nevertheless, such research is important if it leads to more transparent debate and scrutiny of a system that either directly or indirectly affects us all, either as academics or as societal stakeholders.

As indicated previously, given evidence that ratings outcomes are not consistent across different academic fields (Fedderke, 2012), the objective of this paper is therefore to question certain of the assumptions that underpin the South African NRF researcher rating system, as it relates to the rating of Management researchers, in order to highlight instances where principles of ethical and equitable assessment might not relate to practice. In doing so, certain suggestions for improved ethical use of such a system are

suggested. The context and background to this topic is now considered in relation to the arguments made in this work.

3. CONTEXT AND BACKGROUND

Begin typing here. The NRF rating system is a South African state research funding agency that applies a peer-based evaluation system of rating researchers; the history of this organisation has its roots in its 1980s establishment by the predecessor to the NRF, the Foundation for Research Development (see Pouris (2007) for a useful history of the NRF and its origins). According to the NRF's (2017) own overview:

The NRF is an independent statutory body established through the National Research Foundation Act (Act No 23 of 1998), following a system-wide review conducted for the Department of Arts, Culture, Science and Technology (DACST). The new entity incorporated the functions of the research funding agencies that were previously servicing various sections of the research community, namely the former Centre for Science Development (CSD) of the Human Sciences Research Council (HSRC) and the former Foundation for Research Development (FRD) that included several National Research Facilities. As a government mandated research and science development agency the NRF funds research, the development of high-end Human Capacity and critical research infrastructure to promote knowledge production across all disciplinary fields. The goal of the NRF is to create innovative funding instruments, advance research career development, increase public science engagement and to establish leading-edge research platforms that will transform the scientific landscape and inspire a representative research community to aspire to global competitiveness. The NRF promotes South African research interests across the country and internationally, and together with research institutions, business, industry and international partners we build bridges between research communities for mutual benefit.

The mandate of the NRF is to “promote and support research” through “funding, human resource development and the provision of the necessary facilitates” in order to facilitate “the creation of knowledge, innovation and development in all fields of science and technology, including indigenous knowledge” and thereby contribute to “the improvement of the quality of life of all the peoples of the Republic” (NRF, 2017). Its strategy is based on “four core tenets” these being transformation, excellence, service culture and sustainability. Its mission statement includes the following corporate values, namely “passion for excellence; world-class service; ethics and integrity; respect; people-centered; accountability.”

In terms of NRF rating, the following is a verbatim summary of the rating exercise (NRF, 2017):

The NRF rating system is a key driver in the NRF's aim to build a globally competitive science system in South Africa. It is a valuable tool for benchmarking the quality of our researchers against the best in the world. NRF ratings are allocated based on a researcher's recent research outputs and impact as perceived by international

peer reviewers. The rating system encourages researchers to publish high quality outputs in high impact journals/outlets. Related researchers as supervisors will impact cutting-edge skills to the next generation of researchers. The rating of individuals is based primarily on the quality and impact of their research outputs over the past eight years, taking into consideration the evaluation made by local and international peers. It identifies researchers who count among the leaders in their fields of expertise and gives recognition to those who constantly produce high quality research outputs. Several South African universities use the outcomes of the NRF evaluation and rating process to position themselves as research-intensive institutions while others provide incentives for their staff members to acquire and maintain a rating and give special recognition to top-rated researchers.

This description suggests that an individual is assessed on his or her recent research outputs and impact as 'perceived by international peer reviewers.' There seems to be no lack of objective indicators of impact, and there should therefore be no problem in developing an objective index of impact (Fedderke, 2012), based on either citations or on a formula that takes into account the impact factors of publications. Instead, what seems to happen is that an individual's research is subjectively assessed by a small group of evaluators, where for example four can recommend rating, but two might object, resulting in the rejection of a rating. There seems a clear problem in that much variance exists in ratings, an issue expressed by Fedderke (2012:1/2) as follows:

Given that such decisions can carry substantial bearing on the career prospects of scholars, it is not surprising that the decision making of funding bodies are viewed as being incompletely objective, and subject to the allegations of bias and inconsistency of various hues. Unfortunately, in general such claims are difficult to assess objectively against real data...This very substantial differential in research funding will invariably be critical in the career prospects of researchers. As such, that the peer review process is impartial, rewards true merit, and serves the development of scholarly activity is therefore of critical significance to researchers in South Africa...It is therefore not surprising that the review mechanisms of the NRF are often subject to controversy amongst the scholarly community. One of the sources of controversy arises from claims that the peer review mechanism is subject to bias at worst, or inconsistency across researchers and disciplines at best.

According to Fedderke (2012:2), "since the NRF undertakes its peer review under conditions of anonymity and in a closed review process, the claims of the NRF that its peer review process issues in reliable outcomes, is inherently not verifiable due to the lack of transparency of the process" whereby "its peer review is not subject to the same public scrutiny that the publication process in peer reviewed scholarly journals faces once a scholarly contribution is accepted for publication." Of note here is the fact that the identity of the individual is not anonymised, so unlike the typical review process, the individual is exposed to bias that the journal article review process has mitigated. It is argued here that such issues cannot simply be discarded, as at best there will be inconsistencies between different fields and individual ratings. At worst, the inherent possible bias in these forums could be used to settle scores, and can be used maliciously. This is not to say this is

occurring, but in the absence of comparative evidence of inconsistencies due to the lack of transparency of the process, the potential for harm arguably exists. As Management scientists, it is important to ensure the fairness of a rating system that allocates career advantages in this field, particularly in a context that seems to prioritise research in promotion rather than teaching, notwithstanding the societal imperatives associated with massified higher education and the dramatic inequalities in access to opportunities in our society. NRF ratings are awarded according to the following categories (NRF, 2017):

- A – Leading international researchers
- B – Internationally acclaimed researchers
- C – Established researchers
- P – Prestigious Awards
- Y – Promising young researchers

In order to understand these issues in terms of underlying regularities or deeper theoretical relationships, theory is now considered with a view to providing a more thorough perspective of the phenomena under discussion. Dominant in the discussions above is the notion that objective measures of scholarly impact do exist, and that subjective assessment can be harmful due to exposure to bias. Seminal literature might offer insights into these debates.

4. THEORY AND OVERARCHING PRINCIPLES

For Popper (1972), subjective knowledge differs from objective knowledge. The former depends on our senses and the latter is associated at best only with tentative hypotheses. Subjective interpretations rely on probability theory due to incompleteness of knowledge, but at best remain beliefs, which can only be corroborated by degree. Objective interpretations, however, can be tested (Popper, 1959). Hence we can only know what we can falsify, according to Popper's logics. From Popper's work, the alternatives to falsifiability are clear, that failure to consider objective criteria can be associated with a cost. The cost of subjectivity in ratings applications fall not on the anonymous assessor but on the applicant, who must wait a number of years before applying again. This discussion brings to mind the problem of making a Type I or Type II error in significance testing, where at least an objective measure can be used as a tool.

According to Popper (1963:6), Einstein's theory that light would be influenced by gravitational forces is falsifiable, in contrast with Adler's psychological theory which seemed to fit "all instances" of phenomena, which are "compatible with the most divergent human behaviour, so that it was practically impossible to describe any human behaviour that might not be claimed to be a verification of these theories". Burrell and Morgan (1979) seminally differentiate between four paradigms relating to ontological and epistemological

assumptions of social scientists along two axes, namely one related to (i) objectivity versus subjectivity, and the other related to (ii) a 'sociology of radical change' versus a 'sociology of regulation.' This schema placed work such as that by Marx in the objective/radical change quadrant, and that of what is typically regarded as natural science in the objective/status quo quadrant. The other quadrants include the radical humanist (subjective/radical change) and interpretive (subjective/status quo). The point here is to acknowledge the seminal importance of subjectivity in social science research, and to relate it to the differentiation between subjective and objective assessments of phenomena, not least of which is the assessment of individual researchers in national rating schemes.

Arguably, Popper's (1963) logics would therefore fall into but one of Burrell and Morgan's (1979) incommensurate 'paradigms.' The other three paradigms, on the other hand, might accommodate Kuhn's (1970) logics, where they are antithetical to Popper's (1963). In a nutshell, the purpose of revisiting seminal conceptions of the business of science is to simply show the contested terrain upon which we as academics ply our trade. To reduce this complexity and differences of views to a numerical rating scale justifies ongoing debate as to the validity of such exercises.

There is one aspect of our business, however, that when discussed, one can typically find unanimity amongst academics. This relates to the principle of objective fairness in matters relating to the employment relationship, and in the need for fairness in assessments of academic achievements which provide inputs to employment decisions of employers.

As explained, if there is widespread use of South African National Research Foundation ratings for employment and promotion purposes in South African institutions of Higher Education (even if not explicitly acknowledged), then these ratings should be based on objective measures. Subjective measures might have been appropriate prior to the development of Internet based measures of productivity and impact, but subjective measures are perhaps outdated in a context in which harm can come to applicants due to subjectivity bias.

The first issue relating to the validity of the system concerns the NRF rating process itself. A useful way to understand this is in its deviation from 'objective knowledge which is already known.' What is already known of a researcher applying for a rating? Using journal article publications as an example, there is usually clear evidence of the extent to which such an individual has been assessed by the academic community in general, in the form

of published and accepted work that has been vetted by the academic gatekeeping system itself, in the form of reviewers and editors.

Journal reviewers are typically knowledgeable about the topic area of a journal article, and are accountable to journal editors, the quality and standing of which are generally reflected in the impact factors of the journals they edit. Undoubtedly, this system itself is far from perfect, but is arguably based on a systematic process, and the evidence of engagement with this process can be assessed in terms of numbers of high quality publications via their impact factors. Where subjective assessments are made of NRF ratings applications, only in 'first mode' knowledge production (Gibbons et al., 2002) will the reviewer be knowledgeable of the areas of research of the applicant. If applied research has been used, disciplinary divergence will necessarily occur, and a reviewer will only be able to attest to a portion of the applicant's portfolio.

In most instances of journal article quality control, double, or even triple-blind submitter-anonymous reviews are used, which if applied properly largely remove gender, racial or other forms of bias, even if they cannot remove bias associated with academic assumptions and paradigmatic beliefs (Kuhn, 1970; Burrell and Morgan, 1979). Thus the volume of an individual's work and its quality *has already been assessed* in a relative objective manner. The duplication of this process in an age of improving technological opportunities for objective measurement is costly, not only in terms of bias, but also in terms of time and resources.

In terms of the principles that guide the ratings process, the primary problem then, *firstly*, is the way the NRF rating system then takes this evidence, which is already in a quantifiable and objective form, and *violates principles of anonymity*, which this pre-existing body of evidence of publication history did not violate in its accumulation. Anecdotally, one hears constantly in corridors of researchers with prodigious volumes of research, including with articles published in some of the best journals in the world, who receive substantively lower ratings than others with much fewer publications and in lower-ranked journals. One cannot but wonder as to the extent such inequity is the result of the violation of the anonymity principle which was not violated every time such researchers submitted their work for blind review. What makes the NRF rating process especially pernicious is perhaps that it occurs in a context in which discrimination was historically not only tolerated officially but was actually enshrined in Apartheid laws and state institutions. Change to democracy cannot be considered to have removed prejudice itself, even for academics. Removing the protection of anonymity, individuals are exposed not only to

potential bias based on their race and gender, but also to bias that can be related to any aspect of their lives or lived identities- they are *known*.

Individuals have different personality endowments, different sexualities, different life choices, and in a world of social media this information is but a click away from anyone with knowledge of a name and a person's basic information. This is not to say this bias is necessarily the result of the endemic inequities of the NRF ratings process, but on the level of principles, the possibility of bias in these ratings cannot be excluded. Moving from a body of work that has already been anonymously assessed via (a relatively larger number of) blinded review by knowledgeable peers to a subjective and non-anonymous assessment by six or so reviewers is perhaps like moving from the properties of ratio data, to the adjudication of apples and oranges. This process is almost guaranteed to reproduce inequity in assessment of academic research because academic research is no longer the sole criteria for judgement. And what of the new emerging cohort of academics, who have arisen despite the structural constraints of the country's past. Can these scholars genuinely be guaranteed that the system will be as objective and fair as the blinded reviews on which they have built up their portfolio of work? Who is most disproportionately affected by this system? Is it those entrenched in the system, who hold power over these new entrants? Is this system not institutionalising power, and the ability for those already established to exercise it at the expense of those seeking to enter the system? In the sections that follow, differential vulnerabilities to such a system are considered in terms of power and its potential for harm.

Secondly, the NRF rating system works through reviewers chosen by the person being rated. This *violates principles of objectivity* in the most fundamental way. While different academic fields differ in their ontological and epistemological assumptions related to the tensions between subjectivity and objectivity, as well as between radical change and the maintenance of the status quo (Burrell and Morgan, 1979), there can be little disagreement that evaluations, and particularly public evaluations, of individuals, should be based objective criteria.

The ratings of an individual are clearly different in their validity from the work being assessed that had been through blinded peer-review. Arguably, those listing their lifelong friends as reviewers of their work can achieve extraordinarily high rankings. This is not to take anything away from those who do become highly ranked. These high rankings have largely been found to correlate with objective measures (Fedderke, 2012), and it is typically those who have been unfairly rated on lower scales where the inconsistencies arise. After

decades of work in an area of work, it is likely that personal relationships will form. But to subject a ratings applicant to subjective ratings can prejudice those who are unfortunately not as adept at building personal relationships.

Given the range of personality types in academia, subjective ratings would perhaps disadvantage the introvert at the expense of the extrovert if the applicant is known to reviewers and even to panel members. On this count alone, it might be argued that the system is open to bias, and therefore perhaps harmful in its consequences. One's NRF rating is often cited in communications, and a rating stands as a badge of honour inseparable from the individual and his or her public standing. Again, in many instances, who can challenge the (ongoing) corridor conversations which continue to surround egregious inequalities in NRF ratings? Obtaining a relatively high rating on the basis of substantially lower research output which has been published in lower impact factor journals than others is not necessarily a boon to such an individual either, and it can be argued the rating system can be harmful to these individuals too, as this knowledge is public, and a subject of interest.

Thirdly, as has been mentioned previously, the NRF rating system as it stands might be *vulnerable to abuse of power*. Academic ranking is hierarchical, reflected in large status differentials between the elite and those not considered part of the elite. *The academic context is one in which exclusivity is celebrated*. The status differentials between the Ivy League and institutions of lesser stature are perhaps part of accepted everyday academic practice, as these differentials echo down the line, with almost every university and its academics 'ranked' tacitly against other institutions. Who can deny the differences in prestige associated with different institutions, and potential bias associated with assumptions of superiority/inferiority? When one foregoes the protection of anonymity in assessment of academic outputs, one also puts oneself at the mercy of the baggage that goes with one's institutional associations, and bias that can emerge from these associations. But central to the issue of power is the way power is a currency of sorts, and just like economic inequality it has been used to exclude, or marginalise those less powerful. In the words of Foucault (1982:780):

I would like to suggest another way to go further toward a new economy of power relations, a way which is more empirical, more directly related to our present situation, and which implies more relations between theory and practice. It consists of taking the forms of resistance against different forms of power as a starting point. To use another metaphor, it consists of using this resistance as a chemical catalyst so as to bring to light power relations, locate their position, and find out their point of application and the methods used.

The NRF rating system would be open to power abuses if it were inconsistent in its rating across different disciplines, or inconsistent across individuals. Arguably, the identification of inconsistencies should be reason enough to move to a more objective system.

The problem of power is particularly troubling if such systems can systematise power in such a way as to incentivise different types of research over others. The monodisciplinary approaches suited to the natural sciences differ from the multidisciplinary or even transdisciplinary approaches that are necessary when problem solving, or practitioner-focused research is undertaken (Gibbons et al., 2002), representing mode one versus mode two research production, respectively.

Indeed, a monodisciplinary focus in applied research can be problematic. For instance, in the medical context, a monodisciplinary approach to practical diagnosis of patients has been found to be potentially harmful, in comparison with a multidisciplinary approach (Verhey, Jolles, Rudolf, Rozendaal, Plugge, de Vet, Vreeling and van der Lugt, 1993). In applied (second mode) social science research which focuses on solving societally important problems, it might be more difficult to demonstrate the singular, or rarified monodisciplinary focus that the NRF system seems to reward.

However, *in terms of objective measures*, evidence suggests that interdisciplinary research is not valued any less than monodisciplinary research according to qualitative (journal peer review-based) or quantitative (bibliometric) measures (Rinia, Van Leeuwen, Van Vuren and Van Raan, 2001). This suggests that in academic publishing rigor is not the exclusive domain of monodisciplinary research, notwithstanding the rejection of Management rating applications on account of the lack of a monodisciplinary focus. Arguably, to address Kuhnian paradigmatic challenges (Kuhn, 1970), interdisciplinary, multidisciplinary or transdisciplinary approaches might be particularly useful in social scientific contexts where management practice is the focus of research. Even methodologically, enhanced discriminant and convergent validity of research (Campbell and Fiske, 1959) is increased through the use of different methods and frames of reference. Transdisciplinary approaches are particularly important for socially important research in the area of sustainability, which typically require new ways of knowledge production and decision-making (Lang, Wiek, Bergmann, Stauffacher, Martens, Moll, Swilling and Thomas, 2012), and such approaches are perhaps particularly important in the context of a developing country like South Africa.

5. THE WAY FORWARD

As Fedderke (2012:2) stresses, there are “a wide range of measures that measure both the number of scholarly contributions of scholars, and an even wider range of alternative measures that measure impact through citations and various derivatives of citations-based measures now available for consideration.” Drawing from Fedderke’s (2012) objective measures, an alternative ratings system is now considered, which might reduce subjectivity bias in ratings assessments.

A ratings system should minimize bias as much as possible, but the shape and form of a ratings system will necessarily value certain types of research over others. The basis for a re-design of a system should therefore be widespread consultation across different societal stakeholder groups. Societal contribution should therefore be an anchor of such a system. If the present system’s focus on impact is considered, at the expense of hard work, reflected in prodigious output, or if evidence of prodigious output is penalized, this would also be unacceptable, as this is often the channel through which learning and development occurs. Worse, such an approach can incentivize perverse effects. It is not the role of such a system to hold back productivity, but to incentivize the societal contribution and impact of such productivity. A more objective system might include all of the following measures:

(i) *A measure of raw output* is necessary, so that hard work is incentivised, as a path to researcher development, and innovative efforts are not penalized, as might occur under the present system.

(ii) *A citation count* is also necessary, which directly measures the impact of research, which might be divided by the number of years a researcher has been active. This would mitigate the effect of accumulation of citations over time where this might not necessarily reflect improvements over time.

(iii) The combination of output volume and its impact is captured in *an h-index*, which seeks to capture “a robust single-number metric of an academic’s impact,” in that it “corrects both for single high-impact publications, as well as for authors that publish a large number of uncited papers” whereby it validly favours those that publish “a continuous stream of papers with lasting and above-average impact” (Fedderke, 2012). The use of an h-index would arguably be more valid than the use of a system open to subjectivity bias. Someone with an h-index of seven would have at least seven papers with seven citations each, for example. Following Fedderke’s (2012) suggestions, the h-index can be adjusted to better

reflect current research, whereby it is adjusted for time since publication, whereby it is weighted according to the time since publication, or patterns in co-authorship, particularly in terms of the differences in co-authorship behaviours across fields, whereby citations for a paper might be divided by the number of co-authors (see Fedderke (2012) for a useful summary of potential indices).

Arguably, the use of these three methods can reduce the subjectivity inherent in the ratings process currently. It was not the objective of this paper to explain the permutations of the h-index and similar measures, given that modifications to these objective measures have addressed previous critiques (Fedderke, 2012), but to make the point that the dangers of subjective measures can be addressed by shifting the evaluations of researchers to electronic measures that are relatively more robust to the influence of subjective bias and inconsistencies.

(iv) The current system might be missing the point in evaluating researchers on an absolute basis, and should perhaps take recourse to a *relative approach*. New sites such as Researchgate (<https://www.researchgate>) use a measure of a researcher's rating relative to all other included researchers, and this can perhaps provide an additional complementary objective measure against which rating can be conducted.

In all, a host of objective measures are now available for ratings systems to use, which arguably provide a holistic and valid measurement process, particularly when taken together. The lack of innovativeness associated with the dominance of subjectivity identified by Kuhn (1970) is problematic, and it is perhaps time for the South African NRF system to move out of the past and into the present by changing to a technologically enabled system. Given the need to move away from past discrimination and inequality, technological systems would be unable to discriminate on spurious grounds unrelated to the impact of an individual's research, and would improve the validity and reliability of the evaluation process.

It is difficult to avoid continued reference to Fedderke (2012), but this is considered necessary in that South African academics seem loathe to critique the NRF system as there are few who have challenged its conventions in the literature. So the final reference draws from Fedderke's (2012:19) summary of the limitations of the subjective NRF ratings process:

...it is based on subjective judgement; it favours a narrow disciplinary focus; it covers only a limited time span; it favours researchers in institutions with greater capacity; it does not even consider objective output and/or impact measures; the process is untransparent and unverifiable.

It is hoped that the practices of research rating that were developed in a time when the technology did not exist to record each and every indexed publication of an academic will change, and that the rating system will come into its own, as a valid and reliable system of evaluation. Until it does, the costs of a subjective and inconsistent system will stay with us.

6. CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

The objective of this paper was to highlight certain of the biases and inconsistencies associated with the South African research rating system, particularly as these relate to the field of Management. Given evidence of inconsistencies in ratings across disciplines, it was argued that technological advances now offer a host of objective measures of both research productivity and its impact. It was argued that the current system is associated with certain validity and reliability issues, which are reflected in inconsistent ratings across individuals. It was also argued that the rating system as it stands violates certain principles of ethical research, namely (i) that it violates the principle of anonymity, in a context which has a history of possibly being among the most discriminatory in the world, (ii) it violates the principle of objectivity, whereby subjective bias and inconsistencies have been shown to be present, and (iii) it violates the principle of equality of power, as the academic context is one where exclusivity and ivy league aspirations are associated with high power distance, and those with power have a mechanism to exercise it, and to exclude. This exclusion is also on a public platform. Thus the subjectivity inherent in (ii) arguably makes the power dynamics of (iii) ethically untenable. An alternative system of evaluation was offered, drawing on previous work that had suggested the same. It was concluded that given technological advances have made objective evaluations possible, the use of biased and inconsistent measures are not consistent with ethical practice. Indeed, if the NRF's (2017) mission statement includes the values "passion for excellence; world-class service; ethics and integrity; respect; people-centered; accountability" then these values would be expected to extend to the uptake of technological innovations in support of quality improvements in the research rating system itself.

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IMPROVING STUDENTS' EMOTIONAL INTELLIGENCE THROUGH A WORKSHOP INTERVENTION ENHANCE EMPLOYABILITY SKILLS

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IMPROVING STUDENTS' EMOTIONAL INTELLIGENCE THROUGH A WORKSHOP INTERVENTION ENHANCE EMPLOYABILITY SKILLS

ABSTRACT

Improving emotional intelligence among the students create an environment that enhance employability skills. Emotional intelligence is responsible for determining success in life but this topic is less researched among students. The study is conducted to find out whether the workshop on emotional intelligence can influence students to be emotional intelligent, it also provides the theoretical framework of what is emotional intelligence and how does it enhance employability skills. Psychological wellbeing is a key role in shaping the behaviour of individual's work-life environment. The question is how emotional intelligence workshop intervention can influence

students to be emotional intelligent and improve employability skills? Is emotional intelligence a learnable skill?

The aspects of emotional intelligence are self-awareness, self-management, social-awareness and relationship management. “Emotional intelligence can be conceptualized as collateral for developing social capital within organizations” and self-awareness in terms of interests, ability and value. Managing interpersonal relationships as well as other aspects of emotional intelligence, are all part of student life at the university. The lack of emotional intelligence is a contributing factor to the lack of employability skills of students? the students are under increasing level of stress when seeking jobs. They do not know what are their interests, ability, preference and value. They face challenges in identifying their strengths and weaknesses, lack social awareness and relationships management in every day interaction with other people at the university and anywhere.

The post-positivism paradigm which is germane to qualitative research design was selected in this study, students’ experiences are very important in this study. structured interviews are used to collecting the data, predetermined questions are asked to individual student. The sample frame comprises of students from different faculties who are part of 27 students who are selected to be part of Voice Of Business (VOB) program that assist students with employability skills at the University Of Technology (UOT). Purposive sampling size of 12students is utilized in the study.

The anticipated findings of the study are that students will get to know their emotions and be able to manage own emotions better. They will also be aware of other peoples’ emotions and maintain relationship management because networking and connections are crucial these days in getting employment, most of the students are not aware that emotional intelligence (EI) share the same importance in attracting employment as intelligent quotient (IQ). The study recommends that every faculty in the university should have a workshop or emotional intelligence short elective module which prepare students for employment and general life. The emotional intelligence assessment questionnaire is a crucial indicator whether students will cope with the unfamiliar environment.

**INCENTIVIZED TIME PREFERENCES AND FINANCIAL LITERACY: EVIDENCE FROM
SOUTH AFRICAN UNIVERSITY STUDENTS**

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**INCENTIVIZED TIME PREFERENCES AND FINANCIAL LITERACY: EVIDENCE FROM
SOUTH AFRICAN UNIVERSITY STUDENTS**

ABSTRACT

The study investigated the impact of financial literacy level, highest level of education in a household and gender differences on time preferences of university students. University students constitute a significant group of young people who will in the immediate future join the working class and are expected to make investment as well as saving decisions. A total purposive sample of (N=85, female=48%) university students pursuing a financial literacy course at a university in South Africa participated in the study. A questionnaire that included financial literacy test and time discount rate eliciting game were used for data gathering. Ten percent of the participants were paid (in South African rands) for their time preference choices by way of quota random sampling. Female respondents' time discount rate on average were higher than that of the male counterparts. The Negative Binomial regression analysis shows

that time preferences of the students are significantly influenced by highest level of education in their households. The study concluded a significant impact of financial literacy on time preferences for male respondents but could not be confirmed the same on female respondents. Income, age, financial literacy perceptions and family size also significantly influenced time preferences. Highest level of education in a household and gender differences have a bearing on individual time preferences.

1. INTRODUCTION

Time preferences reveal one's levels of patience and self-control, attributes which are critical in making financial investments and choices. The pleasure of consuming goods immediately as opposed to the discomfort of future consumption is mainly influenced by the circumstances in which decision-makers find themselves (DellaVigna, 2009; Frederick et al., 2002; Loewenstein et al., 2003; Rae and Mixter, 1905). Research evidence suggests that individuals' time preferences are highly correlated with financial literacy-information acquisition, job search for a long period, earning of higher wages, preparation to take up contingency measures to improve future welfare and generally better financial outcomes (DellaVigna, 2009; Meier and Sprenger, 2013).

Time preferences have been used to explain economic concepts such as credit card take up, life cycle savings, retirement savings, procrastination, homework and deadlines as well as perseverance by individuals (DellaVigna, 2009). Self-control and patience determine whether individuals make choices immediately, in the near future, or in the distant future. On the other hand, financial literacy according to Huston (2010) relates to measuring how well an individual can understand as well as use personal, finance-related information. The explanation makes it clear that for someone to be financially literate, one should be able to use financial knowledge to improve one's welfare. This statement is further backed by Gallery *et al.* (2011) and Schagen and Lines (1996) who consider financial literacy to be the ability involved in making informed judgments and taking effective decisions regarding the use and management of money.

The definition of financial literacy suggests a variation in time preferences of people with different levels of financial literacy. The differences in welfare outcomes of people across financial levels could be explained by variations in time preferences. In reality, choices made at a given moment whether meant to accrue benefits in the present or future, are aimed at maximizing one's utility; therefore, one's financial knowledge might be an important factor. Further, presenting incentives in the form of actual money payment on the choices made by

individuals can be seen as the setting up of a practical life situation conducive to displaying true time preference behaviour.

This study investigates the link between financial literacy, highest level of education in a household and gender differences on time preference in a laboratory experiment set up. The discrete nature of time discount rate allows the study to use the Negative Binomial regression method to investigate whether financial literacy level and gender differences impact on time preference of university students. A total purposive sample of 85 students took part in a financial literacy test that was included in a questionnaire. The questionnaire also included a time preference experimental game that used tokens to elicit individual time preferences. Students that scored a mark above the average in the financial literacy test were categorized as the high financial literacy group, whereas those that scored a mark below average represented the low financial literacy group.

The study also explores whether the state of the world where respondents survive in, influence their time preferences. University students are an important group in a society which participate in intertemporal choice decision making and it is critical to understand the determinants of their time preferences. In addition, students are the most logical next entrant into the job market where saving and investment decisions are equally vital. Ten percent of the participants were randomly selected and were paid the actual amounts of their choices using quota random sampling, according to the instruction on the time preference game. The random incentivized system allows all participants a fair and equal chance of being selected for payment.

A number of studies have explored the level of financial literacy across gender, economic status, social status and area of specialization (Batty et al., 2014; Lusardi et al., 2010; Mandell, 2008; Shambare and Rugimbana, 2012). Very little information is available regarding the interaction between one's financial literacy level, gender differences, highest level of education in a household and the time discount rate as a measure of time preferences. The fact that financial literacy attainment yields better welfare outcomes cannot be doubted (Becchetti et al., 2013; Sayinzoga et al., 2014; Tang and Peter, 2015). What is not clear, however, is how financial literacy affect one's level of patience or impatience, which is measured by one's time discount rate. The level of patience (or impatience) allows individuals to gainfully use financial literacy acquired to improve current and future welfare (Carlin and Robinson, 2010).

The next Section of the study looks at the literature review. Followed by the Section 3 that looks at the methodology. Results and data analysis are located in Section 4. The final Section provides the conclusion of the study.

2. LITERATURE REVIEW

The quest to understand what drives time preferences has been a subject of debate to researchers (Capuano and Ramsay, 2011; Frederick et al., 2002; Hoch and Loewenstein, 1991; Loewenstein and Thaler, 1989). Time discount rate is used to measure time preferences and a number of factors are known to influence time preferences; namely, habit formation, affection, anticipatory utility and visceral influences (Frederick et al., 2002). Neoclassical economics holds that exhibiting an optimal behaviour is an aspect of rational choice (Mas-Colell et al., 1995). Predictable, yet irrational behaviour exhibited by consumers is mainly driven by knowledge and psychological processes that create mental “shortcuts” as well as biases (Smith and Barboza, 2014). Aside neoclassical suggestions, human beings have exhibited time-inconsistent behaviour, which is an aspect of irrationality (Hoch and Loewenstein, 1991; İmrohoroğlu et al., 2003; Loewenstein and Thaler, 1989). Students’ social upbringing, cognitive ability, circumstances and the surrounding environment can play an important role in determining their time preferences.

Preferences in general influence supply and demand of goods, a fact that has incentivized researchers to gain greater insight into how preferences are formulated (Ariely et al., 2003). Measuring time preferences has generally presented challenges to researchers and no single method is absolved of errors in measuring discount rates (Loewenstein et al., 2003). A number of researchers have tended to use laboratory experiments in trying to explain time preferences in real life situations (Ariely and Wertenbroch, 2002; Ausubel, 1999). Some findings reveal that individuals make time preference choices that maximize their utility and resemble real life behaviour.

There has also been a concerted effort to test whether laboratory experiment findings explain real behaviour of subjects in the practical world. The general consensus is that the measured time preferences lack the scope to explain actual human behaviour (Chabris et al., 2008). However, a number of researchers concluded a close relationship between experimental research findings and true human time preferences choices (Benzion et al., 1989; Charness et al., 2013; Meier and Sprenger, 2013). A research project in the district of Georgia in the US in 2008 concluded that drop-outs and referrals were positively correlated with impatient behaviour (Castillo et al., 2011). The findings are, however, inconclusive - in that the research project could not identify precisely what drives individual and group time preferences.

On the other hand, financial literacy has been hailed for improving welfare of individuals and society. A study on elementary school students by Batty *et al.* (2014) found that financial education impacted their attitudes. The findings reveal that one’s level of financial literacy

influences how one makes intertemporal choices, a clear measure that financial knowledge influences time preferences. In addition to their findings, students that were exposed to financial literacy were able to save and were financially savvy. Another aspect that has been found to be important in moulding intertemporal choices is family background. In a study by (Sabri et al., 2010) carried out in Malaysia, students that received financial literacy from their parents exhibited better financial outcomes and were more likely able to save money. Suggesting the knowledge within a household plays a pivotal role in shaping time preferences.

Time preferences represent an aspect of intertemporal choice and researchers have investigated how it is impacted by education as well as gender orientation. In short, time preferences reveal one's choices over time while financial literacy has more to do with financial knowledge and the ability to apply financial knowledge (Loewenstein et al., 2003;Huston, 2010). The direction of causality between financial literacy and time preferences is difficult to tell, however, evidence suggest interaction of the two influences life outcomes. Meir and Sprenger (2013) conducted an incentivized multiple price list experiment on individuals participating in volunteer income tax assistance (VITA) credit counselling programme and concluded that participants in the VITA program had a higher discount rate, suggesting people who sought information were generally impatient. Research evidence suggest variation in time preferences across gender. For example, a research study investigating time preferences of high school students carried by Castillo *et al.* (2011) concluded that boys compared to girls had a higher discount rate - suggesting impatience amongst boys.

Gender differences are mainly driven by variation in preferences (Laasch and Conaway, 2009). An increased number of literature on risk preferences found out that women are more risk averse compared to men (Charness and Gneezy, 2012; Eckel and Grossman, 2008; Powell and Ansic, 1997). Aside observing differences in risk preferences across gender there is also evidence of variation in time preferences by gender and race (Norum, 2008; Adan and Natale, 2002). Married women were concluded to be investing less in common stock than married men (Bajtelsmit et al., 1999). However, there are some studies that could not conclude variation in time preferences (Kim et al., 2002). In a research study comparing risk and time preferences among students in the USA, no differences were found across gender (Bernheim et al., 2001). Evidence from previous work on time preferences and education remain inconclusive.

Financial literacy is some form of education on financial concepts. Research has concluded a strong correlation between education and time preferences (Pol, 2011;Lawrance, 1991; Fuchs, 1980). Pol (2011) and Lawrance (1991) observed that time preferences tend to

decrease as the level of education increases. Their studies were confined to health and poverty but did not focus on financial literacy. Financial literacy level may or may not vary across university students in general. There is evidence of variation of financial literacy level by gender, degree being pursued, family background among others (Cull and Whitton, 2011; Lusardi et al., 2010; Chen and Volpe, 1998). Chen and Volpe (1998) found out that female students were less financially literate compare to male counterparts. If there is correlation between time preferences and financial literacy then, this could partially explain variation in life outcomes. On the other hand, there are studies that conclude absence of differences in financial literacy especially for university students. In a 2010 study in Romania, it was concluded that male respondents had higher level of financial literacy compared to females (Oanea and Dornean, 2012).

Little research has been carried out that investigate the impact of financial literacy level on time preferences. More so, it is not clear whether there is reverse causality between financial literacy and time preferences. There is need to understand factors that influence time preferences of individuals given the fact that they play an important role in determining life outcomes. More needs to be explored with regard to time preferences and gender differences.

3. PROBLEM INVESTIGATED

The study seeks to investigate factors that influence time preferences of university students.

4. RESEARCH OBJECTIVES

The study explores the impact financial literacy level and highest level of education in a household on time preferences of university students. It also investigates whether there are variations in time preferences across gender.

5. RESEARCH METHOD

The study uses a modified stylized standard model version by Rabin (2002) given below, to explain how individuals make choices over time.

$$\max_{x_i^t \in X_i} \sum_{t=0}^{\infty} \delta^t \sum_{s_t \in S_t} p(S_t) U(x_i^t | S_t) \dots \dots \dots (1)$$

Where, "individual (*i*) at time *t* maximizes expected utility subject to probability distribution *p(s)* of the states of the world *s* ∈ *S*" (DellaVigna, 2009; Rabin, 2002). The utility function *U(x/s)* is

defined over pay-off of the experimental game x_i^t of subject (i) and future utility is discounted with a discount factor δ for naiveté assumed to be time consistent.

The discount factor δ is calculated from the choices made by the subjects given as (*columnA/columnB*), where Column A is the present time pay-off received after 2 weeks and Column B is a future time pay-off paid after 6 weeks, while x_i^t is the pay-off realized from the choices made and S the state of the subject's world explained by financial literacy level, highest level of education in a household, financial perception, student characteristics and the demographic information of the participants. In the study, the minimum discount rate is set at 0.1 and the maximum discount rate is set at 5.

The initial payment is paid in the future period (Alan and Ertac, 2015) such that:

$$b_1 + \beta\delta b_2 \geq 0 \dots\dots\dots (2)$$

Where b_1 is pay-off in 2 weeks and b_2 is pay-off in 6 weeks. β represents self-control or patience problems and δ is the future utility discount rate. A Negative Binomial regression model is formulated as follows:

$$\delta(\text{time discount rate}) = f(\text{financial literacy score, financial literacy perceptions, age, highest level of education in a household, number of family members, income}).$$

The choice of the model is arrived at after considering that the dependent variables data is discrete, also variance and mean are significantly different. In addition, the choices made by respondents range between 0.1 and 5. Financial literacy score is measured using the mark scored in the financial literacy test given before students are taught financial literacy concepts. This is the variable that measures the financial literacy level of the respondents. Financial literacy perceptions were probed in the questionnaire and responses given on a seven-point Likert scale. A single variable of perceptions is predicted using factor analysis. Self-reported age, highest level of education in the family, family size and individual income are some of the variables that were used. The highest level of education in the family is used as a proxy for family status, because number of education years had been found to be positively correlated to higher levels of income (Argent et al., 2009).

5.1 Procedure

The study used a financial literacy score test that is included in a questionnaire eliciting demographic information, financial literacy perceptions as well as time preferences. The test was administered before the students studied the financial literacy module and assisted in measuring the level of financial literacy across the respondents. A time preference game was used to collect students' time discount rates. A total of 85 students (female=48%) studying a financial literacy module (personal finance) at a university in South Africa were purposively

sampled to participate in the study. In the time preference game, the subjects were asked to allocate five tokens between two periods; that is, after 2 weeks or after 6 weeks - resembling an investment or savings venture. The instruction for the experiment was as follows (Giné et al., 2010):

“You are allocated 5 coupons/tokens. If you place the coupon in column A you will be paid R20 per coupon paid after 2 weeks. If you place the coupon in column B you will be paid R25 per coupon paid after 6 weeks. To receive payment for your choices you should pick a winning ticket from a raffle”.

To deal with the present time bias in the subject's choices a front end delay payment was used (Andersen et al., 2008). Choices for column A were paid after 2 weeks (which resembles a present time pay-off or Smaller Sooner), whereas choices for column B were paid after 6 weeks (a future period pay-off or larger later)(Andreoni and Sprenger, 2012). To select the winners, the researcher used quota sampling by way of coupons equal to the respondents that were placed in a hat. Ten percent of the coupons were stamped and whoever picked the stamped coupon was paid the amount according to his/her choices and instruction as provided above. The use of coupons provided all the respondents with an equal chance of winning as they allowed random sampling. The selection of ten percent of respondents is informed by previous studies (Andersen et al., 2008). The names of the winners were listed and their contact details collected for administration purposes. The information collected is aggregated for analysis and no information traceable to an individual is used. Payment to the winners was done using e-wallet, a banking platform offered by FNB bank in South Africa. The researcher paid the respondents on the days promised according to instructions of the game.

5.2 Ethical considerations

Permission to carry out the study was granted by the University Ethics Committee. Participation in the experiment was voluntary; students were allowed to stop participating in the experiment at any time. The participants were made aware of the purpose of the study. One student turned down the request to participate in the experiment and the wish was granted.

6. RESULTS AND FINDINGS

6.1 Descriptive statistics

Of the 85 subjects that participated in the study, just over half (52%) were male, while the remaining 48% were female (Table 1). Self-reported evidence from the questionnaire revealed that 49% of the respondents belonged to a household with the highest level of education of matric. These were followed by 32% of the respondents that indicated that they belonged to a household with the highest level of education being a degree. About 56% of the respondents are from households with at most matric and less. This is a clear indication that the majority of the respondents belonged to families that are not highly educated. A total of 20 financial literacy questions formed the financial literacy test. The average financial literacy score for the group was very low at 43%. The highest and lowest mark scored in the financial literacy test were 65% and 15% respectively. There was no significant difference between male and female respondents' level of financial literacy although the average financial literacy level of females is slightly higher. Male participants scored an average of 43% while female participants scored an average of 44%.

Table 1: Descriptive statistics

Characteristics		Number respondents	of Value
Gender	All	85	100%
	Male	44	52%
	Female	41	48%
Highest level of education in a household	Less than matric	6	7%
	Matric	42	49%
	Diploma/certificate	8	9%
	Degree	27	32%
	Postgraduate	2	2%
Average test score	All	85	43%
	Male	44	43%
	Female	41	44%
Average discount rate	All	85	1.58
	Male	44	1.21
	Female	41	1.98
Average discount rate high literacy	All	48	1.70
	Male	24	1.39
	Female	24	2.01
Average discount rate low literacy	All	37	1.43
	Male	20	0.995
	Female	17	1.95
Average income	All	85	R798.15
	Male	44	R699.48
	female	41	R904.04
	All	85	5.35
	Male	44	5.48

Average household members	Female	41	5.22
Average age	All	85	22.53 years
	Male	44	22 years
	Female	41	23.10 years

This shows that the respondents generally lacked financial literacy. This finding strengthens earlier findings by (Wagland and Taylor, 2009) who compared the performance across gender of respondents that received equal treatment and found no difference in performance. In this case respondents are of generally similar level of education. They are under graduate student pursuing Bachelor of commerce degree. All the respondents' average discount rate was found to be around 1.58. However, a major variation in time discount rates was found across gender. A t-test analysis of discount rate across gender indicated a significant difference in the time preferences of female and male students at 5% level of significance. Elicited time preferences show that, on average, female students had higher discount rates than male students calculated as 1.98 and 1.2 respectively, suggesting that the female students were more impatient and more likely to opt for a payment after 2 weeks (present time pay-off or small sooner) instead of 6 weeks (future time pay-off or larger later) (Alan and Ertac, 2015). An investigation into the time discount rate of those who had high levels of financial literacy shows that female respondents' discount rates were much higher than that of male respondents. Female respondents had an average time discount rate of 2.01 compared to their male counterpart that had a time discount rate of 1.39. The low financial literacy group also shows that female respondents exhibited a higher average time discount rate (1.95), while male respondents' average time discount rate was lower at 0.995.

On average, respondents with higher levels of financial literacy had a higher average time discount rate (1.70) when compared to those with low levels of financial literacy (1.43) for the whole group. In general, comparing the high financial level set with the low level financial group shows that in all cases, female respondents had a high time discount rate compared to their male counterparts. This suggests that the female respondents that participated in the study were generally impatient and more willing to receive all the payment for their choices in the present time, that is, there are more likely to accept small sooner payment. These findings reveal variation in time preferences across gender and levels of financial literacy. In addition, respondents for the whole group with higher financial literacy levels exhibited a higher average time discount rate when compared with those having low levels of financial literacy. On average, female respondents reported a higher average individual income and cash equivalence. The average individual income as well as cash equivalence reported by the

whole group is approximately 798 rands with female respondents' average income pegged at 904 rands and that of males at 699 rands. The average family size for the whole group, males and females, was around five family members. The maximum age recorded for female respondents is 40 years compared to 29 years for males. The average ages for male as opposed to female respondents were 22 and 23 years respectively.

6.2 Kernel densities for elicited time discount rates

Plotted Kernel densities show variations in time discount rates - more especially across gender and financial literacy level. Female respondents' time discounts were generally flattish while time discount rates for male respondents peaked in the middle. To ensure smooth kernel densities, the data was presented in natural logarithms. The smallest discount rate is set at 0.1 instead of 0 to make it possible to convert the rate in the natural logarithms and the largest is 5.

Figure a, shows the distribution of time discount rates of all the respondents. The discount rates for the whole group are not normally distributed, but rather appear in leaps and bounds as shown in figure1. Figure 2 shows the variation among time discount rates across gender. Time discount rates of female respondents are flattish whereas those for male respondents are peaked in the middle. In Figure 3, time discount rates are fairly normally distributed. The Kernel densities represent variation of discount rates across level of financial literacy.

In Figure 4, time discount rates for male respondents show that the higher financial literacy group graph is more peaked at the centre. Time preferences kernel density graph for male respondents with lower levels of financial literacy is comparatively flatter. Figure 5 represents the time preferences of female respondents with higher and lower financial literacy levels, their graphs are generally flatter. In Figure 6, male respondents with low financial literacy level are compared with female respondents with higher levels of financial literacy. Female time discount rates are flatter compared to those of male counterparts.

Figure a: Time discount rates graphs

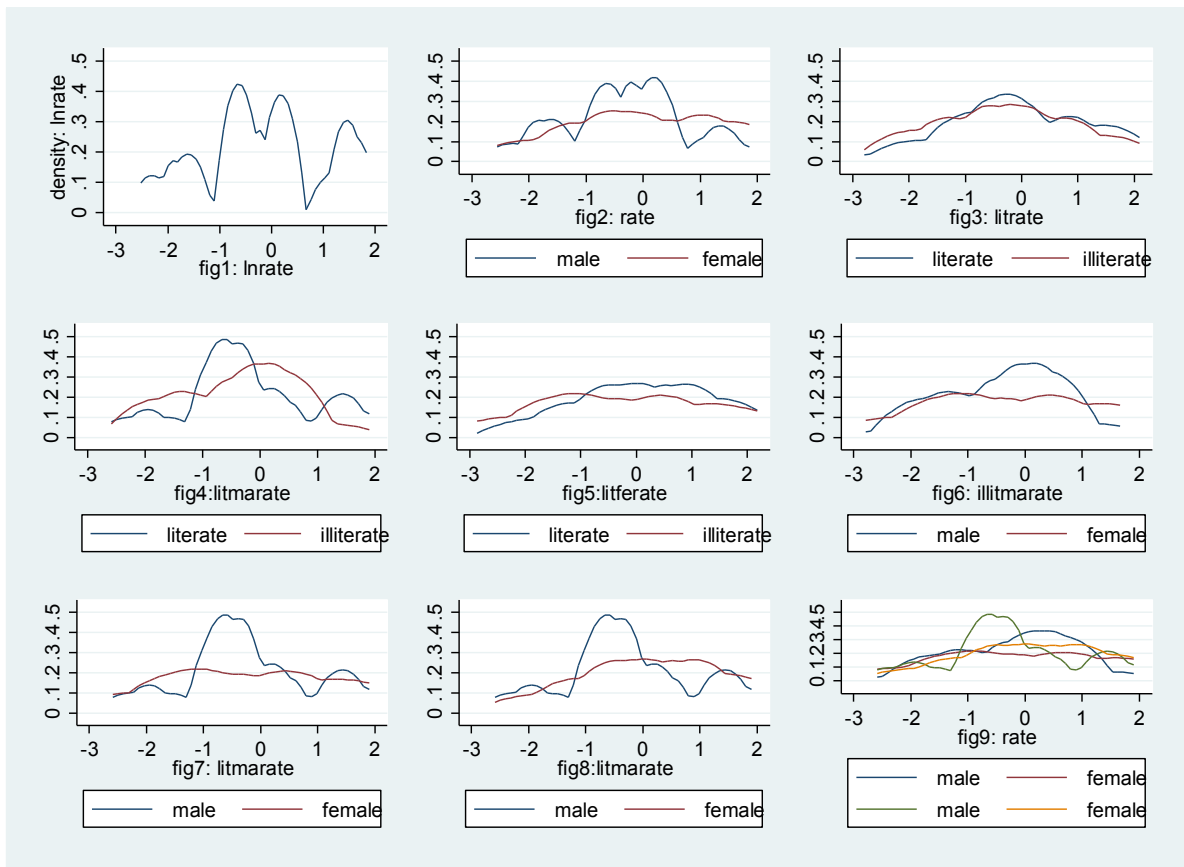


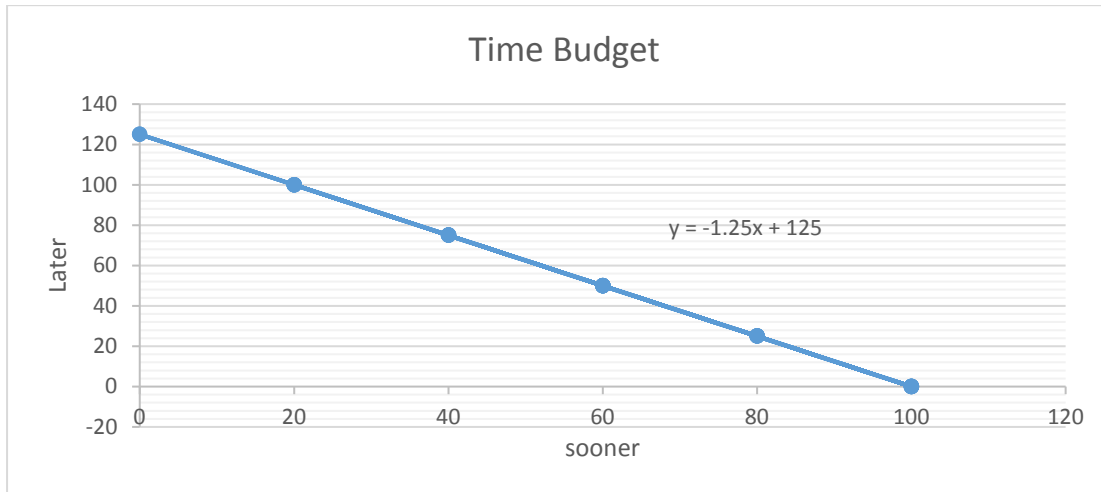
Figure 7 represents higher financial literacy male respondents compared with low financial literacy females. Female discount rates are flatter compared to fairly peaked male respondents graph. Figure 8 compares higher financial literacy level males and female respondents. Female respondents have flatter time discount rates than males. Figure 9 represents all time discount rates elicited in one display.

6.3 Time Budget

A graphical representation of choices made by subjects and the equivalent pay-off provided a time budget (TB) shown in Figure *b*. All respondents chose optimal choices that maximized their utility subject to the total return they could earn from their choices. In this case, all respondents allocated all the ten tokens into two columns which reveal an aspect of maximizing utility. In general, the respondents were eager to pick a winning ticket. The token game is easy to implement and understand making it an appropriate tool to elicit preferences (Alan and Ertac, 2015; Andreoni *et al.*, 2015). The TB is known to be a better measure of intertemporal choice when compared with the double multiple price list (DMPL) used by Andersen *et al.* (2008). The corner solution provided by the TB has a predictive power of individual impatience or patience. It also forecasts the demand theory as well as the equality

of an individual in allocating income over periods (Andreoni *et al.*, 2015). A marginal rate of substitution of 1.25, shows the return the subjects could earn in the event that they were patient enough to receive the pay-off after 6 weeks. The return for a subject who is patient enough to receive all pay-off after 6 weeks converted per annum is approximately 217%.

Figure b



This means that subjects who collected all their pay-off at the 2 weeks' period had a very high discount rate of the present pay-off. The maximum pay-off a participant could get in two weeks was 100 rands (7.7 USD) while those that collected all their pay-off after 6 weeks collected a maximum of 125 rands (9.7 USD) assuming a rate of 1USD: 12.99 rands.

6.4 REGRESSION ANALYSIS

6.4.1 Time preferences and financial literacy level

The study investigated the baseline determinants of the time discount rate (Table 2). Five out of seven regression models have a significant alpha confirming that the variance is significantly different from the mean which allows the use of a Negative Binomial regression model. Female respondents have a higher discount rate compared to male counterparts. The first regression confirms that there is a significant variation in time discount rate across gender. A higher time discount rate for female respondents compared to their male counterparts might be due gender disparities and girl child challenges regarding finances. The findings are contrary to conclusion reached by Castillo *et al.*, (2011). They concluded that boys were more impatient than girls in a 2008 study on time preference in the US. The other variable that significantly influenced time discount rate is the highest level of education in the household. Given that the respondent is from a household with the highest level of education less than matric, the time discount rate for a respondent from a household with highest level of education of matric, diploma or certificate and degree is likely to be significantly higher. This reveals that the highest level of education in a household significantly influence respondents' level of

patience. This confirms findings by (Smith and Barboza, 2014), who concluded that time preferences can be influenced by the parents level of education. No evidence of the effect of financial literacy on time preferences were concluded in the first regression.

An investigation into the respondents with higher level of financial literacy shows that given a respondent from a family whose highest level of education is less than matric, the time discount rate of respondents from households with the highest level of education of a matric, diploma or certificate and degree are more likely to be significantly higher. There is no significant difference between time discount rates of female and male respondents with higher levels of financial literacy suggesting that if both males and females have higher levels of financial literacy their time preferences are similar. The effect of financial literacy on time preferences is insignificant. Turning to the regression analysis focusing on respondents with lower levels of financial literacy, female respondents time discount rates are significantly higher compared to those of male respondents. The time discount rate also significantly increased given that the respondent is from a household with the highest level of household education of a matric, diploma/certificate and degree. Findings suggest that highest level of education in a household plays an important role on influencing time preferences of the respondents. Further, it is concluded that time discount rate of female respondents tends to significantly decrease as the age of the respondent increases at 10% level. Meaning older female respondents are more likely to be patient or are willing to accept a larger later.

Table 2 : Negative Binomial Regression: Time discount rate by literacy level

	All	all_literate	all_low_lit	high_lit_female	low_lit_female	high_lit_male	low_lit_male
female	0.57*** (0.216)	0.33 (0.309)	0.78** (0.291)				
age	-0.028 (0.032)	0.00035 (0.064)	-0.055* (0.032)	-0.027 (0.080)	-0.11*** (0.036)	0.041 (0.083)	0.025 (0.109)
family_size	0.067 (0.048)	0.062 (0.076)	0.077 (0.060)	0.050 (0.105)	0.045 (0.106)	0.20* (0.110)	0.076 (0.053)
matric	1.70*** (0.324)	1.64*** (0.420)	1.97*** (0.316)	2.89*** (0.474)	1.97*** (0.696)	0.10 (0.616)	1.50** (0.727)
Dip/cert	2.00*** (0.480)	2.07*** (0.554)	1.48** (0.583)	1.95*** (0.660)	1.09 (1.277)	2.15*** (0.459)	1.54* (0.893)
degree	1.68*** (0.324)	1.21*** (0.448)	2.39*** (0.417)	2.02*** (0.547)	2.98*** (0.776)	1.00** (0.420)	1.39 (0.941)
lincome	0.068 (0.110)	0.099 (0.139)	0.18 (0.187)	0.11 (0.183)	0.39* (0.223)	0.59*** (0.222)	0.10 (0.214)
perceptions	0.25 (0.159)	0.020 (0.291)	0.30 (0.210)	-0.17 (0.484)	0.64 (0.427)	-0.57* (0.328)	0.20 (0.132)
ltest	0.028 (0.393)	-0.37 (1.236)	-0.36 (0.726)	0.085 (1.568)	0.33 (1.059)	-4.41** (2.108)	-1.54** (0.665)
_cons	-1.71 (1.224)	-1.21 (3.198)	-1.62 (1.388)	-2.30 (4.328)	-1.92 (2.291)	4.62 (4.296)	-0.30 (3.924)
Inalpha							
_cons	-1.14*** (0.243)	-1.25*** (0.279)	-1.99* (1.036)	-1.49** (0.603)	-1.47 (1.336)	-15.9*** (1.109)	-37.4 (.)
N	85	48	37	24	17	24	20

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The highest level of education in a household is the only variable that was concluded to be influencing discount rates of female respondents with a higher level of financial literacy. The time discount rate significantly increases if the respondents are from households with the highest level of education as matric, diploma or certificate and degree. Turning to female respondents with lower levels financial literacy as the age increases, their discount rates significantly decreases at 1% level. This suggests older female respondents in the cohort were more patient. Suggesting that as one grows old even if they have low levels of financial literacy, they have an understanding of the value of money and are willing to wait to receive a larger later. Their discount rates significantly increased if they belonged to households with the highest level of education as a matric and a degree. Discount rates of female respondents with lower level of financial literacy significantly increases at 10 % level as income increases. Higher income makes respondents in this group impatient. This may suggest that female respondents with higher income in this cohort were not willing to wait up to six weeks to receive a future income (larger later).

A regression analysis on male respondents with higher levels of financial literacy suggest that the highest level of education in a household significantly influenced their time preferences for all the education levels analysed. Financial literacy test score also significantly influenced time preferences of male respondents with higher levels of financial literacy. A higher test score is associated with a lower time discount rate for mail respondents. Further, high income level is associated with a high time discount rate suggesting respondents with high income from this group are generally impatient. Other variables that were found to be weakly significant in influencing time preferences are perceptions and family size. An analysis of all male respondents with low levels of financial literacy indicates that, given that one is from a household with the highest level of education less than matric, the time discount rates of respondents from households with the highest level of education of matric and degree is more likely to be significantly higher. On the other hand, as the test score (financial literacy) increases, the time discount rate of respondents with a lower level of financial literacy decreases significantly. The findings submit that for male students, time preferences are influenced by financial literacy. Findings from male respondents confirm findings by Pol (2011) and Lawrance (1991), who concluded that as education level increases the time discount rate for respondent tends to decrease. The impact of financial literacy on time preferences could not be confirmed from all female respondents. This may imply that financial literacy influenced participants' time preferences of male respondents only, in this study.

6.4.2 Time preferences and financial literacy

A regression analysis on time preference and financial literacy could not confirm the impact of financial literacy on time discount rates (Table 3). All the regression analyses have a significant alpha indicating the differences in the mean and variance of the dependent variable a condition sufficient to allow the study to use a Negative Binomial regression analysis. In all cases it is concluded that the highest level of education in a household causes respondents to be impatient, since their time discount rate is more likely to increase. The study could not confirm whether financial literacy influences time preferences although there is some evidence on male respondents across level financial literacy (table 2). Other variables that were concluded to influence time preferences are income, age, family size, and perceptions to a lesser extent

Table 3: Negative Binomial Regression: Time discount rate

	all	male	female	Male1	female1	all_female	all_male	all1
Ltest_score	0.071 (0.374)	0.030 (0.477)	0.063 (0.568)	-0.061 (0.485)	0.12 (0.560)	0.23 (0.601)	-0.14 (0.475)	0.028 (0.393)
matric				1.08*** (0.380)	2.45*** (0.195)	2.54*** (0.272)	1.25** (0.500)	1.70*** (0.324)
Dip/cert				1.87*** (0.473)	1.57*** (0.191)	1.81*** (0.413)	2.29*** (0.636)	2.00*** (0.480)
degree				1.17*** (0.322)	2.28*** (0.267)	2.43*** (0.359)	1.56*** (0.506)	1.68*** (0.324)
age						-0.044 (0.036)	-0.022 (0.071)	-0.028 (0.032)
family_size						0.051 (0.076)	0.12** (0.060)	0.067 (0.048)
lincome						0.0097 (0.140)	0.24 (0.161)	0.068 (0.110)
perceptions						0.20 (0.292)	0.075 (0.165)	0.25 (0.159)
_cons	0.31 (0.797)	0.13 (0.958)	0.55 (1.236)	-0.86 (1.137)	-1.87 (1.198)	-1.52 (1.695)	-2.57 (2.144)	-1.71 (1.224)
Inalpha _cons	-0.74*** (0.182)	-1.45** (0.658)	-0.57*** (0.215)	-2.11** (1.013)	-0.78*** (0.273)	-0.88*** (0.316)	-2.80* (1.465)	-1.14*** (0.243)
N	85	44	41	44	41	41	44	85
R ²								

Standard errors in parentheses
* p < 0.10, ** p < 0.05, *** p < 0.01

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Individuals may be patient or impatient because of conditions that they survive in. Being impatient may mean that an individual has an alternative investment venture that they would want to put money into. People with fewer options of saving money are more likely to be patient. It is important to understand one's social and gender background when policies are crafted to improve welfare of society. Highest level of education in a household significantly influence time preferences of university students. Consumers achieve different life outcomes due to variation in time preferences.

8. CONCLUSION

The study used a questionnaire that included an experimental game of tokens (that sums into a time budget) and a financial literacy test. Time discount rates for respondents with more financial literacy, less financial literacy, males with less financial literacy, females with less financial literacy and females with more financial literacy were all significantly influenced by the family's highest level of education. This finding reveals that family educational status plays a vital role in time preference choices of individuals. Elicited time discount rates from the experimental game also show that female respondents' time discount rates were higher than their male counterparts - reflecting that females are more impatient. The findings might be an explanation of how gender differences impact on time preferences. Further, this may explain the financial challenges faced by the girl child. The study confirmed the impact of financial literacy on time preferences of male respondents' low and high financial literacy, but found no impact of financial literacy on time preferences for female respondents. There is weak evidence on the effect of financial literacy on time preferences. Other variables concluded to be influencing respondents' preferences significantly are respondents' age, income, perceptions and family size. It is critical to understand time preferences of individuals as they play an important role in investment choices, perseverance and patience - which are vital for future welfare. The findings are not exhaustive; a deeper investigation into how household level of education influences time preferences is required. More so, factors that tend to increase time discount rates for female respondents need further exploration. It will be important to understand how respondents react to higher and low time preference incentives at varying time stretch. Further research may investigate whether time preferences change as the level of income on offer changes.

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**CREATIVE INTERVENTIONS IN A POSTGRADUATE RESEARCH METHODOLOGY
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**CREATIVE INTERVENTIONS IN A POSTGRADUATE RESEARCH METHODOLOGY
CLASSROOM**

ABSTRACT

Research methodology is one of the subjects which students find extremely difficult to engage with. With the exponential growth in the information and data today, it is important that management students learn research methods during their graduate and postgraduate training. Since students find it difficult to break free from their negative pre-conceptions about, and difficulty with the subject matter, the onus is on management educators to find creative ways to help students to reframe their perceptions in order to enhance student engagement in the subject matter. The current study explored the use of creative classroom interventions

in the form of energizers and icebreakers to create a positive learning environment, as it has shown to increase student engagement. From the findings it is evident that students do find value in the use of such interventions, and the positivity and enjoyment that is associated therewith fostered a more conducive learning space.

1. INTRODUCTION

Information is growing exponentially, requiring future managers to have the skills necessary to utilise and understand research and statistics (Murtonen & Lethinen, 2003). The need for building research capacity and skills is experienced across the globe and meeting this need has become a global enterprise (Kilburn, Nind, & Wiles, 2014). Salter and O'Malley (2014) acknowledge that if graduates are created, who are both producers and consumers of research, their professional credibility will be enhanced. The development of training and research skills are therefore a high priority in any professional training programme. The transfer of such skills is facilitated in research methodology modules during undergraduate and postgraduate training.

Most students, however find the engagement in research training challenging (Lombard & Kloppers, 2015; Kotsopoulos, Mueller, & Buzza, 2012). They mostly experience fear, anxiety and negativity when required to complete a research methodology course (Ciarocco, Lewandowski, & Van Volkom, 2013). Students describe research courses as challenging, uninteresting and mind-numbing (Murtonen, Olkinuora, Tynjala, & Lehtinen, 2008). Sizemore and Lewandowski (2009) are of the opinion that students are discouraged by the tedious and complex nature of empirical research. Additionally, their feelings of discouragement and their perception that empirical research is complex intensify as the training progresses. The stress these feelings create can hamper students' recall of information, which, in turn, can affect their academic performance (Scoffham & Barnes, 2011). As a consequence of students' perceptions about empirical research they are unable to realise the value their coursework holds, and their existing negative attitudes to the module are cemented (Ciarocco et al., 2013).

The negative attitude, which can be ascribed to students' beliefs and attitudes, impacts on the degree to which students enjoy research methodology (Murtonen et al., 2008). Consequently, researchers and educators are becoming more interested in students' experiences of research and the relationship between research and students' learning (Brew, 2011). Earley (2014: 245) has identified five characteristics of students taking a research methods course: they 1) fail to see the relevance of the methodology training to

their course majors and their life in general; 2) are typically anxious and nervous about the course and its complexity; 3) are uninterested and unmotivated to engage in the coursework; 4) have poor attitudes to research; and 5) have many misconceptions about research methods.

Research skills are not only critical for those embarking on research work, but are also essential for all graduates entering the public or private sector (Murtonen et al., 2008). Students are unable to make a connection between what they are learning in their research courses and how they can use the acquired research skills in their field (Ciarocco et al., 2013). This is one of the key reasons why students are uninterested and, therefore, unmotivated to engage with the coursework material (Murtonen, 2005). Because students cannot make this connection they are unable to perceive the value and the need to engage in research classes. It has been reported that students' conceptions, views and beliefs regarding research learning influence their learning and their perception of the value of research skills in their future careers (Murtonen et al., 2008; Murtonen, 2005).

Research methods courses are rated among the most difficult academic courses to complete (Carty, 2007; Murtonen, 2005). Not only is students' attitude to methodology courses negative to begin with, but this attitude is also fostered during the coursework period (Ciarocco et al., 2013). As soon as students are confronted with new and challenging concepts and theories when they commence their research journey, responses such as stress, uncertainty and anxiety are triggered (Sizemore & Lewandowski, 2009). As Meyer et al. (2005) note, postgraduate students lack a universal concept of the research process, and, therefore, they find it difficult to translate the theoretical knowledge into practice, resulting in a limited understanding of the actual research activity (Murtonen & Lehtinen, 2003). Murtonen (2005) has found that students' difficulties do not decrease but rather increase during courses, reinforcing their dislike of the module.

Ciarocco et al. (2013) suggest that the structuring of a research methods course determines the degree of congruence between the skills and knowledge gained and ultimately the students' perception of benefits. Therefore, lecturers need to apply creative and imaginative teaching methods to structure the module to facilitate active learning by students (Silverman, 1996). The current paper reports on a study in which the use of creative practices in a research methodology classroom is explored. More specifically, the study set out to explore how the use of ice-breakers and energizers in a postgraduate methodology module presented to Industrial Psychology Master's students may change students' perceived engagement with the learning content.

2. LITERATURE REVIEW

2.1 The use of creative interventions in the classroom

Students may find it difficult to let go of their negative preconceptions of classroom experience (Van Wyk, 2011; Chlup & Collins, 2010). The fear and hesitance that fuel such negativity can be described as an “invisible elephant, crushing the breath out of a student’s self-efficacy, motivation and engagement” (Bledsoe & Baskin, 2014: 33). As students are not fully equipped to remove such a weight themselves, the onus is on educators to find appropriate means to drive away the “invisible elephants” roaming their classrooms.

To be able to cull these invisible elephants, educators must reach students in an effective manner. This will require educators to diversify their teaching methods and to commit to the continuous identification and integration of innovative approaches to inform their teaching practices (Brukley & Burkley, 2009). Such teaching approaches should encourage students to change from being passive listeners to becoming learners who are actively engaged with the learning content (Barraket, 2005).

Icebreakers and energizers are considered to be two activities that can encourage learners to become actively involved as they introduce an element of fun and excitement into the learning environment. Dixon, Crooks, and Henry (2006) emphasise the need for icebreaker activities to be simple and focused on encouraging interaction amongst all. The fun and excitement implicit in these activities encourage deep learning (Knowles, Holton, & Swanson, 2014) while the gaming component can facilitate active learning (Baid & Lambert, 2010).

Because of the advantages of icebreakers and energizers, educators should incorporate them into classroom activities. Traditionally, icebreakers and energizers were implemented in primary educational environments but Collins (2010) note that the inclusion of such innovative activities is gradually appearing in adult learning environments, with various applications in tertiary education (Baid & Lambert, 2010). The growing popularity of these activities in education is due to their implicit value, for instance to facilitate group discussion and build mutually satisfying relationships between students (Chlup & Collins, 2010; Eggleston & Smith, 2001). The social interactions that are fostered by these relationships can allow for student-focused group work where peers assist one another, creating meaning and understanding of the learning content (Burden & Byrd, 2007). The more students engage with one another the more comfortable they

feel with one another, allowing for the establishment of trust and a sense of community (McGrath, Gregory, Farley, & Roberts, 2014; Van Wyk, 2011; Chlup & Collins, 2010). The positive communication promoted through the icebreakers and the supportive community can aid in minimising the stress and anxiety students experience (Sciutto, 1995).

The inclusion of icebreakers and energizers that are perceived as fun in the classroom can increase student participation and prevent boredom (Baid & Lambert, 2010), acting as a source of energy and motivation for students throughout the duration of the module (McGrath et al., 2014). It is clear that the inclusion of such innovative teaching activities not only promotes relationship building but can also stimulate engagement and interest in the learning content (McDevitt, 2013; Chlup & Collins, 2010). Educators can use icebreakers and energizers as vessels to align classroom content and desired learning objectives (Chlup & Collins, 2010) and to introduce new topics in a fun and engaging way (Eggleston & Smith, 2001).

Chlup and Collins (2010) suggest that icebreakers and energizers create the prime opportunity for the appropriate inclusion of humour in the classroom. The inclusion of humour allows for a more relaxed classroom atmosphere, which stimulates a positive learning climate and which, in turn, enables the learning process, facilitates critical discussions (Van Wyk, 2011), impacts on learners' accessibility, attention and interest (Beckett, Sheppard, Rosene, & Whitlock, 2016) and reduces stress and negative emotions (Narula, Chaudhary, Narula, & Narayan, 2011).

Positive emotions generated by the inclusion of humour, energizers and icebreakers can broaden habitual ways of thinking and acting (Fredrickson, 2004). When individuals experience negative emotions it narrows their momentary thought-action repertoire and creates dependence on typical reactions. Feelings of joy, for example, entice individuals to engage in play (discovery, creation), while interest may for example promote openness to new ideas, experiences and actions. Such emotions can make a positive contribution to establishing a positive learning climate, and repeated experiences of positive emotions can broaden individuals' thought-action repertoires which, in turn, can build a variety of personal resources, physical resources (physical skills, health, longevity), social resources (friendships, social support networks), intellectual resources (expert knowledge, intellectual complexity) and psychological resources (resilience, optimism, creativity) (Fredrickson, Tugade, Waugh, & Larkin, 2003).

2.2 Creative interventions used in other studies

Few studies are focussed on, and describe, creative interventions in the classroom. To ensure the successful integration of icebreakers and energizers educators should have a diverse resource bank from which to draw, ensuring a suitable intervention for any situation (Chlup & Collins, 2010). Suitable icebreakers are icebreakers that are relevant to the learning objectives (Eggleston & Smith, 2002) and that are applied in an appropriate format (Lei et al., 2010). To assist educators in selecting and designing suitable icebreakers for the classroom, McGrath et al. (2014: 5) have identified six elements to be considered:

1. Keep it simple and easy to follow.
2. Be creative and different.
3. Provide learners with a brief reasoning behind the activities and link with prior knowledge.
4. Make it fun and engaging and do not make it seem like a chore.
5. Consider your skills and those of your students.
6. Keep in mind technology constraints and requirements.

A summary of icebreakers and energizers that was used in other studies is illustrated in Table 1.

Table 1: A summary of interventions used in other studies

Intervention	Brief Description	Objective	Reference	Context of the study
"Getting-to-know-you Bingo"	<ul style="list-style-type: none"> Each student gets a blank bingo game board with five rows. Questions related to student knowledge in the subject area are reflected on the board and read by the lecturer. Students answer the questions on the game board. 	<ul style="list-style-type: none"> Learning Review Content engagement 	McDevitt (2013)	Training provided by academic librarians to students and academics
"Scavenger Hunt"	<ul style="list-style-type: none"> A list is created of the most important places/services students need to become acquainted with. Each group is assigned a specific service/place to investigate and about which to answer a set of questions. After completing the investigation the larger group will visit each of the services/places and share what their investigation revealed. 	<ul style="list-style-type: none"> Orientation Learning review 	McDevitt (2013)	Training provided by academic librarians to students and academics
"Labelling exercise"	<ul style="list-style-type: none"> Each student gets a set of labelling stickers on which to write one attribute for each of their peers. Each student gets an opportunity to stand in front of the class and be presented with the labels reflective of them. After receiving their labels students will reflect on their attributes and discover what they indicate about their roles/functions within the group. 	<ul style="list-style-type: none"> Role and function in a group 	Boatman (1991)	Training provided to students in a communication classroom
"Economic Cartoons"	<ul style="list-style-type: none"> A set of five comics pertaining to the field of economics is used. Each set is introduced to facilitate critical discussions and debates. Discussions and comics should relate back to learning content. 	<ul style="list-style-type: none"> Content engagement Critical Conversations 	Van Wyk (2011)	Training provided to third year education students as well as students completing a Postgraduate Certificate in Education
"Camera Activity"	<ul style="list-style-type: none"> A large group of students is split up into a number of smaller groups. Each group is given a disposable camera or digital camera, if available. Each group member is asked to take a picture of something that represents himself or herself. At the following session scheduled at a later date, students bring back their photographs and use them to explain their personal and/or cultural backgrounds. As a large group activity, all the photographs can be displayed together on a poster or electronically as a slideshow in a PowerPoint presentation. 	<ul style="list-style-type: none"> Relationship building Acceptance of each other 	Bald Lambert (2010)	Training provided to nursing students

<p>"Name Game"</p>	<ul style="list-style-type: none"> Perhaps it should be 'Each player is asked to write a key term relating to the topic being taught. A post-it note is placed on the back of each student, making sure the student does not see the word written on it. Students circulate asking other students yes/no questions in an attempt to identify and name the word on their back. An overview of the key terms and their definitions is given to each student, which can be used to answer the yes/no questions. 	<ul style="list-style-type: none"> Learning review Content engagement 	<p>Baid Lambert (2010)</p>	<p>Training provided to nursing students</p>
<p>"Quiz Game"</p>	<ul style="list-style-type: none"> A large group is split up into a number of smaller groups. Using the main topic as a theme, groups identify a team name. Each group is asked to answer questions that are formulated to suit the style of a game show or a pub quiz. The results are reviewed at the end of the game. 	<ul style="list-style-type: none"> Learning review Content engagement 	<p>Baid Lambert (2010)</p>	<p>Training provided to nursing students</p>

3. RESEARCH OBJECTIVES

The following research question was formulated:

How does the inclusion of positive classroom activities in a research methodology module change students' experience of a research methodology module?

Based on the research questions the following objectives were, to

- a. explore how students experienced the inclusion of positive classroom interventions as part of the classroom activities, and
- b. determine the perceived effect the activities had on student engagement.

4. RESEARCH METHOD

This study was part of a larger study focussing on student experiences and student engagement in the postgraduate research methodology classroom. Student engagement is a broad topic, and the project focussed on different aspects thereof that cannot be incorporated into a single paper. The methodology explained here will include only the methods focussed on the exploration of the use of creative activities.

4.1 Interventions introduced in the module

The module selected for the study was taught over a period of one semester (14 weeks) in 2014. During the semester the participants were exposed to different positive classroom activities (icebreakers and energizers) as part of the course (See Table 2). The manner in which feedback was given, the structure of the study guide, letters of gratitude, cartoons, motivational and inspiring music, expression of gratitude towards students for their hard work, active reflection activities, motivational notes, games to foster peer relationships and a class party to celebrate the completion of the module all formed part of the interventions. The activities were incorporated in a manner that did not distract students from the core focus of the module, it was either introduced at the beginning of the session as part of the introduction, or at the end of the session as part of a reflection on learning.

Table 2: A summary of interventions used in the study

Research Chill Pills
As established in the literature review, students have negative attitudes to research methodology coursework (Ciarocco et al., 2013) and report experiencing high levels of anxiety when completing work tasks (Sizemore & Lewandowski, 2009). In an attempt to help alleviate the experience of anxiety and negativity the lecturer prescribed “Research Chill Pills” to each student. The “Research Chill Pills” were distributed at the end of the first lecturer to students to help them “cope” with and complete their first work task. The “Research Chill Pills” were colourful candies placed in a pill pocket with dosage and directions for use indicated on it. The information indicated on the pill pocket was aligned with the classroom environment to add credibility to the activity. The activity created energy in the classroom as students did not expect it and it allowed the first contact session to end on a positive note.
Statistics Cartoon Love Notes
Students reported a strong dislike and avoidance of statistics (Ciarocco et al., 2012). To assist students in reframing and engaging in the quantitative section of the research methodology module they were each provided with a cartoon focused on various aspects of statistics. The theme across the statistical cartoons was based on dating and love. To add to the excitement, two different cartoons were included so that students could compare and discuss with their peers which cartoon they received. To add more excitement the cartoons were cut out and placed in envelopes with the title “The correlation between statistics and love” written on it and a red lollipop was attached to each envelope. The envelopes were placed on students’ computer keyboards prior to the lecture, creating excitement from the start about the mysterious “love notes” at the computer stations. The activity led to the sharing of some humour and laughter before engaging in the first quantitative research methodology lecture.
Notice of Gratitude
The “Notice of Gratitude” aimed to address two functions: the realisation of individual strengths and the expression of gratitude towards others. Strength identification can facilitate engagement and self-motivation in a learning environment (Boniwell, 2006), whereas expressed gratitude allows for the development of meaningful relationships between students (Unsworth, Turner, Williams, & Piccin-Houle, 2010). To assist students in expressing themselves and adding an element of novelty to the activity they were each provided with a template form to complete. The template required them to dedicate their notice to a student who had been part of their most recent group activity, acknowledging their support within the exercise and bringing to their attention a strength that was realised during the process. The activity allowed for the recognition of support to another person in completing a task in the research methodology classroom. The novelty of integrating a template into the activity allowed for some excitement but also for the reinforcement of social support networks in the classroom.
Jelly Tot Trivia
A jar filled with Jelly Tots was passed around the class and each student had to select four Jelly Tots of two different colours. After the students had made their selection, questions corresponding to the various colours were projected onto the board and the students took turns to answer these. The question assigned to each colour Jelly Tot (see below) was designed to be out of the ordinary: <ul style="list-style-type: none"> • Yellow: If you could have had the starring role in one film already made, which movie would you pick? • Orange: If you were a professional wrestler, what would your ring name be and why? • Pink: If you could snap your fingers and appear somewhere else, where would you be? • Green: If there were a holiday in your honour what would it celebrate? • Purple: If you were to perform in the circus, what would you do? The activity was not aligned with academic content but was an icebreaker to a formal lecture, focusing on breaking down barriers and inviting in some humour.
Donut Pun
Expressed gratitude allows for fostering relationships (Unsworth et al., 2010). To enhance the existing relationship between the students and the lecturer, the lecturer surprised them with a customised teatime snack. They were each presented with a donut with a pun letter reading “donut know what I would do without a student like you”.

Café Latte Thank You
For the same reason as with the previous icebreaker, the lecturer surprised the students with a customised teatime cup and drink. Each student was surprised with a pre-packaged instant latte mix and a coffee collar that read: “Thanks latte for all your hard work”. The coffee collar also acknowledged student strengths such as intelligence (smart), capability (capable) and energy (awesome) by ticking these elements on the collar. The aim of both this and the previous icebreaker was to express gratitude for the effort put into the module and to acknowledge students’ strengths, thereby motivating students to continue engaging with the research methodology assignments.
Smarty Lego Box
At the end of the lecture the music video for the Lego Movie theme song “Everything is Awesome” was played to the class. As the music video ended the lecturer encouraged students to stay motivated and work together to achieve their dream of completing their master’s course by echoing the song’s chorus: “Everything is awesome, everything is cool when you’re part of a team. Everything is awesome, when you’re living the dream”. As students left the classroom they were each given a Smarties box wrapped to look like a Lego block. The Lego block aimed to keep students motivated even when the pressures of high workloads, time constraints and module complexities started to overwhelm them.
Inspirational Photo Booth
A photo-booth was set up in the classroom. During a tea break each student was asked to write a quote that motivated or inspired them on a page and to have their photograph taken with it. Students were also provided with props to add some creativity and fun to the photo session. What was going to be done with the photographs was not disclosed to students, but they were told it would be a surprise for later in the module. The activity allowed students to consider what motivated them, and this insight could assist them during the final phases of the module.
Celebratory Party
During the final lecture the classroom was decorated with inspiring quotes, balloons and streamers. Each student was provided with a cupcake with their inspirational photo booth photograph inserted into it. The celebratory party aimed to highlight the journey that students had been on during the course of the module, acknowledge the skills and knowledge gained and rejoice in the near completion of a challenging module. The celebration aimed to provide some motivation for the successful completion of the exam component of the module.
Balloon Reflection
During the celebratory party a reflection game was played with all the students. The aim of the game was to throw a balloon into the air and to keep the balloon in the air by tapping it. Each time a student tapped the balloon they had to reflect on something they had learnt or appreciated during the module. If a student was unable to reflect or keep the balloon in the air they had to do a funky dance or sing a song to the group. This added an element of humour and fun to the activity. The activity was debriefed by reminding students how much they had learnt and that they were much better equipped to handle complexities, such as finding research methodology challenging at times. It reinforced the realisation that students had gained much knowledge and that they had the ability to complete the exam component successfully.

4.2 Research approach and design

Owing to the educational context, this study utilised what Loyd, Kern, and Thompson (2005) refer to as classroom research. Classroom research is defined by the authors as research conducted in the classroom setting, which benefit the student, is linked to the course content and embedded in the classroom culture (Loyd et al., 2005). This methodology follows a development action research approach, in which a problem with teaching and learning of a specific module is identified, and the instructor-researcher, implements interventions to both understand and resolve the problem (Lunsford, Rowell

& Goddson-Espy, 2006). The purpose of such a study is to improve individual teaching practices in order to improve student learning as well as to improve the teacher-researcher's understanding of the specific educational situation (Feldman & Minstrell, 2000).

To ensure trustworthiness of the data interpretation, triangulation, consideration of alternative perspectives, and testing through practice should be considered. In the case of the present study, data was collected by means of two different methods, constituting the use of triangulation.

Data was collected by means of reflective journal entries as well as an electronic questionnaire. For the reflective journals, students were sent a set of open ended questions after each subsection in the module was complete. The module consisted of four subsections, followed by four reflective journal entries. The journal entries gave an in-depth look at the students' learning experiences.

The questionnaire focused on students' perceived relevance of the classroom interventions and to establish whether it made any difference in students' learning experiences. The questionnaire was sent to the students by means of Qualtrics online survey software after all four subsections were completed.

4.3 Sample

Participants for this study were selected based on their enrolment or registration in the specific postgraduate research methodology module for the year 2014. Twenty students were enrolled for a module (18 females and two males) which formed part of an Industrial Psychology Masters programme at a large residential university in South Africa.

4.4 Data collection and analysis

The journals used the *ALIVE journaling* technique which is embedded in an *Appreciative Inquiry* (AI) approach and focused on the reflections on the positive experienced instead of the negative. Reed (2007) has noted that such a positive focus could provide a limited view of the larger phenomenon. Even though students were encouraged to adopt a positive approach to their inquiries, some negative situations emerged. Negative aspects

often appeared when illustrating resilience or personal development, thus the focus was more on the impact of the negative than on the actual negative event. Therefore, the research approach of this study was aligned with the focus of AI not to turn a blind eye on so-called negative situations, but rather to accept that such areas are in need of transformation (Banaga, 1998). This focus reinforces AI's ability to adopt a constructive perspective and to reframe problems by identifying and emphasising strengths and successes (Calabrese, San Martin, Glasgow, & Friesen, 2008).

Reflection questions focused on what students appreciated in the specific subcomponent of the module, what they learnt and how they have evolved through the learning in the module. Questions were set to use as a guideline for reflection, rather than a set structure. Before the first journal entry, students attended an information session in which the students were shown how to properly reflect on their learning experience using ALIVE journaling.

The electronic questionnaire was sent to the students electronically via Qualtrics at the end of the module. Five questions were used, which focussed on the students' experience of the interventions, and the perceived value of including such interventions in the module content. The Likert scale response categories varied from strongly agree to strongly disagree on a five-point scale. Expert evaluation was used to ensure content validity of the questions.

4.5 Data analysis

Thematic analysis was used to analyse the reflective journal entries. The analysis followed the process suggested by Creswell (1998) of organisation, perusal, classification and synthesis. During the organisation, data was organised in accordance to the date of entries. At the perusal stage, all the data was thoroughly read, and the sections revolving around feedback on the positive classroom interventions were extracted, during the classification stage, the extracts were analysed in terms of how it answers the research questions.

For the numerical data, the research objective required basic descriptive statistics, and could be satisfied with frequency analyses per questionnaire item. The sample was too small to include comparisons between biographical groupings.

5. RESULTS AND FINDINGS

The results are discussed in the order of the research objectives.

5.1 Students experience of the inclusion of positive classroom interventions

Themes that emerged out of the reflective journals that related to student experience of the classroom interventions included: Enjoyment, appreciation, motivational, sparking creativity and fostering peer relationships. (See Table 3 for extracts of the data for each of the themes.)

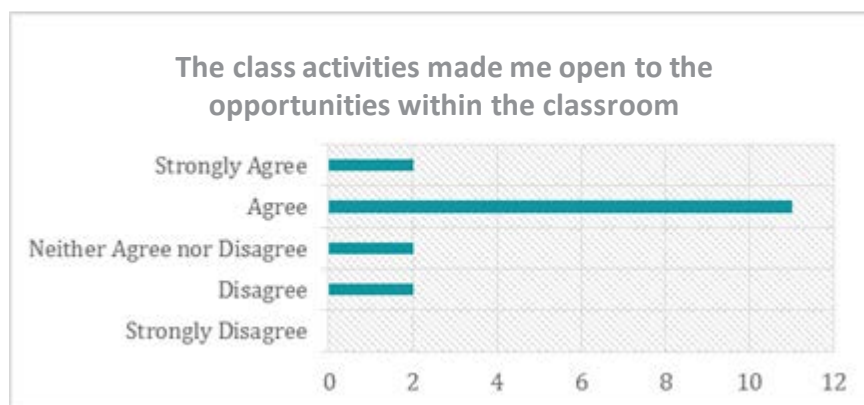
Table 3: Excerpts from the data

Theme	Data extract
Enjoyment (fun, humorous)	<p><i>Made me smile and the messages were very motivating, it made me push more. [Master's student 5, reflection 1]</i></p> <p><i>I also enjoyed the doughnuts that were handed out in class – this was creative and motivating and made me feel special. [Master's Student 8 reflecting on the doughnut icebreaker].</i></p>
Appreciation	<p><i>I valued the activities that were given to us in class like when we had to take pictures with a motto and a funny object. We were surprised when in the next class we found our pictures on a cupcake together with other food. It was valuable time spent. [Master's Student 3 reflecting on the "photo booth" exercise]</i></p> <p><i>I truly appreciated all the effort that was made during the semester to make research more fun for us.. [Master's Student 12 reflecting on the class party]</i></p>
Motivational	<p><i>We were also motivated in class by little letters and a lollipop from [the researcher] helped us take the next step and move forward with a positive attitude [MS12_reflection 2]</i></p> <p><i>The class party with the doll cupcakes was my highlight and it is an inspiration and motivation for me during the exam period [Master's Student 12 reflecting on the class party]</i></p>
Sparking creativity	<p><i>I also valued that we could get creative for once with research. It was a lot of fun. [Master's student 12, Reflection 1]</i></p> <p><i>Creative thinking is a very powerful ability that this course is learning us. [MS 18 Reflection 4]</i></p>
Fostering peer relationships	<p><i>The "Jelly Tot Trivia" which was introduced during the second contact session allowed me to think carefully as to how I was going answer with regards to the coloured jelly tots I chose from the jar; it was a fun way to unfold myself for and to the rest of the 2014 Masters Class. I also enjoyed hearing what everyone else in the class had to say regarding their coloured jelly tot choices. [Master's student 15, Reflection 3]</i></p>

Icebreakers and activities that fostered discussion and relations between students, such as the “jelly beans exercise”, were described as “cool” and an opportunity to foster relationships with both their peers and the lecturer. It was also reported that the unfamiliar questions sparked creativity and personal reflection. The motivating effect of humour-filled activities was evident from the feedback given on the “survival pack”, which the students described as an activity that created smiles and motivated them.

Figure 1 illustrates that out of a total of 17 students most responded positively to a statement that the interventions allowed students to be more open and receptive to learning in the classroom. Of them, 11 students agreed, two students strongly agreed and two students disagreed. Two students indicated that they neither agreed nor disagreed with this statement.

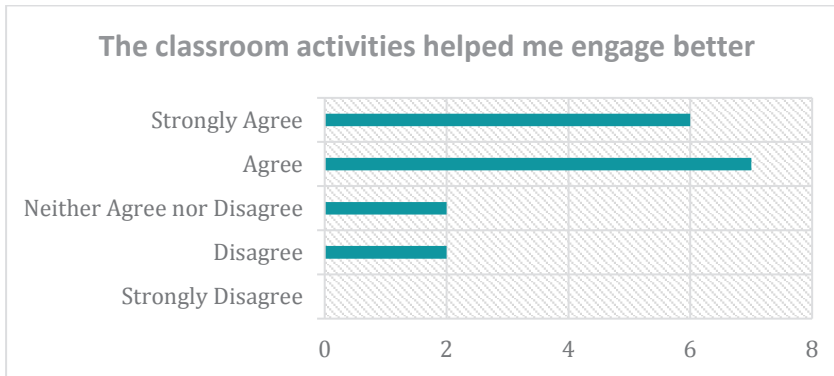
Figure 1: The extent to which the inclusion of creative interventions allowed students to be more open and receptive to the learning in the classroom



5.2 Perceived effect on students’ engagement

Figure 2 illustrates that out of a total of 17 students, six students indicated that they strongly agreed that the icebreakers and energizers assisted them in engaging in the classroom, and seven students agreed. Therefore, more than two-thirds of the students believed that the inclusion of such innovative interventions was beneficial, whereas two students remained neutral and two disagreed (12%).

Figure 2: The Extent to which the inclusion of the interventions enhanced student engagement



From the results it seemed as though students perceived the interventions to affect their engagement on an emotional level, creating a sense of belonging in class (See Fig 3.), as well as positively changing their emotions related to the subject.

In Figure 2, it is evident that nine students (53%) strongly agreed and six students agreed that the icebreakers and energizers gave them a sense of belonging. Two students reported neutrality towards the statement.

Figure 3: The perceived effect of the inclusion of the interventions on the feeling of belonging

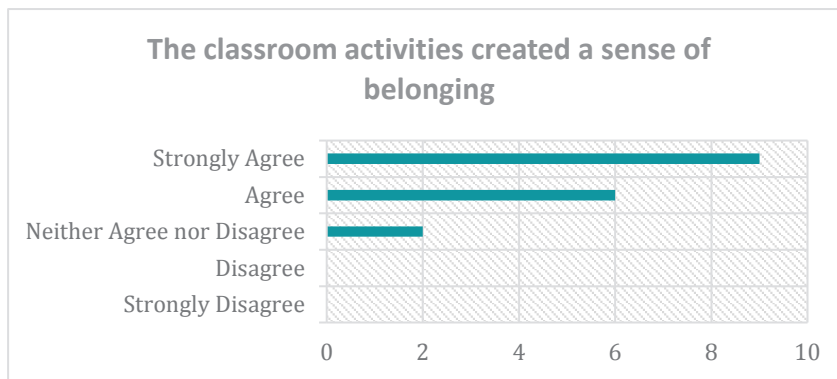
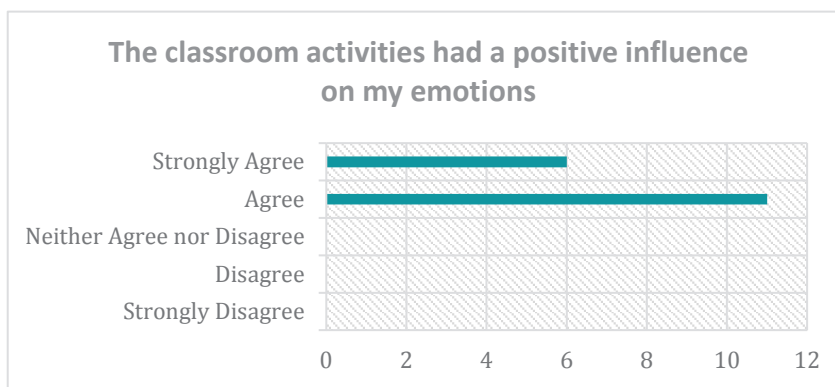


Figure 4 illustrates that more than half of the students believed that the innovative interventions assisted them in overcoming their negative attitudes to research. Three students remained neutral about the statement and four disagreed with it. Six students indicated strong agreement and the remaining 11 students reported agreement. It was evident from the initial reflective data that students felt negative about the subject:

I do hate the subject and I really was not looking forward to the first class at all. (MS 8, reflection1]

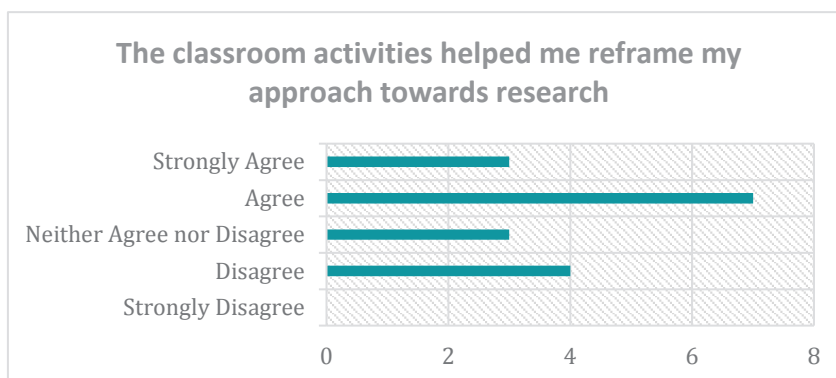
After experiences from last year, I won't lie: I was hesitant to approach research with as much gusto as before. They often say, "Once bitten, twice shy" and I can easily acknowledge that this applies to me. Research had hurt me in the previous year. I had put all of my energy and effort into a gaping hole which some swallowed up everything I threw at it [MS15, reflection1]

Figure 4: The perceived effect of the inclusion of the interventions on the student emotions toward the subject



On a cognitive level, Figure 5 illustrates that from the 17 students who responded to the statement, the majority agreed or strongly agreed (seven students agreed, and three students strongly agreed) that the icebreakers and energizers assisted them in reframing their approach to research.

Figure 5: The perceived effect of the inclusion of the interventions on the students' approach towards research



6. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

In the current study, the inclusion of creativity in tasks had an impact on the experience and engagement of students in the module content and students noted that when lessons were fun and innovative they were more willing to engage, interact and discuss. Educators can help students refocus their minds by integrating an element of creativity into their teaching style. Creative and imaginative teaching methods are recommended by Brukley and Burkley (2008) to facilitate active learning by students. The creative manner in which a lecturer conveys learning content can add excitement to and stimulate interest in a topic. Ainely (2006) acknowledges the role that interest plays in the learning process, and Rowe, Fitness, and Wood (2014) agree, equating this role with that of a vessel that allows for exploration and discovery and ultimately the ability to apply insight and theory.

In the current study, small moments of positivity and creativity were intentionally created in the classroom through the inclusion of icebreakers and energizers. The integration of such activities should not take the attention away from the core focus of the module, and their purpose must be clear and justifiable (Eggleston & Smith, 2002; McGrath et al., 2014). From the results in the current study it is recommended that educators include such activities as it was evident that these activities aided the students to reframe their minds as they entered the classroom, and the introduction of these activities broke the potential tension and anxiety about engaging with the learning content. Such innovative interventions can be viewed as a valuable tool to initiate the reframing process required by students when experiencing negative emotions and anxiety, especially when faced with the daunting task to engage in research methodology. The students in the research study confirmed that the inclusion of these activities made a positive contribution to enhancing their positive emotional state in regard to the module. It simultaneously created emotions of joy and interest. Fredrickson (1998) acknowledges that when individuals experience joy it allows for greater engagement and a desire to discover new knowledge, and when they experience interest it allows them to be open to new ideas and opportunities. Such positive emotions facilitates broader thinking (Fredrickson, 2004) and the development of intellectual resources (Fredrickson et al., 2003). Therefore, it is evident that students are not merely happier but, owing to the mind shift they make, they should be better equipped to capitalise on the learning opportunities in the classroom.

Van der Westhuizen (2015) acknowledges the potential of the inclusion of humour in the research classroom to create joy and excitement. An icebreaker activity is an appropriate vessel to introduce humour into the learning environment. For instance, the inclusion of

cartoons had the advantage of taking a daunting subject like economics (Van Wyk, 2011) and reframing it. The use of cartoons in the current study confirmed that students had some understanding of statistical tools as they would not have grasped the humour if they had lacked insight into basic statistical terms such as significance and probability. Therefore, it can be argued that their inclusion not only allowed students to reframe their negative attitudes to the subject but also highlighted relevant knowledge about the subject. The realisation that they had such knowledge (even only about basic statistical concepts) could have given students a confidence boost prior to the formal lecture during which new and challenging content was to be explored. The inclusion of humour helps students be more open to the learning experience because students normally disengage when they are exposed to the tedious and complex nature of empirical research (Sizemore & Lewandowski, 2009).

The potential value of icebreaker activities was confirmed in the research study as more than two-thirds of the students believed that the inclusion of icebreakers and energizer activities enhanced their ability to engage in the module. Thus the presence of positive emotions allowed for the creation of a positive learning environment, which enhanced student engagement and promoted a meaningful learning experience. The excitement and creativity promised by each activity prevent boredom (Baid & Lambert, 2010), and when boredom is absent there is room for fun and excitement, which encourage deep learning (Knowles et al., 2014).

Prior to the research study the inclusion of creativity was perceived to be limited to the application of icebreakers. However, upon reviewing students' experiences it became evident that a number of creative avenues could be explored, such as including guest lecturers, introducing specific learning content and giving assignments that create opportunities for individual creativity.

No research study is without some flaws regardless of the level of planning and commitment to research excellence. In the current study, the research sample was limited to a relatively small group of master's students ($n = 17$). Hence, the research findings cannot be generalised across all postgraduate master's research modules. The icebreakers and energisers were not all related to the course content, which the authors suspect would have contributed even greater to student engagement. This was an exploratory study that was first designed to explore student learning and experience in a research methodology classroom, and therefore the initial design did not include validated student engagement measurements, which would have given a better reflection of the effect of the interventions. However, the data collected

does provide a springboard for conducting further research studies to expand the body of literature in the field, in particular in the context of South African tertiary education.

7. CONCLUSIONS

The increase in the availability of information and easy access to data it is imperative the management students are well equip with research skills. Training that includes creative interventions, such as the ice-breakers and energizers which was presented in this study, may help students with negative attitudes towards the learning content to engage with the subject matter. Management educators should therefore consider the inclusion of more creative interventions in their modules.

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**THE BENEFITS OF A BUSINESS, STUDENT AND ACADEMIC PARTNERSHIP:
DEVELOPING AUTHENTIC BUSINESS-BASED ASSESSMENTS**

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**THE BENEFITS OF A BUSINESS, STUDENT AND ACADEMIC PARTNERSHIP:
DEVELOPING AUTHENTIC BUSINESS-BASED ASSESSMENTS**

ABSTRACT

Employers seek students with a set of employability skills and the competency to apply their theoretical knowledge in practise. Businesses and Higher Education Institutions (HEIs) seldom engage in partnerships to specifically address the development of student's employability skills. Authentic business based assessments were developed in conjunction with business partners and the student's perception of their employability were then measured. Feedback was collect by means of questionnaires, pre- and post-module completion, with closed as well as open-ended questions, business partner feedback and lecturer reflection journal. The feedback indicated that all role-players involved benefits in this partnership. Employers received innovative business ideas and in the future better developed graduates that are job ready. The students' employability were improved through this authentic experience which was described as the perfect simulator of the real-life work situation. Lastly lecturers benefitted as their teaching and assessments remained relevant to better addressing them in the employability problem.

1. INTRODUCTION

The importance of employability skills has changed over the years. According to Beernstein and Osman (2012) universities are increasingly becoming responsible for producing employable graduates to contribute significantly to a knowledge-driven economy. However, this responsibility is not without its' challenges. The disconnect between what universities produce and what employers want is problematic, with universities under increasing pressure to close the gap. As stated by Williams (2015), an aspect of education is to meet the employment needs of employers and graduates. Bertagni, La Rosa and Salvetti (2010) outline that dealing with employability requires sufficiently fluid categories to understand the versatile realities of our world. This simply states that such fluidity interests both the supply and the demand side of employability, affecting individual candidates as well as any kind of employer. Academics need to provide students with authentic assessments that enhance their employability skills. To breach this gap the lecturers for an exit level marketing module developed a set of formative assessments based on local businesses and a summative assignment in conjunction with an International business partner to teach students the application of their theoretical knowledge in an authentic business like setting. The aim of this paper is to report on the students' and business partners' feedback to emphasise the value of incorporating real businesses in assessments.

2. LITERATURE REVIEW

2.1 Challenges students experience

Graduates entering the world of work today are presented with a number of challenges. These include a decrease in employment opportunities and job security, fast-changing technology and an increasing personal responsibility for keeping up with the changes in their disciplinary field of knowledge as well as as well as continuous up-skilling and lifelong learning (Faber, Lopez, & Prescher, 2012; Marock, 2008; Dacre-Pool, & Sewell, 2007). In the South African context the increased concerns about employability of young adults resulted in more emphasis being placed on their employability and helping them to increase and sustain their employability (Marock, 2008).

2.2 Employability

There are various definitions and conceptualisations of the term employability. According to Moreland (2006) and Wellman (2010) employability can be defined as a set of skills,

knowledge and personal characteristics that make people not only more likely to be able to keep their job but also, to be successful in their chosen profession for the benefit of their own, the workforce, community and economy in general. Employability presupposes proactive career behaviors and capacities that help people to fulfill, acquire or create work through the optimal use of both occupation-related and career meta capacities (Coetzee, & Schreuder, 2011). According to Coetzee and Schreuder (2011), employability refers to a sense of self-directedness or personal agency in retaining or securing a job or form of employment. The employability of an individual depends upon certain psychosocial attributes that are seen to be important for successfully managing the influence between ones personal career needs and desires and the demands of a continually changing work environment.

Clarke and Patrickson (2008) state that employers and employees differ in their understanding of the concept of employability: Employees see it in terms of ability to find suitable employment and organizational change when necessary or desired while employers perceived employability in terms of filling gaps within an organization, employing people who have the skills, experience and knowledge to meet their real needs and expectations. In a study by Davis, Misra and Van Auken (2002) the importance of key skills and knowledge areas was compared with the perceptions of USA marketing alumni on their academic preparation in these areas. The findings indicated that graduates seem to be underprepared in terms of skills and over prepared in the knowledge areas. More studies confirmed these findings; Walker, Tsarenko, Wagstaff, Powell, Steel, and Brace-Govan (2009) conducted in-depth interviews with graduates and employers in order to explore the perceptions of graduates and their employers with regard to the skills, knowledge, competencies that are essential to make any progress in marketing positions. Employers emphasized the importance of soft skills such as communication and analytical skills when entering the marketing industry. However graduates have to be prepared to show an appropriate blend of these soft skills, together with some conceptual knowledge of marketing in order to be effective. It seems like students are underprepared in terms of employability skills and over prepared in terms of theoretical knowledge. It was revealed that knowledge was not the most sought after requirement, but rather the ability, comprehension and experience to be able to use that knowledge in the correct way for a specific business situation constitutes the top priority. This ability should sufficiently provide graduates with an explicit competitive advantage in the job market.

To measure the improvement of employability skills, a South African employability framework by Coetzee (2014) was used. This framework consists of eight mega skill sets

and personal attributes (See table 2.1) which a student need to enable their intellectual capacities and improve their transition into suitable employment.

Interaction skills:	The use of English language and technology when communicating with others and personal efficacy in communicating and interacting with people from diverse cultures, backgrounds and authority levels.
Enterprising:	Venturesome application of critical reasoning, initiative and proactivity in engagement of economic activities or undertaking.
Problem-solving and decision making:	The creativity and proactivity in the process of producing a solution to a recognised problem or problematic situation.
Presenting and applying information skills:	Communicating knowledge, facts, ideas and opinions clearly and convincingly with a view to offer solutions for one's personal benefit, or for the benefit of one's community or workplace.
Continuous learning orientation:	Cognitive openness towards and awareness of, and proactive engagement in, the process of acquiring new knowledge, skills and abilities throughout one's life and career in reaction to, and in anticipation of, changing technology and performance criteria.
Goal-directed:	Proactivity and initiative in achieving one's goals, accomplishing tasks or meeting deadlines
Ethical and responsible behaviour:	Responsible leadership in upholding the code of moral beliefs and values of one's profession, community and/or workplace in all one does.
Analytical thinking skills:	The skillful logical and critical reasoning and analysis in explaining information and data, and drawing insightful conclusions from the data analysis.

2.3 Rationale for business partners

South African employers' indicated task-directed engagement and the application of knowledge as the most prominent areas of concern in newly graduated jobseekers (Griesel & Parker, 2009). Lecturers thus need to develop assessment that can engage

students and guide them to apply theoretical knowledge in practise. Green (2014) stated that student learning are improved when industry partners participate in the assessment experience for example the setting-up of authentic business based assessments and providing insight into real and current business problems. The results of such business partnerships are reported to lead to better-trained teachers and better-educated students, as both teachers and students are able to learn from industry experts, hence creating a mutually beneficial learning environment (Green, 2014). Based on the results of a study by Felten, Bovill and Cook-Sather (2014) industry partnerships also have a positive effect on student engagement and the involved role-players (in this case students, lecturers and business representatives) tend to experience heightened motivation and learning. Griesel and Parker (2009) as well as Kuh (2008) suggested that student engagement and success can be enhanced by creating an assessment in which students' can apply their theoretical knowledge in a real-life context.

2.4 Creation of partnerships towards business-based assessments

For an exit-level strategic marketing module a set of formative assessments and a summative assessment were created by partnering with real businesses. These assignments were also based on problems and challenges that these businesses experience. Business partners were not only included in setting up these authentic assignments, but were also part of the assessment process in two instances to help students to get an authentic experience. A summative assignment was created by collaborating with an international company (i.e. TATA) that comprises of multiple strategic business units (SBU) (e.g. engineering, telecommunication, tourism and consultancy). Final year strategic marketing students had to identify a current problem in one of these SBU's and thereafter develop practical marketing strategies for the SBU in Africa. Students had the opportunity to present their ideas to a panel of business experts who provided critical feedback, as done in real-life business pitch situations. The four critical elements, also included in the rubric was: marketing research, selection of a target market, positioning of the SBU against competitors and lastly a practical marketing strategy.

To prepare students for this summative assignment, a range of formative assignments were developed. These assessments focused on problem areas that were identified by the lecturers from previous years where students had difficulty to apply the theoretical concepts in practise. Four local companies were approached with a proposal of these formative assessment being done on their company. The students, in groups, where given the authority to select any one of the four businesses on which all the different practical

formative assignments were based on. This was done to enforce holistic thinking, as each assignment was a piece of a greater puzzle. The lecturers met with the business owners, made a video of their current business challenges, and uploaded the videos onto Blackboard (i.e. the institutional learning management system), to allow students to refer back to the video, should they need to do so. The formative assessments were used as a practice tool, to better prepare students for the summative assignment (i.e. TATA).

During the formative assessments students had to a) Conduct an environmental scanning for that business by using newspaper articles and suggesting strategies to the company based upon these findings. b) Identify two target markets and draw a positioning map for the company at hand. c) By applying the six (6) steps of the marketing research process, students had to identify and solve a research (business) problem. During this assessment activity, students developed their own research tool, conducted field work and reported back in the form of a class presentation. The different business owners were present at the class presentation to give critical feedback in order to solve the identified problem. d) Student's had to develop a product, price, distribution and promotional strategy for their chosen company (individually) and e) Student's had to assess and critique the company's online presence. Business partners collaborated with the lecturers to develop all these real-life assessments and encourage students to improve their practical skills while developing strategies to solve the presented problems. The assessments were versatile in nature as students had to present the assessments in different forms, like a poster, written document as a group, a presentation and an individual written document. Rubrics was developed for each assessment to ensure that students knew what was expected from them.

3. PROBLEM INVESTIGATED

Assessment practices influence a student's approach to tertiary studies and learning (Boud & Falchikov, 2006), which can be a surface, deep or achievement approach that are influenced by the kind of assessments lecturers give them (Troskie-de Bruin & Otto, 2004). The questions arise: What are the possible benefits a partnership between students, businesses and educators when developing authentic business-based assessment in partnerships with businesses? Can these authentic business like assessment improve student's employability skills? How do the employers that are involved in these assessment practices benefit from this? What can be learned from the

partnership approach that can possibly benefit the theory and practice of management education?

4. RESEARCH OBJECTIVES

The primary objective of this study was to determine the benefits for the three roles players, employer, student and academics in the development of an authentic business like assessment in partnership with the business role players. The secondary objectives of this study were to determine if student's perception of their own employability skills are affected by these authentic assessments. Secondly to determine the benefits that business partners can gain from this partnership. Lastly, determine the benefits for the lecturers and management education in that were gained from this partnership.

5. RESEARCH METHOD

A questionnaire survey, amongst students enrolled for the strategic marketing module, was conducted to determine if there is an increase in their own perception of their employability skills. The questionnaires were filled in during the first contact session (referred to as the pre-test) and after the completion of the module (referred to as the post-test). The pre-test consisted out of two parts - Section A was demographical information and in Section B students rated statements based on Coetzee's framework (Table 5.1) on a 5-point Likert scale (Absolutely disagree-Absolutely agree). During the post-test, students again rated their perception of their employability skills based on Coetzee's framework and additionally had to answer the following two open-ended questions 1. What during the past six months contributed to the development of the above mentioned skill? 2. If the Strategic Marketing module was a positive contributor, which aspects of the module led to the improvement of this skill?

Table 5.1: Statements from the Coetzee (2014) framework used in the student questionnaires

Interactive skills	
IS1	I can communicate my viewpoints with clarity and fluency in English
IS2	I find it easy to listen to and understand what others are saying
IS3	I find it easy to confront people's problems to resolve conflicts
IS4	I can use technology effectively to communicate with others
IS5	I take care to use appropriate vocabulary and grammar when communicating with others
IS6	I can gain support from others for recommendations and ideas

IS7	I find it easy to persuade, convince or influence others
IS8	I find it easy to quickly gain respect from others
IS9	I usually show respect for the views and contributions of other team members
IS10	I usually make a favourable first impression
IS11	I find it easy to make clear, concise presentations to others
IS12	I find it easy to communicate effectively with people from different cultures, backgrounds and authority levels
IS13	I find it easy to get cooperation and support from others when working in a team
IS14	I consult others and share my expertise and information
IS15	I am able to build wide and effective networks of contacts to achieve my goals
IS16	I seek to progress to roles of increased responsibility and influence
Enterprising skills	
ES1	I prefer to work under my own direction
ES2	I can think in a disciplined and logical manner when approaching problems or situations
ES3	I consider the consequences of solutions by examining their feasibility and weighing their impact within the larger cultural, business or economic reality
ES4	My arguments for solutions are grounded in both subject-/discipline-specific and general knowledge about global and local affairs
ES5	I am aware of and adept at dealing with organisational or team politics
ES6	I keep up to date with competitor information and market trends
ES7	I have sound financial awareness
ES8	When controlling costs and budgets, I usually think in terms of profit, loss and added value
ES9	I find it easy to identify business opportunities for myself, my community or organisation
Problem-solving and decision-making skills	
PS1	I make quick but clear decisions that spur others on towards action
PS2	I can probe for further information to enhance my understanding of a problem
PS3	I can structure information in a way that meets the needs of my audience
PS4	I can initiate changes to make my work or life more satisfying and developmental
PS5	I consider the complexities of the larger cultural, business and economic reality when approaching a problem or situation
PS6	I offer unique and novel ideas that add new knowledge and insights to a problem or situation
PS7	I am creative in achieving my goals by anticipating problems before they happen
PS8	I usually set priorities with a proper sense of urgency and importance
Presenting and applying information skills	
PA1	I can write my ideas and opinions clearly to convince my audience
PA2	I avoid using unnecessary jargon or complicated language when presenting my ideas/insights
PA3	I find it easy to commit information to memory quickly
PA4	I consider a wide range of alternatives prior to making a decision
PA5	The solutions I offer make a positive difference in my personal life, community or workplace

Continuous learning orientation	
CS1	I follow up on goals, tasks and assignments to ensure successful completion
CS2	I monitor my performance against deadlines and milestones
CS3	I make sure that I keep myself up to date on technical knowledge and new developments in my field
CS4	I am always on the lookout for ways to improve my knowledge and skills, and develop myself as a person
CS5	I know how to ask the right questions to get needed information and to properly size up a situation
CS6	I accept and tackle demanding goals with enthusiasm
CS7	I make use of developmental or training opportunities to enhance my competencies, knowledge and skills
Goal-directed behaviour	
GD1	I spend a lot of time surfing the internet to find new information on search engines
GD2	I find it easy to access the information I need to solve problems or make decisions
GD3	I avoid jumping to premature conclusions
GD4	I try to find the real cause of problems before taking action
GD5	I usually set realistic goals
GD6	I take action to achieve my goals
GD7	I develop plans for specific goals and tasks
GD8	I use time efficiently
GD9	I find it easy to meet deadlines
GD10	I can identify the resources needed to accomplish tasks
Ethical and responsible behaviour	
E1	I accept responsibility for the results of my decisions and actions
E2	I personally take the credit or blame for the results of my work
E3	I uphold the ethics and values of my profession, community or workplace in all I do
E4	I encourage responsible behaviour towards the community and the environment
E5	I find it easy to provide direction to others, and to motivate and empower them
Analytical thinking skills	
AS1	I feel confident in my ability to draw insightful conclusions from numerical data
AS2	I can break information into component parts to see relationships and patterns
AS3	I can make a rational judgment from analysing information and data
AS4	I can give accurate explanations of information and data presented to me

To determine the effect of this partnership on the business partners, feedback was collected from the business partners after the completion of the assessments. Lastly, lecturer reflective journals were used to determine the benefits that they gained from the experience.

6. RESULTS AND FINDINGS

6.1 Student perspective

The pre-test was completed by 152 of the 203 students registered for the module. Half of the class is between the age of 21-23, while 19.9% is younger than 21 and 29.1% is older. 67.8% of the students that completed the pre-test was female. 58% of the students had work experience, 32% was in leadership position and 46% was part of a committee. 97% of the class state that they set personal goals. Only 21% have attended CV writing workshops, 65% attended workshops held by the institution's career development department. 24% attended self-development workshops. While 40% of the students did research job advertisements (Table 6.1).

Table 6.1: Demographic Profile of Pre-Group

AGE:	No.	%
< 21 years	28	19.9%
21 - 23 years	83	51.1%
> 23 years	41	29.1%
Total	152	100.0%
GENDER:	No.	%
Male	49	32.2%
Female	103	67.8%
EXPERIENCE:	YES	%
Work Experience	90	58.1%
Leadership Position	49	31.8%
Part of Committee	71	45.8%
Set Personal Goals	152	97.4%
Attend CV Writing Workshop	33	21.2%
Attend UFS Career Opp. Workshop	102	65.0%
Attend Self-Development Workshop	37	23.6%
Researched Job Advertisements	63	40.1%

Even though students had to develop their own pseudonymous (false names) for ethical reasons, students did not remember their false names, thus the datasets from the pre-test and post-test cannot be compared per individual. The post-test was completed by 133 students.

The results will be discussed in terms of the Pre-test and the Post-test by referring only to the statements that showed significant difference between the group that completed the pre- and the post-test. Qualitative data from the open-ended questions will also be included in the discussion. Table 6.1. indicates the Cronbach alpha of the pre- and post-test. The Cronbach's Alpha is the most commonly applied method to test for reliability and should reflect a value of 0.7 or higher in order to be considered reliable (Pallant, 2013). Therefore, the following skills will be excluded from the analyses: Enterprising skills (ES), Problem-solving and decision-making skills (PS) as well as Presenting and applying information skills (PA).

Table 6.2. Cronbach Alpha of Pre- and Post-tests

Cronbach Alpha of Pre- and Post-tests	Cronbach alpha	
	Pre-test	Post-test
Employability skills as identified by Coetzee (2014)		
Interactive Skills (IS)	0.818	0.839
Enterprising Skills (ES)	0.678	0.661
Problem-solving and decision-making skills (PS)	0.690	0.761
Presenting and applying information skills (PA)	0.595	0.628
Continuous learning orientation (CL)	0.745	0.790
Goal-directed behaviour (GS)	0.756	0.795
Ethical and responsible behaviour (E)	0.733	0.770
Analytical thinking skills (AS)	0.863	0.888

6.1.1 Interactive skills

The overall mean score for interactive skills, in the pre-test was 3.94, which is relatively high on a 5-point Likert scale, but the post-test mean score is even higher at 4.13 (Table 6.3). Thus, as students are on an exit-level, this may show that they already rated themselves ready for the workplace. According to the feedback the TATA project (11 students mentioned this in the open-ended question) and the presentations to the business owners and TATA (14 students mentioned this) was the two major contributors to the development of this interactive skill as well as working in groups (29 students mentioned this). Five students also mentioned the interaction between the student and lecturer.

Table 6.3: Pro- and Post-Test Mean Scores

	Mean		Difference
	Pre-test	Post-test	
Interactive Skills	3.94	4.13	0.18
Enterprising Skills	3.76	3.87	0.10
Problem-Solving and Decision-Making Skills	3.81	3.92	0.11
Presenting and Applying Info. Skills	3.83	4.00	0.16
Continuous Learning Orientation	3.83	4.00	0.16
Goal-Directed Behaviour	3.86	3.98	0.12
Ethical and Responsible Behaviour	4.18	4.26	0.08
Analytical Thinking Skills	3.68	3.79	0.11

Student 127: *The assignments, specifically the presentations which caused me to learn how to think critically, devise my ideas and strategies and also improve my presentation skills. Perfect simulator of the real-life work situation.*

Student 76 and 45: *The presentations to the businesses helped me to gain more vocabulary in terms of addressing a formal of external judges' panel.*

Student 87: *The great interaction in class between students and lecturer.*

6.1.2 Continuous learning orientation

Overall the perception of students' skills improved during the first semester in their final year from a 3.83 mean score to a 4.00 (Table 6.3). Students again emphasised the value added by the practical assignments, 16 students mentioned these practical assignments as a cause for the development of this skill.

Student 107: *Doing assignments of different kinds in the same company.*

Student 51: *The little projects we did leading up to the big TATA project.*

Student 4: *The enjoyment of the module led to my continuous learning orientation.*

6.1.3 Goal-Directed

The average mean scores for the pre- and post-test, with regard to goal-directed skills, was 3.85 and 3.98 respectively (Table 6.3). The three main elements that the students' highlighted in assisting them with the development of these skills were the heavy workload and the two sets of business aligned projects.

Student 62: *TATA taught us how to plan, coordinate and deliver on time*

Student 79: *The full schedule helped me to plan my tasks*

6.1.4 Ethical and responsible behaviour

Even though the pre-test rating was relatively high on an average mean score of 4.18, there was still an improvement to 4.26 (Table 6.3). One of the major factors during the perceived development of this skill was all the group projects students had to complete.

Student 34: *Working in groups taught me how to take others into account.*

Student 13: *Values learnt during group assignments*

6.1.5 Analytical thinking skills

This skill measured the lowest pre-test mean score (3.68) as well as post-test mean score (3.79) (Table 6.3). The students again highlighted both the business-related assignments as contributors to the development of this skill. According to some students, the structure of the test and exams papers also enhanced their analytical skills.

Student 115: *The research assignment required one to dig deeper into the problem the company was experiencing. Even though it was difficult I learned how to display data to make useful charts and graphs by doing the marketing research project.*

Student 44: *Learnt how to connect the theory with the real world and most of the time you had to actually think out of the box*

Student 82: *The way the questions were asked in tests and exams*

6.2. Business Perspective

The collaborations allowed business representatives to gain a novel perspective and access to new ideas, ultimately influencing goal attainment, as emphasised by the business owner of Football Factory:

“Would just like to thank you so much, first of all for choosing my business as a platform for research. The research your students performed and the feedback I got. Honestly helped me so much in achieving my goal in creating a better and simpler website for my business. Thank you for your time and the effort you put in. I felt that I reached the right target market and got the answers I was looking for. The data that I got made my decision-making process a lot simpler and also just guided me in the direction I need to go.”

Despite the novel perspectives, there were still a few issues regarding the students' practicality and their level of preparedness to handle the business problems. The owner of PostNet provided some constructive and critical feedback:

"Some students did not do proper research on our company before they approached me with questions, whereas others were asking brilliant questions. The strategies proposed by students were not always viable due to red-tape within the company. I would love to collaborate with you again in the future and help students to see the practical side of having your own business in a time with restricted resources. Even though not all the suggestions were relevant for my business, it made me think differently. I also feel like this is a great way of giving back to the community and develop the employees and leaders of tomorrow."

6.3. Lecturer Perspective:

By using business partners in developing and the assessing of our formative and summative assessments, it forced the lecturers to also think more practically when preparing for contact sessions. *"When I prepared my classes I now think of how I can assist the students to apply the knowledge in their chosen business. I tried to use these business with my other practical examples in class to explain how theoretical knowledge should be applied in a real business setting."*

Due to the diverse nature of the four companies, the lecturers realised that it was easier to apply the theoretical concepts to some of the business than others. *"By using a non-profit organisation like Spoudazo, it was sometimes difficult to identify pricing or distribution strategies. In the future I would ensure that all business are from the same business sector to make sure that all some were easier to apply the theoretical knowledge to than others."*

Students became empowered, businesses managed to stay up-to-date with theoretical research and the lecturers never-ending benefits of collaborating, instead of competing, with business stakeholders. *"I could see how these students developed, some even came afterwards to thank us for these real life assessments. All my business partners really benefitted from the collaboration. For me personally every time I work with business people with real life challenges I realise how easily we state that a business should just use this theory to fix their current problems, but the reality of theory in practise is a bit different. On the other hand, I realised the value of most of the theory we taught students. Business use these principles daily to add value and connect with their customers. This even motivates me to high-light the relevance of what the students are studying."*

6.4. Student results

Lastly to add to the findings is the results of the Strategic Marketing module. As evident in Table 6.4., even though the average for the TATA assignments stayed the same, the success rate drastically increased from 79% before the alignment of formative and summative business based assessments to 92%. The jump from Y2 (79%) to Y3 (92%) was after more business partners were incorporated into the module.

Table 6.4. Results of the Strategic Marketing Module

	Year before alignment between formative and summative with only a business based summative assessment	Year with business based formative and summative assessments which are aligned
Average for business-based summative assessment	61.00%	61.00%
Average for the Semester	55%	58%
Average for Exam mark	50.50%	58%
Average mark for Final Mark	56%	60%
Success Rate	79%	92%

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

By developing authentic business-based formative and summative assessments with industry partners the students' perception of their own employability skills improved, like suggested by Griesel and Parker (2009) and Kuh (2008). Research findings show that students had a relatively high perception of their own employability skills in the beginning of their final year. Even so, the students' perception of their skills improved during the six months between the pre- and the post-test. From the qualitative results it is clear that the effect of the authentic business-based assessments are a key reason for this improvement. As mentioned by Green (2014) the use of business-based assessments

create better prepared students for the workplace. The analyses furthermore gave the lecturers insights into the thinking of the students with regard to their own employability skills.

Analytical skills were scored as the lowest of all the skills, even though an improvement was clear from the pre- to the post-test. Lecturers can focus more on improving these specific analytical skills through assessments, as this is a much needed skill in the workplace. This can be achieved through lecturers teaching students how to draw conclusions, identify patterns and relationships and present these conclusions to a panel of judges. In addition, lecturers can also beforehand communicate the specific skills that can be developed through each of the specific assignments to the students, in order to enhance their motivation and dedication.

The three role players all stated that the experience had positive implications. The students' perception of their employability improved through this experience and lastly it assisted lecturers to stay relevant in the ever changing business environment. During the presentations students learn to interact better with business representatives. Due to the nature of the assessments and the link between formative and summative assessments, student developed a continuous learning orientation. Business partners received some fresh ideas, but also saw this as their corporate social responsibility (CSR). Furthermore, it alerted the lecturers to also constantly think about the development of their students for future employment. Lecturers also better prepared the students with relevant application of theoretical concepts. This all address the disconnect between what universities produce and what employers want.

8. CONCLUSIONS

Based on the evidence, it is clear that the lives of the three stakeholders' in this partnership all benefitted. Students became empowered, businesses managed to stay up-to-date with theoretical research and lecturers again experienced the never-ending benefits of collaborating, instead of competing, with various stakeholders.

This is an example of how science is serving management education in practise. The author highly recommend exit-level lecturers to partner with industry and business partners when developing summative as well as formative assessments to increase students' employability skills. The alignment between formative and summative

assessments had a positive effect on the student performance. Lecturers should link their assessments to employability skills needed by their students. Lecturers should furthermore use a versatile range of assessment formats (like presentation, written, ect) to develop a variety of skills. To develop authentic business-based assessments lecturers should partner with local, national or international businesses and base these assessments on current problems experienced by the businesses. Furthermore, lecturers should include the business partners in the assessment process to give students valuable feedback from a business perspective. Business partners should not only be involved in the setting-up of these assessments, but the assessing of student's work as well to add authenticity to the student experience. Further research can be conducted to determine the effect of student engagement and motivation when participating in authentic business-based assessments.

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ROTHWELL REVISITED: RECONCEPTUALISING MANAGEMENT RESEARCH AS KNOWLEDGE PRODUCTION

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ROTHWELL REVISITED: RECONCEPTUALISING MANAGEMENT RESEARCH AS KNOWLEDGE PRODUCTION

ABSTRACT

Over time, technological advances are enabling changes in the innovation process, resulting in dramatic reductions in development time and costs. Rothwell's seminal typology of innovation change related to industrial production differentiates between five generations of such change, with fifth generation innovation representing certain conditions under which a U-curve can be driven closer to the time and cost axes of a development and production process. In this paper, Rothwell's theory is related to new theoretical developments in the literature which predict the potential for sixth generation innovation, or innovation which seeks real time production of knowledge. The research process is therefore reconceptualised as a knowledge production process, and Rothwell's logics are interrogated through the lens of theory that has real time research capability as its definitional focus.

1. INTRODUCTION

Ensuring that scientific management research serves practice requires constant vigilance on the part of management researchers, as theory developed across different fields can be useful to practicing managers. According to Rothwell (1994), although technology can be key to firm adaptation to environmental threats, shorter product cycles caused by rapid technological change themselves pose challenges to firm survival. Organisational decision makers require relevant technological information to maintain competitiveness (Botha, Kourie and Snyman, 2014; Savioz and Blum, 2002), and the ability to renew business models on the basis of new technological developments (Khanagha, Volberda and Oshri, 2014). Inasmuch as novel technologies pose threats to firms, they also, however, offer important opportunities. The unprecedented acceleration of the scope, scale and economic impact of technology is reflected in radical improvements in processing power and connectivity; indeed, these developments have underpinned the expansion of economic activity over the past decade (Dobbs, Manyika and Woetzel, 2015). Notwithstanding these changes, however, there exists a “chasm between the industrial and societal goals of innovation” (Zoo, de Vries and Lee, 2017), and some have raised concerns about slow pace of societally important innovation, which might in itself be considered unethical (Fenton, Chillag & Michael, 2015). What is largely absent from the literature is *more effective theory* that is concerned with how societally important applied research problem solving can harness innovation theory to attain near real time problem solving capacity.

Given insufficient theory development in this area, which is reflected in persistent failure to solve certain societally important problems, particularly those associated with potential disasters (see Callaghan, 2016), this paper seeks to provide a synthesis linking the literature of industrial innovation relating to production, and the knowledge management literature related to the applied research problem solving process, as it is typically applied in academic contexts. To do so, applied academic research productivity is reconceptualised as research production, and the specific research process considered in this paper is taken to relate to what Gibbons, Limoges, Nowotny, Schwartzman, Scott and Trow (2002) term the ‘second mode’ of knowledge production, which relates to *solving practical problems, or applied research*, rather than the disciplinary research typical of academic work that is not applied, including basic research. This paper therefore seeks to offer useful insights for managers who seek to solve research problems in real time, and particularly those seeking to solve important societal problems under conditions of time

and resource scarcity. This is taken to represent management science in support of management practice.

In the face of rapidly increasing rates of technological change and contextual uncertainties, however, management theorists and practitioners require theory in order to make sense of the patterns, or regularities, that underlie these changes. In the scientific literature, a movement is underway, premised on increasing transparency and accountability of stakeholders in the scientific research process, and on the inclusion of populations (stakeholders) in scientific research (Bonney, Cooper, Dickinson, Kelling, Phillips, Rosenberg and Shirk, 2009; Bonney, Shirk, Phillips, Wiggins, Ballard, Miller-Rushing and Parrish, 2014). This is an example of literature that has developed in the wake of Rothwell's work, and which suggests that relating new developments to Rothwell's seminal theory may offer useful insights for management practitioners seeking to solve complex applied research problems in real time. Accordingly, this paper seeks to build on Rothwell's (1994) typology of innovations, and more specifically his description of fifth generation innovation (5G), and in so doing highlights theory relating to how these changes might offer new opportunities for management research problem solving.

Technological advances have typically enabled changes in the innovation process over time (Rothwell, 1994), with dramatic reductions in development time and costs. Rothwell's seminal typology of innovation change differentiates between five generations of such change, with 5G representing certain conditions under which the U-curve can be driven closer to the time and cost axes of the development and production process. In this paper, a theoretical framework is developed which predicts the potential for sixth generation innovation, or innovation which seeks real time production. Although difficult to attain at this time, it is argued that the development of theory with this explicit focus might ultimately yield important insights for how events that occur in real time, such as disasters, might be better managed through real time knowledge production. In this paper, the research process is therefore reconceptualised as a knowledge production process, and Rothwell's logics are interrogated through the lens of probabilistic innovation theory, a body of theory that has real time research capability as its definitional focus. A model of sixth generation innovation (6G) is derived from this analysis, and implications are made explicit, which arguably offer useful insights for applied research problem solving theory and practice. The paper proceeds as follows. First, the theoretical background to the research is introduced. Next, Rothwell's (1994) five generations of innovation are considered. After this, each of Rothwell's 24 characteristics of 5G are related to literature that suggests novel technological developments make it possible for further advances to be made against the

goal of real time applied research production. The paper concludes with a summary of derived implications and recommendations for further research. The theoretical background to the study is now considered.

2. THEORETICAL BACKGROUND

There are certain overarching global trends that are causing radical change and shaping trends across almost every sector of the global economy, and it is important to initially locate the theoretical discussions in this paper within the trajectory of these changes. The first of these is a shift of the locus of economic activity away from developed Western countries to the developing economies of Africa, Asia and Latin America, which might account for up to 50% of GDP growth by 2025 (Dobbs et al., 2015). These trends are also reflected in the knowledge management literature, which has experienced important shifts in its focus over the past century, building on theory derived from economics, management, business, social networks analysis, organisational learning and economic sociology, amongst others (Khasseh and Mokhtarpour, 2016). Similarly, a dramatic increase in the scope, scale and economic impact of technology is associated with a rise in global connectivity reflected in trade, movements of capital and people, and information, as the role of Asia as centre of globalised activity is expected to become increasingly important (Dobbs et al., 2015).

Technological change has also enabled the management of knowledge in near real time. In light of information and communication technology (ICT) advances which have allowed a reconfiguration of work processes, flash teams with reproducible and scalable team structures (Retelny, Robaszkievicz, To, Lasecki, Patel, Rahmati, and Bernstein, 2014), for example, are able to manage knowledge to support near real time work problem solving across contexts (Callaghan, 2016). Developments in genetics, artificial intelligence, robotics, nanotechnology, 3D printing and biotechnology associated with the 'fourth industrial revolution' are examples of the new potentialities associated with novel technological advances, and jobs and work systems are not independent of these changes (Schwab and Samans, 2016). Rothwell's (1994) typology of changes in innovation paradigms reflects certain of the shifting dynamics of product development for production over time, but it is argued here that the technological advances associated with Schwab and Saman's (2016) fourth industrial revolution have yet to be satisfactorily related to Rothwell's (1994) typology of innovation, which relates to production in general, and more specifically to 'second mode' (Gibbons et al., 2002) knowledge creation, or research applied to solving practical and societally important research problems, which are not

necessarily commercially viable, or are not profitable enough for firms to solve. This form of knowledge production is conceptualised here through the lens of industrial productivity logics, which is taken to be a useful heuristic as it enables a dialectic process (Pike, Bateman and Butler, 2013) which can result in improved understandings of how to achieve near real time research capability.

The 5G innovation process is associated with certain characteristics, which are now discussed prior to a consideration of these in relation to 6G developments in the literature. Increasing complexity and rates of technological change require more extensive vertical and horizontal alliances and more flexible and efficient responses to market changes (Rothwell, 1994). Rothwell (1994) describes these characteristics as being part of a trend toward the 5G innovation process, which is largely differentiated from the four other generations of innovation by the following characteristics, namely (i) greater organisational and systems integration and external networking, (ii) flatter and more flexible organisational structures with devolved decision making, (iii) maximally developed internal databases, (iv) electronically assisted product development, and (v) effective external electronic linkages. Key aspects of the 5G process are therefore integration, flexibility, networking and real time, or parallel information processing, which reflects “a more comprehensive process of the electronification of innovation across the whole innovation system (Rothwell, 1994:25). Arguably, important insights can be drawn from Rothwell’s organisation of this literature that are relevant to novel technological developments that have occurred since, and to what we will describe as a 6G of innovation, with implications for the attainment of near real time applied research capabilities.

For Rothwell (1994), industrial innovation can be conceptualised as a learning process, whereby knowhow is accumulated through internal and external learning, with internal learning encompassing R&D, as well as learning from developing, testing, making (production learning), failing, vertical integration and through cross-project activities. External, or joint internal/external learning, on the other hand, encompasses learning from or with suppliers, lead users, horizontal partnerships, science and technology (S&T) infrastructure, competitor’s actions, reverse engineering, acquisitions or new personnel, customer-based prototype trials, and servicing/fault finding (Rothwell, 1994). Rothwell’s (1994) notions of all-encompassing learning, both internally and externally are echoed in the contemporary knowledge management (KM) literature to date, as organisational KM studies have come to be differentiated into two generations of knowledge sharing research, the first, or traditional KM, associated with computer and information technology, centralised knowledge repositories and codified knowledge, and the second associated with social interaction, participant engagement, and contemporary knowledge sharing

technologies (Sedighi, van Splunter, Brazier, van Beers and Lukosch, 2016). Characteristics and effects associated with both of these generations are taken to interact in support of problem solving learning in the production of second mode knowledge, but it is in the maximisation of external linkages that the predictions of probabilistic innovation are more salient.

As discussed, in order to locate the discussions of this paper in relation to Rothwell's generational typologies, it is first necessary to consider this seminal typology of five forms of innovation. Rothwell (1994) considers the first generation innovation process (1G) to be associated with the period 1950 to mid-1960s in which advanced market economies experienced rapid industrial expansion and unparalleled economic growth. New technological opportunities in this period gave rise to new industries, such as semiconductors, pharmaceuticals, electronic computing and synthetic and composite materials, for example, and to a technologically-led resurgence of existing sectors such as textiles, steel and agriculture. Increased employment creation created the demand for consumer goods. Over this period, attitudes to science and technology were generally positive, particularly in terms of solving important societal problems, and government policy reflected these attitudes, with public technology policies primarily targeting the supply side. Associated with these attitudes was a belief in a model of innovation driven by scientific discovery, or first generation innovation expressed as a form of technology push. Thus, more R&D inputs were considered to result in more successful products as outcomes, without a focus necessarily on transformation processes or the marketplace.

The second generation (2G) innovation process, which extended from the mid-1960s to the early 1970s was associated with a slowdown in manufacturing employment together with dramatic increases in manufacturing productivity and increases in industrial concentration and static scale economies (Rothwell, 1994). New products, however, were typically derived from existing technologies, with supply and demand largely matched. Investment shifted from new product and expansionary technological change towards the rationalisation of technological change. A strategic emphasis on marketing grew as competition for market share increased, and a previous emphasis on supply side factors shifted to the demand side, as second generation, or market pull innovation became associated with the notion that the market was the primary source of ideas for R&D. These developments were reflected in a policy focus on demand side factors such as the use of public procurement as a stimulus to industrial innovation.

The third generation innovation (3G) process spanned the period from 1970 to the mid-1980s, and was associated with oil crises which in turn resulted in high inflation and demand saturation, or economic stagnation, termed 'stagflation,' where supply capacity exceeded demand under conditions of rising structural unemployment (Rothwell, 1994). The rise in empirical innovation research over this period suggested that interactions between technological capabilities and market needs were typically more complex than what was predicted by the technology-push or demand-pull models. The coupling model associated with third generation innovation relates the market and technology dimensions sequentially, but also with feedback loops, to the constituent elements of the innovation process, namely idea generation, research, design and development, prototype production, manufacturing, and marketing and sales. Inter-sectoral differences were found, however, in terms of the relative importance of the different effects in the coupling model, which also challenged the notion of homogeneity in innovation practice. These differences were primarily associated with project execution and corporate level factors, which were dependent in turn on entrepreneurial individuals with a commitment to innovation.

Fourth generation innovation (4G) is associated with the period covering the early 1980s to the early 1990s, where economic recovery was led by companies with a focus on their core businesses and technologies, and with a strategic focus on technological accumulation, or technology strategy, which also led to a recognition of the importance of manufacturing strategy as well as global strategy as alliances between firms increased together with product life cycles (Rothwell, 1994). Over this period, Japanese successes provided important insights into how innovation could be improved using processes of integration and parallel development, and the use of 'design for manufacturing.' Key to these integrative processes was functional overlap and intensive information exchange.

According to Rothwell (1994), amidst the continuance of previous strategy trends, such as technological accumulation (technology strategy), strategic networking, time based strategies related to decreasing time to market, improved design for manufacturability, greater flexibility and adaptability, as well as an increased focus on quality and performance features in product strategies, new imperatives have emerged, such as a focus on avoiding environmental degradation, and the need to cope with higher rates of unemployment and business failures. Under more intense competitive conditions, such changes have heightened the need for the acceleration of product development, such that the ability to control product development speed has become an important core competence.

Rothwell (1994) argues that whereas cost versus development time curve is U-shaped when describing the conditions associated with third generation innovation, which was at the time emerged on account of US innovations, the Japanese U-shaped curve associated with fourth generation innovation is closer to the origin. Rothwell suggests that leading innovators are applying novel practices that are shifting their U-shaped curve cost/time curves even closer to the origin, with improved development speed and efficiency. This curve is taken to represent fifth generation innovation. The organisation, practice, technology and institutional scope of product development all come together to represent a shift toward the fifth generation innovation process. This process relates primarily to systems integration and networking. According to Rothwell, 5G is an extension of the 4G characteristics of parallel and integrated processes in which the technology of technology change is itself changing. The 5G process is therefore essentially one of lean innovation, according to Rothwell (1994). Rothwell (1994) offers 24 core characteristics of the nature and scope of actions which relate to how the speed and efficiency and flexibility of development activities are enhanced, which are considered the core characteristics of 5G itself.

Using Rothwell's (1994) 24 5G imperatives as a framework of the characteristics of 5G theory, these principles are now used as a heuristic in order to better understand how probabilistic innovation theory predictions can result in a 6G-aligned process of research problem solving that has a cost/time curve that is even closer to the origin, or, in other words, how real time research problem solving can become a real time, or near real time activity, at the lowest possible cost. The implication of the predictions of probabilistic innovation theory is that ongoing technological developments might ultimately enable real time, or near real time applied research capability. In terms of Rothwell's (1994) curve, the theoretical goal of probabilistic innovation theory is represented by a curve that touches the time axis, with a zero value on the time axis, representing real time product development, or in the case of the focus of this work, real time research production. This state is termed 6G, representing radical new potentialities for societal problem solving, particularly in terms of societally important research, which industrially-oriented innovation theory development has typically neglected (Zoo et al., 2017).

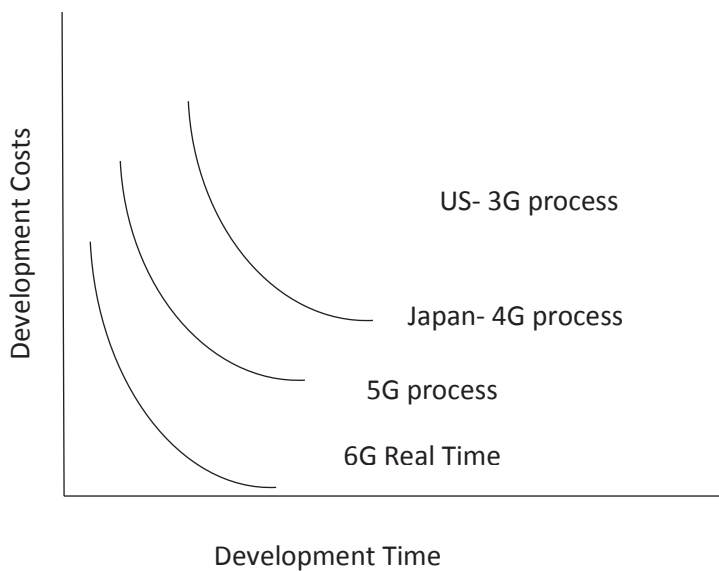


Figure 1. Product Development/Research Production Time/Cost Relationships for 3G, 4G, 5G and 6G Innovation Processes (Adapted from Rothwell (1994:15)).

As explained previously, it is argued that by contributing to the development of the probabilistic innovation literature, with its explicit focus on the attainment of real or near real time research capacity, future research might more effectively build on this focus to ultimately achieve near time research capability. It is also argued that there are useful synergies between the product development and knowledge management literatures, and that a reconceptualisation of research processes as research production can also yield useful insights into how research processes could be improved. In order to understand how 6G builds on 5G, each of Rothwell's (1994) 24 characteristics of 5G are now considered explicitly in relation to probabilistic innovation literature.

3. THE PRINCIPLES OF FIFTH GENERATION RESEARCH AND SIX GENERATION POTENTIALITIES

The first of Rothwell's (1994) principles is that (1) *an explicit time-based strategy* should exist, or that this should be at the forefront of strategy. Probabilistic innovation theory is defined by its temporal objective, namely the attainment of real time research capability, whereby this definition is used as an umbrella objective to unify theory development and to enable the incorporation of diverse literatures to this end (Callaghan, 2016). This

conception unites the literature discussed here. As stressed previously, in terms of the conceptualisation of research problem solving as knowledge production, following Gibbons et al. (2002) there are essentially two modes of knowledge production, the first associated with a disciplinary focus and the second associated with practical outcomes, or interdisciplinary 'applied' research. The 6G process is considered to primarily relate to the latter, and particularly to knowledge production targeted at solving societally important problems. Thus, drawing from Rothwell's innovation process as it relates to industrial production is taken to be useful in terms of the dialectics this produces, as the contrast between industrial production and knowledge creation generates novel thinking, particularly in terms of building theory relating to near real time research problem solving.

Key to enabling real time research capabilities, however, is the supply of necessary human intellect, and thus literature relating to the large-scale mobilisation of research problem solvers needs to be included in the probabilistic innovation stream. Building on a longstanding history of applications to environmental sciences (Bonney, Shirk, Phillips, Wiggins, Ballard, Miller-Rushing and Parrish, 2014; Blaser, 2017; Lévesque, Cattaneo, Deschamps and Hudon, 2017; Todd, Nowakowski, Rose and Price, 2017; Zárbybnická, Sklenicka and Tryjanowski; 2017), citizen science, or the involvement of ordinary 'citizens' in (typically large scale) data collection or analysis is finding important applications across fields as a methodology that can focus very large numbers of citizen researchers on research problems. It seems that the critical factor in developing an explicit time-based strategy is the ability to mobilise resources in real time, and the mobilisation of large numbers of human research problem solvers seems to be key to this process. Probabilistic innovation theory provides an explicit time based strategy as its *raison d'être*, hence the need to draw insights from Rothwell's (1994) theory, given its shared focus on the reduction of time and costs in a production process.

The second of Rothwell's (1994) principles is (2) *the need for top management commitment and support*, without which the creation of the necessary culture does not occur, and increased costs result from delayed involvement, as the early design stages have the highest cost implications. This principle is echoed in the shift from the traditional KM focus on computer and information technology, centralised knowledge repositories, and codified knowledge, to a focus on social interaction, participant engagement and contemporary knowledge sharing technologies (Sedighi et al., 2016). The cultural influences associated with the mobilisation of large numbers of problem solvers requires management of not only the authority structures of work but also of harnessing the crowd for management of the process itself (Callaghan, 2016). Similarly, crowdfunding and

crowdsourcing can also be used to leverage public resources and engagement to support scientific projects that might otherwise not be possible due to funding and requirements of large numbers of participants required for data collection (Afshinnekoo et al. 2016).

The next principle relates to (3) *the need for the mobilisation of commitment and resources*, with careful project evaluation, analysis, planning, and the generation of the necessary commitment and support from those in the organisation so as to prevent resistance ladders to change (Rothwell, 1994). Adequate training and skills development are also key. The implementation of probabilistic innovation projects in organisations requires a culture shift, as openness and knowledge sharing are necessary conditions for the success of these projects, but the effectiveness of probabilistic systems of problem solving depends on increasing the probability of successful problem solving through increasing resource investments sufficiently to meet the threshold required for success (Callaghan, 2016). Although crowdsourced R&D and citizen science approaches can increase the numbers of human problem solvers involved in problem solving, such systems require knowledge aggregation improvements through the use of ICTs to manage large scale knowledge processes, such as Web 2.0/3.0, collaborative technologies 2.0, social networking tools, wikis, internal blogging and the like, the use of which can improve knowledge sharing through the use of shared platforms and electronic storage, and the social web, or website and software design to facilitate social interaction (Soto-Acosta and Cegarra-Navarro, 2016). Collaborative processes are increasingly enhanced by web 2.0 applications which enable KM processes to refocus on people-centric rather than technology-centric approaches (Sigala and Chalkiti, 2014). Thus social theory is key to the probabilistic approach to near real time research problem solving. Intrinsic motivations (de Almeida, Lesca and Canton, 2016) of knowledge workers may be a topic of increasing importance, particularly for individuals to contribute to problem solving in virtual systems of work.

Rothwell (1994) stresses the importance of *ensuring the efficiency of indirect development activities* (4), where project control, project administration and co-ordination can account for a large portion of project time. Problem solving, according to the probabilistic innovation approach seeks to ensure that all indirect development activities are focused on the goal of real, or near real time problem solving. However, efficiency in the indirect development activities associated with crowd research requires effective quality control, which is discussed later.

A horizontal management style with increased decision making capacity at lower levels (5) can reduce communication complexity and increase the efficiency of indirect development

activities (Rothwell, 1994). Literature on knowledge networks extends to multilevel structural relationships of knowledge (Sedighi et al., 2016), and this body of literature is well suited to the development of real time knowledge support for decision making at different levels of organisational hierarchies. However, with 6G, the organisational structure of problem solving systems is largely virtual, given the need for near real time response. Organisational culture can work through social agreements, shared values and beliefs to define different types of social control, and knowledge of these is important as individuals can choose to share or hold back knowledge on a cost benefit basis (Razmerita, Kirchner and Nielsen, 2016), so 6G innovation will typically succeed to the extent that decision making in the virtual crowd is managed effectively and efficiently.

Committed and empowered product champions and project leaders, particularly when they are well-versed in general business skills (6), can increase development speed (Rothwell, 1994). For the attainment of 6G, the goal is cultural transformation, where all staff are empowered to become product champions. The use of certain methods can seek to ensure all staff are committed and empowered product champions. Health hackathons and data marathons are group sessions where systems level innovations are formulated as diverse participants with complementary skills and experience work together to leverage current supplies of digital data to discover new knowledge (Celi, Ippolito, Montgomery, Moses and Stone, 2014). The effectiveness of such process in empowering all participants to be committed product champions derives from the simultaneous democratisation and improvement of the knowledge discovery process, as real problems are solved and innovative cross-disciplinary collaborations are supported (Celi et al., 2014). Thus, development speed in problem solving can be enabled through methods that energise and sustain the motivation of participants.

High quality initial product specifications can result in fewer unexpected changes, and high quality up-front analysis together with a deep understanding of user requirements (7) is important in attaining rapid and more efficient product development (Rothwell, 1994). A probabilistic focus can help draw collaborative input more effectively, and methods such as flash mobs (Brejzek, 2010; Wasik, 2009), or the formation of virtual task teams can be used to bring problem solvers together online in real time. Similarly, hackathons are typically 24- to 48-hour events at the front end of the innovation process, which are particularly well suited to discussion of complex problems and the rapid development of initial solutions or prototypes, whereby information and knowledge is crowdsourced in support of knowledge problem solving (Celi et al., 2014). Thus initial specifications of the

problem can be used to structure the real time problem solving response, and a deeper understanding of problem solving requirements.

Cross functional, or integrated team approaches to development and prototyping, or concurrent engineering can enable a parallel process under conditions of inter-functional interaction, or information integration (8) which in turn can facilitate a process of simultaneous engineering (Rowthwell, 1994) ensuring that design changes are limited to early stages of development. Swarm processes (Callaghan, 2016) can be used to engineer the rapid engagement of large numbers of people in virtually supported problem solving, with a focus on cross functional or integrated team approaches applied to solving subordinate components of the problem. Ultimately, a 6G virtual organisational structure might exist where virtual integrated teams can morph to adapt to different stages of the problem solving process, thus ensuring near real time responses to how the problem changes on account of new incoming information.

Across the board, *quality control* is necessary (9), as accelerating product development can incur downstream remedial costs, which can also cause reputational damage (Rowthwell, 1994). Quality assurance is critically important in environments geared to accelerated data collection and analysis. Methodologies are rapidly developing out of the citizen science movement, with increasing attention being paid to the management of error and bias in large citizen science datasets (Bird, Bates, Lefcheck, Hill, Thomson, Edgar, Stuart-Smith, Wotherspoon, Krkosek, Stuart-Smith and Pecl, 2014). These developments offer useful insights as to how the quality of 6G processes can be improved. According to Celi et al. (2014:e216), open data and crowdsourcing can be used to manage the challenge of unreliable and wasteful research. According to the results of their study of a biomedical data marathon, Celi et al. (2014) concluded that a systematised and fully transparent data investigation regime, supported by the free sharing of data and methods amongst groups, could address certain of the shortcomings of the use of crowdsourcing in an open data context. The systematisation of the open data movement would not only result in more accurate scientific findings but also opportunities “for individuals of every educational level and area of expertise to contribute to science,” as “the crowdsourcing movement is slowly transforming the medical culture into one where there is no divide between research and practice” (Celi et al., 2014). The biomedical example is used here as it relates to a complex area of research, and thus highlights the potential of 6G research problem solving processes in challenging contexts.

An *incremental development strategy* needs to be applied, that seeks small-step continuous improvements between successive project models (10), but the low hanging fruit of incremental changes holds the danger of missing opportunities for more profitable radical changes (Rowthwell, 1994). A 6G process of problem solving seeks both continuous incremental improvements in processes and continuous radical changes, as organisational structure and even the design of the virtual organisation as a 'living' organisation is shaped by crowd based decision making, as the virtual structures concentrate on and are shaped by the problem space itself, and all organisational aspects are continually evolving to find the quickest path to real time problem solving.

A *carry-over strategy* (11) which applies elements of previous models in more recent designs, such as the use of fuselage cross-sections and tail fins of aircraft, can accelerate development speed and save on costs (Rothwell, 1994). The analogy of this principle in 6G innovation is the library function of the evolving problem solving system, which treats all experience as an important asset to enable real time learning. Thus, previous elements of previous modes of practice can be recalled in real time to support the problem solving process.

The *combination of the old with the new in product design*, specifically relating to the re-use of major elements of existing designs (12) can be cost efficient, such as the use of existing drill components in the development of Black & Decker's heat gun paint stripper (Rothwell, 1994). Complete redesign can occur downstream, funded by profits. The analogy of this principle in the 6G model of real time problem solving systems is in the way processes evolve in real time, as the optimal design structures of the system itself are also considered a real time problem for the crowd to solve.

Designs can be created in such a way as to include *inherent flexibility or technological slack* so that a design family of variants can be created (13) as these types of robust designs with designed-in flexibility are more robust to changing customer demands and market segmentations (Rothwell, 1994). The high scale and experience economies in production result in a high commonality of parts together with economies in scope, or wide product variety and customer choice of models. In the 6G process, methodologies are applied to problem solving, or the production of useful knowledge, and a library of methodologies is used together with problem solving designs, but these are also subject to change in real time. Thus, the inherent flexibility in the design of these processes is a function of the extent to which management of this process can be considered a problem to be solved by the crowd in real time. The problem that is to be solved through knowledge

production, or the primary problem, is the source of the design processes, but the choice of designs or strategies is also a problem that is subordinate to the primary problem.

The *robust design principle* can be applied to obtain economy in technology, where either a particular basic technological capability is applied across multiple products, or core sub-assemblies are designed which are incorporated into multiple products (14), all the while ensuring cost competitiveness is not compromised (Rothwell, 1994). The 6G process seeks to build a knowledge engine through enabling the large scale participation of problem solvers to produce knowledge on a scale hitherto unimagined. This process will perhaps transcend notions of robust design as design of all systems, including the problem solving system, are a function of the problem solving capacity of the crowd.

Close linkages with primary suppliers are also needed to reduce cost and accelerate development (15), as suggestions for improvements by suppliers can also enable design and engineering changes to add value and improve productivity (Rothwell, 1994). Key to the probabilistic innovation literature is the philosophy of maximised collaborations which are continually improved by technological advances. Applications like novel real time Delphi techniques (Di Zio, Rosas and Lamelza, 2017) which capture convergence of opinions in real time have been found to be effective, and can be applied to a wide spectrum of forecasting, or decision making issues. The suppliers of the inputs into the research process can, similarly, be connected in real time using these methods.

Maintaining up-to-date component databases (16) with information on new component and materials characteristics as well as availability and supplier information can facilitate quicker design response and reduce the time of design cycles with products better able to incorporate superior components materials technologies (Rothwell, 1994). The practical codification of knowledge conceptual structures, also termed ontologies, can help in the visual design of ontologies, or visual knowledge mapping, as learning ontologies based on the conceptual skeletons of organisational domain knowledge are increasingly key to knowledge transfer and sharing (Gavrilova, Lescheva and Strakhovich, 2015). Thus, maintaining systems that track the front line of problem solving developments can enable near real time database management, and the process design of the problem solving process itself can evolve more effectively toward real time solving capability.

Ensuring the involvement of leading-edge users in design and development activities (17) is particularly useful when certain users are technologically up to date and demand innovation, or when rough prototypes are created by users (Rothwell, 1994). The

biomedical literature offers useful examples of how the involvement of citizen ‘users,’ or the ‘crowd,’ has demonstrated proof of concept in this regard. Crowdsourced biomedical research seeks to effectively leverage communities as innovation engines (Saez-Rodriguez, Costello, Friend, Kellen, Mangravite, Meyer, Norman, and Stolovitzky, 2016). Recent developments in this literature reflect a growing theoretical synthesis, as theory and literatures converge to predict new potentialities for biomedical research. Biomedical research has joined with literature on gaming, with novel interactive games enabling the design of ribonucleic acid and other protein molecules that are having important implications for disease research (Landhuis, 2016). Importantly, developments in playsourcing, through embedding human intelligence-based tasks in computer games (Hennersperger and Baust, 2016), can effectively harness the contributions of non-experts in crowdsourced biomedical research (Albarqouni, Matl, Baust, Navab and Demirci, 2016). Similarly, gamification, or the use of game design elements applied to non-game contexts (Iacovides, Jennett, Cornish-Trestrail and Cox, 2013), is increasing in its health and healthcare applications (Lister, West, Cannon, Sax and Brodegard, 2014), and its use to enable the crowdsourcing of data is also on the rise (Iacovides et al., 2013). Innovations in biomedical classification systems are also making crowdsourcing information and knowledge search increasingly effective (Lou, Tu, Nyulas, Tudorache, Chalmers and Musen, 2017). These trends follow the predictions of theory developed by von Hippel (1994) which predict the emergence of user-driven innovation across contexts.

Accessing external know-how or external alliances (18) can accelerate new product development, and the buying-in or licencing of existing technology can offer advantages over the use of in-house development, particularly if these are not in the areas of the firm’s core competence (Rothwell, 1994). Where the value of outcome for firms in an alliance is greater than the simple sum of their contributions, this has been termed relational rent, which is typically a function of the nature of inter-organisational relationship characteristics (Zhang, Li and Li, 2017). The maximisation of returns to intellectual capital is the goal of effective KM, and knowledge management systems can be considered akin organisational memory machines (Gorry, 2016). The maximisation of returns to intellectual capital in the form of knowhow through alliances and interlinkages with large numbers of collaborators is taken to increase the probability of problem solving, and to shift the knowledge production curve toward the time axis.

Computer systems should be used for intra-firm communication and data sharing (19), in a way that simplifies communication and facilitates the sharing of information or data, including across the design/manufacturing interface (Rothwell, 1994). Technological

developments such as those associated with the achievements of IBM's 'Watson' highlight the usefulness of computational engagement with big data, and the era of the Internet of things has important implications for knowledge management and what it can achieve (Gorry, 2016). The more emergent technologies can be integrated into the real time problem solving systems, the higher the probability of near real time successes in societally important problem solving.

Linking computer aided design systems along the production chain (20), by linking suppliers, manufacturers and users, can reduce lead times and minimise re-makes (Rothwell, 1994). Competitive pressures have "placed a premium on locating knowledge, prying it loose from various nooks and crannies, and sharing it to benefit as many workers as possible," and advances in digital technology will continue to result in new structures and processes for improved knowledge management, in the form of complex interplay between tools, intentions and behaviour (Gorry, 2016:55). The seamless integration of knowledge across stakeholders and processes will be expected to contribute to the redesign of research processes themselves in real time, as more effective problem solving processes evolve on account of the virtual learning process.

Fast prototyping techniques enable rapid transmission of three dimensional (3D) computer aided design images to physical prototypes, also enabling early-stage customer feedback, thereby reducing development costs and time (21) (Rothwell, 1994). In terms of the knowledge production costs and constraints to the rapid transmission of knowledge from research to practice, examples from the medical context might be useful to illustrate the need for transmission processes to match the ever-increasing complexity of content field knowledge. According to Celi et al. (2014:e216), in medicine, for example, random controlled trials cannot scale to "match the exponential growth of medical complexity," as wasteful practices and high costs characterize the present system of research; further, there is a "current lack of a technological infrastructure that would allow frontline providers to pose [queries of clinical data to generate evidence/data-driven decisions for each patient] at the point of care in real or near-real time." For Celi et al. (2014:e216):

This reveals a critical fragility in our current knowledge generating system: the divide between the roles of researcher, data systems engineer, and clinician. This separation is detrimental- for researchers, it can make it difficult to identify knowledge gaps in clinical decision making. For engineers, the problems include identifying what is important in a foreign and complex domain, working with non-interoperable, proprietary silos, and the difficulties involved in creating effective and user-friendly clinical information systems. And for practitioners, it diminishes a sense of connection to scientific investigation and disengages busy clinicians from constructive inquiry and participation in their own clinical data systems. Overall, these systematic flaws restrict the raw

number of people, ideas, and innovations that are available to address and solve the myriad problems encountered in the day-to-day care of patients.

As Rothwell suggests, the rapid transmission of knowledge feedback linkages to the coalface of problem solving is key to early-stage feedback, which can also relate to design changes in the system of problem solving itself. The solution to these challenges, according to Celi et al. (2014), is the use of crowdsourcing, and the democratisation of knowledge in research processes.

Simulation modelling can be used instead of prototypes, where appropriate (22), which has been effective in pharmaceutical production of designer drugs, for example, and in other industries, where such modelling can also make physical prototyping more efficient (Rothwell, 1994). Multidimensional (society, technology, culture and transport infrastructure, for example) future scenarios can be used to estimate impact of events and disruptions (Zanni, Goulden, Ryley and Dingwall, 2017), and such systems are expected to offer important insights into how simulation modelling can be improved to incorporate near real time estimation potential.

Technology demonstrators can be used as an input to simulation (23), with more invested in R&D to improve basic technological understanding, so as to generate inputs to simulation models (Rothwell, 1994), particularly to demonstrate proof of concept and highlight possible applications. Harnessing a large crowd of problem solvers can make it possible to run virtual simulation models in real time, including of models of the design of processes and organisational structures of the virtual problem solving system itself.

The use of expert systems as a design aid (24) can improve manufacturability and can cut the failure rates of products as well as production costs and time (Rothwell, 1994). Expert crowdsourced R&D can be used to supplement the data advantages of citizen scientists (Callaghan, 2016). Advances in artificial intelligence and developments in big data analytics are expected to yield important improvements in the efficiency and effectiveness of problem solving systems, and the production of real time problem solving knowledge. On the basis of the analysis above, the following propositions are derived. Further research is invited in order to test these.

Proposition 1: Research breakthroughs are a probabilistic function of research inputs, and for each solvable research problem this probabilistic function exists.

Proposition 2: A problem is solvable if time and resources are sufficient to solve it.

Certain important implications derive from these propositions. Firstly, these propositions suggest that important societal problems that are solvable might be useful reconceptualised as “simply” a function of resources and time. Although resources might be scarce, such problems might be considered in a new light. Second, it might be important to determine the extent to which many societally important problems are solvable, according to this definition. Arguably, these propositions can provide a useful heuristic for the re-conceptualisation of societally important problem solving. At this nexus, having considered the 24 principles at the heart of Rothwell’s 5G innovation process, and having broadly related these to certain analogous principles of 6G, conclusions drawn from this process are summarised, and certain implications for real time problem solving are considered.

4. CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

The objective of this paper was to conceptually engage with a typology of innovation relating to production in industrial contexts and to relate this typology to more recent literature that has emerged together with novel technologies that now make near real time research problem solving a realistic goal. The problem this work sought to address is the lack of explicit theory to guide literature development toward this end. In seeking to relate Rothwell’s (1994) model of 5G to certain contemporary conceptions derived from the literature, predictions relating to a 6G process of knowledge production were considered in terms of their contribution to the attainment of near real time knowledge production.

Rothwell’s (1994) five generations of innovation were first outlined. Each of Rothwell’s 24 characteristics of 5G were then related to literature that suggests novel technological developments make it possible for further advances to be made against the goal of real time applied research production. Rothwell’s 24 principles of 5G innovation were related to their analogous principles associate with 6G innovation. However, as Rothwell (1994:22) indicates, these 24 factors associated with 5G “will not have an equal impact on development speed and development efficiency; they will not apply equally to radical new product developments and developments along established design trajectories; nor will they apply equally across industry sectors or even to all firms within a sector.” The implication of this is that all types or generations of innovation continue to exist today in different forms. Similarly, the core principles of 6G were also taken to apply differently across contexts of real time knowledge production.

Rothwell (1994) stresses that different strategies require differential use of the generational typologies. For example, the development of a major new technology, associated as it is with high uncertainty might not be suited to a parallel process given the lack of time for technological learning and assessment of alternative technological processes, and thus might be better suited to a 3G process (Rothwell, 1994). Similarly, whereas basic biotechnological discoveries such as those in monoclonal antibodies and recombinant DNA might have been the result of technology-push (1G), the marketplace has extended its influence in this domain (2G), according to Rothwell (1994). These predictions extend to 6G, which is premised on the use of novel technologies to drive the time curve down toward its axis, representing near real time research problem solving.

The contribution of this research was taken to be the application of Rothwell's (1994) theory to the research production process itself, with research production conceptualised in a similar way to industrial production. Although not all the processes of 'industrialised' research production were found to be analogous to industrial production development, the 6G process when related to the 5G process was taken to result in certain important insights. These insights were taken to offer a useful perspective of how to increase the effectiveness and efficiency of research production, particularly when framed in terms of the solving of real time research problems. It is hoped that near real time research capability can become a reality, and transcend the realm of theory to solve important societal problems.

Further research is invited, in order to address the limitations of conceptual work such as this. Empirical exploration would allow for the testing of propositions, and further qualitative research might offer useful insights into the causal mechanisms underlying potential improvements in the efficiencies of the R&D process. Further 6G innovation should be studied in the context of organisational and leadership agility, employee engagement (and the inclusions of employees in organisational decision making) as well as strategic stakeholder engagement, for example. This approach might be especially useful for stimulating a bottoms-up approach in organisations to improve knowledge and learning.

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WHO WILL PERPETRATE PLAGIARISM? PREDICTORS OF STUDENT PLAGIARISM

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WHO WILL PERPETRATE PLAGIARISM? PREDICTORS OF STUDENT PLAGIARISM

ABSTRACT

Plagiarism, a phenomenon not unique to academia, recently made headline news when it was referred to in plagiarism by politicians and media. It is a duty of higher education institutions in growing future leaders to acquaint students, not only with the notion of business ethics, but also equip students with the writing skills to avoid plagiarism. This article reports on a study where the extent of plagiarism was compared for demographic and academic context variables. The extent of plagiarism, using Turnitin™'s similarity scores, of 120 postgraduate students was examined. Robust ANOVAs revealed no significant differences between men and women; however, statistically significant differences were found for age, home language, academic discipline, and course grades. Management educationists face the tasks of

identifying and developing potential at-risk students who could commit plagiarism, in order to uphold academic values and ensure that such students, particularly non-native English-speaking students, are adequately prepared to excel academically.

1 INTRODUCTION

Student plagiarism is a growing problem in universities (Hrasky & Kronenburg, 2011). It is a misconduct that strikes at the heart of the values and mission of universities (Drinan & Bertram Gallant, 2008). Student plagiarism is not unique to a particular context, but is a global phenomenon (Ercegovac & Richardson, 2004). Tekleab and Rocha (2010) maintain that the practices of management students, the future leaders and business people, should be committed to upholding ethics.

Consequences of plagiarism recently received media attention. Twelve academics from North-West University were placed under investigation for plagiarism (Fengu, 2017), which not only negatively impacts scholarly reputation, but presents reputational and financial risk to the institution. Individuals and corporates have also recently been accused of plagiarism. A 'celebrity Instagrammer' has been accused on plagiarism, and consequently faced professional damage, when the 2015 iPhoneography competition removed her as a judge (Sikupela, 2015). Following Moneyweb's accusation that Fin24 committed plagiarism (Davis, 2013), Fin24 was found guilty of plagiarising one article (Van Zyl, 2016), bringing about reputational damage. Universities needs to build the required skills and knowledge to allow future academics and business leaders in the private sector to respond ethically to challenges in the different contexts and, in the case of organisations, to ensure, via innovative decisions, that organisations remain competitive and sustainable.

Though the extent of plagiarism as impacted by various factors has been studied before, mixed results have been presented pertaining to the effect of age, gender, and academic performance. In addition, previous scholarly work drew heavily on self-reported measures of academic dishonesty. Academic dishonesty and, in particular, cheating behaviours, and how these are impacted by demographic and situational variables, have received considerable attention. This study contributes to the literature by attempting to address the mixed results through research into this topic within the context of a developing country, using Turnitin™ similarity scores to understand students' reliance on copied material in academic assignments.

It is argued that failing to address plagiarism among students may not build much-needed skills among students, future scholars, and business leaders, to respond to their unique contexts, which may present long-term risks to the reputation of universities and professionals, as well as inherent financial risks.

2 LITERATURE REVIEW

The literature review commences with a discussion of plagiarism. The discussion of plagiarism and related factors draws on attitudes toward academic dishonesty (e.g., cheating, where undue assistance was provided), as well as on actual behaviours, i.e., the act of plagiarising. Next, a review of demographic factors (age, gender, and home language) and factors related to the academic context (discipline and academic performance) are discussed.

2.1 Plagiarism

Plagiarism has been defined as “The action or practice of taking someone else's work, idea, etc., and passing it off as one's own; literary theft” (OED Online, 2017), i.e. copied material in an essay similar to other source texts. Carroll (2002) indicates that plagiarism, as an extension of the definition provided, can be intentional or unintentional. Fazel and Kowkabi (2013) posit that no universal definition of plagiarism exists. Plagiarism, in the context of this study, is regarded as material copied from source texts, whether cited or not. However, no labels such as ‘intentional’ or ‘unintentional’ are considered, only the percentage material copied from source texts. It remains the responsibility of faculty to review text in an assignment highlighted as similar to other documents, as plagiarism is not detected by Turnitin™ (iParadigms, 2011)). Furthermore, not all material copied is necessarily plagiarism. Segal, Gelfand, Hurwitz, Berkowitz, Ashley, Nadel & Katz (2010) maintain that similarity scores between zero and 4% are matches to common short phrases and proper names, and thus “represent a minimal chance of true plagiarism”.

2.2 Demographic factors and plagiarism

Age: Studies of the nature of the relationship between age and academic dishonesty have yielded mixed results (Crown & Spiller, 1998). Some found that younger students plagiarise more than older students (Honig & Bedi, 2012; Honny, Gadbury-Amyot, Overman, Wilkins & Petersen, 2009; Park, 2003), while Walker (2010) found that students younger than 20 commit less plagiarism, compared to the age group 21 to 30. Duff's (1998)

study found that students older than 25 are more likely to plagiarise than younger students. Contrasting findings, such as those of Tekleab and Rocha (2010) and Kisamore, Stone and Jawahar (2007), were that senior students are less likely to engage in academic dishonesty.

Gender. To date, there has been little agreement on the differences between the genders regarding plagiarism and academic dishonesty. Several studies found gender differences with respect to plagiarism and other dishonest academic practices. In their review of studies on plagiarism published before 2003, Honig and Bedi (2012) reported that men are more likely to plagiarise than women. Similar findings (Guo, 2011; Martin, Rao & Sloan, 2009) have been reported more recently. Heckler, Forde and Bryan (2012), in a study of students informed about the use of Turnitin™, found that men plagiarise more than women. Men are also more likely to cheat than women (Tekleab & Rocha, 2010; Szabo & Underwood, 2004; Jensen, Arnett, Feldman & Cauffman, 2002). Furthermore, cheating was found to be less acceptable to women, compared to men (Kuntz & Butler, 2014; Kisamore, Stone & Jawahar, 2007; Hardigan, 2004; Jensen *et al.*, 2002). Kisamore *et al.* (2007) report that previous studies have shown that men are more likely than women to engage in academic dishonesty. Ellery (2008), however, did not find significant differences between undergraduate men and women.

In yet other studies, women were found to plagiarise more than men (Martin *et al.*, 2009), and men have been found to cheat less than women (Kisamore *et al.*, 2007). Several studies reported no gender differences with regard to plagiarism (Walker, 2010), especially in male-dominated environments (Center for Academic Integrity, 2005), cheating (Razi, 2015; Smith, Ghazali, Fatimah & Minhad, 2007), and, as Ford and Richardson (1994) revealed, ethical decision-making.

The combined factors of gender and age also influence plagiarism. Honig and Bedi (2012) highlight that, in literature, higher incidences of plagiarism have been reported among young men, compared to older men.

Several studies found that level of education, coupled with gender, influences plagiarism and academic dishonesty. McCabe, Trevino and Butterfield (2001) found that young, male students with a poor work ethic and academic performance are more likely to plagiarise. In their review of previous research, Kincaid and Zemke (2006) point out that first- and second-year male students cheat more, compared to third- and fourth-year male students. Park (2003) argues that student plagiarists are younger students with low academic ability.

Hardigan's (2004) investigation revealed that older female students with higher academic performance are less likely to cheat.

These differences between the genders have been explained by sex-role socialisation theory, which argues that “women are more socialized to obey rules and regulations and are, therefore, less likely to engage in dishonest behaviors” (Honig & Bedi, 2012:103). The strong gender differences regarding cheating found in surveys, as pointed out by Whitley (1998), could be ascribed to self-reporting measures. In this regard, Szabo and Underwood (2003:475) maintain that both sexes transgress, depending on the stimulus for such behaviour: “simple females-good and males-bad perception of academically dishonest behavior is too simplistic”.

It is therefore clear that the findings on gender differences regarding academic dishonesty have been inconsistent.

Home language: Non-English-speaking students with poor English proficiency tend to plagiarise (Hughes & McCabe, 2006; Shi, 2004; Warner, 1999), as do students who are not familiar with academic writing (Keck, 2014; Pecorari, 2003). Fazel and Kowkabi (2013) argue that non-native English-speaking students turning to academic sources to aid them in expressing themselves may lead to plagiarism. Ellery (2008), however, did not find significant differences between undergraduate native and non-native English-speaking students.

2.3 Factors relating to the academic environment

Discipline: Previous research has found that management students are more likely to cheat, compared to other academic disciplines (Kuntz & Butler, 2014; Martin *et al.*, 2009; McCabe, 2005; Philips & Horton, 2000; Meade, 1992). A study by Brown (1995) found no significant difference in the extent of unethical behaviour between postgraduate business students and undergraduates from other disciplines.

The relationship between academic discipline and, specifically, plagiarism has received less attention. Studies in plagiarism revealed similar results to those on cheating behaviours. Heckler, Rice and Bryan (2013), using Turnitin™ originality scores, found no significant differences in plagiarism between academic disciplines among a diverse sample of students from a southern university in the USA. McCabe, Butterfield and Trevino

(2006) found that business students in a Master's programme were more likely to plagiarise than students from other academic disciplines.

Academic performance: Mixed results on the impact of academic performance on plagiarism and academic dishonesty have been reported. Students with a higher grade-point average (GPA) have been found to plagiarise less than students with a lower GPA (Tekleab & Rocha, 2010; Smith *et al.*, 2007; Crown & Spiller, 1998). Measuring course grades, many studies reported no significant relationship between academic performance and plagiarism (Guo, 2011; Hrabak, Vujaklija, Vodopivec, Hren, Marušić & Marušić, 2004; Franklyn-Stokes & Newstead, 1995). Curtis and Popal (2011) found that students with higher course grades, compared to those with lower course grades, showed a fewer incidences of plagiarism. Rabi, Patton, Fjortoft and Zgarrick (2006) did not find a relationship between academic performance and cheating. However, Hensley, Kirkpatrick and Burgoon (2013) and Tekleab and Rocha (2010) reported that low grades are linked to cheating behaviour.

3 PROBLEM INVESTIGATED

Universities, in addition to ensuring that academic integrity is upheld (Choo & Paull, 2013), also prepare future academics and business leaders to respond appropriately to different contexts. Plagiarism is still a problem that universities face, which, if not addressed, may lead to dire consequences, such as regularly reported in the media. The generalisability of research on demographic and situational factors (i.e. the context of the academic environment), particularly in developing countries with unique cultures, in relation to plagiarism is problematic, due to the mixed results reported. This highlights an unresolved issue — the difficulty within the South African context to identify potential at-risk students in order to act proactively. Studies that explored the differences in the South African context are limited, thus not allowing educationists to respond appropriately. It is crucial to understand which students, based on demographic and academic variables, are at risk, in order to address the challenges these students face, not only to build skills and ensure they will be able to respond appropriately in their contexts, but also to protect them from possible future professional (reputational) and financial risks.

4 RESEARCH OBJECTIVES

The aim of this study was to compare the differences in plagiarism scores among postgraduate students at a comprehensive university in South Africa. This was achieved through two objectives, namely to:

- examine associations between the different independent variables (demographic and academic factors) and similarity scores; and
- identify differences in similarity scores for the demographic and academic factors.

Therefore, the contribution of this study is the extension of current knowledge, specifically in a South African context, of students who are more likely to plagiarise. Furthermore, explanations are furnished within the South African context to provide a possible explanation why particular groups of students plagiarise.

5 RESEARCH METHOD

5.1 Sample

Essays by three cohorts of students (2012, 2013, and 2014) registered for an honours programme at a comprehensive university's Faculty of Management were selected. All essays submitted in three courses in the first semester of study between 2012 and 2014 were considered, except those submitted after the respective deadlines. Essays were randomly selected among the three courses, rendering a sample 142 students. A total of 57 essays were selected from Course 1, 52 essays from Course 2, and 33 from Course 3. Twenty-two students were subsequently excluded, as their essays evidenced less than 5% material copied from other sources. The final sample ($n = 120$) consisted predominantly of women (72.50%) and students whose previous qualification was in management sciences (73.33%). The mean age of the sample was 27.4 years ($SD = 7.3$). The sample consisted predominantly of non-native English speakers (75.00%). Slightly more than half of the students came from an academic background (54.17%), compared to students from a vocational background (45.83%). The nature of this study was unobtrusive; students were not aware of the study, and were not harmed in any way.

5.2 Variables

Five independent variables were included in the study. Demographic factors were measured with three variables. Age was used as a continuous variable in the correlation

calculations, but divided into four categories for comparisons of the trimmed means: 1 = 24 years and younger, 2 = 25–29 years, 3 = 30–34 years, and 4 = 35 years and older. The dichotomous variable *Gender* was coded as Men (0) and Women (1). *Home language* referred to students who were native and non-native English speakers, and was coded as native speakers (1 = Native) and non-native English speakers (0 = Non-native). Two variables were included to represent the academic environment. *Academic discipline* was coded as students who had completed a degree in management or humanities (coded as 0 = Humanities and 1 = Management). *Academic performance* was measured using course grades, specifically the mean of the final mark (inclusive of tests and an examination) for the three modules completed. It was used as a continuous scale in the correlation analysis, but converted into four categories for the ANOVAs: 1 = Fail (< 50%), 2 = Satisfactory (50%–59%), 3 = Good (60%–69%), and 4 = Excellent (70% or more).

Turnitin™ similarity scores were used to assess similarity to source texts (the similarity score reflects the percentage of text in an assignment that matches information in Turnitin™ repositories. Similar to what was done by Thomas and De Bruin (2015) and Honig and Bedi (2012), only students with a similarity score of 5% and more were included in the present study. Segal *et al.* (2010) maintain that similarity scores between zero and 4% are matches to common short phrases and proper names, and thus “represent a minimal chance of true plagiarism”.

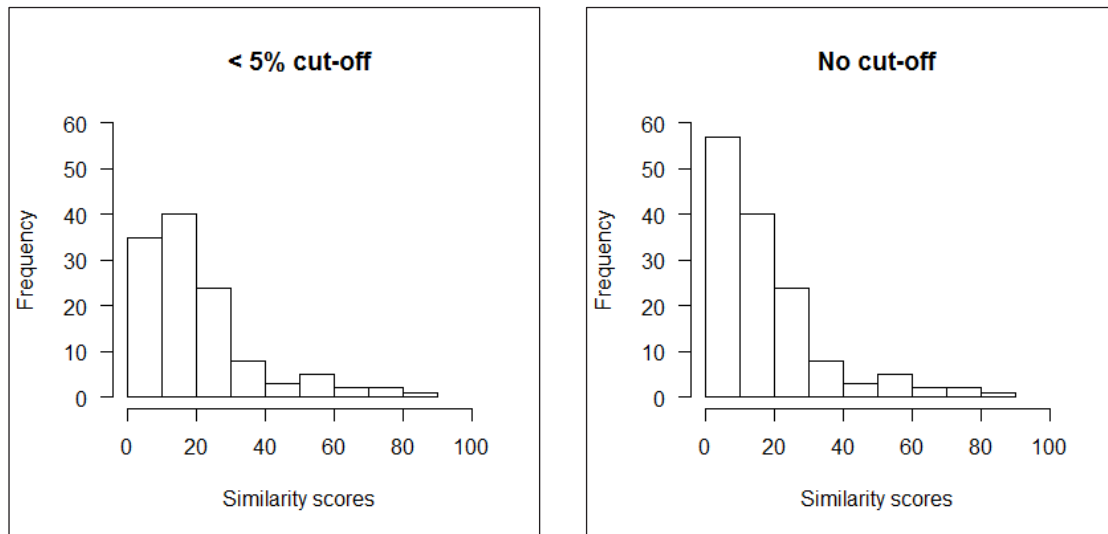
5.3 Data collection

Demographic data were collected from the student management system and merged with the originality scores generated by Turnitin™ for each essay.

5.4 Statistical analysis

An initial inspection of the data revealed that the distribution of the dependent variable and the factors of the dependent variable were heavy-tailed with positive skewness, and violated the assumption of normality (Kolmogorov-Smirnov test results were significant ($ps < .05$)), and included outliers. Log transformation did not improve the distribution of the data. The distribution of the scores on the dependent variable were heavy-tailed with positive skewness, and violated the assumption of normality. Two histograms for the similarity scores are presented in Figure 1, one with (on the left) and without (on the right) the lowest 4% of cases removed. After the smaller than 5% cut-off, the mean was 20.10 (SD = 16.10), with skewness = 1.80 and kurtosis = 3.14.

Figure 1: Comparison of similarity scores with and without the cases smaller than 5% removed



The independent groups were of unequal and small sample sizes. Based on a series of Levene's tests, the assumption of homogeneity of variance was violated for the academic performance groups. Therefore, in the present study, robust statistics (Wilcox, 2012) were used. Robust statistics are appropriate in situations where the assumption of normality and homoscedasticity has been violated, and where outliers and unequal sample sizes are present (Wilcox, 2012). To examine the associations between the variables, robust winsorized correlation (Wilcox, 2012) was used. "Winsorizing the observations by [2]0% simply means that, rather than remove the smallest [2]0%, their values are set equal to the smallest value not trimmed when computing the [2]0% trimmed mean" (Wilcox, 2012:26) was A robust version of one-way ANOVA where homoscedasticity is not required and the corresponding post hoc test were used to compare the trimmed means of the independent groups (Mair & Wilcox, 2016; Wilcox, 2012). A total of 2 000 bootstrap samples were included in these tests (Mair & Wilcox, 2016; Wilcox, 2012). The default trimming level for the means was 20% ($\gamma = .20$), meaning that 20% of the smallest and largest values were removed, followed by averaging what remained (Wilcox, 2012). Effect sizes were interpreted according to Wilcox's (2012) explanatory measure of effect size (ξ), which allows for heteroscedasticity, where .15 = small effect, .35 = medium effect, and .50 = large effect. Robust statistical tests were conducted using the libraries {WRS} (Wilcox, 2012) and {WRS2} (Mair *et al.*, 2016), using R (R Core Team, 2016).

6 RESULTS AND FINDINGS

The aim of this study was to compare the differences in plagiarism scores among postgraduate students at a comprehensive university in South Africa.

6.1 Correlations

In line with the first objective, bivariate correlations were computed to explore associations between the variables (see Table 1). Winsorized correlations (r_w), based on the 20% trimmed means, are displayed below the diagonal, and Spearman correlations are displayed above the diagonal. The winsorized means (M_w) and winsorized standard deviations (SD_w) are also reported.

Table 1: Robust correlations and descriptive statistics for the study variables

Variables	Age	Gender	Home lang.	Discipline	Acad. perf.	Similarity
Age	—	-.24**	.01	.20*	-.24**	.32***
Gender	-.23*	—	.10	-.12	.11	-.15
Home lang.	.02	.10	—	-.13	.27**	-.19*
Discipline	.17	-.12	-.13	—	-.15	.25**
Acad. perf.	-.22*	.10	.23*	-.17	—	-.42***
Similarity	.28**	-.15	-.21*	.25**	-.43***	—
M_w	26.00	1.70	1.80	0.73	59.00	16.00
SD_w	4.60	0.45	0.43	0.44	8.70	7.40

$n = 120$. *Gender* was coded as Men = 0 and Women = 1; *Home language* as 0 = non-native and 1 = native English speaking; and *Discipline* as 0 = Humanities and 1 = Management.

* $p < .05$; ** $p < .01$; *** $p < .001$

From the winsorized correlations (Table 1), it can be seen that *Age* was positively correlated with *Similarity* ($r_w = .28$; $p < .01$), indicating that older students are more likely to plagiarise. There was no association between *Gender* and *Similarity* ($r_w = -.15$; $p > .05$). *Home language* (native English-speaking students) was negatively correlated with *Similarity* ($r_w = -.21$; $p < .05$), meaning that students whose home language is English are less likely to plagiarise, compared to those whose home language is not English. Students with a management background are more likely to plagiarise than students from humanities ($r_w = .25$; $p < .01$). A negative correlation was found between *Academic performance* and *Similarity* ($r_w = -.43$; $p < .001$), meaning that, as the grades of students increase, their similarity scores will decrease. Both winsorized correlations and Spearman correlations showed similar significant correlations, except the Spearman correlation, which revealed an association between *Discipline* and *Age* ($r_s = .20$; $p < .05$).

6.2 Comparisons of independent groups

The next objective was to identify differences in similarity scores for the demographic and academic factors. The comparison on the 20% trimmed means for these variables were analysed with robust ANOVAs. A summary of the robust comparison of independent groups' test results and descriptive statistics is provided in Table 2. In addition to the median (*Mdn*), the 20% trimmed mean (M_t), standard deviation (SD_t), and the 95% bootstrap-t confidence intervals (Wilcox, 2012) are reported. The median and trimmed mean values reported are, for all variables, close to each other. What stands out in the trimmed means of the similarity scores is that the highest incidence of plagiarism was among students who had failed courses ($M_t = 34.60$), and the lowest was among students who had high grade scores ($M_t = 11.60$).

Table 2: Robust ANOVA results for the demographic and situational factors with Turnitin™ similarity index as dependent variable

Variables	<i>n</i>	<i>Mdn</i>	<i>M_t</i>	<i>SD_t</i>	95% CI of <i>M_t</i>	<i>F_t</i>	<i>df1</i>	<i>df2</i>	ξ	Post hoc
Age (years)	1. ≤ 24	12.00	12.30	7.61	9.65–15.00	4.18*	3	24.90	.32	1 < 2* 1 < 4**
	2. 25–29	20.00	19.50	10.50	14.90–24.00					
	3. 30–34	18.00	19.20	14.30	9.15–29.35					
	4. 35+	18.50	20.70	12.10	12.40–28.90					
Gender	1. Men	18.00	18.90	11.90	14.40–23.50	2.64	1	34.20	.24	
	2. Women	87	14.70	9.44	12.00–17.40					
Home language	1. Non-native English-speaking	90	17.40	11.60	14.40–20.40	6.03*	1	51.40	.36	
	2. Native English-speaking	30	11.50	7.07	8.98–15.46					
Discipline	1. Humanities	32	12.20	6.06	7.38–14.92	11.00**	1	47.80	.40	
	2. Management	88	17.70	16.80	15.10–20.30					
Academic performance (%)	1. Fail (< 50)	26	34.60	25.20	22.90–46.20	6.32**	3	33.90	.88	3 < 2** 3 < 1** 3 > 4***
	2. Satisfactory (50–59)	31	14.90	10.20	10.00–19.80					
	3. Good (60–69)	41	13.70	7.97	11.00–16.50					
	4. Excellent (70+)	22	12.00	6.12	7.72–15.56					

N = 120.

p* < .05; *p* < .01; ****p* < .001

Age: The current study found that younger students are less likely to commit plagiarism. Statistically significant small ($\xi = .32$) differences were found between the four different age groups ($F_t(3, 24.90) = 4.18; p < .05$). Robust post hoc tests revealed that the youngest age group had the lowest similarity score ($M_t = 12.30$), compared to students aged 25–29 ($M_t = 19.20$) ($\hat{\psi} = -8.34; p < .05$) and students aged 35 years and older ($M_t = 20.70$) ($\hat{\psi} = -7.14; p < .01$). Although the trimmed means in the similarity scores of men ($M_t = 18.90$) were higher than those of women ($M_t = 14.70$), the difference was not statistically significant ($F_t(1, 34.20) = 2.64; p > .05$). This finding is in support of Walker's (2010) and Duff's (1998) findings, specifically for the age group 24 years and younger. Although Walker (2010) reported that (older) students between 21 and 30 years plagiarised more than the younger students, the present study found that students in the age group 30 to 34 years did not differ significantly from those aged 24 years and younger. This finding does not support previous studies that found that younger students plagiarise more than older students (Honig & Bedi, 2012; Honny, Gadbury-Amyot, Overman, Wilkins & Petersen, 2009; Park, 2003). An alternative explanation may be considered in how the age categories were defined and measured. The results may have been different if the categories of age had been defined based on the ranges of average age associated with the qualification and those that were not.

Gender: No statistically significant difference was found between men and women. The difference remained non-significant after the same test was conducted without the 20% trimmed means ($F_t(1, 34.17) = 2.64, p = .11$). Similarly, no statistically significant association between gender and similarity scores was found (Table 1). Both genders did plagiarise, similar to Underwood and Szabo's (2003) observation. This finding is similar to what Walker (2010) reported, but not in support of contrasting findings of men being more prone to perpetrating plagiarism (Honig & Bedi, 2012; Heckler *et al.*, 2012), or women being more likely to be the culprits (Martin *et al.*, 2009). A possible explanation could be the way in which students were socialised within the university (drawing on institutional theory) as opposed to sex-role socialisation theory used previously to explain gender differences. The fact that these students are postgraduate and have had exposure to an institution's culture and policies may also explain the similarity between genders.

Home language: The medium ($\xi = .36$) difference between the trimmed means of the similarity scores was statistically significant ($F_t(1, 51.40) = 2.64; p < .05$), where non-native English-speaking students ($M_t = 17.40$) plagiarised more than native English-speaking students ($M_t = 12.20$). This is in support of findings of previous studies (Hughes

& McCabe, 2006; Shi, 2004; Warner, 1999). This finding may be explained by the fact that less academic writing was expected of certain students in the present sample (Keck, 2014; Pecorari, 2003), as the nature of management is more quantitative than, for example, that of humanities. An alternative explanation could be that students who are not native English speakers may have experienced difficulty in paraphrasing from complex source texts (Fazel & Kowkabi, 2013). Another explanation, considering the South African context, is the possibility is the difference between vocational training (for example, a BTech), which has lower admission requirements for language of instruction (English), compared to academic qualifications. In conjunction with this is the nature of the form of education, where vocational studies require less focus on writing compared to the academic form.

Discipline: A statistically significant difference of medium effect size ($\xi = .40$) was found among students for *Discipline*, where management students ($M_t = 17.70$) plagiarised more than students from humanities ($M_t = 12.20$) ($F_t(1, 47.80) = 11.00; p < .01$). This result is in accord with the study of (McCabe, Butterfield & Trevino, 2006), but not with the finding of Heckler *et al.* (2013). The fact that management students are more likely to plagiarise more can, again, be explained by the academic content with which they engage. Compared to other disciplines (in particular, humanities), the nature of management courses requires less academic writing. The South African context may also explain this difference, in particular the different admission requirements of these disciplines. Higher scores in mathematics are required in management sciences, as opposed to humanities. Therefore, management students may not have had the same exposure to academic writing, due to the nature of their studies, compared to students from humanities.

Academic performance: Statistically significant differences were found in the trimmed means ($F_t(3, 33.90) = 4.18; p < .05$), with a large effect size ($\xi = .88$). Students with good academic performance (60%–69%) were isolated using robust post hoc tests on the trimmed means. This group ($M_t = 13.70$) had the lowest similarity score, compared to students who had failed ($M_t = 34.60$) ($\hat{\nu} = 20.84, p < .01$) and students with satisfactory performance (50%–59%) ($M_t = 14.90$) ($\hat{\nu} = 19.67; p < .01$), but not when compared to students with excellent performance (70%+), who had the lowest similarity score ($M_t = 11.60$) ($\hat{\nu} = 22.92; p < .001$). Management students were found to rely more on plagiarism than students from humanities. Students who academically underperformed showed a greater reliance on plagiarism, compared to students of academic good standing. This is consistent with other studies that found that students with a higher level of academic performance (where GPA was used as an indicator) are less prone to

committing plagiarism (Tekleab & Rocha, 2010; Smith *et al.*, 2007; Crown & Spiller, 1998). The present study, where course grades were used as a proxy, therefore supports evidence presented by Curtis and Popal (2011), but not previous findings that revealed no relationship between academic performance and plagiarism (Guo, 2011; Hrabak *et al.*, 2004; Franklyn-Stokes & Newstead, 1995). The results for non-native English-speaking students may provide insight into this finding. These students may struggle to read and understand difficult course materials, and thus not perform according to their potential. This can be extended to them turning to academic sources in an attempt to mimic or express themselves in an academic style (Fazel & Kowkabi, 2013). Locally, students from a vocational background with less stringent requirements for language of instruction, as well as the vocational nature of their curriculum, may also have difficulty adjusting to a pure academic environment with more complex material to deal with.

7 LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

A few limitations are present in this study. Although robust statistics were employed (in light of the unequal independent groups' sample sizes), the results may have been different for larger a sample with more comparable group sizes; this could be considered for a future study. Admission scores for this qualification, calculated differently to the internationally accepted GPA, were excluded from the analysis, as possible calculation errors would have negatively impacted reliability, leading to dubitable results. A future study could explore the extent of plagiarism using reliable admission scores. As this study considered the first semester of this programme, the changes in percentage similarity across the curriculum were excluded, limiting our knowledge of change in the impact of demographic and situational variables over time. Such change may yield an understanding of why students rely on plagiarism and what steps can be taken at particular points in time to lessen the need for this reliance. Lastly, factorial ANOVAs were not conducted in this study, limiting our understanding of the interaction effects among the variables; future scholarly endeavours may explore such interactions.

8 PRACTICAL MANAGERIAL IMPLICATIONS

The findings have implications for business educationists, universities, as well as organisations. Management educationists in programmes, especially postgraduate diplomas in South Africa, for which students from different disciplines and forms of education can enrol, need to be sensitive to these groups. Bridging courses focussing on

academic writing could aid vocational students in transitioning into an academic environment. A developmental stance should be adopted to ensure that students, especially non-native English-speaking students, receive the necessary support to develop proficiency in academic writing.

Institutions can foster a culture of support and development, rather than following a punitive approach. This should also be reflected in the policies institutions adopt regarding plagiarism. In addition to introducing honour codes, a forum where ethical issues as discussed can be established to not only ensure students are familiar with ethical decisions, but also allow dialogue, to ensure clarity on ethical dilemmas and issues.

Organisations can introduce forums or champions, where ethical dilemmas and issues relevant to all employees can be discussed before taking a possibly unethical decision or plagiarise. Thus, organisations should not only rely on a code of conduct instituted by professional bodies to which professional people belong.

9 CONCLUSION

Student plagiarism is an increasing problem in universities (Hrasky & Kronenburg, 2011), and is a misconduct that undermines the values and missions of universities (Drinan & Bertram Gallant, 2008). Universities, particularly faculty members, have a responsibility to not only attempt to prevent plagiarism among students, but also take a developmental approach in this regard, by assisting students, especially non-native English-speaking students, to develop their academic writing skills, in order to reach their full academic potential. This stance will have far-reaching consequences in the business world and the development of future leaders.

It is argued that failing to address plagiarism within universities may prevent students, future scholars, and business leaders from utilising much-needed skills to respond to their unique contexts and avoid plagiarism. This may present long-term risks to the reputations of universities and professionals, coupled with inherent financial risks. This article has provided an account of the significant differences in incidences of plagiarism in relation to demographic and situational variables. The investigation considered actual behaviour, measured using Turnitin™ similarity percentages, as opposed to the widespread approach of using self-reporting questionnaires. The findings indicate that postgraduate students in this sample who were more likely to resort to plagiarism were aged 35 years and older, non-native English speakers, who had previously completed studies in the discipline of

management, and are academic under-achievers. Therefore, the contribution of this study is an extension of current knowledge, specifically in a South African context, of who students are more likely to plagiarise. Furthermore, explanations are furnished within the South African context, to provide a possible explanation why particular groups of students plagiarise.

Addressing plagiarism in universities may mitigate the long-term risks associated with reputational damage and the associated financial implications, and will empowering future academics and business leaders to draw on their skills and knowledge to respond appropriately to their unique contexts.

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10.1 Competing interest

This study has not received any financial assistance that could have influenced the results.

10.2 Author contributions

The author of this article conceptualised and executed the study, and interpreted the results, which were written up in this article.

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MOTIVATING THE DEVELOPMENT OF EMPLOYABILITY SKILLS: A THREE WAY APPROACH OF INTERACTIVE ENGAGEMENT

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MOTIVATING THE DEVELOPMENT OF EMPLOYABILITY SKILLS: A THREE WAY APPROACH OF INTERACTIVE ENGAGEMENT

ABSTRACT

Interactive engagement through the useful group work tool is an effective way to enhance employability skills. Based on previous research the following employability skills for students in the economic and management sciences can be enhanced through group work in a face-to-face classroom setting: Interactive skills, problem-solving and decision-making skills, presenting and applying information skills, ethical and responsible behaviour and analytical skills. Group work can also serve as a tool in response to the demands of outside stakeholders regarding the need of graduates to have teamwork skills. Due to some of the challenges of group work, students often develop a resistance towards group work. To accommodate diverse students and adapt to different learning styles, a three way approach to group work was followed in an exit-level business management (BM) module. To overcome the student resistance towards group work the motivational framework for culturally responsive teaching by Ginsberg and Wlodkowski was used during the development of this approach. The aim of this paper is to illustrate the difference in outcomes of group work related to employability skills when group formation was spontaneous and when the lecturer assigned students to specific groups. Through a qualitative investigation based on an open-ended questionnaire, the perceived effect of this three way approach was determined. Ten volunteers from the class of

2015 (36 students) responded on an e-mail that was send six months after the completion of this module to the class list. Students were asked on the effect that each of the group work approaches had on their employability skills that they needed for their current job. The results indicated that each approach contributed to particular, but different aspects of their employability skills. The findings indicated that the integration of these approaches in one module, can improve different elements of a student's employability skills. Based on the results of the study the following guidelines can assist a lecturer in a BM exit level module to develop their own multiple group work approach: 1. Determine the needed employability skills in your subject field that is expected from the employers. 2. Use different group formations with an assortment of group members and tasks (as suggested by Underwood and Peterson and Miller) 3. When developing the tasks, activities or assessments use a motivational model (Suggested: The motivational framework for culturally responsive teaching by Ginsberg and Wlodkowski) to develop a clear focus on intrinsically motivating instructions. 4. During contact sessions promote the use of these different groups and develop an awareness under students of the development of different skills during each group formation.

SERVICE QUALITY DIMENSIONS AND LOYALTY AT RETAIL BANKS

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SERVICE QUALITY DIMENSIONS AND LOYALTY AT RETAIL BANKS

ABSTRACT

The South African retail banking industry is a highly competitive industry which has experienced an increase in customer attrition. Customers' increasing awareness and knowledge about their rights, their shifting demands, and intensifying competition in the industry require continuous improvement in service quality from banks as service providers, to

ensure that their customers remain loyal. The primary objective of this paper was to determine the influence of the service quality dimensions on customer loyalty in South African retail banks. A quantitative descriptive research design was followed. A non-probability convenience sampling technique was implemented to survey respondents, and self-administered questionnaires were distributed among South African retail bank (Absa, Capitec, FNB, Nedbank and Standard bank) customers in the Gauteng Province. The results indicate that South African retail banks should specifically focus on being empathetic, by providing personalised attention and consistently reliable services, as to ultimately encourage loyalty among their customers.

1. INTRODUCTION

The South African banking industry has experienced strong growth in recent years, resulting in a significant increase of competitors (MarketLine, 2016:7, 18). In this increasingly competitive environment, relationship marketing is believed to be a perfect means for banks to create distinctive and long-term relationships with customers (Taleghani, Gilaninia & Mousavian, 2011:155). The highly competitive and complex nature of the financial environment has resulted in the adoption of relationship marketing by banks; implementing defensive rather than aggressive marketing strategies (Mokoena & Govender, 2015:26). In addition, the dynamic nature of technology, accompanied with increasingly demanding customers, have become a significant challenge for banks to obtain and maintain a distinct competitive advantage (Lee & Moghavvemi, 2015:118; Vennila, 2014:45).

According to Djajanto, Nimran, Kumadji and Kertahadi (2014:39), existing customers will easily shun banks that do not counteract competition and understand changes in customer preferences. As a result, customers are more likely to switch from one bank to another if they are dissatisfied with products or services – evident from the latest popular South African advertising campaigns encouraging customers to change banks if they were unhappy with their present banks (SAcsi, 2015). Vennila (2014:44) further adds that, in a competitive environment, customers are progressively knowledgeable of substitutes to services and service providers, and as a result, customers' expectations increase as they become more critical of the quality of services. Therefore, as posited by Agypong (2011:204), service quality is generally noted as a critical requirement and contributing factor of competitiveness for creating and sustaining satisfying relationships with customers. With the ultimate goal of relationship marketing being to establish long-term

relationships with customers in order to obtain the utmost value from them, customer loyalty should be accentuated to reach this goal (Ogungbade, 2015:3; Palmatier, 2008:3).

Over the years, researchers considerably examined the factors that could result in loyalty at banks. From the research of Kaura, Prasad and Sharma (2015), Lee and Moghavvemi (2015), Rasheed *et al.* (2015), Auka (2012), and Kheng, Mahamad, Ramayah and Mosahab (2010), service quality, satisfaction and relationship value were identified as some of the main contributors to retail bank loyalty. Pertaining specifically to South African retail banks, Coetzee, Van Zyl and Tait (2013:2) found that service quality is of strategic importance to establish loyalty, and generally forms the main driver for gaining a competitive edge.

This paper, therefore, aims to determine the significance of retail banks' service quality on customers' loyalty in South Africa. To achieve this, the influence of the five service quality dimensions (i.e. reliability, responsiveness, assurance, empathy and tangibles) on customers' loyalty is investigated.

The subsequent sections provide an overview of the South African retail banking industry, a literature review of service quality, its dimensions, and customer loyalty. Thereafter, the research problem, objectives, hypotheses, and research methodology are provided. Finally, the results are reported, from which conclusions and managerial implications are derived.

2. THE SOUTH AFRICAN RETAIL BANKING INDUSTRY

The South African retail banking industry is a highly competitive market (KPMG, 2014) and its major role players include Standard bank (with a 27% market share), Absa (with a 22% market share), Nedbank (with an 18% market share), Capitec bank (with a 17% market share), and FNB (with a 16% market share) (BusinessTech, 2016).

According to the Banking Association South Africa (2014:1), the banking industry has experienced several changes pertaining to the regulatory environment, product offerings and the number of competitors. This gave rise to high levels of competition from smaller bankers which have entered a low-income and formerly unbanked market. The most significant retail banking segments include traditional retail banking (such as deposit taking and transactional banking), electronic banking and personal banking (PwC, 2013:8). Slater (2014) further indicates that trends in technology, especially technology

such as mobile banking, cell-phone banking applications and money transfers through cell phones, have taken over retail banking. Regulatory trends have also emerged, which means that banks have to modify their approach towards greater transparency, market integrity and customer protection (KPMG, 2013:4).

3. LITERATURE REVIEW

3.1 Service quality

Parasuraman, Zeithaml and Berry (1988:17) define service quality as the difference between what customers look forward to receiving from a service and the view of the actual service quality received. To keep customers, and to look after and sustain long-term customer interest, banks need to maintain a continuing relationship with their customers. This can be achieved by understanding the needs of these customers, in so doing serving them satisfactorily by enhancing service quality (Lee & Moghavvemi, 2015:92). As posited by Karimi, Sanayei and Moshrefjavadi (2011:10), an increase in service quality results in an increase in customer satisfaction, which consequently leads to customer commitment and loyalty, enhanced customer retention, establishing an interactive relationship between the customer and the business, increasing customer tolerance (in terms of shortages and service failures), as well as positive word-of-mouth communication.

Ravichandran, Bhargavi and Kumar (2010:20) further submit that, customers' perceptions of high levels of service quality results in positive behavioural intentions (such as repurchasing), which in turn reinforces their relationship with the business – building on the relationship marketing strategy. Auka (2012:200) adds that, with customers' increasing awareness and knowledge about their rights, their shifting demands, and intensifying competition in the industry, banks require continuous improvement in service quality to ensure that their customers remain loyal. Furthermore, taking into consideration that banks mostly provide similar product or service offerings in a highly competitive environment, banks are concentrating more on service quality to remain sustainable and competitive (Lau, Cheung, Lam & Chu, 2013:265).

Mittal, Gera and Batra (2015:331) argue that, banks should identify and manage the service quality dimensions which would result in a competitive edge with their customers. Accordingly, measuring service quality is essential and critical for marketing professionals and researchers, to obtain an improved perception of requirements and results, and also

for generating techniques of quality improvement in realising a competitive edge and building loyalty among customers (Karimi *et al.*, 2011:10).

SERVQUAL and SERVPERF are two of the most well-known and well-implemented models used to assess service quality (Adil, Mohammad, Ghaswyneh & Albkour, 2013:69; Coetzee *et al.*, 2013:5). The SERVQUAL model, coined by Parasuraman *et al.* (1988), is based on the customer's expectations of the service levels and perceptions of the realised service performance level. Thus, comparing customers' expectations and perceptions of the quality of the provided service. The SERVPERF model was developed by Cronin and Taylor (1992), who amended the gap-based SERVQUAL model into a performance-only index. Therefore measuring only customers' perceptions of the performance of the service delivered (Adil *et al.*, 2013:70). According to Karimi *et al.* (2011:12), the key aspect differentiating the SERVQUAL and SERVPERF model is that there is a set of questions in SERVQUAL, unlike the SERVPERF model, that measures customers' preconceived outcomes and views of services. Adil *et al.* (2013:67) feel that the SERVPERF model (consisting of 22-items) is an improved technique for measuring service quality.

For this study, the SERVPERF model – developed by Cronin and Taylor (1992) – was used, as it mainly concentrates on the service's actual performance and not customers' expectations (Al-Hawari, 2016:3). Based on the SERVQUAL and SERVPERF models, service quality comprises five dimensions, namely reliability, responsiveness, assurance, empathy and tangibles (Cronin & Taylor, 1992:66; Parasuraman *et al.*, 1988:31), which are briefly explained below.

- Reliability refers to the capability of a service provider to deliver the promised service dependably and perfectly. This dimension entails the ability of providing committed services in a complete and reliable way (Karimi *et al.*, 2011:11; Culiberg & Rojšek, 2010:162).
- Responsiveness refers to the enthusiasm of employees to assist customers, to provide speedy service as well as the capability of responding to individual customer needs. This also means providing services to the customer in the appropriate time (Lee & Moghavvemi, 2015:117; Saghier & Nathan, 2013:4).
- Assurance refers to the competence and politeness of staff and their capacity to express trust and credibility (Mittal *et al.*, 2015:344). Culiberg and Rojšek (2010:152) further state that it is also the ability of a service provider to stimulate trust and confidence in the business through knowledge, politeness and honesty of the employees.

- Empathy comprises the contact with customers, communication with customers and understanding customers that give rise to personalised attention to customers. It involves providing customers with personalised attention and requires employees who are aware of the needs of their customers and the appropriate business hours (Saghier & Nathan, 2013:4; Culiberg & Rojšek, 2010:162).
- Tangibles can be referred to as the presentation of physical facilities, equipment, employees and communication materials in the service procedure (Yunus, Bojei & Rashid, 2013:334).

3.2 Loyalty

Customer loyalty is defined by Hsu *et al.* (2014:80) and Oliver (1999:34) as a customer's desire to continue patronising a specific business in the future, regardless of other offerings available from competing businesses. Jaiswal and Niraj (2011:165) emphasise that cultivating loyalty and keeping customers are vital for every business. Hence, customer loyalty has been incorporated in the strategic goals of numerous businesses because of the competitive strength it provides (Rai & Srivastava, 2012:50). According to Roberts-Lombard, Van Tonder, Pelser and Prinsloo (2014:28), to obtain loyal customers, businesses are required to invest in relationship-building and customer intimacy, because establishing such relationships and intimacy will end up in stronger loyalty. The aspects that contribute to loyalty have to be examined and understood before planning and executing the tactics for customer retention and loyalty (Rai & Srivastava, 2012:50).

Auka (2012:185) emphasises that there are more benefits related to keeping loyal customers as compared to getting new ones. Auka (2012:198) further adds that customers remain loyal to a business if they feel that the business offers them better services or products than another business. The success of a business is, therefore, based on its ability to create loyal customers and retaining them (Rai & Srivastava, 2012:65). According to Hundre, Kumar and Kumar (2013:704), having a loyal customer base is beneficial to the business, as it contributes to the profitability and sustainability thereof. Loyal customers tend to be less price-sensitive, easier and less costly to retain, and more willing to spread positive word-of-mouth; ultimately insulating the business from competitors (Ogungbade, 2015:275; West, Ford & Ibrahim, 2015; Roberts-Lombard *et al.*, 2014:31; Roostika, 2011:289).

3.3 The relationship between service quality and loyalty

Numerous studies have been undertaken to examine the relationship between service quality and customer loyalty. Notable, is a stream of studies conducted (Djajanto *et al.*, 2014; Saravanakumar & Jayakrishnan, 2014; Auka, 2012:193; Yunus *et al.*, 2013; Adoyo, Ondoro, Ojera, Abong'o, Aila & Jeremiah, 2012; Agypong, 2011; Roostika, 2011; Kheng *et al.*, 2010; Ravichandran *et al.*, 2010) that provided strong empirical evidence to sustain the fact that service quality heightens customers' intentions to remain with a specific business.

The research of Auka (2012:193) found a direct relationship between the delivery of quality services and customer loyalty. Therefore, when a customer selects a provider that provides service quality that fulfils or exceeds his/her expectations, there is a high propensity that he/she will remain loyal towards that provider. Saravanakumar and Jayakrishnan (2014:87) posit that, for banks to gain a competitive advantage, they must assess and determine the level of service quality they provide if they desire to keep their customers and satisfy their needs.

The research of Yunus *et al.* (2013) and Roostika (2011) both determined that service quality has a positive influence on customer loyalty, and the research of Kheng *et al.* (2010) – on the impact of service quality on customer loyalty on banks – established that an improvement in service quality should significantly enhance customer loyalty.

4. PROBLEM INVESTIGATED

Due to the strong growth of the South African banking industry, competitiveness has increased significantly. In addition, the limited differentiation between banks' core product offerings, makes it difficult for banks to establish and sustain a competitive advantage in this competitive industry (MarketLine, 2016:13, 18). As a result, South African retail banks need to identify ways to distinguish themselves from competitors, as to encourage loyalty amongst their customers. Auka (2012:201) proposes that banks implement relationship marketing strategies, by specifically focusing on providing quality services.

According to Coetzee *et al.* (2013:2), South African banks have considered service quality to be of strategic importance and as the main driver for establishing a competitive edge. Therefore, as argued by Mittal *et al.* (2015:331), banks should identify and manage the service quality dimensions which would result in a competitive edge with their customers.

Rasheed *et al.* (2015:240) further posit that customer loyalty has been a key issue in banking due to the intense competition and increasing customer expectations. Consequently, each year, bank marketers spend billions of Rands on loyalty programmes to obtain and keep profitable customers, although the question remains whether the money spent provides the best results (Mokoena & Govender, 2015:22). Considering the influence of service quality dimensions on the competitive edge of banks, it is important to study and observe those aspects (from a relationship marketing perspective) that might influence customer loyalty in South African retail banks, since relationship marketing is regarded as the foundation for reinforcing relationships and maintaining customer loyalty (Mittal *et al.*, 2015:332; Lo, 2012:92).

5. RESEARCH OBJECTIVES AND HYPOTHESES

Based on the above literature review and problem statement, the primary objective of this study is to determine the extent to which the service quality dimensions influence customer loyalty at South African retail banks.

In order to achieve the primary objective of the study, the following secondary objectives have been formulated:

- Compile a sample profile of respondents.
- Determine respondents' perceptions of the different service quality dimensions towards their retail banks.
- Determine respondents' loyalty towards their retail banks.
- Determine whether respondents of different banks differ in terms of their service quality perceptions.
- Determine whether respondents of different banks differ in terms of their loyalty towards their banks.
- Determine whether the different dimensions of service quality influence customer loyalty at retail banks.

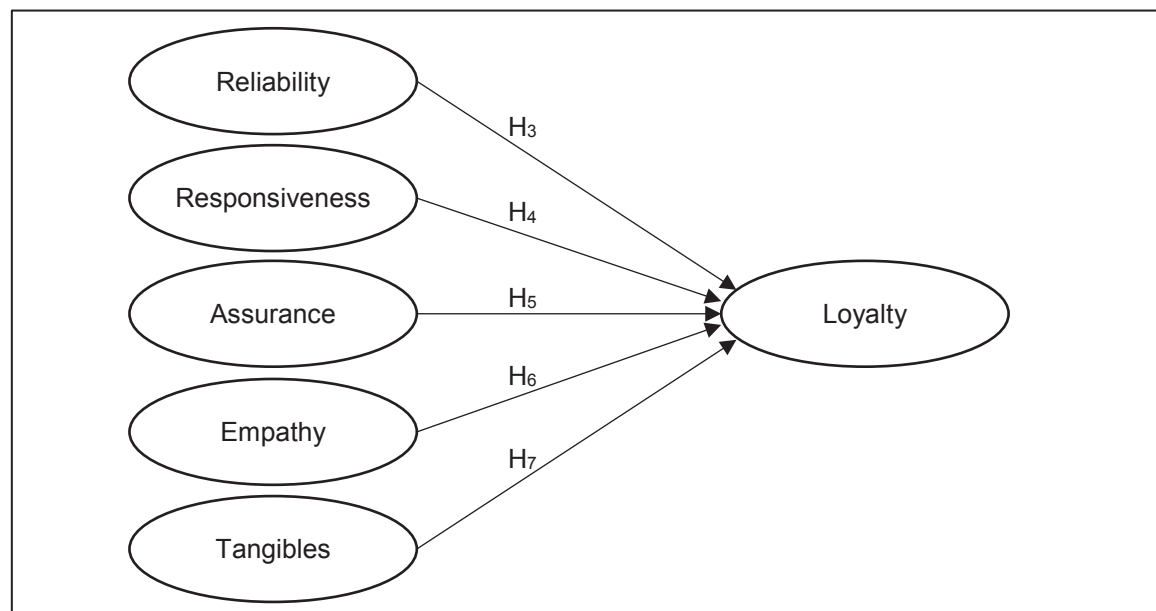
Based upon the literature review and research objectives, the following alternative hypotheses have been formulated and the conceptual model is depicted in Figure 1:

H₁: Respondents of different banks perceive the dimensions of service quality differently.

H₂: Respondents of different banks differ in terms of their loyalty towards their banks.

- H₃: The *reliability* dimension of service quality influences respondents' loyalty towards their retail banks.
- H₄: The *responsiveness* dimension of service quality influences respondents' loyalty towards their retail banks.
- H₅: The *assurance* dimension of service quality influences respondents' loyalty towards their retail banks.
- H₆: The *empathy* dimension of service quality influences respondents' loyalty towards their retail banks.
- H₇: The *tangibles* dimension of service quality influences respondents' loyalty towards their retail banks.

Figure 1: Conceptual model



Source: Researchers' own depiction.

6. RESEARCH METHODOLOGY

To address the research problem and objectives, the study followed a quantitative descriptive research design. This research design was deemed best suited for the study, since the research problem was clearly described, and research objectives and hypotheses have been formulated (Aaker, Kumar, Day & Leone, 2011:73). In addition, Malhotra (2009:100) postulates that descriptive research is especially useful when measuring respondents' perceptions, such as their service quality and loyalty.

The target population included all individuals in the Gauteng province of South Africa who are customers at one of the five major South African retail banks (Absa, Capitec, FNB,

Standard Bank and Nedbank). The Gauteng province population was selected based on the fact that it is regarded the economic hub of South Africa, contributing 35% to the country's economy (The Citizen, 2016). This province also has the largest population, representing 23.7% of the South African population among the country's provinces (Statistics South Africa, 2014:16).

A non-probability convenience sampling method was used, since there was no sampling frame available due to the Protection of Personal Information Act (4 of 2013) that promotes the protection of personal information by public and private bodies. Subsequently, respondents were surveyed based on convenience and availability. Quota sampling was also implemented, based on the market share of each South African retail bank. A sample size of 500 respondents was drawn, which was based on Malhotra's (2009:374) suggestions for problem-solving studies. Table 1 indicates the market shares of the five major South African retail banks, as well as the allocation of quotas for the sample, based on the market shares.

Table 1: Sample quotas and realisation rate

Bank	*Market share	Quota	Sample realisation rate
Absa	21.91%	110	98
Capitec	17.02%	85	71
FNB	16.78%	84	97
Nedbank	17.25%	86	75
Standard Bank	27.04%	135	123
Total	100.00%	500	464

*Source: Adapted from BusinessTech (2016).

Data was collected through structured, self-administered questionnaires. The questionnaire included a preamble explaining the objectives of the study as well as the completion instructions for the questionnaire. The first two sections of the questionnaire aimed to gather demographic information about respondents, as well as information on their retail bank patronage habits. The final section measured the main constructs of the study (i.e. service quality dimensions and loyalty) on an unlabelled five-point Likert-type scale, where 1 indicates 'strongly disagree' and 5 'strongly agree' with their retail bank in mind. All items included in the questionnaire measuring service quality and loyalty were based on existing measures, including the work of Coetzee *et al.* (2013:11) and Kaura *et al.* (2015:412).

The data was collected from the target population by five trained fieldworkers, who had all completed a marketing research course prior to the fieldwork being conducted. These

fieldworkers were trained to identify and select respondents, as well as to assist respondents during the completion of the questionnaire. Prospective respondents were approached at locations convenient to both the fieldworker and respondent, including outside banks, and inside and outside shopping malls. Upon completion of the questionnaire, the fieldworker also had to ensure that the respondent answered the questionnaire in full.

The data was then captured from the completed questionnaires, and cleaned and analysed by means of SPSS version 23. To describe the demographic profile and patronage habits of respondents, the frequencies and percentages of the variables of Sections A and B of the questionnaire were calculated. To describe respondents' perceptions of the service quality of and loyalty towards their retail banks, means and standard deviations were calculated for each item included in the questionnaire (Section C). Subsequently, the reliability and validity of the measurement scales (for service quality and loyalty) were calculated, followed by the overall mean scores. To address the hypotheses formulated for the study, a one-way ANOVA (for H₁ and H₂) and a standard multiple regression (for H₃ to H₇) were performed.

7. RESULTS AND FINDINGS

The empirical results are reported in this section, as to ensure that all the objectives and hypotheses formulated for the study are addressed.

7.1 Sample profile

The sample profile provides insights into respondents' demographic information (i.e. gender, age, ethnicity, education, employment) and retail bank information, including the retail bank where respondents hold their personal account or most of their personal accounts, as well as the duration respondents have been with their respective retail banks. Table 2 presents the frequencies and percentages of each variable.

Table 2: Sample profile

Variable	Frequency	Percentage
<i>Gender</i>		
Male	192	41.4
Female	272	58.6

<i>Age</i>		
Younger than 21	33	7.3
21 to 30 years	161	35.5
31 to 40 years	109	24.1
41 to 50 years	72	15.8
Older than 50	79	17.4
<i>Ethnicity</i>		
Asian	5	1.1
Black	170	36.6
Coloured	24	5.2
Indian	17	3.7
White	246	53.0
Other	2	0.4
<i>Education</i>		
Some primary school	4	0.9
Primary school completed	1	0.2
Some high school	25	5.4
Matric / Grade 12 completed	183	39.4
Technical college	76	16.4
University or technology diploma	42	9.1
University degree (B-degree or Honours)	103	22.2
Postgraduate degree (Masters or doctorate)	26	5.6
Missing	4	0.9
<i>Employment</i>		
Full-time student	98	21.1
Unemployed	8	1.7
Self-employed	37	8.0
Part-time employed	35	7.5
Full-time employed	271	58.4
Housewife or Househusband	4	0.9
Retired	8	1.7
Other	3	0.6
<i>Bank</i>		
Absa	98	21.1
Capitec	71	15.3
FNB	97	20.9
Nedbank	75	16.2
Standard bank	123	26.5
<i>Duration</i>		
Less than 5 years	131	28.2
5 to 10 years	155	33.4
10 to 15 years	61	13.1
15 to 20 years	37	8.0
Longer than 20 years	80	17.2

From Table 2, it is evident that there is a relatively even gender spread of respondents, with females representing 58.6% of the sample and males 41.4%. In terms of age, the majority of respondents (35.5%) were 21 to 30 years old. The majority of respondents were either white (53.0%) or black (36.6%). Most respondents either completed matric (39.4%) or hold a university degree (22.2%), and more than half of the respondents (58.4%) are full-time employed. With regards to respondents' retail bank, the majority of respondents have their personal account (or most of their personal accounts) at Standard Bank (26.6%), whereas the smallest number of respondents uses Capitec bank (15.1%). These results correspond closely with the initially proposed quota sample size. In addition, the majority of

respondents (31.8%) have been with their bank for 5 to 10 years, and the smallest number of respondents have been with their bank for 15 to 20 years.

7.2 Service quality

Table 3 presents the means and standard deviations (SD) of the items used to measure respondents' perceptions of the five service quality dimensions of their respective retail banks. The mean represents the average response on a five-point scale, and the standard deviation provides insight into the dispersion of results around the mean.

Table 3: Respondents' service quality perceptions of retail banks

Dimension and item	Mean	SD
<i>Reliability</i>		
When I have a problem, the staff show a sincere interest to help me.	3.92	0.95
The bank has my personal and banking information up to date and error free.	4.08	0.97
The staff perform a service correctly the first time.	3.89	0.98
The staff keep the promises they make.	3.88	0.94
The staff perform the services they promise or claim to do.	3.89	0.94
<i>Responsiveness</i>		
The staff are never too busy to respond to my requests and queries.	3.76	1.02
The staff are willing to help me.	3.99	0.94
The staff give me prompt and quick service.	3.79	1.03
The staff constantly keep me informed about the progress of my queries.	3.65	1.09
<i>Assurance</i>		
The staff have the knowledge and the know-how of bank processes and policy to deal with my queries and concerns.	3.84	1.03
The staff are polite towards me.	4.04	0.94
The behaviour and knowledge of the staff instil confidence in me.	3.94	0.91
I feel safe and confident about the staff's ability to deal with my concerns.	3.91	0.96
<i>Empathy</i>		
The staff always have my best interests at heart.	3.84	1.01
The staff give me personal attention.	3.88	0.99
My bank's employees are neat appearing.	4.23	0.84
The staff understand my personal banking needs.	3.90	0.99
The staff treat me as an individual with individual needs.	3.91	0.97
My bank has operating hours that are convenient to me.	3.78	1.12
<i>Tangibles</i>		
My bank's branch layout is clearly demarcated and easy to understand.	4.11	0.93
My bank's branch is visually appealing and clean.	4.27	0.82
The staff are neatly and professionally dressed.	4.26	0.80
My bank's branch has modern equipment.	4.24	0.83

From Table 3 it is clear that the means range between 3.65 and 4.27 (on a five-point scale), and the standard deviations for all items are reasonably ranged between 0.73 and 1.12.

7.3 Loyalty

Table 4 presents the means and standard deviations (SD) of the items used to measure respondents' loyalty towards their respective retail banks. The mean represents the average response on a five-point scale, and the standard deviation provides insight into the dispersion of results around the mean.

Table 4: Loyalty

Item	Mean	SD
I say positive things about my bank to other people.	3.95	1.06
I would recommend my bank to someone who seeks my advice.	3.96	1.05
I encourage friends and/or relatives to do business with my bank.	3.86	1.12
I consider my bank as my first choice when I need services concerning my finances.	3.90	1.11
I intend to continue doing business with my bank in the next few years.	4.04	1.11
I am willing to try new services that my bank provides.	4.03	1.06

From Table 4 it is clear that the means range between 3.86 and 4.04 (on a five-point scale), and the standard deviations for all items are reasonably ranged between 1.05 and 1.12.

7.4 Validity and reliability

A confirmatory factor analysis was performed to assess the validity and reliability of the constructs measured. As indicated in Table 5, all items loaded onto their respective constructs ($p < 0.01$), with all standardised factor loadings above the 0.50 cut-off value (as suggested by Hair, Celsi, Ortinau & Bush, 2013). All AVE values were also above the lower threshold of 0.50 (Table 5), thereby further indicating convergent validity.

The measurement model further provided good fit statistics. The Chi-square/degrees of freedom (χ^2/df) was less than 5 (3.17), the Tucker-Lewis index (TLI) and comparative fit index (CFI) was greater than 0.90 (0.93 and 0.94 respectively), and the root mean square error of approximation (RMSEA) was less than 0.80 (0.07). As such, construct validity can be confirmed.

Table 5: Standardised factor loadings, validity and reliability

Construct, item	Std. factor loadings	AVE	Construct reliability	Cronbach α
<i>Reliability</i>		0.72	0.91	0.90
When I have a problem, the staff show a sincere interest to help me.	0.81			

The bank has my personal and banking information up to date and error free.	0.78			
The staff perform a service correctly the first time.	0.84			
The staff keep the promises they make.	0.89			
The staff perform the services they promise or claim to do.	0.88			
<i>Responsiveness</i>		0.73	0.90	0.90
The staff are never too busy to respond to my requests and queries.	0.83			
The staff are willing to help me.	0.85			
The staff give me prompt and quick service.	0.85			
The staff constantly keep me informed about the progress of my queries.	0.82			
<i>Assurance</i>		0.89	0.92	0.91
The staff have the knowledge and the know-how of bank processes and policy to deal with my queries and concerns.	0.86			
The staff are polite towards me.	0.80			
The behaviour and knowledge of the staff instil confidence in me.	0.87			
I feel safe and confident about the staff's ability to deal with my concerns.	0.89			
<i>Empathy</i>		0.80	0.91	0.89
The staff always have my best interests at heart.	0.86			
The staff give me personal attention.	0.83			
My bank's employees are neat appearing.	0.72			
The staff understand my personal banking needs.	0.83			
The staff treat me as an individual with individual needs.	0.83			
My bank has operating hours that are convenient to me.	0.73			
<i>Tangibles</i>		0.76	0.89	0.89
My bank's branch layout is clearly demarcated and easy to understand.	0.80			
My bank's branch is visually appealing and clean.	0.91			
The staff are neatly and professionally dressed.	0.83			
My bank's branch has modern equipment.	0.78			
<i>Loyalty</i>		0.74	0.94	0.93
I say positive things about my bank to other people.	0.85			
I would recommend my bank to someone who seeks my advice.	0.94			
I encourage friends and/or relatives to do business with my bank.	0.91			
I consider my bank as my first choice when I need services concerning my finances.	0.87			
I intend to continue doing business with my bank in the next few years.	0.86			
I am willing to try new services that my bank provides.	0.74			

Note: All factors loaded significantly at $p < 0.01$.

Finally, all constructs (and dimensions) measured also appeared to be highly reliable, as the Cronbach alpha values reported in Table 5 exceeded the acceptable cut-off value of 0.70 (Hair *et al.*, 2013:166).

7.5 Overall mean scores

Table 6 presents the overall mean scores for each of the service quality dimensions and overall loyalty.

Table 6: Overall mean scores

Dimension and item	Mean	SD
<i>Service quality</i>		
Reliability	3.93	0.82
Responsiveness	3.80	0.90
Assurance	3.93	0.86
Empathy	3.93	0.80
Tangibles	4.22	0.74
<i>Loyalty</i>	3.96	0.94

As from Table 6, it is clear that the standard deviations for the five service quality dimensions range reasonably from 0.74 to 0.94, while the means range from 3.80 to 4.22. Respondents rated the tangibles dimension the highest (mean = 4.22), and responsiveness the lowest (mean = 3.80). Respondents rated their loyalty with a mean of 3.96 (on a five-point scale).

7.6 Hypotheses testing

To test the seven alternative hypotheses formulated for this study, a one-way ANOVA (H_1 and H_2) and a standard multiple regression (H_3 to H_7) were performed. Prior to the standard multiple regression analysis, the following assumptions were assessed to ensure that the data met the requirements for a standard multiple regression: (1) sample size, (2) multicollinearity and singularity, (3) normality of distribution, (4) linearity of the relationship between the variables, and (4) the homogeneity of variance (Pallant, 2010:150-151). All the assumptions were met, and subsequently the standard multiple regression was performed.

7.7 Results of the one-way ANOVA

In order to test H_1 that respondents of different banks differ in terms of the service quality dimensions, and H_2 that respondents of different banks differ in terms of their loyalty, a

one-way ANOVA was conducted. The results of the one-way ANOVA are indicated in Table 7 below.

Table 7: Effect sizes of the service quality perceptions and loyalty of respondents from different banks

Factors	n	Mean	SD	p-value	Bank	d-values				
						Absa	Capitec	FNB	Nedbank	Standard bank
Reliability	98	3.67	0.86	0.00	Absa	–	0.50*	0.36*	0.21	0.26
	71	4.17	0.72		Capitec	-0.50*	–	-0.14	-0.29	-0.23
	97	4.04	0.74		FNB	-0.36*	0.14	–	-0.15	-0.09
	75	3.88	0.82		Nedbank	-0.21	0.29	0.15	–	0.06
	123	3.94	0.81		Standard bank	-0.27	0.23	0.09	-0.06	–
Responsiveness	98	3.50	0.98	0.00	Absa	–	0.58*	0.47*	0.26	0.26
	71	4.08	0.89		Capitec	-0.58*	–	-0.12	-0.32	-0.32
	97	3.96	0.70		FNB	-0.47*	0.12	–	-0.20	-0.21
	75	3.76	0.91		Nedbank	-0.26	0.32	0.20	–	-0.00
	123	3.76	0.91		Standard bank	-0.26	0.32	0.21	0.00	–
Assurance	98	3.61	0.95	0.00	Absa	–	0.48*	0.54*	0.23	0.35*
	71	4.10	0.88		Capitec	-0.48*	–	0.06	-0.26	-0.14
	97	4.15	0.65		FNB	-0.54*	-0.06	–	-0.32	-0.19
	75	3.84	0.82		Nedbank	-0.23	0.26	0.32	–	0.12
	123	3.96	0.87		Standard bank	-0.35*	0.14	0.19	-0.12	–
Empathy	98	3.63	0.90	0.00	Absa	–	0.52*	0.54*	0.19	0.27
	71	4.15	0.77		Capitec	-0.52*	–	0.02	-0.33	-0.26
	97	4.17	0.63		FNB	-0.54*	-0.02	–	-0.35*	-0.27
	75	3.82	0.75		Nedbank	-0.19	0.33	0.35*	–	0.08
	123	3.89	0.78		Standard bank	-0.27	0.26	0.27	-0.08	–
Tangibles	98	3.99	0.84	0.01	Absa	–	0.33*	0.30*	0.21	0.32*
	71	4.32	0.76		Capitec	-0.33*	–	-0.04	-0.13	-0.02
	97	4.29	0.66		FNB	-0.30*	0.04	–	-0.09	0.02
	75	4.19	0.73		Nedbank	-0.21	0.13	0.09	–	0.11
	123	4.30	0.67		Standard bank	-0.32*	0.02	-0.02	-0.11	–
Loyalty	98	3.55	1.03	0.00	Absa	–	0.74*	0.71*	0.40*	0.30
	71	4.29	0.88		Capitec	-0.74*	–	-0.03	-0.34	-0.44*
	97	4.26	0.73		FNB	-0.71*	0.03	–	-0.31	-0.41*
	75	3.95	0.81		Nedbank	-0.40*	0.34	0.31	–	-0.10
	123	3.85	0.98		Standard bank	-0.30	0.44*	0.41*	0.10	–

*Significance at the 0.05 level

From Table 7, with regards to H₁ and H₂, it can be concluded that statically significant differences exist among respondents (p < 0.05) based on type of bank and their perceptions of reliability, responsiveness, assurance, empathy and tangibles, and statistically significant differences of loyalty levels between respondents of different retail

banks respectively. The statistical significance (p -value) and practical differences (d -value) are as follow:

- In terms of reliability ($p = 0.00$): Respondents of Capitec bank (mean = 4.17) perceive their retail bank to be more reliable than respondents from Absa (mean = 3.67; $d = -0.50$).
- In terms of responsiveness ($p = 0.00$): Respondents of Capitec bank (mean = 4.08) their retail bank to be more responsive than respondents from Absa (mean = 3.50; $d = -0.58$).
- In terms of assurance ($p = 0.00$): Respondents of Capitec bank (mean = 4.10; $d = -0.48$) and FNB (mean = 4.15; $d = -0.54$) have more assurance in the service delivery of their bank than respondents of Absa (mean = 3.61).
- In terms of empathy ($p = 0.00$): Respondents of Capitec bank (mean = 4.15; $d = -0.52$) and FNB (mean = 4.17; $d = -0.54$) perceive their bank to be more empathetic than respondents of Absa (mean = 3.63).
- In terms of tangibles ($p = 0.01$): Respondents of Capitec bank (mean = 4.32; $d = -0.33$), FNB (mean = 4.17; $d = -0.30$) and Standard bank (mean = 4.30; $d = -0.32$) perceive the quality of their bank's tangibles to be higher than respondents of Absa (mean = 3.99).
- In terms of loyalty: Respondents of Capitec bank (mean = 4.29; $d = -0.74$) and FNB (mean = 4.26; $d = -0.71$) indicated that they are more loyal towards their bank than respondents of Absa (mean = 3.55).

Based on the above results, H_1 and H_2 can be accepted, since statistically significant differences as well as practically significant differences could be found between respondents of different banks in terms of service quality and loyalty.

7.8 Results of the standard multiple regression analysis

To test H_3 to H_7 , a standard multiple regression was conducted. As indicated in Table 8, the five independent variables (i.e. service quality dimensions) explain 53% of the variance in the dependent variable (loyalty).

Table 8: Model summary

Model	R	R ²	Adjusted R ²	Standard error of estimate
1	0.73	0.53	0.52	0.62

From Table 9, it is also evident that the model is statistically significant ($p < 0.05$).

Table 9: ANOVA

Model	Sum of squares	df	Mean square	F-value	p-value
1 Regression	192.53	5	38.51	101.87	0.00*
Residual	173.11	458	0.38		
Total	365.64	463			

*p-value < 0.05 is statistically significant

As indicated in Table 10, the reliability dimension of service quality ($p = 0.00$; β -value = 0.34) and the empathy dimension of service quality ($p = 0.00$; β -value = 0.35) statistically significantly influence loyalty. The other three dimensions of service quality, namely responsiveness, assurance, and tangibles, do not influence loyalty, as the p-values are larger than 0.05. Of the two dimensions, empathy is a slightly better predictor of loyalty, closely followed by the reliability dimension.

Table 10: Coefficients

Model value	Standardised coefficient Beta-value	t	p-value
1 Constant		3.95	0.00
Reliability	0.34	5.50	0.00*
Responsiveness	0.08	1.16	0.25
Assurance	0.03	0.37	0.71
Empathy	0.35	5.07	0.00*
Tangibles	-0.03	-0.69	0.49

*p-value < 0.05 is statistically significant
Dependent variable: Loyalty

Based on the above results, H_3 stating that the reliability dimension of service quality influences respondents' loyalty towards their retail banks, and H_6 stating that the empathy dimension of service quality influences respondents' loyalty towards their retail banks, cannot be rejected. H_4 , H_5 , and H_7 can be rejected, since the responsiveness, assurance and tangibles dimensions of service quality did not statistically significantly influence respondents' loyalty toward their retail banks.

8. DISCUSSION OF RESULTS

The respondents who participated in this study were mostly white, 21 to 30-year-old females, who are full-time employed and relatively well-educated (with more than half of the respondents having a tertiary qualification). The majority of respondents have their personal account (or most of their personal accounts) at Standard Bank, followed by Absa, FNB, Nedbank and Capitec – which corresponds with the proposed quota sample size. Most respondents have been with their bank for five to ten years.

In terms of the service quality dimensions (i.e. reliability, responsiveness, assurance, empathy, and tangibles), respondents rated their respective retail banks above the midpoint of the five-point scale for all five dimensions. Respondents further indicated average levels of loyalty towards their retail banks.

In order to test the seven alternative hypotheses, a one-way ANOVA and standard multiple regression were performed. The results of the one-way ANOVA indicated that, respondents of different retail banks differ statistically significantly in terms of the service quality dimensions, therefore H_1 was accepted. In addition, H_2 was also accepted, since respondents of different banks also differ statistically significantly in terms of their loyalty towards their banks. The results of the standard multiple regression indicated that the five service quality dimensions explain 53% of the variance in loyalty.

Of the five service quality dimensions, only reliability and empathy statistically significantly influenced loyalty, with reliability being the strongest predictor. These results are in line with that of Auka (2012), who also identified reliability and empathy as the two strongest predictors of customer loyalty in the banking industry. Kheng *et al.* (2010) established similar results, by identifying reliability, empathy and assurance as significant influencers of loyalty in the banking sector. Subsequently, only H_3 and H_7 were accepted, as the other dimensions of service quality did not statistically significantly influence loyalty.

9. MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Among the five major South African banks, Capitec bank scored the highest in terms of all five service quality dimensions as well as customer loyalty, whereas Absa scored the lowest. Evidently, Absa bank managers and employees should pay particular attention to the improvement of their services to convalesce current customer loyalty levels, and to avoid potentially losing customers.

Based on the empirical results, the reliability and empathy dimensions of service quality were established to have a statistically significant influence on customer loyalty. Therefore, from this perspective, retail banks should primarily focus on improving these two dimensions in order to establish customer loyalty and possibly attain a competitive advantage.

To improve reliability, and consequently the quality of services, retail bank managers should strive to keep the promises made to customers. According to Al-Hamed and Amin

(2014:49) and Dash and Rajshekhar (2013:2), promises must be genuine and consistent, as the delivery of promises instil confidence in the business. In conjunction, banks should also avoid making exaggerated promises which cannot be met. According to Verma (2012:419), businesses can institute strategic initiatives that limit the tendency of overpromising or making incorrect promises. Hence, in the same manner, banks can do the same as suggested by Verma (2012).

In addition, banks should also provide proper training to staff to equip them in terms of performing and fulfilling promises made to customers. This can imply training employees to be updated to technological and system handling to avoid making errors during service delivery. Employees can additionally be stimulated to deliver quality customer services, by offering rewards to best performing employees. Accordingly, a system can be put in place where customers can rate the respective employee who assisted them to allow identification of best performing employees. This system can further be used to identify “problem” employees; identifying those employees requiring additional training.

To improve empathy, bank employees should be provided with the necessary skills and expertise in order to be knowledgeable of the bank processes and when dealing with customers’ queries and concerns. Employees’ interpersonal and communications skills can also be improved by providing training in communication skills (verbal and non-verbal). Subsequently, employees should be able to listen and communicate with customers in a sincere way, providing them with personalised attention. If customers perceive that bank employees have their best interests at heart, they would be more prone to say positive things about their bank, recommend their bank to others, and continue doing business with their bank.

Finally, it is also important to note that, while mainly focusing on the reliability and empathy dimensions of service quality to retain and keep customers loyal, the other dimensions of service quality (including responsiveness, assurance and tangibles) should not be neglected, otherwise it could lead to disloyalty if not addressed.

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**HOW PRICE-CUE CONDITIONING, PRICE-PREFERENCE AND CONSUMPTION RATE
CO-DETERMINE HEDONIC UTILITY**

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**HOW PRICE-CUE CONDITIONING, PRICE-PREFERENCE AND
CONSUMPTION RATE CO-DETERMINE HEDONIC UTILITY**

ABSTRACT

This study seeks to examine the dynamics by which price information is processed along parallel dimensions of product experience over time, price-preference, and consumption rate. Here, a chocolate tasting experiment is conducted in which seven milk-chocolates are sampled by 402 subjects, first blind and then sighted. Analysis reveals how experience accrued coincides both with growing levels of spontaneous sight-based “System-1” judgement errors and a decreasing capacity to formulate quality judgements based solely on intrinsic merit. Key

results point to a high/low price-preference typology where subjects preferring expensive chocolates demonstrate a combination of strong price affectation and weaker intrinsic effects, relative to those who prefer cheaper, but identical products, or who are price-neutral. Sample distributions across this preference dichotomy appear roughly equal, suggesting that marketing-based placebo effects may be experienced by different populations at markedly different intensities. Rates of monthly chocolate consumption appear to have little effect on experienced utility.

1. INTRODUCTION

Drawing on the broader tradition of heuristics and biases (Kahneman, 2003; Kahneman, 2012; Kahneman, Slovic, & Tversky, 1982), the conceptual consumption of an extrinsic cue such as price (Ariely & Norton, 2009) has been shown to generate expectations of product utility which, through associative learning, may strengthen with experience and expertise (Priilaid & van Rensburg, 2016). This cognitive process has drawn increasing attention in the literature on non-medical placebo effects (Kenning, Hubert & Linzmajer, 2012; Plassmann, O'Doherty, Shiv, & Rangel, 2008; Plassmann & Weber, 2015; and Shiv, Carmen & Ariely, 2005), where, through classical conditioning, it is theorised that extrinsic cues are co-opted as heuristic enablers marshalled in the process of System 1 type judgements (Morewedge & Kahneman, 2010).

Proceeding from the above, and employing the findings of a blind and sighted tasting experiment of milk-chocolate, this study seeks to understand more about the conditions under which "System-1" type judgement errors are likely to occur, and how, in the consumption of food, these errors might compound with age. Two additional factors are simultaneously considered in the modeling of hedonic utility; namely: the expression of cheap versus expensive price-preferences, and rate of product consumption.

2. LITERATURE REVIEW AND PROBLEM INVESTIGATED

The literature on metacognition suggests a dual structure of rationality operated by two interlocking thought systems: the sight based "System 1" and the blind-based "System 2" (Kahneman, 2012). System 1 is ruled by involuntary processes of perception, and System 2 by premeditated operations of reasoning (Kahneman, 2003).

To deal with common-place contexts, System 1 is thought to create surface level sight-driven connotations, tendencies and preferences, which, when authorised over time by the

slower System 2, connect to become a guiding structure of more strongly entrenched principles and beliefs. System 1 operates on a basis that is rapid and inference driven with minimal conscious effort and capacity for control (Kahneman, 2012). They are habit driven and are difficult to adjust with time (Kahneman, 2003). They are consequently susceptible to systemic miscalculations of judgement, and therefore bias. Such errors can be ascribed to invisible “System 1” failures of perception, permitted, in turn, by rational “System 2” failures to identify and adjust as required (Morewedge and Kahneman, 2010). The judgement of contemporary consumers can be considered as a weighted blend of varying pieces of information. When required to gauge the merit of a product, these weightings would correlate with the mix of extrinsic and intrinsic cues currently available. Any subsequent errors of judgement are thus likely to emerge through an underweighting of some aspects of information and an overweighting of others (Morewedge and Kahneman, 2010).

Within the above context, this study thus poses three related questions:

One: with classical conditioning a function of repeated cue exposure, in the consumption of food to what extent does the magnitude of price-effect correlate with age? Studies on age-related cognitive decline (Chasseigne, Ligneau, Grau, Le Gull, Roque & Mullet, 2004; Finucane, Mertz, Slovic & Schmidt, 2005; Lemaire, Arnaud & Lecacheur, 2004; Thornton & Dumke, 2005) suggest a degree of sensory diminishment, with a corresponding and compensatory dependence on extrinsic cues such as price.

Two: in what way would a preference for either a cheap or expensively priced but identical food product impact on the experienced utility of a wider selection of such products? This question mimics that of Plassmann, O’Doherty, *et al.* (2008), whose fMRI study offered two sets of identical but differently priced wines to compare neurological preference. With expensive wines being judged as more superior in fMRI scans, and increasing degrees of neural affect being attributed solely to the influence of increasing price, Plassmann, O’Doherty, *et al.* (2008), reasoned, *inter alia*, that the experience of product utility could be attributed not only to intrinsic factors such as thirst or taste, but also to malleable extrinsic factors such as price. Citing the output of further more recent experimental pieces on marketing placebo effects (MPE) by de Araujo *et al.* (2005) and Kirk, Skov, Hulme, Christensen, & Zeki (2009), Plassmann & Weber (2015, 5) argue that “across domains and marketing actions, expectancy manipulations are associated with changes in neural activity linked to consumption-related processing in the brain, ruling out the hypothesis that expectancy simply reflect demand characteristics or report biases.”

Three: *how does the rate of product consumption impact on experienced utility?* The lessening capacity to experience pleasure, or anhedonia, is identified in those presenting with substance abuse disorders (Janiri, Martinotti, Dario, Reina, Paparello, Pozzi, Addolorato, Di Giannantonio & De Risio, 2005), with chronic exposure being held as the chief contributing factor responsible for this condition (Koob & Le Moal, 1997). This is a consequence of pathological failure in the brain's reward system following persistent episodes of substance abuse (Berridge, 2007; Koob & Le Moal, 1997; and Redish, 2004). Cheetham, Allen, Yücel & Lubman, (2010) suggest that anhedonia may result in a hypersensitivity to substance-connected cues (like price), and an inability to respond normally to natural rewards. Crucially, they suggest that anhedonia might present pre-morbidly, stating that "instead of frequent exposure to the effects of substances inducing anhedonia, individuals who show a lower pre-morbid activation of reward circuitry (and decreased responsiveness to natural reinforcers) might seek out high risk hedonic experiences such as substance use".

The following section presents the experimental method and a description of the data employed. The empirical findings are then laid out, with a discussion of the implications concluding the paper.

3. HYPOTHESES

In the light of the three problems outlined above, *ex ante*, the following hypotheses apply:

1. H₁: as a manifestation of excessive over-learning, price-errors are likely to correlate either with increasing cue exposure over time, or the diminishment of rational thought systems, or both (Berke, 2003; Berridge, 2007; Montague, Hyman & Cohen, 2004).
2. H₂: stated price-preference will serve as global markers of inherent levels of individual price bias. Here, for example, an affinity for cheaper products would suggest that we are generally less persuaded by price information relative to those with more expensive tastes, and vice-versa. Given these potential outcomes, this study proposes the formalisation of a generic price-preference typology.
3. H₃: expressions of experienced pleasure will diminish with increasing rates of consumption.

4. RESEARCH METHOD

For this analysis 402 subjects (168 males; 234 females) participated in a causal two-stage pre-experimental blind-to-sighted tasting of milk chocolate aimed to interpret the affect of certain price treatments on reported utility. Stage one involved the consecutive sampling of eight chocolates with the only information offered to participants being the nature of the product; that being milk chocolate. Participation in the experiment was voluntary with no offer of payment. To dissuade subjects from guessing the line-up of the second sighted round, one of the eight chocolates tasted blind was eliminated and the sequence of those remaining chocolates to be sampled sighted was changed. All chocolate samples were grated to negate the presence of any branding apparent on the product surface. Samples of two grams per each chocolate were then served in clear shot-glasses at room temperature. Between rounds, wafer biscuits were offered to neutralize the palate.

By order of price-per 100 grams, the seven chocolate products sampled sighted were R6.48 (Beacon), R9.99 (Nestlé), R12.55 (Cadbury's), R23.33 (Lindt), R27.43 (C'ôte D'Or), R31.99 (Frey), and R35.85 (Cadbury's), respectively. (At the time of sampling, the Rand stood at R8.90 to the U.S Dollar.) Note that two of the seven chocolates were identical: the real R12.55 Cadbury's and the identical but fictionally priced R35.85 version. By increasing the second Cadbury's price but keeping intrinsic merit constant, it could be determined whether consumers preferred lower or higher priced versions of the same chocolate.

Following the blind round one, by means of a questionnaire, each subject provided information on (a) gender, (b), years of eating chocolate, and (c) how often per month they tasted chocolate. Details regarding these and other descriptive statistics pertinent to the study are presented below in Table 1.

Table 1: Descriptive statistics. Total participants: 402: 168 males, 234 females. Prices in ZA Rands.

	Sighted tasting scores	Blind tasting scores	Price of chocolate per 100 g.	Years of eating chocolate	Chocolate tastings per month
Mean	3.29	3.38	21.09	28.48	5.15
Median	3.5	3.5	23.33	24	6
Mode	3.5	4	-	20	7
Standard Deviation	1.18	1.15	11.49	16.06	1.84
Excess Kurtosis	0.10	0.23	-1.93	0.48	-0.68
Skewness	-0.67	-0.80	-0.05	0.98	0.66
Range	5	5	29.37	85	6
Minimum	0	0	6.48	2	1
Maximum	5	5	35.85	87	7
Count	2814	2814	7	402	402

Subjects were allocated to age bands representative of their year's of chocolate eating experience. The bands run as follows: "years 2-11" n=266 (7x38), "years 12-21" n=987 (7x141), "years 22-39" n=889 (7x127), "years 40-55" n=476 (7x68), "years 56-60" n=84 (7x12), "years 61-69" n=56 (7x8) and "years 70-plus" n=56 (7x12). For consumption rate, variations read: "1 per month" n=133 (7x19) "2-to-4 per month" n=854 (7x122), and "5-to-7 per month" n=1827 (7x261).

A self-reporting eleven point Likert scale with half-point calibrations, ranging between zero ("worst possible") and five ("best possible") was employed. Aggregating the assessment scores of each of the seven chocolates scored blind and sighted by each of the 402 participants, together with the respective data from their self-administered questionnaires, a final dataset of 2814 (7x402) paired chocolate assessments was assembled.

Through (1) the omission of contending extrinsic cues such as brand-name, logo and retailer, (2) the control of first round blind scores in the second sighted round of assessments, and (3) the conducting of tests to assess the impact of potential order effects and cases of individual-subject-bias, tests were conducted to determine the potential impact of price-cues on blind and sighted scores across the seven afore-cited consecutive year bands of tasting experience.

4.1. Preliminary Analysis and Model Specification

In Table 2's Spearman matrix (overleaf), a strong positive correlation (0.35, $p=0.00$) is observed between sighted and blind assessments. As anticipated, price is the second strongest correlate at 0.16 ($p=0.00$), indicating some degree of price affect on sighted assessments. A significant mild-negative correlation between price and blind scores (-0.06, $p=.00$) suggests that subjects are negative-to-price-neutral when tasting blind, and that these two variables may help explain sighted assessments without risk of multicollinearity.

While the potential presence of price errors is verified in the previously noted price-to-sighted correlate of 0.16, broad variation around this figure is confirmed by running Spearman price correlations with blind and sighted scores across the seven selected age bands (see Table 3 overleaf). Crucially it should be observed how, in the main, price-to-sighted correlates strengthen progressively with age. All but the youngest (0.05 for 2-to-11 years, $p=0.39$) and oldest (0.22 for 70 years plus, $p=0.11$) of these seven correlations are significant at the 95% confidence level.

Table 2: A correlation matrix using observations across the entire dataset (n=1016).
 **: Correlation is significant at the 0.01 level (2-tailed).

		Sighted Rating	Blind Rating	Price	Years of Eating	Tastings per week
Sighted Rating	Correlation Coefficient	1				
Blind Rating	Correlation Coefficient	0.35**	1			
	Sig. (2-tailed)	0.00				
Price	Correlation Coefficient	0.15**	-0.06	1		
	Sig. (2-tailed)	0.00	0.00**			
Years of Eating	Correlation Coefficient	-0.06**	-0.07	0.00	1	
	Sig. (2-tailed)	0.00	0.00**	1		
Monthly Consumption	Correlation Coefficient	0.03	0.00	0.00	0.06**	1
	Sig. (2-tailed)	0.08	0.65	1	0.00	

Table 3: Overview of the sight-to-price and blind-to-price Spearman correlation coefficients across the meta-sample and the 7 taster experience bands (n=7x402=2814). The top row of blind correlations includes all seven prices, the middle row excludes the “fictitious” R35.85 price point, and is arguably more realistic. *: Correlation is significant at the 0.05 level (2-tailed). **: Correlation is significant at the 0.01 level (2-tailed).

Spearman correlation coefficients	Meta model	Years of Chocolate Consumption						
		1. 2-to-11	2. 12-to-21	3. 22-to-39	4. 40-to-55	5. 56-to-60	6. 61-to-69	7. 70 plus
Blind to Price correlation All prices (n=7)	-0.06	-0.16*	-0.06	-0.05	-0.03	-0.13	-0.06	-0.03
<i>Two-tail P-Value</i>	0.00**	0.01	0.06	0.16	0.56	0.24	0.66	0.83
Blind to Price correlation All regular prices (n=6)	-0.27	-0.39**	-0.29**	-0.25**	-0.21**	-0.37**	-0.27	-0.02
<i>Two-tail P-Value</i>	0.00**	0.00	0.00	0.00	0.00	0.00	0.06	0.88
Sighted to Price correlation	0.16**	0.05	0.15**	0.16**	0.23**	0.38**	0.34**	0.22
<i>Two-tail P-Value</i>	0.00	0.39	0.00	0.00	0.00	0.00	0.01	0.11
n	2814	266	987	889	476	84	56	56

On blind tasting, where, with no price information, subjects across all seven year bands appear to be either weak-negative or price-neutral. At this crude level of interpretation there appears thus to be is no discernable strengthening or weakening over time, and none of the correlates are statistically significant at the 95% level of confidence. This absence of trend in blind taste-scores is not entirely unanticipated, since the cheap R12.55 and expensive R35.85 Cadbury’s chocolates are identical. However, when the fictitious R35.85 price point is removed from calculation, price aversion in lesser experienced subjects becomes markedly more discernable. This result ties with classical explanations of supply and demand: younger subjects tending to have less money, and thus buying cheaper chocolates. They are consequently likely to be more price averse than older subjects.

Proceeding from this overview, a deeper analysis is now undertaken through a series of ordinary least squares regressions. The first sequence aims to model the generic contribution of price-effect on blind (equation 1) and sighted (equation 2) assessments without any dimensional control. The second introduces such control so as to simultaneously determine the effect of price-point preference, consumption rate, and the development of price affect over time (see equations 3 and 4, respectively). In all four equations, through unreported stepwise regression pre-tests, previously identified statistically significant subject and serving order effects are fitted via dummy specifications, and then excised. (The contribution of non-significant subject and order effects is marginal

and do not affect the findings presented below.) Thereafter, through OLS regression, the statistical contribution of all remaining variables is comprehensively accounted for, whether significant or not.

The model specifications for equations 1 and 2 run as follows:

$$\text{Blind score}_i = \alpha_b + b_{b1} * \text{Price}_i + \text{order effects} + \text{subject effects} + \varepsilon_{bi} \quad \dots (1)$$

$$\text{Sighted score}_i = \alpha_s + b_{s1} * \text{Price}_i + b_{s2} * \text{Blind}_i + \text{order effects} + \text{subject effects} + \varepsilon_{si} \quad \dots (2)$$

Here:

α_b and α_s = terms for the estimated blind and sighted regression intercept.

b_{b1} and b_{s1} = the marginal contribution of price affect as applied to blind and sighted scores.

b_{s2} = the perceived marginal effects of blind scores on sighted scores.

ε_b and ε_s = the respective blind and sighted terms for residual error.

The following equations are designed to test for variance in price affect across age bands within the aggregate data, with the absolute slope of each age-band's price coefficient assessable relative to a predetermined case comparator; the specifications that follow thus allowing for the control of different age-band sample sizes, a control not possible when age segmentations are regressed independently.

The model specifications for equations 3 and 4 run as follows:

$$\begin{aligned} \text{Blind score}_i = & \alpha_b + b_{b1} * \text{Price}_i + b_{b2} D_{12-21} * \text{Price}_i + b_{b3} D_{22-39} * \text{Price}_i + b_{b4} D_{40-55} * \text{Price}_i + b_{b5} D_{56-60} * \text{Price}_i \\ & + b_{b6} D_{61-69} * \text{Price}_i + b_{b7} D_{70-plus} * \text{Price}_i + b_{b8} * \text{CPM}_i + b_{b9} D_{\text{CPM}2-4} * \text{CPM}_i + b_{b10} D_{\text{CPM}5-7} * \text{CPM}_i + b_{b11} D_{\text{BlindExp}} \\ & + b_{b12} D_{\text{BlindCheap}} + b_{b13} D_{\text{BlindExp}} * \text{Price}_i + b_{b14} D_{\text{BlindCheap}} * \text{Price}_i + b_{b15} * \text{YEC} \\ & + \text{order effects} + \text{subject effects} + \varepsilon_{bi} \quad \dots (3) \end{aligned}$$

$$\begin{aligned} \text{Sighted score}_i = & \alpha_s + b_{s1} * \text{Price}_i + b_{s2} * \text{Blind}_i + b_{s3} D_{12-21} * \text{Price}_i + b_{s4} D_{22-39} * \text{Price}_i + b_{s5} D_{40-55} * \text{Price}_i \\ & + b_{s6} D_{56-60} * \text{Price}_i + b_{s7} D_{61-69} * \text{Price}_i + b_{s8} D_{70-plus} * \text{Price}_i + b_{s9} D_{12-21} * \text{Blind}_i + b_{s10} D_{22-39} * \text{Blind}_i \\ & + b_{s11} D_{40-55} * \text{Blind}_i + b_{s12} D_{56-60} * \text{Blind}_i + b_{s13} D_{61-69} * \text{Blind}_i + b_{s14} D_{70-plus} * \text{Blind}_i + b_{s15} D_{\text{BlindExpSighExp}} \\ & + b_{s16} D_{\text{BlindExpSightN}} + b_{s17} D_{\text{BlindExpSightCheap}} + b_{s18} D_{\text{BlindNSightExp}} + b_{s19} D_{\text{BlindNSightCheap}} + b_{s20} D_{\text{BlindCheapSightExp}} \\ & + b_{s21} D_{\text{BlindCheapSightN}} + b_{s22} D_{\text{BlindCheapSightCheap}} + b_{s23} D_{\text{BlindExpSighExp}} * \text{Price}_i + b_{s24} D_{\text{BlindExpSightN}} * \text{Price}_i \\ & + b_{s25} D_{\text{BlindExpSightCheap}} * \text{Price}_i + b_{s26} D_{\text{BlindNSightExp}} * \text{Price}_i + b_{s27} D_{\text{BlindNSightCheap}} * \text{Price}_i \\ & + b_{s28} D_{\text{BlindCheapSightExp}} * \text{Price}_i + b_{s29} D_{\text{BlindCheapSightN}} * \text{Price}_i + b_{s30} D_{\text{BlindCheapSightCheap}} * \text{Price}_i \\ & + b_{s31} D_{\text{BlindExpSighExp}} * \text{Blind}_i + b_{s32} D_{\text{BlindExpSightN}} * \text{Blind}_i + b_{s33} D_{\text{BlindExpSightCheap}} * \text{Blind}_i + b_{s34} D_{\text{BlindNSightExp}} * \text{Blind}_i \\ & + b_{s35} D_{\text{BlindNSightCheap}} * \text{Blind}_i + b_{s36} D_{\text{BlindCheapSightExp}} * \text{Blind}_i + b_{s37} D_{\text{BlindCheapSightN}} * \text{Blind}_i \\ & + b_{s38} D_{\text{BlindCheapSightCheap}} * \text{Blind}_i + b_{s39} * \text{CPM}_i + b_{s40} D_{\text{CPM}2-4} * \text{CPM}_i + b_{s41} D_{\text{CPM}5-7} * \text{CPM}_i + b_{s42} * \text{YEC} \\ & + \text{order effects} + \text{subject effects} + \varepsilon_{si} \quad \dots (4) \end{aligned}$$

Here:

D_{12-21} = 1 if year-band 12-to-21 years, 0 if otherwise.

D_{22-39} = 1 if year-band 22-to-39 years, 0 if otherwise.

$D_{40-55} = 1$ if Year-band 40-to-55 years, 0 if otherwise.

$D_{56-60} = 1$ if year-band 56-to-60 years, 0 if otherwise.

$D_{61-65} = 1$ if year-band 61-to-69 years, 0 if otherwise.

$D_{70-plus} = 1$ if year-band 70-plus, 0 if otherwise.

b_{b1} and b_{s1} as previously defined: now expressing the relationship for those with 2 to 11 years of experience, serving as the base-case where: $D_{12-21}=D_{22-39}=D_{40-55}=D_{56-60}=D_{61-65}=D_{70-plus}=0$.

Within blind scores the coefficients b_{b2} , to $b_{b7} =$ the perceived marginal price-effects on those aged between 12-to-21, 22-to-39, 40-to-55, 56-to-60, 61-to-69, and 70 years or more.

Within sighted scores the coefficients b_{s3} to $b_{s8} =$ the respective perceived marginal effects of price on those aged between 12-to-21, 22-to-39, 40-to-55, 56-to-60, 61-to-69, and 70 years or more, and the coefficients b_{s9} , to $b_{s14} =$ the corresponding marginal effects of blind assessments.

$D_{CPM2-4} = 1$ if subject tastes chocolates 2 to 4 times per month, 0 if otherwise.

$D_{CPM5-7} = 1$ if subject tastes chocolates 5 to 7 times per month, 0 if otherwise.

Within blind and sighted scores, the respective b_{b8} , and b_{s36} coefficients describe consumption effects relating to amounts of chocolates tasted per month (CPM). In turn, where subjects taste just one chocolate monthly, b_{b8} , and b_{s39} serve as the base-case consumption band, when $D_{CPM2-4}=D_{CPM5-7}=0$. Thus coefficients b_{b9} and b_{b10} and b_{s40} and b_{s41} equate to the corresponding marginal effects of 2-to-4 and 5-to-7 chocolates tasted monthly, either blind or sighted.

In the case of blind tasting; to gauge the hedonic consequences of preferring either the cheap (R12.55) or expensive (R35.85) Cadbury's chocolate:

$D_{BlindExp} = 1$ if subject preferred the expensive identical chocolate, 0 if otherwise, and

$D_{BlindCheap} = 1$ if subject preferred the cheaper identical chocolate, 0 if otherwise.

Thus, relative to the hedonic constant α_b , coefficients b_{b11} , and b_{b12} respectively represent the perceived marginal utility of preferring the expensive or cheap Cadbury's chocolate. In turn, therefore, b_{b13} , and b_{b14} thus represent expensive and cheap marginal pricing effects relative to the b_{b1} base-case for price where subjects were price-neutral; judging both chocolates as being of same quality.

Preference-options complexify the sighted tasting specifications required by the combination of three sighted chocolate price-preferences (being cheap, neutral, or expensive), overlaid with the three similar preferences for blind; this yielding a 3x3 preference-combination matrix (see later Table 4). Employing as base-case comparator

the “blind-price-neutral/sighted-price-neutral” option, (thus expressed as α_b , the hedonic constant), the remaining eight options are specified below:

$D_{BlindExpSighExp} = 1$ if price-expensive in both blind and sighted assessments, 0 if otherwise,

$D_{BlindExpSightN} = 1$ if price-expensive blind and price-neutral sighted, 0 if otherwise,

$D_{BlindExpSightCheap} = 1$ if price-expensive blind, and price-cheap sighted, 0 if otherwise,

$D_{BlindNSightExp} = 1$ price-neutral blind, and price-expensive sighted, 0 if otherwise,

$D_{BlindNSightCheap} = 1$ if price-neutral blind, and price-cheap sighted, 0 if otherwise,

$D_{BlindCheapSightExp} = 1$ if price-cheap blind and price-expensive sighted, 0 if otherwise,

$D_{BlindCheapSightN} = 1$ if price-cheap blind and price-neutral sighted, 0 if otherwise,

$D_{BlindCheapSightExp} = 1$ if price-cheap in both blind and sighted assessments, 0 if otherwise.

Thus, relative to the α_s base-case where subjects were price-neutral in both blind and sighted assessments, coefficients b_{s15} to b_{s22} signify the perceived marginal utility of the eight price-preference options specified above. It follows too that coefficients b_{s23} to b_{s30} , and b_{s31} to b_{s38} equate to the respective pricing and blind effects of each of the eight preference permutations above, this time relative to the (b_{s1}) price and (b_{s2}) blind-merit base-case subjects ($n=21$); all price neutral in both their blind and sighted tastings of Cadbury’s chocolate. Finally, b_{b15} and b_{s42} = the impact of years eating chocolate (YEC) in blind and sighted scores.

Following an initial exploration of the output derived from these four equations, additional models are developed to improve upon and further characterise the price-preference typology presented above. For reasons of flow and logic, a fuller rationale and elaboration of these models is presented at the conclusion of the results section that follows.

5. RESULTS

This section presents the models explaining blind and sight-based assessments as specified in equations 1 to 4 with underpinning t statistics.

5.1 Blind models

5.1.1 Basic blind-based model.

As per equation 1, the following regression models blind scores without any experience, consumption or price-preference-based controls.

$$\text{Blind score}_i = 3.77 - 0.0151 \cdot \text{Price}_i + 3 \text{ order-effects} + 56 \text{ subject-effects.} + \varepsilon_{bi}$$

$$t \text{ statistic: } \quad (74.71) \quad (-6.35)$$

In this model we observe a negative price affect -0.0151 ($t=-6.35$), confirming the initial blind-to-price correlation of -0.06 . 56 cases of statistically significant subject bias are

observed along with three order effects, namely: the R35.85 order three chocolate (coefficient: 0.81, $t=12.12$), the R31.9 order four chocolate (-1.06, $t=-18.76$), and the R27.43 order five chocolate (0.20, $t=3.53$). (Model statistics: $Adj R^2$: 33.85%, F : 25.00 $p=0.0000$).

5.1.2 Blind-based model: fully specified.

As per equation 3, the following fully specified blind-based model follows thus:

$$\begin{aligned}
 \text{Blind score}_i = & 4.31 - 0.0256.Price_i + 0.0042.D_{12-21}.Price_i + 0.0043.D_{22-39}.Price_i + 0.0058.D_{40-55}.Price_i \\
 t \text{ statistic: } & (30.59) \quad (-5.25) \quad (1.44) \quad (1.31) \quad (1.31) \\
 & + 0.0067.D_{56-60}.Price_i + 0.0251.D_{61-69}.Price_i + 0.0202.D_{70-plus}.Price_i - 0.03.CPM_i - 0.08.D_{CPM2-4}.CPM_i \\
 & (0.99) \quad (3.30) \quad (2.46) \quad (-1.14) \quad (-0.76) \\
 & + 0.06.D_{CPM5-7}.CPM_i - 0.54.D_{BlindExp} + 0.23.D_{BlindCheap} + 0.0163.D_{BlindExp}.Price_i - 0.0150.D_{BlindCheap}.Price_i \\
 & (0.41) \quad (-5.48) \quad (1.95) \quad (3.98) \quad (-3.07) \\
 & - 0.0064 * YEC + 3 \text{ order-effects} + 56 \text{ subject-effects.} + \epsilon_{bi} \\
 & (-2.86)
 \end{aligned}$$

Inspecting the output above, with fully specified dimensional control, we now observe the distribution of price-effects across time. Relative to the -0.0256 ($t=-5.25$) price coefficient base-case of the youngest “2-to-11 years” segment, the additional price-effects read as: -0.0214 (-0.0256+0.0042) ($t=1.44$) for “12-to-21 years”, -0.0213 (-0.0256+0.0043) ($t=1.31$) for “22-to-39 years”, -0.0198 (-0.0256+0.0058) ($t=1.31$) for “40-to-55 years”, -0.0189 (-0.0256 +0.0067) ($t=0.99$) for “56-to-60 years”, -0.0004 (-0.0256+0.0252) ($t=3.30$) for “61-to-69 years” and -0.0054 (-0.0256+0.0202) ($t=2.46$) for “70-plus years”. Between youngest and oldest, from -0.0256 to -0.0054, the increase in price-effect is 20.2 basis points. Using a R25 increment in chocolate price, this equates to a blind score difference of 0.5. With blind tastings void of any cue bias, the shift in score is likely to be due to some form of experience and income-driven change in palate preference over time. Over-interpretation should be avoided here however, since the R12.55 and R35.85 chocolates are identical, and three of the seven bands are statistically insignificant even at the 80% level of confidence.

A further price-effect is observed when comparing levels of blind price-quality discernment between those preferring the cheap R12.55 chocolate (coefficient = -0.0406 (-0.0256-0.0150) ($t=-3.09$)), versus those preferring the expensive R35.85 one (-0.0093 (-0.0256+0.0163) ($t=3.98$)). This cheap/expensive price-preference also has hedonic consequences, with those preferring the cheap chocolate increasing their blind assessment by 0.23 ($t=1.95$), and those preferring the expensive one decreasing theirs by 0.54 ($t=-5.48$), a remarkable swing of 0.87. The experience over years spent eating

chocolate also affects blind assessments, reducing pleasantness by -0.0064 ($t=-2.86$) points per annum. A child with ten years experience (-0.064) versus an aged adult with 50 years (-0.32) demonstrates a swing of -0.25 in time. At the 74% level of statistical confidence, consumption effects are also detected (coefficient = -0.0267, $t=0.26$), decreasing levels of affect by 0.19 in extreme instances of 7 units per month. The same three order and 57 subject effects are also observed here. (Model statistics: *adjusted-R*²: 35.91%, *F*: 22.29, $p=.0000$).

5.2 Sighted models

5.2.1 Basic sight-based model.

As per equation 2, the output below models sighted scores without experience, consumption, or experience controls.

$$\text{Sighted score}_i = 1.82 + 0.30.\text{Blind rating}_i + 0.0246.\text{Price} + 3 \text{ order effects} + 26 \text{ subject controls} + \varepsilon_{si}$$

t statistic: (22.40) (16.57) (13.06)

With the 1.82 hedonic-constant ($t=22.40$), every increment in the intrinsic “blind” score is likely to increase a sighted assessment by 0.3; a 3.0 blind rating yielding a 2.72 sighted assessment, *ceteris paribus*. A significant positive price-affect is also observable: 0.0246 ($t=13.06$). Finally, along with 26 subject effects, three order effects are also observed: the R23.33 order one chocolate (0.22, $t=3.92$), the R27.43 order four (coefficient: -0.81, $t=-14.20$), and the R12.55 order seven (0.29, $t=5.04$). (Model statistics: *adjusted R*²: 30.60%, *F*: 41.02, $p=0.0000$).

5.2.2 Sight-based model: fully specified.

The fully specified sight-based model (equation 4) runs as follows:

$$\begin{aligned} \text{Sighted score}_i = & 1.25 + 0.67.\text{Price}_i + 0.60.\text{Blind}_i + 0.0127.D_{12-21}.\text{Price}_i + 0.0179D_{22-39}.\text{Price}_i \\ \text{t statistic:} & \quad (3.44) \quad (0.80) \quad (7.67) \quad (2.66) \quad (3.65) \\ & + 0.0223.D_{40-55}.\text{Price}_i + 0.0253.D_{56-60}.\text{Price}_i + 0.0185.D_{61-69}.\text{Price}_i + 0.0168.D_{70-plus}.\text{Price}_i \\ & \quad (4.01) \quad (2.90) \quad (1.68) \quad (1.49) \\ & - 0.04.D_{12-21}.\text{Blind}_i - 0.11.D_{22-39}.\text{Blind}_i - 0.16.D_{40-55}.\text{Blind}_i - 0.19.D_{56-60}.\text{Blind}_i - 0.16.D_{61-69}.\text{Blind}_i \\ & \quad (-1.27) \quad (-3.36) \quad (-3.79) \quad (-3.12) \quad (-2.07) \\ & - 0.13.D_{70-plus}.\text{Blind}_i - 0.09.D_{\text{BlindExpSightExp}} + 0.55.D_{\text{BlindExpSightN}} + 1.31.D_{\text{BlindExpSightCheap}} + 0.35.D_{\text{BlindNSightExp}} \\ & \quad (-1.56) \quad (-0.25) \quad (1.39) \quad (3.60) \quad (0.85) \\ & + 1.33.D_{\text{BlindNSightCheap}} + 0.26.D_{\text{BlindCheapSightExp}} + 0.41.D_{\text{BlindCheapSightN}} + 0.60.D_{\text{BlindCheapSightCheap}} \\ & \quad (2.43) \quad (0.62) \quad (0.92) \quad (1.36) \\ & + 0.0185.D_{\text{BlindExpSighExp}}.\text{Price}_i - 0.0158.D_{\text{BlindExpSightN}}.\text{Price}_i - 0.0330.D_{\text{BlindExpSightCheap}}.\text{Price}_i \\ & \quad (2.39) \quad (-1.72) \quad (-4.07) \\ & + 0.0325.D_{\text{BlindNSightExp}}.\text{Price}_i - 0.0268.D_{\text{BlindNSightCheap}}.\text{Price}_i + 0.0322.D_{\text{BlindCheapSightExp}}.\text{Price}_i \\ & \quad (3.84) \quad (-2.44) \quad (3.58) \end{aligned}$$

to 0.47. ($t=-1.56$). Thus across these outer age-segments, a blind assessment of 2.5 computes a sighted score difference of 0.33 (1.5 versus 1.17), *ceteris paribus*.

Table 4: Overview of equation 4’s sighted price, blind and quality effects, each based on the nine preference scenarios configured by blind and sighted assessments of cheap and expensive Cadbury’s chocolates. The central “blind-neutral/sighted-neutral” preference scenario serves as the base case (#) with a price coefficient of 0.0067 (t -stat: 0.81, standard error: 0.0084), a blind coefficient of 0.060 (t -stat: 7.67, standard error: 0.08) and a 1.25 sighted quality coefficient (t -stat: 7.67, standard error: 0.36). Standard errors appear in parenthesis. (*: coefficient is significant at the 0.1 level; **: coefficient significant at the 0.05 level; ***: coefficient is significant at the 0.01 level (all 2-tailed).)

Total N = 2841		Sighted Preferences			Total:	
		Sighted Cheap <i>Prefers R12.35</i>	Sighted Neutral <i>Rated the same</i>	Sighted Expensive <i>Prefers R35.85</i>		
Blind Preferences	Blind Expensive <i>Prefers R35.85</i>	Price Effects	-0.0330*** (0.0078)	-0.0158* (0.0091)	0.0185** (0.0084)	
		Blind Effects	-0.21*** (0.08)	-0.10 (0.09)	-0.21*** (0.08)	
		Quality Effects	+1.31*** (0.37)	+0.55 (0.40)	-0.09 (0.36)	
		N	71x7=497	33x7=231	116x7=812	1540
	Blind Neutral <i>Rated the same</i>	Price Effects	-268** (0.00110)	Base Case#	+0.0325*** (0.0084)	
		Blind Effects	-0.20* (0.12)	Base Case# ***	-0.44*** (0.09)	
		Quality Effects	+1.33** (0.55)	Base Case# ***	+0.35 (0.41)	
		N	16x7=112	21x7=147#	54x7=378	637
	Blind Cheap <i>Prefers R12.35</i>	Price Effects	-0.0212** (0.0097)	-0.00132 (0.0101)	+0.0322*** (0.0090)	
Blind Effects		-0.08 (0.10)	-0.08 (0.10)	-0.39*** (0.09)		
Quality Effects		+0.60 (0.44)	+0.41 (0.45)	+0.26 (0.41)		
	N	27x7=189	23x7=161	41x7=287	637	
Total:		798	539	1477	2814	

Quality assessment consequences of cheap-versus-expensive price-preferences are also discernable across the nine price-preference scenarios. Tabled in the same 3x3 preference-format (see again Table 4), as with blind effects, observe that the spread of quality effects appear to correlate mildly, negatively and in most cases weakly with a preference for more expensive product.

The model output also offers evidence that sighted scores correlate with monthly rates of consumption, the 0.046 consumption coefficient ($t =2.00$) indicative of a linear increase in utility of over time. This is off-set by a -0.01 decrease ($t=-0.98$) for consumption rates of 2- to-4 monthly units, and -0.21 decrease ($t=-1.42$) for 5 to 7 monthly units. (Note that these effects are statistically weak-to-medium in significance, and, at rates of consumption of 1 to 7 units monthly, do not appear have any significant influence on hedonic utility). This is

similarly so with the affect of years of consumption experience on hedonic utility. The effect is marginal (coefficient=0.0028 per annum) and statistically insignificant ($t=0.83$).

Finally, the same 3 order and 57 subject effects of equation 2 are also observable here, with significance in the same order of magnitude. (Model statistics: *adjusted-R*²: 40.81%, *F*: 28.32, $p=.0000$).

5.3. Towards a refined price-preference format

From the output presented from equation 4 emerges an important question relating to the nine expensive/neutral/cheap price-choice scenarios variously expressed by the 402 subjects in this study. The question is this: observing the correlation between price bias and a preference for expensive goods, to what extent does this condition hold as a generalised phenomenon *independent* of the product assessment data that determined this condition? To answer this question, further tests were conducted on a sub-sample of the data unaffected by the choices regarding the cheap and expensive Cadbury's chocolates. Through the removal of the (402x2=804) assessment scores relating to these two identical chocolates, obfuscatory preference-effects could be isolated. Further tests were thus applied to the unaffected non-Cadbury's sample (402x5=2010) to determine whether the initial 3x3 price-preference typology (or any diminished version thereof) would hold as an indiscriminate basis for predicting non-biased price-preference effects. The most successful of these tests proposes a basic two-cell "expensive versus cheap-or-price-neutral" discriminative format; whereby subjects were cast as either having chosen the expensive R35.85 chocolate, or having not. In this five-chocolate model a statistically significant high-versus-not-high price-preference dichotomy was shown to persist *irrespective* of the absence of Cadbury's data: high preference price coefficient: 0.0273 ($t=8.60$), not low or neutral preference price coefficient: 0.0077 ($t=2.60$); high preference blind coefficient: -0.27 ($t=-13.06$), not low or neutral preference blind coefficient: 0.47 ($t=20.78$). (Model-statistics: *adjusted-R*²: 37.26%, *F*: 25.85, ($p=.0000$), $n=2010$).

As a further enhancement, this basic 2x1 preference-format was now applied to the seven-chocolate sample ($n=2814$) (now equation 5) to simultaneously model the spread of both intrinsic effects and price-effects across (a) the new "expensive" versus "not expensive" choice categories and (b) the exiting seven cited age bands. To accomplish this, additional specifications were required, namely: $HP=1$ if price-preference is high, 0 if otherwise, and $LP=1$ if price-preference is low or price-neutral, 0 if otherwise (used to replace the earlier 3x3 blind-to-sighted price-choice specifications); $D_{2-11}=1$ if year-band 2-to-11 years, 0 if otherwise; and those in the "LP category with 11 years or less chocolate eating experience"

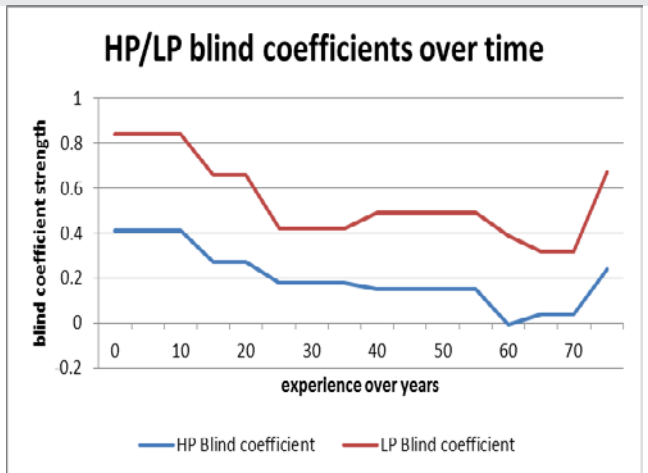
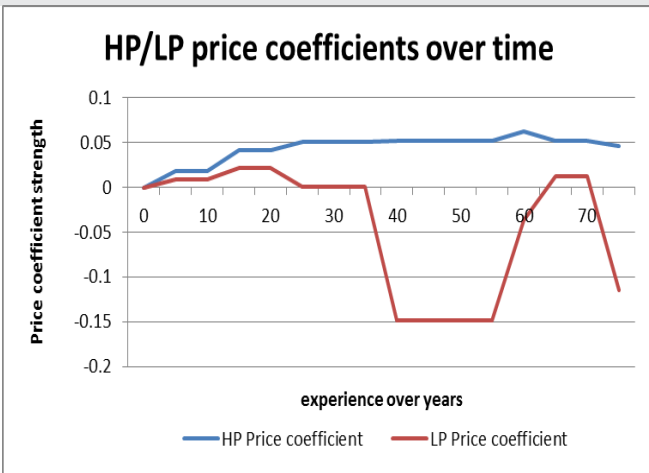
Proceeding from the models outlined above, and with Table V summarising the spread of HP and LP price and blind effects across experience bands, a number of discussion points emerge.

Firstly, and fundamentally, findings confirm that price, as an extrinsic cue, does indeed affect the way we experience food. The specification of price as a placebo appears valid in this analysis, with related affects deepening over time through ongoing associative learning. In equation four's meta-analysis of sighted scores, price-effects grow in strength and significance, from the base-case coefficient of 0.0067 ($t=0.80$) for those with between 2 and 11 years tasting experience, to a peak of 0.0320 ($t=2.90$) for those with between 56 and 60 years. From 61 years onwards however there is evidence of some decline in coefficient strength, with those 70 years and older tapering off at 0.0235 ($t=1.47$).

Secondly, a proportionate inversion of this pattern is witnessed across the year-bands of blind assessments. From the 2-to-11 year base-case blind coefficient of 0.60 ($t=7.69$), reliance on intrinsic merit reduces progressively to a low of 0.41 ($t=-3.12$) for those with between 56 and 60 years. Again this changes from 61 years onwards, strengthening to a coefficient of 0.47 ($t=-1.56$) for those with 70 years or more experience. As with Priilaid & Van Rensburg (2016), certain price-effects appear to be embedded within these blind scores, and hence effectively controlled for in the sighted. These price coefficients are negative across all blind-based experience bands, but appear *also* to increase with time, peaking at -0.0004 ($t=3.30$) for those with between 61 and 69 years of tasting experience. With no price information, blinded subjects appear thus to prefer cheaper chocolates, though this preference is shown to increasingly reduce: the propensity to purchase more expensive chocolate generally correlating with increases in age and affordability. Caution should be applied in this analysis however, since, as previously noted, the R35.85 price treatment is fictively applied to a twin sample of R12.85 chocolates, and only one of the seven bands are statistically significant above the 95% level of confidence, with three more at the 80% level of confidence.

Table V: Sight-based HP and LP price and blind coefficients derived from equation 5. HP = high price preference (R35.85, $n=7 \times 211=1477$), LP = low price preference (R12.55), or price-neutral ($n=7 \times 191=1337$). With respect to LP and HP price preferences, Panel A outlines the difference between the base-case and the remaining 13 sighted price-coefficients across year-bands of chocolate eating experience. Similarly, over the same year-span, in Panel B observe the commensurate decrease of (blind) intrinsic quality. Both effects are graphically illustrated in Panel C. (*: coefficient is significant at the 0.1 level; **: coefficient significant at the 0.05 level; ***: coefficient is significant at the 0.01 level (all 2-tailed).)

Years of Chocolate Consumption (Equation 5)							
Base-case: 2 to 11 years / Price preference: low & price-neutral Price coefficient: -0.0098, t-stat: -1.71; Blind coefficient: 0.43 ^{***} , t-stat: 10.53							
Year Bands :	2-to-11	12-to-21	22-to-39	40-to-55	56-to-60	61-to-69	70 plus
<i>Panel A: Price coefficients across age bands.</i>							
HP price coefficient	0.0280 ^{***}	0.0514 ^{***}	0.0600 ^{***}	0.0612 ^{***}	0.0726 ^{***}	0.0615 ^{***}	0.0553 ^{***}
t-stat	3.12	7.67	8.99	8.24	6.71	4.51	3.70
LP price coefficient	Base-case	0.0054	0.0020	0.0166 ^{**}	0.0183	0.0120	0.0134
t-stat	Base-case	0.88	0.30	2.19	1.29	0.64	0.78
<i>Panel B: Blind coefficients across age bands.</i>							
HP Blind coefficient	-0.02	-0.16 ^{***}	-0.25 ^{***}	-0.28 ^{***}	-0.44 ^{***}	-0.39 ^{***}	-0.19 [*]
t-stat	-0.31	-3.13	-5.04	-5.12	-5.68	-3.99	-1.84
LP Blind coefficient	Base-case	-0.01	-0.04	-0.19 ^{***}	-0.09	-0.03	-0.15
t-stat	Base-case	-0.36	-0.92	-3.09	-0.90	-0.20	-1.14
<i>Panel C: Graphic depiction of HP and LP price and blind coefficient distributions across age bands.</i>							



Thirdly, the combined effect of these diminishing blind and growing price-effects fits well with the cognitive dual-process format as per Morewedge & Kahneman (2010), and confirms the Mata, Schooler & Rieskamp conjecture (2007:798) that neuro-affective cognition is adaptive by nature. Witnessed in younger age bands, the results of this study demonstrate the early predominance of System 2 judgements (proxied here by blind scores), with the immature System 1 still learning, through association, to twin quality with the extrinsic price cue. Through the onset of price experience, however, and later, through age-related sensory diminishment, this asymmetrical dynamic appears to invert, with cue-driven System 1 shortcuts increasingly compensating for the declining System 2 capabilities of older adults. This interpretation fits well with Sladek *et al.* (2010), who demonstrated the decreasing need for rational thought with time, and with similar pieces

by Chasseigne, Ligneau, *et al.* (2004), Finucane, Mertz, *et al.* (2005), and Priilaid & van Rensburg (2016).

The *fourth*, and perhaps most significant finding relates to the expression of preference for expensive versus cheaper chocolates. Following further tests based on insights derived from the fully specified sighted equation 4, a dichotomous price-preference-framework was established separating those HP candidates who, on sighted tasting, preferred the more expensive though identical Cadbury's chocolate, from those LP candidates who did not. When applied to the dataset stripped of the indicative Cadbury's scores (data now reduced to n=2010), the preference framework offered significantly different price and blind affect-scores across the HP and LP segmentations. Having established efficacy in an unbiased sample, the LP/HP preference framework was then reapplied to the entire dataset. On this analysis it became clear that placebo formats decomposed into two distinct sub-populations: HP subjects (52%) with significantly strong price-effects and correspondingly weak blind effects, and LP subjects (48%) with shallow and mostly insignificant placebo-to-blind effects. These differences are profiled in Table V, where Panel C graphically contrasts LP and HP scores over time. On the basis of these results it would seem that approximately half the population appears particularly sensitive to price-placebos, these subjects being identified by a preference for expensive goods where cheaper substitutes are equally available. This finding suggests perhaps that marketing-type placebo effects are not ubiquitously experienced across all population samples, but rather that they predominate in certain, as yet crudely defined sub-groups.

Finally this study also sought to analyse the impact of consumption rate on experienced utility. In both blind and sighted tastings, results appear marginal and mostly insignificant. It is possible that this result is due to the fairly pedestrian rates of chocolate consumption featured here (maximum seven monthly). With products such a coffee, where consumption rates can peak to an abrasive five or more cups daily, it is possible that anhedonic effects might well begin to accrue.

6. CONCLUSION

6.2. Practical managerial implications

As proxied by sighted and blind assessments, this study explores the extent to which System 1 and 2 thought processes respond to price information across dimensions of (1) experience, (2) price-preference and (3) rates of consumption. As with Priilaid and van

Rensburg (2016) this study observes marked and growing degrees of price-affect in both Systems 1 and 2. Notwithstanding the implicit blind-based price-effects probably explained by affluence-driven changes in taste-preference as we grow older, sighted scores appear particularly susceptible to price information, with systemic judgment-errors increasing steadily and significantly across consecutive year-bands. This is probably due to a combination of Pavlovian cue-conditioning and sensory diminishment over time. Strong price-preference effects are also discernable, with those preferring expensive prices evincing significantly stronger price-effects and weaker intrinsic effects than those who do not. This high/low price-preference typology suggests that vulnerability to marketing-placebos is not universal, though clinical markers have yet to be identified. Consumption rate effects prove to be negligible.

In these terms, this work extends our understanding of how chocolate consumers respond to price information and suggests that marketers of chocolate and related products aim their extrinsic cues towards older more experienced chocolate eaters. The implied narrowing of the marketing focus (as opposed to a “one size fits all” approach) would in turn propose a more specified and cost-effective approach to price-strategy actions, in particular the development of more strategic budgets as they relate to advertising and promotional actions.

Price, as it is shown, has a particular hedonic message, with the message changing in intensity depending on levels of experience. The tone, style and manner of advertorials should be adjusted accordingly. The implications of cue-based segmentation fits within the context of work by Venkatraman, Clithero, Fitzsimons and Huettel (2012) which identifies segmentation as one of the central aims for marketers. Effective segmentation, they point out, is the division of a product’s consumers into unique and relevant subsets, hitherto typically incorporating data related to demographics, geographic position, and purchase habits. More recently though, “research into cognitive and affective processes underlying consumption decisions shows that these variables can improve the matching of consumers with products beyond traditional demographic and benefit approaches” Venkatraman, et al. (2012: 143). Using the pricing of chocolate by way of example, we posit that neuro-marketing investigations of this type offer a cheap and effective means to better articulate the way consumers think about products to more conventional sources of market data.

Price cues notwithstanding, these results also suggest that intrinsic merit remains a significant component in the enjoyment of chocolate. Further investigation into what suite of intrinsic qualities are especially appreciated by chocolate eaters will be necessary in

order for brands to enhance or adapt to user preference. This will prove an important source of future differentiation.

6.2. Limitations and future research

One of the key imperatives emerging from this research is the full characterisation of the HP cluster. A generalised and HP-specific classification of exogenous and endogenous markers for predicting differential placebo outcomes is required, especially within the sub-class of non-medical placebos (see Plassmann & Weber, 2015). Potentially significant factors for examination might include genetic polymorphism, hormonal condition, levels of obesity, past periods of trauma and / or stress, behavioural patterns, record of physiological development, and patterns of familial pathology (Hunter, Cook & Leuchter, 2010; Kalivas, 2003; Volkow, Wang & Baler, 2011). Further studies could also include price-affect comparisons between food and non-food versions of consumption, as well as across preferences expressed for products derived from private, commercial or state sources. A same-subject analysis of price-based proclivity for expensive versus cheaper goods would also prove useful to extending the conclusions drawn here.

This research is subject to certain limitations due to the intangible nature of the error-constructs under study, the method of data collection and method of analysis. Because of the developing nature of research into price error manifestation, there is limited experimentally driven theory and little consensus as to the normative human response to this cue. The paucity of literature imposes limitations on the accuracy and even acceptance of the price-error construct and its measurement. In time, a better developed understanding of price-errors will allow for the development of more accurate measurement scales, and this ultimately will generate more consistent results and definitive conclusions.

Further research is also required to classify and quantify the degree to which gender, age and expertise bands interact with price information across other product classes and across other cue-types. We know little of how people respond to hedonic-type products like ice-cream and cheese for example, and little of how cues like brands, retailer and area-of-origin are differentially processed with respect to price. As with buying a painting from a Sotheby's auction in London, as opposed to a lesser branded retailer in, say, Johannesburg, touch-points within the *entire* purchase experience are likely to have a particular potency within the mind of the consumer (Thompson, 2012).

While the price errors noted here are applicable to a suite of (relatively) low priced chocolates, research should be aimed at higher priced products too. More so, comparative analyses should be also conducted between products and services as well as between private, business and state-sponsored forms of consumption. Such research would certainly expand our understanding of the price-errors show-cased here.

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THE EFFECT OF CONTENT MARKETING ON SPONSORSHIP RESPONSE

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EXTENDED ABSTRACT

In addition some authors argue that the benefits and problems associated with firm-generated content (FGC) as a key driver of sponsorship effectiveness demands more research attention. The current study responds to this call by considering the effect of content marketing on sponsorship response favourability in the South African energy drink market.

Content marketing can be defined as a promotion strategy which extends the promotional mix, and makes use of several communication channels, capitalising on the benefits and connectivity of social media. By taking consumer-generated content into account and communicating with the audience with a non-purchase-pushing intention and by using

appealing, useful, or entertaining content, such strategies aims at building trust and a long-term relationship with the consumer/customer. Following from this notion and the rather substantial body of knowledge on sponsorship effectiveness, the current study asks if sponsor factors, sponsorship factors and event factors contained in firm generated content drive sponsorship favourability based.

Whereas in traditional sponsoring the connection with the sponsoring brand stands in the foreground, content marketing uses sponsorship as an origin source of content, focusing on the value of the content communicated. When it comes to evaluating sponsorship effectiveness, Speed and Thompson (2000) applied a conceptual framework on the basis of classical conditioning research in particular showing that exposure to the band as a necessary, but not a sufficient condition for the response to promotion in general.

The current study included a pre-test phase (n=45) which comprised quantitative and qualitative components which resulted in a context adjusted research instrument based on the original questionnaire by Thompson and Speed (2000). For the main study the sampling was limited to the metropolitan area of Cape Town (because of financial constraints) and the sample frame and was broadly defined as males or females between the ages of 18 and 35. This age category was selected because young adults are the key consumers of energy drinks and much of the advertising in this category are directed at them. Before the respondents completed the questionnaire they were exposed to a video with content from the energy drink manufacturer. A total sample of 605 questionnaires were completed of which 557 were considered useful for further analysis. The measurement instrument included six latent independent and one latent dependent variable measured with a multi item scale employing a 7-point seven point Likert-type scale. Data analysis was conducted via a SEM procedure with the software package Mplus 7.4.

Based on the measurement model diagnostics, three items were excluded due to standardised loadings lower than 0.5 and one item was excluded to improve the average variance extracted of 'sponsorship-event fit' to above the threshold of 0.5. For the modified measurement model, the composite reliability for each construct was higher than 0.7, all items loaded significantly on the respective constructs and the AVE of each construct was also above the 0.5 threshold. Additionally, the measurement model also fulfilled the Fornell-and-Larcker criterion for discriminant validity. The model fit of the measurement model was as follows: χ^2/df was 2.355, RMSEA was 0.049, and the CFI and TLI was 0.954 and 0.944, respectively.

The model fit results indicate that the a priori model fitted the sample data acceptably. Only one of the six hypotheses was not supported. The results show that the sincerity of the sponsor and the attitude of the sponsor (both sponsor factors) were the two factors with the strongest positive influence on the favourability of the sponsor. Successively, two event factors (personal liking for the event and status of the event) positively influenced favourability of the sponsor; personal liking for the event exerting the strongest influence of the two factors. Of the two remaining constructs, sponsor-event fit and ubiquity of the sponsor, only the latter influenced favourability of the sponsor.

The results obtained in this study suggest that FGC that are well designed, packaged and presented can enhance the views of individuals regarding a sponsor - even if the brand operates in a background position as opposed to the conventional foreground occupation common in promotional material. More specifically the results show strong support for the notion that sponsorship factors, in particular sincerity of the sponsor and the attitude of the sponsor can play a significant role to assisting the impact of FGC.

**EXPLORING VIEWER AWARENESS OF SPONSORS DURING Super Rugby MATCH
BROADCASTS ON TELEVISION**

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**EXPLORING VIEWER AWARENESS OF SPONSORS DURING Super Rugby MATCH
BROADCASTS ON TELEVISION**

EXTENDED ABSTRACT

Sponsorship marketing, in particular sport sponsorship, has increased dramatically in recent years due to its wide reach. Rugby is a very popular sport in South Africa, therefore sponsoring rugby teams might provide marketers the opportunity to get their brands recognised. Super Rugby, the leading rugby tournament in the southern hemisphere, is very popular in South Africa and is broadcasted all over the world. Some of the finest players in the world can be seen in action, therefore Super Rugby attracts a great deal of attention from people worldwide. Rugby is one of the most profitable sports in South Africa. With sponsorships becoming a prominent aspect of modern day marketing communication, Super Rugby provides numerous sponsorship opportunities to brands related to this environment, with a large percentage of television airtime and ample opportunity for companies to gain exposure for these brands. As sport sponsorship is multifaceted, each area needs to be meticulously planned to contribute maximally to the overall branding strategy. Without a well-structured business and measurement plan, sponsorships can be an enormous waste of money. Options available to a sport sponsor include aspects such as naming rights, visibility on marketing communication

material, visibility on team attire, and reference to the team in the brand's marketing communication. As there are numerous marketing communication messages within a stadium, competing for the viewer's attention during the Super Rugby matches, all these messages might not be equally effective. It is argued that many sponsorship visuals might go unnoticed and are ineffective, because of the visual clutter in stadiums. Although sport sponsorship could offer an avenue to reach potential customers, sponsors have to choose wisely to gain maximum impact through the association with the sponsored entity. Clutter is a big challenge faced by sponsors, specifically clutter in rugby stadiums. It is therefore questionable whether the millions of Rand spent on sport sponsorships actually contribute to the communication impact the sponsorship is aiming for. This study explored which types of elements used by sponsors, get noticed more during television broadcasts of Super Rugby matches. Both quantitative and qualitative research approaches were used in this study. The Tobii T120 eye-tracker device provided the quantitative data, and semi-structured interviews with respondents provided the qualitative data. A sample of respondents (N = 20) was drawn from post-graduate students studying marketing communication at the University of the Free State. The results of this pilot study indicate that sport sponsorships do contribute to brand awareness, but that there are certain elements during the broadcasting of a Super Rugby match that seem to be more effective to attract attention than others. It was also confirmed that sponsorships are more effective when brand familiarity already exists.

ETHNOCENTRISM AND LOCAL BRAND LOVE: WHAT ARE THE CONSEQUENCES FOR GLOBAL BRANDS? THE CASE OF FASHION BRANDS IN SOUTH AFRICA

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Topic: Marketing / Africa and Globalisation

ETHNOCENTRISM AND LOCAL BRAND LOVE: WHAT ARE THE CONSEQUENCES FOR GLOBAL BRANDS? THE CASE OF FASHION BRANDS IN SOUTH AFRICA.

ABSTRACT

Globalisation resulted in consumers having increased purchase options between domestic and foreign brands, and present literature acknowledges that consumer ethnocentrism is one concept that explains a consumers' preference for domestic brands, and simultaneously a prejudice against foreign brands. South Africa's context could fuel ethnocentric beliefs, but little is known about ethnocentrism and the South African consumer and the consequences for global brands. This paper aims to address the research gap on ethnocentrism and the South African consumer, its relationship with local brand love and its effect on attitudes and purchase intentions towards global fashion brands. Data was collected among 500 black middle-class females, and analysed by means of Structural Equation Modelling using Partial Least Squares. The findings revealed low ethnocentric beliefs, whereas ethnocentrism fuels love for local brands and negatively affects the attitude towards global brands. The study provides recommendations for global brands who wish to enter the South African market.

1. INTRODUCTION

Against the backdrop of globalisation, competition between local and global brands has increased tremendously (Sun, Zheng, Su & Keller, 2016), and multinationals are targeting emerging markets due to their high growth rates (Sheth, 2011). Due to the economic growth, and an increase in disposable income, the middle-class consumers in emerging markets have the ability to procure a diversity of products and services (Kardes, 2016). This has led to the rise of the global consumer, an attractive market segment for global brands. Emerging economies are thus receiving interest from multinational enterprises due to their growth potential; Africa is no exception. Sub-Saharan Africa is receiving increased interest from multinational enterprises, who are looking for the next China (Euromonitor International, 2015) since its middle-class roughly resembles the size of the middle-class in India or China (AFDB, 2011).

Among the Sub-Saharan African countries is South Africa, also referred to as the Southern African powerhouse due to the size of its economy, its share in the African GNP, and its increasing GDP per capita (Haefner, Rosenbloom & Haefner, 2016). South Africa has Africa's biggest apparel market and consumption grows steadily, this is evident in the increasing number of shopping malls (Euromonitor International, 2015). But there are several barriers as well: firstly, since the economic crisis in 2008, protectionism and isolation around the world (Ding, 2017) and ethnocentric tendencies at the expense of foreign brands have increased (Balabanis & Siamagka, 2017). Secondly, local brands provide strong competition for global brands (Sharma, Kumar & Borah, 2017). South Africa has a strong domestic market where local fashion brands lead retail sales and compete for market leadership (Euromonitor International, 2015). Kardes (2016) emphasises that before emerging middle-classes provide opportunities for companies originated from developed countries, there is a need for accurate identification, quantification, and targeting of this consumer segment. Marketing success depends on the degree to which the product attributes are successfully harmonised with the consumers' values and attitudes, but the drivers of consumer behaviour are diverse within and across cultures and contexts (Cleveland, Laroche & Papadopoulos, 2009).

A country's culture is a key environmental characteristic in rooting differences in behaviour, and culture strongly influences behavioural intentions. Cultural values largely influence the consumer's choice for consuming certain products (Park & Rabolt, 2009), and consumers' purchase intentions towards fashion apparel are affected by these cultural values (Rajagopal, 2011). Especially emerging markets are deeply affected by cultural aspects (Bressan & Signori, 2014), and literature suggests that developing countries have higher levels of ethnocentrism. For example, Akram, Merunka and Akram (2011) argue that consumers in developing countries are more ethnocentric than consumers in developed markets, and Reardon, Miller, Vida and Kim (2005) found the relationship between ethnocentrism and a negative attitude towards global brands stronger in less developed economies. In a fashion context, Cleveland *et al.* (2009) state that consumer ethnocentrism positively influences consumer behaviour towards traditional clothing items, and negatively influences consumer behaviour towards global clothing. In the context of this study, this statement might imply that consumer ethnocentrism influences consumer behaviour towards global and local fashion brands. It is imperative for firms to understand consumer decision-making regarding local and global brands (Pentz, Terblanche & Boshoff, 2017), and unravelling consumer ethnocentrism might provide valuable insights on attitudes and purchase intentions towards global fashion brands among South Africa's emerging (black) middle-class.

The paper starts with a literature review, followed by the problem investigated, research objectives, methodology, data analysis and results. The final sections elaborate on the

findings, and provides implications for global fashion brands who wish to enter the South African market. The paper concludes with limitations and directions for future research.

2. LITERATURE REVIEW

2.1 Ethnocentrism and the South African consumer

Consumer ethnocentrism refers to a consumers' preference for domestic or local products and a certain prejudice against foreign products (Akram *et al.*, 2011). Shimp and Sharma (1987:280) firstly proposed the concept of consumer ethnocentrism, and defined ethnocentric consumers as those who "view their own group as the centre of the universe, to interpret other social units from the perspective of their own group, and to reject persons who are culturally dissimilar while blindly accepting those who are culturally like themselves". Ethnocentrism therefore refers to the product's country of origin, and it is widely acknowledged that country of origin influences a consumer's purchase decision (Lew & Sulaiman, 2014). In a fashion context, a low degree of ethnocentrism is often related to a strong preference for global fashion clothing (Cleveland *et al.*, 2009).

By getting a better understanding of ethnocentrism, firms can be assisted in the development of more effective global marketing strategies (Pentz *et al.*, 2017). Strizhakova and Coulter (2015) identify a need to further understand consumer ethnocentrism, and its influence on local relative to global brand choices. The relationship between ethnocentrism and global brands has received attention in research, but is complex and demands further study (Özsomer, 2012). This is especially relevant to ethnocentrism in an African context, which is often overlooked, and as a result under-studied (John & Brady, 2010). South Africa offers an interesting context for ethnocentricity research due to its history and its current xenophobic attacks. Previous research found that demographic factors generally do not influence ethnocentrism, except for xenophobia. For example, Vadhanavisala (2015) found that demographic factors such as age, gender, income, education, and socio-psychological factors such as cultural openness, patriotism, conservatism, collectivism, animosity, cosmopolitanism, and xenophobia, merely do not influence ethnocentrism. The exception is xenophobia: xenophobia was found to be the most important influencer of ethnocentrism (Vadhanavisala, 2015). This is in line with Altintas and Tokol (2007), who also found a relationship between xenophobia and consumer ethnocentrism. Additionally, Shankarmahesh, Ford, and LaTour (2004) found that a history of oppression increases the degree of consumer ethnocentrism. Given South Africa's history of apartheid, consumer ethnocentrism is a variable worthwhile for studying the emerging (black) middle-class consumer in South Africa. Kamwendo, Corbishley and Mason (2014) found that black South Africans have higher levels of ethnocentrism in comparison to other racial groups, and the majority of their respondents is of the opinion that imports should be limited to those products that are not readily available in South Africa.

A number of studies have been conducted that investigated consumer ethnocentrism as a central element within consumer decision-making, especially with regards to local brands (Strizhakova and Coulter, 2015). The results provided evidence that consumers with a high degree of ethnocentrism are unlikely to purchase foreign products (Sharma, 2011). Ramadania, Gunawan and Rustam (2015) supported this notion that consumer ethnocentrism negatively influences consumers' attitude towards foreign products. Finally, ethnocentrism is related to the love and concern for someone's own country, and the negative consequences that importing products may have (Pentz *et al.*, 2017). Therefore, this study proposes the following:

H1: Consumer ethnocentrism negatively influences the attitude towards global fashion brands.

H2: Consumer ethnocentrism negatively influences the purchase intention towards global fashion brands.

H3: Consumer ethnocentrism positively influences local brand love.

2.2 Brand love

Brand love is a relatively new variable in marketing literature (Unal & Aydin, 2013). The definitions of brand love differ, but all follow the same school of thought, namely that emotional attachment is always incorporated into its definition. Carroll and Ahuvia (2006:81) define 'brand love'; as "the degree of passionate emotional attachment a satisfied consumer has for a particular brand name". Bergkvist and Bech-Larsen (2010) define 'brand love' as the deeply felt affection for a brand. Brand love has only recently been introduced as a construct into consumer behaviour (Albert, Merunka & Valette-Florence 2008), and the influence of love has been found to be important in consumer behaviour and consumer identity (Carroll & Ahuvia, 2006). Love for local was one of the megatrends in Africa in 2016 (Trendwatching, 2016), and in a South African context, Venter (2015) found that 44% of the sampled black middle-class women in the Gauteng province favours (domestic) Woolworths clothing, compared to 5% and 4% respectively that favour (foreign) fashion brands like Forever New and Zara. These findings emphasise the love for local (fashion) brands in South Africa.

The concept brand love requires further research. According to Batra, Ahuvia, and Bagozzi (2012), a lot of work has to be done on brand love due to the increased importance of the construct in both theory and practice. The (limited) work that has been done was mostly carried out in developed countries (Sarkar, 2014), and has a strong focus on customer loyalty. Both practitioners and academics stress the (managerial) importance of brand love (Garg, Mukherjee, Biswas & Kataria, 2016; Albert *et al.*, 2008). Therefore, it is important that research aims to identify relationships that discover the effect brand love has on behavioural variables, and tests those relationships in a conceptual model (Albert *et al.*, 2008). Previous research found that the higher the love for local products, the higher the rejection of non-local products (Ramadania *et al.*, 2015), and therefore, this study proposes the following hypothesis:

H4: Local brand love negatively influences the purchase intention towards global fashion brands.

2.3 Attitude

Attitude refers to "a disposition to respond with some degree of favourableness or unfavourableness to a psychological object" (Ajzen & Cote, 2008:305). While needs are universal, attitudes and expressions of the middle-class especially vary among countries in how middle-class consumers spend their income (De Mooij, 2013). Therefore, the attitude towards global brands might be an important predictor of the purchase intention towards global fashion brands among the (black) middle-class in the emerging economy of South Africa. The relationship between attitude and (purchase) intention is rooted in the Theory of Planned Behaviour; behavioural intentions are influenced by the attitude towards the behaviour (Ajzen & Cote, 2008). Evidence of that relationship is robust, for example, Jung and Seock (2016) found a positive relationship between attitude and purchase intentions in an apparel context. More specifically, the results indicated that the attitude towards the apparel brand (American Apparel) positively influences the purchase intention towards this brand among American consumers. Additionally, Son, Jin and George (2013) found that among the factors influencing purchase behaviours of foreign goods, attitude

was the strongest influencer of purchase intentions. Therefore, the following hypothesis is proposed:

H5: The attitude towards global brands positively influences the purchase intention of global fashion brands.

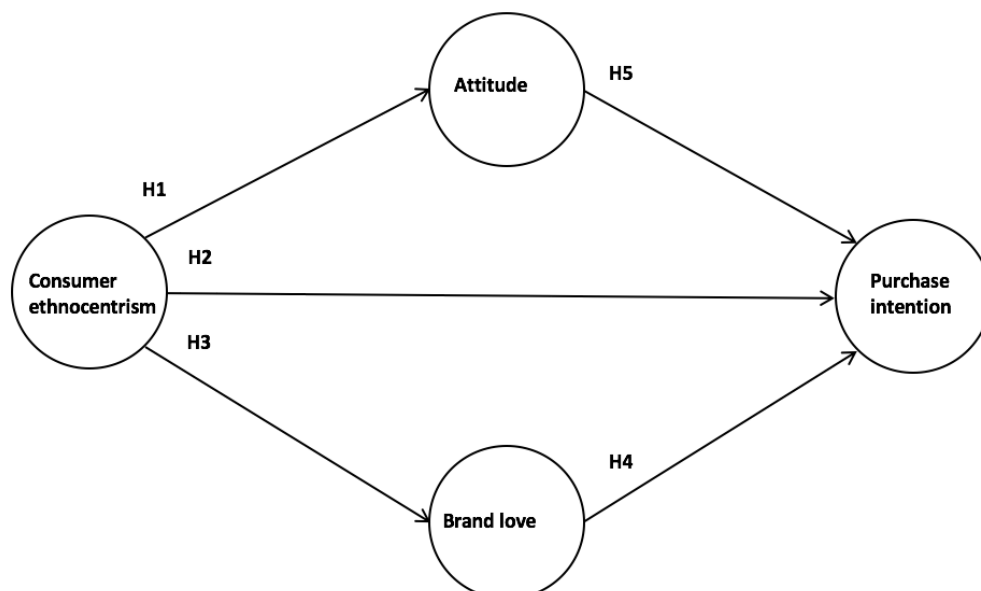
2.4 Purchase intention

The dependent variable of this study is purchase intention, a variable in consumer behaviour studies that lacks sufficient research in the context of purchase intentions towards global brands in emerging markets (Carter & Maher, 2015; Dalmoro, Pinto, Borges & Nique, 2015; Xie, Batra & Peng, 2015). Purchase intention is defined as individuals' intention to purchase or buy a product or service (Das, 2014), and is the result of both the consumers' interest in the product, as well as the consumers' ability to buy the product (Kim & Ko, 2012). Kim and Ko (2012) describe the purchase intention as a measurement of the consumers' future contributions to the brand. Therefore, this construct is of importance for (global) brands. Consumers' purchase intentions are seen as the final consequence of several factors in a consumer's shopping context (Das, 2014). However, consumer purchase intentions are influenced by a variety of factors, and there is lack of consistency on those factors due to the variety of models and theories. The present study aims to identify the influence of consumer ethnocentrism, love for local fashion brands, and attitude on the purchase intention toward global fashion brands.

2.5 Conceptual model

Derived from the aforementioned literature, Figure 1 presents the conceptual model.

Figure 1. Conceptual model



Source: Compiled by researcher (2017)

3. PROBLEM INVESTIGATED

The competition between local and global brands in the marketplace has increased, but several issues remain undetermined in current literature. Especially in Africa, where consumer data is scarce (McKinsey, 2012). According to literature, South Africa's context fuels ethnocentric beliefs, but little is known about ethnocentrism and the South African consumer and the consequences for global brands. Ethnocentrism in the African context is under-studied (John & Brady, 2010), and lack of research has focused on consumer ethnocentrism and purchase behaviour in emerging markets (Pentz *et al.*, 2017). Furthermore, this study addresses the need for further research on brand love (Batra *et al.*, 2012) and purchase intentions towards global brands in emerging markets (Carter & Maher, 2015; Dalmoro *et al.*, 2015; Xie *et al.*, 2015).

4. RESEARCH OBJECTIVES

The major objective of the present study is to investigate the influence of ethnocentrism and love for local fashion brands on attitudes and purchase intentions towards global fashion brands. African consumer data is scarce (McKinsey, 2012), and limited research has been done on the emerging (black) middle-class (Donaldson, Mehlokhulu, Darkey, Dyssel & Siyongwana, 2013). Therefore, this study investigates the influence of ethnocentrism and local brand love, on attitudes and purchase intentions towards global fashion brands among the emerging (black) middle-class in South Africa, who are the main contributor to South Africa's growing middle-class (Visagie, 2015).

5. RESEARCH METHODOLOGY

The present research followed a positivist research philosophy due to its focus on exploring relationships between the independent variables and the dependent variable within the conceptual model (causal reality), and usage of a relatively large sample allowing quantitative research (Saunders, Lewis & Thornhill, 2009). Additionally, the study used a deductive approach, which required the operationalization of the constructs before measurement (Saunders *et al.*, 2009).

5.1 Sample and data collection

For the statistical analysis, this study utilised a sample of 500 emerging black middle-class women, as women are the most powerful consumers (Forbes, 2015; Belleau, Haney, Summers, Xu & Garrison, 2008). The concept 'middle-class' is often vaguely defined (Kandogan & Johnson, 2015), and there are many varying definitions of this social class, which results in different estimates of the size of the middle-class. Anderson (2015) found that the emerging South African middle-class (i.e. LSM 7-10) has grown by 15% over the last decade. This research study adheres to the Anderson's (2015) definition, and added the requirements of a white-collar job or professional career, and higher education. Despite the black majority of South Africa and growth of the emerging black middle-class, research on this group remains scarce (Donaldson *et al.*, 2013).

Data were collected by a professional South African consumer panel data provider, using an online self-administered questionnaire that was accessible via a link that has been sent to the randomly sampled respondents within the panel. The questionnaire was online from the 25th of May 2016, and on the 13th of June 2016 the survey was closed after reaching 500 valid responses.

5.2 Measurement instrument

To test five hypotheses in the conceptual model, the present study used a survey with propositions on a five-point Likert scale (1 - strongly disagree, to 5 - strongly agree). Using existing scales with a Cronbach Alpha of >0.80, the measurement instruments were tailored to a fashion apparel context, since the aim of the study was to identify the influence of consumer ethnocentrism on local brand love, and on attitudes and purchase intentions towards global fashion brands. The first variable, consumer ethnocentrism was measured using a modified scale by Shim and Sharma (1987), and to measure brand love, Drennan, Bianchi, Cacho-Elizando, Lauriero, Guibert and Proud's (2015) scale was adapted. Attitude was measured using a modified scale of Davvetas, Sichtmann and Diamantopoulos (2015), and the dependent variable, purchase intention, utilised adapted scales of Diallo (2012) and Giridhar, Joshi and Sadarangani (2015).

5.3 Data analysis method

The data analysis was done by using Structural Equation Modelling (SEM), which has become the standard in many business research fields (Hair, Ringle & Sarstedt, 2011). This study used PLS-SEM and its SmartPLS 3.0 software package (Ringle, Wende & Becker, 2015). To assess the quality of the measurement instrument, the PLS Algorithm provided the reliability (Cronbach's Alpha and Composite Reliability), convergent validity (Average Variance Extracted) and discriminant validity (Heterotrait Monotrait approach). The bootstrapping function provided the path coefficients and their significance in order to test the hypotheses. The threshold this study used for a two-tailed test with a significance of 5% (0.05) was a t-value of 1.96 (Hair *et al.*, 2011).

6. RESULTS AND FINDINGS

A total of 500 completed surveys were received and used to test the proposed hypotheses.

6.1 Respondent profile

The data collection resulted in a usable sample of 500 emerging black middle-class women. The majority of the respondents was aged 22 and 27 years (39%) and 28 and 33 years (34%), and has a diploma (36%) or graduate degree (26%) (Table 1).

Table 1. Demographic characteristics of respondents

Age	Frequency	Percentage
22-27	195	39
28-33	171	34,2
34-39	111	22,2
40-44	23	4,6
Education	Frequency	Percentage

High school	97	19,4
Diploma	181	36,2
Graduate degree	132	26,4
Post-graduate	79	15,8
Other	11	2,2

Source: Compiled by researcher (2017)

6.2 Measurement model

The quality assessment of the measurement model includes the outer loadings, Cronbach Alpha (CA), Composite Reliability (CR), Average Variance Extracted (AVE) and Heterotrait-Monotrait ratio (HTMT). As Table 2 indicates, the CA, CR and AVE met the recommended thresholds of 0.70, 0.70 and 0.50 respectively (Hair *et al.*, 2011), ensuring the quality of the measurement instrument.

Table 2. Overall statistics

Research construct	Item	Mean Value	Std. Dev.	CA	CR	AVE	Outer loading
Consumer ethnocentrism	CET1	2.28	1.02	0.82	0.88	0.64	0.73
	CET2	2.78	1.13				0.81
	CET3	2.68	1.15				0.80
	CET4	2.29	1.02				0.87
Brand love	BL1	3.77	0.88	0.91	0.94	0.72	0.70
	BL2	3.91	0.85				0.84
	BL3	3.98	0.82				0.89
	BL4	4.02	0.80				0.91
	BL5	3.97	0.81				0.84
	BL6	3.90	0.82				0.83
Attitude	AT1	3.79	0.78	0.90	0.93	0.77	0.86
	AT2	3.85	0.80				0.88
	AT3	3.76	0.80				0.88
	AT4	3.78	0.81				0.88
Purchase intention	PI1	3.58	0.98	0.92	0.66	0.66	0.83
	PI2	3.64	0.91				0.86

	PI3	3.84		0.84				0.78
	PI4	3.66	3.62	0.93	0.92	0.90		0.86
	PI5	3.85		0.87				0.80
	PI6	3.15		1.00				0.74

Source: Compiled by researcher (2017)

To assess the discriminant validity, the HTMT approach is utilised. It is evident from Table 3 that the values are below the 0.85 threshold and easily meet the strictest standard regarding discriminant validity (Henseler, Ringle & Sarstedt, 2015).

Table 3. Discriminant validity (HTMT)

	AT	BL	CET	PI
AT				
BL	0.10			
CET	0.32	0.13		
PI	0.68	0.11	0.19	

Source: Compiled by researcher (2017)

6.3 Path modelling and hypotheses testing

The results (Table 4) provide evidence for H1 (consumer ethnocentrism and attitude), H3 (consumer ethnocentrism and brand love) and H5 (attitude and purchase intention). All hypotheses are supported, except H2 (consumer ethnocentrism and purchase intention) and H4 (brand love and purchase intention) were not significant. The results suggest that consumer ethnocentrism in the given context does not negatively influence the purchase intention towards global fashion brands.

Table 4. Path modelling and hypotheses testing

<i>Relationship</i>	<i>Hypothesis</i>	<i>Path coefficient</i>	<i>T-value</i>	<i>Result</i>
Consumer ethnocentrism → attitude	H1	- 0.28	5.19	Supported
Consumer ethnocentrism → purchase intention	H2	0.01	0.15	Supported but not significant
Consumer ethnocentrism → brand love	H3	0.13	1.98	Supported
Brand love → purchase intention	H4	0.04	0.71	Supported but not significant
Attitude → purchase intention	H5	0.61	14.60	Supported

Source: Compiled by researcher (2017)

6.4 Discussion

The findings provide insights into the consequences of consumer ethnocentrism and local brand love on attitudes and purchase intentions towards global fashion brands. More insight in consumer ethnocentrism can assist marketers in developing more effective global marketing strategies (Pentz *et al.*, 2017). In the African context, consumer ethnocentrism is scarcely researched, and this paper is to our knowledge the first that examined the relationship between consumer ethnocentrism and local brand love and their consequences on attitudes and intentions towards global brands. This study discovered a low level of consumer ethnocentrism among the sampled consumer segment, which on the 5 point Likert-scale indicates 'neutral'. Despite the low level of consumer ethnocentrism and lack of evidence for the relationship between consumer ethnocentrism and the purchase intention towards global fashion brands, consumer ethnocentrism did negatively influence South African consumers' attitude towards global fashion brands. Consequently, higher ethnocentric beliefs result in a less favourable attitude towards global fashion brands, consequently resulting in a lower purchase intention, as evident in the t-values of 5.19 (H1) and 14.60 (H5). Previous studies investigating the relationship between ethnocentrism and the attitude towards purchasing foreign brands have resulted in similar findings, and the more ethnocentric consumers are, the less positive their attitude towards foreign goods (Ramadania *et al.*, 2015; Kumar, Fairhurst, & Kim, 2013).

Contrary to the expectations, no evidence was found for the negative influence of consumer ethnocentrism on the purchase intention towards global fashion brands (H2) among emerging black middle-class women in South Africa. However, this finding is consistent with the study of Haefner *et al.* (2016), who also failed to provide evidence for the relationship between consumer ethnocentrism and purchase intentions in a South African context. It further provides evidence that higher ethnocentric beliefs influence the love for local fashion brands (H3). Thus, the more ethnocentric consumers are, the more they love their local brands. Local brand love had the highest average value, indicating that the respondents feel love towards their local fashion brands. In line with Venter's (2015) findings, which revealed that Woolworths is the favourite clothing store of 44% of the sampled black middle-class women in Gauteng. Furthermore, the relationship between brand love and purchase intention is found not to be significant with a t-value of 0.71 (H4), indicating that, contrary to Ramadania *et al.* (2015), love for local does not result in the rejection of global fashion products. This can imply that brand love is not an exclusive love, but that consumers can feel love towards local brands without rejecting global brands. The love consumers feel for fashion brands seems not to be a monogamous relationship. Furthermore, the results highlight the importance of attitude on behavioural intentions (H5), with the highest t-value of 14.60, as widely acknowledged in literature. This indicates that the more positive the attitude towards purchasing global fashion branded apparel, the greater the intention to purchase global fashion branded apparel.

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The findings of the present study revealed that consumer ethnocentrism is relatively low in South Africa among the black middle-class female respondents. The level of consumer ethnocentrism indicates that it does not pose a big threat for global brands that wish to enter the South African market, and from the ethnocentrism perspective, South Africa can be a potential consumer markets for global fashion brands. Given that the black middle-class is growing rapidly and has an increased disposable income, South Africa might offer opportunities for brands that want to take part of that growth. However, it is advised that firms wishing to enter the South African market focus on the less ethnocentric consumer

segments, such as the middle-class, and focus on brands, packaging and labels (Pentz *et al.*, 2017). The findings further indicated that love for local brands does not affect purchase intentions towards global brands, and local brand love for, for example, Woolworths clothing does therefore not necessarily affect purchase intentions towards, for example, Zara. However, the love for local brands is strong, and the South African market provides hereby a challenge for global fashion brands. The empirical findings revealed that a positive attitude strongly influences the purchase intention towards global fashion brands, implying that global fashion brands have to invest in creating favourable attitudes. Global fashion brands should develop marketing strategies and campaigns to promote a favourable attitude among the targeted consumer segment (Zheng & Chi, 2015), for example through promotions on various media channels (Son *et al.*, 2013). Self-image congruency can be used in order to create a favourable attitude towards global fashion brands; for instance, by developing marketing strategies that focus on matching the targeted consumer's self-image and the brand image (Lee & Lee, 2015). Therefore, it is recommended for global fashion brands to measure the brand image and the consumer of the target market, and to advertise in order to create self-image congruency, to consequently create a favourable attitude of the targeted consumers towards their brands. Finally, given the negative relationship found between consumer ethnocentrism and the attitude of the black middle-class female respondents towards global fashion brands, local fashion brands can take advantage of this relationship. Pentz *et al.* (2017) suggest that brands could use classical conditioning strategies where local brands use local public figures to endorse the local brands. Similarly, local brands can utilise the negative relationship, and use 'Proudly South African' and similar slogans to speak to the ethnocentric beliefs of the targeted consumers.

8. CONCLUSIONS

Globalisation resulted in local and global brands competing in the marketplace, and the results of this study have allowed some insight into the ethnocentric tendencies and local brand love of the emerging black middle-class, and their influence on attitudes and purchase intentions towards global brands. No evidence was found for consequences of consumer ethnocentrism and local brand love on purchase intentions towards global fashion brands. However, ethnocentrism negatively influences the attitude towards global fashion brands, hereby indirectly affecting purchase intentions. Given the strong relationship between attitude and purchase intentions, global fashion brands should focus on creating a favourable attitude among the targeted black middle-class women in South Africa towards their brands.

This study is not free from limitations. It must be taken into consideration that South Africa to date suffers from xenophobia, and that ethnocentrism is therefore expected to be present. The emerging black middle-class seems not to have strong ethnocentric beliefs, but their low degree of ethnocentric beliefs may not be generalizable over the South African population. A possible explanation is that the respondents fall within the South African 'middle-class', and have mostly enjoyed higher education, factors leading to less ethnocentric beliefs (Correa & Parente-Laverde, 2017). Due to the rich cultural diversity of the South African population, future studies can elaborate on the present topic by including other demographic and psychographic market segments. In South Africa the real middle-class (i.e. the middle of society instead of the middle-class according to westernised standards) is still relatively poor. Therefore, it is suggested that the study is repeated among different consumer segments, such as the so-called bottom of the pyramid, taking into account that the majority of the South Africans is still relatively poor and part of the lower class. Secondly, this study took a country wide sample, while ethnocentric beliefs may differ per region. Therefore, future research could focus on

specific regions and do a comparative study. Finally, the study used purchase intention as a cue for actual behaviour. Although models using behavioural intentions such as the Theory of Planned Behaviour (TPB) have proven to be robust in different contexts, the actual behaviour and behavioural intentions do not always correspond, which leaves room to test the relationship between behavioural intentions and actual behaviour in the same context.

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DOES THE THIRD-PERSON EFFECT PLAY A ROLE IN CONSUMER INFORMATION PRIVACY PERCEPTIONS AND DISCLOSURE BEHAVIOUR?

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DOES THE THIRD-PERSON EFFECT PLAY A ROLE IN CONSUMER INFORMATION PRIVACY PERCEPTIONS AND DISCLOSURE BEHAVIOUR?

ABSTRACT

The rise of social network usage is proving to be an important tool for marketers to source information due to the large amount of personal information users share on social network sites (SNSs) such as Facebook. This disclosure of personal information on SNSs brings about privacy-related implications. However, it seems that these privacy concerns do not hold true for all SNS users since a few studies on social networking sites have reported disparities between stated privacy attitudes and observed privacy behaviour. This disparity phenomenon is known as the privacy paradox, whereby SNS users state that they are concerned about their privacy on the internet, but their behaviour does not reflect these concerns.

Given the user generated nature of social networking sites, some researchers have considered Davison's (1983) theory of the third-person effect. This theory states that the third-person effect occurs when individuals state that the influence of mass communications (for example Facebook) has a greater effect on the attitudes and behaviours of others, than on themselves. Based on Davison's theory of Third-Person Effect (TPE), this study investigates three privacy-related constructs (perceived privacy concerns, perceived privacy risks and perceived privacy invasion) in terms of the TPE, including how these constructs may affect an individual's information disclosure on SNSs.

The contribution of this study lies in its focus on examining the privacy paradox through a third-person effect lens by focusing on perceived privacy concern, perceived privacy risk and perceived privacy invasion on Facebook. Firstly, few researchers have measured these privacy constructs in a TPE context. Secondly, few researchers have investigated both the perceptual and behavioural sides of TPE. Thirdly, most studies have been conducted in developed countries and used undergraduates as respondents in their studies.

Data were collected by means of a convenience sample using an online self-administered survey from the employees of three businesses in South Africa. An online survey link was sent by e-mail to 2 858 employees across the three selected businesses, resulting in a total of 615 responses. Constructs were checked for reliability and validity prior to hypothesis testing. The

six hypotheses were assessed at a 95% confidence level using the Pearson product-moment correlation coefficient and paired t-tests. The results showed that there were weak relationships between the three privacy constructs and self-disclosure behaviour, supporting the privacy paradox. In addition, respondents felt that perceived privacy risk and perceived privacy concerns were higher for self than for 'others', which does not support the TPE. However, perceived privacy invasion was higher for 'others' than for self, which may explain some of the privacy paradox behaviour we see in SNS users.

The conclusion drawn from the findings suggest that awareness of privacy issues may provide a platform on which marketers can base the development of fair information policies to alleviate privacy-related concerns and build trust with their users.

**THE DEVELOPMENT OF A RETAIL CUSTOMER BASED CORPORATE REPUTATION
SCALE FOR SOUTH AFRICAN CONSUMERS**

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ABSTRACT

Most marketing scales were developed in high-income industrialised countries and therefore warrant judicious consideration if it is contemplated for application in an emerging market. A number of studies undertaken in South Africa found a well-known used customer based corporate reputation scale inappropriate for use in South Africa. This paper attends to the process of developing a scale that is suitable to measure customer based corporate reputation for a range of retail industries in South Africa. The results of the first empirical pilot study is also reported.

Positive corporate reputations have been found to be related to various valuable outcomes. It is well-known that a firm has a number of reputations, each of which appeals to a particular stakeholder group. Customers (for the purposes of this paper customers means retail

customers who buys products and services in quantities that is convenient for their own consumption) are arguably an important stakeholder group because the customer makes the final purchasing decision. It has been found that customers do care about corporate reputation and that the reputation of a firm strongly influences whether customers' will transact with the firm. Despite this group's importance, few studies focused on measuring corporate reputation from the customers' viewpoint. Well-known papers that investigated the role of customers as important stakeholders are the work of Beatty and Walsh (2007) and Walsh, Beatty and Shiu (2009). South African studies investigated the suitability of the 2009 Customer Based Corporate Reputation (CBCR) scale of Walsh, Beatty and Shiu for South African customers in different industries. In all the studies the findings were fairly similar in that only two of five dimensions of the CBCR scale survived confirmatory factor analyses. The dimensions of customer orientation and competitiveness survived.

The South African studies findings' indicate that scales found to be reliable and valid in developed markets and environments might contain items and in some instances, even dimensions, that respondents are incapable of answering. The responses in these aforementioned studies seem to indicate that certain concepts could be unknown to respondents or respondents regard themselves as having insufficient knowledge to respond to items measuring such items. It is therefore considered necessary to develop a suitable scale for South Africa with input from all the 11 official language speakers to arrive at a reliable and valid CBCR-scale. Most marketing scales used today were developed in high-income industrialised countries and therefore require careful consideration when applied in emerging markets. Burgess and Steenkamp (2006) point out that conditions in emerging markets imply departures from the assumptions of theories that were used to construct most of the extant scales Cramphorn (2012) justly asks the question 'What happens when a successfully developed scale is used in a new environment?', and goes on to illustrate the difficulty in comparing in a meaningful way responses obtained in different countries. In a study such as the envisaged one, it is paramount that respondents attach the same interpretation to the meanings of items, and that the level of intensity / value that a particular respondent assigns to an item is similar to that of another respondent who assigned the same intensity/value.

This paper reports on a study to develop a South African CBCR scale for the retailing industry. The study has been going on for 3 years and the objectives are twofold:

- 1) Firstly to develop an instrument with which South African firms can measure and manage their customer based corporate reputation.
- 2) Secondly to establish what causes customers to perceive what is best/worthwhile for a firm to pursue as part of its corporate reputation (eg. social responsibility) and how they want these activities to be communicated to them.

Presently interviews are conducted amongst customers of all the language groups in South Africa with the purpose to gain their views of the four types of retail firms. The four retail industries included in the study are supermarkets, clothing stores, fast food retailers and furniture retailers. The customers of a major retail firm, representative of each of the aforementioned retail industries, will be studied. The first fifty Xhosa speaking respondents' texts have just been transcribed.

THE INFLUENCE OF RELATIONSHIP SHOCKS ON CUSTOMER COMMITMENT: AN EXPLORATORY STUDY

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THE INFLUENCE OF RELATIONSHIP SHOCKS ON CUSTOMER COMMITMENT: AN EXPLORATORY STUDY

ABSTRACT

One of the most frequently cited dimensions of relationship marketing, is relationship commitment. However, despite several studies on the nature of relationship commitment, there still is uncertainty regarding the management of the concept of commitment. One of these uncertainties is the possible influence of relationship shocks on customer commitment. However, it seems that existing literature focuses primarily on an organisational context, with limited research addressing the customer perspective. It is against this background that this study investigated the influence of relationship shocks on customer commitment. For the purpose of this study, a multi-dimensional approach towards customer commitment was adopted, from both the affective and calculative sides of commitment. Through a pre-test a low, medium and high shock scenario were identified, followed by the main study in which an experiment was conducted among 706 respondents in the mobile service industry. Three groups of respondents were created, and each group was exposed to a different relationship shock scenario. This was followed by an assessment of the respondents' commitment towards their mobile service provider. The findings of the study were somewhat unexpected, as no statistically significant differences were found between the three different relationship shock scenarios and affective commitment. On the contrary, calculative commitment was significantly influenced by the level of a relationship shock.

1. INTRODUCTION

Since the early 1990s, there has been an increased attention on the topic of relationships in the marketing literature (Şahin, Kitapçı, Şahin, Ciğirim & Bayhan, 2016). Once the benefits of relationship marketing became evident in both marketing practice and the literature, the focus shifted towards identifying the building blocks of relationship marketing. Commitment, as an important building block of such a relationship, soon became the focus of relationship marketing research (Morgan & Hunt, 1994).

The marketing literature further provides evidence for the notion that not all customers are equally committed towards their service providers (Kumar, Bhagwat & Zhang, 2015). In order to encourage commitment (and ultimately to contribute to relationship building strategies), it is important for service providers to create an environment in which commitment can thrive. Unfortunately, these environments are sometimes influenced by relationship shocks, which could influence an individual's commitment (Morrell, Loan-Clarke & Wilkinson, 2004). A shock is defined by Lee and Mitchell (1994) as a distinguishable experience that causes a shock to the system, consequently causing the receiver to make a decision about the implication of the shock and ponder the possible alternatives that should be considered as a result. Furthermore, not all shocks influence commitment in the same manner. For example, it is possible that certain shocks might be viewed as having less impact on a customer's commitment towards their service provider (Lee & Mitchell, 1994).

It is against this background that this study investigated the influence of relationship shocks on customer commitment. Firstly, a number of relationship shocks that differ in their intensity were identified. Secondly, these identified relationship shocks were ranked according to low-, medium- and high-shock scenarios, after which the effect of each of these shock-levels on customer commitment was analysed.

2. LITERATURE REVIEW

2.1 Commitment

In the relationship marketing literature, commitment is one of the most widely researched construct (Kontoghiorghes & Bryant, 2004). According to Verma, Sharma & Sheth (2016), commitment refers to the enduring desire to maintain a valued relationship. This definition furthermore implies the concept's relationship aspect, since the concept is founded essentially on the principle of prolonged involvement and action. Morgan and Hunt (1994) theorise that relationship commitment is a central factor in the establishment of successful relationship marketing. Once an organisation understands commitment and increases their efforts to improve commitment levels to their organisation, they gain a better understanding why customers would want to retain their relationship with an organisation (Wetzels, de Ruyter & Lemmink, 2000). Furthermore, Parsa and Cobanoglu (2011) argue that customer commitment is a key psychological force that links customers to relationships; commitment is therefore key in the development and maintenance of relationships. Once this goal has been reached, the relationship between an organisation and its customers will improve, which should result in increased market share and profits (Jones, Fox, Taylor & Fabrigar, 2010).

In recent years the marketing literature has started to view commitment as a multi-dimensional rather than a uni-dimensional construct (Jain, Khalil, Johnston & Cheng, 2014). Two components of commitment are particularly referred to, namely affective and calculative commitment (Jain et al., 2014). According to Meyer and Allen (1991), affective commitment relates to the emotional attachment of an individual to an organisation. It is

evident that this component has not only remained relevant, but also gained prominence in the literature since its conceptualisation in 1991 (Brooks & Wallace, 2006).

Calculative commitment, on the other hand can be defined as the connection to the other participant in the marketing exchange, cognitively experienced as a realization of the sacrificed benefits and incurred losses if the relationship were to end (Bilgihan, Okumus & Cobanoglu, 2013). Bansal, Irving and Taylor (2004) explain that calculative commitment refers to the cost-based attachment that an individual has with an organisation, and the need to remain with that organisation. When considering the concept of commitment per se, it is clear that calculative commitment is applicable as a component of a broader form of customer commitment, given its relationship nature and influence on an individual's decision to remain committed to, or to end a relationship with an organisation.

According to Shukla, Banerjee and Singh (2016), both affective and calculative commitment have several influences on and relationships with behaviour. Bansal *et al.* (2004) furthermore state that the different forms of commitment have various implications on behaviour, as each form of commitment develops in a particular way. As a result, two distinct components of customer commitment have been selected for this study: firstly, to gain a deeper understanding of the different influences of these components on behaviour, and secondly, to contribute to the assessment of the influence that relationship shocks may have on commitment. The decision to focus on affective and calculative commitment is also supported by Keiningham, Frennea, Aksoy, Buoye and Mittal (2015) who confirm that there is considerable evidence supporting the distinctiveness of affective and calculative commitment.

Gruen, Summers and Acito (2000) argue that affective commitment is the most predictive type of commitment related to customer loyalty and how it could influence an organisation. Conversely, calculative commitment is the more rational type of commitment since it is not based on the emotions of customers, but rather their rational decision-making (Gilliland & Bello, 2002).

2.2 Relationship shocks

Palmatier, Scheer, Evans and Arnold (2008) indicate that it is highly likely that a customer will react negatively to relationship marketing if the cost that may outweigh the benefits that relationship marketing provides. Furthermore, Cao and Gruca (2005) emphasise that customers' commitment could decrease towards an organisation or they might terminate their relations with the organisation altogether, should they experience contempt towards that organisation as a result of negative experiences. This indicates that even though relationship marketing is believed to build strong affiliations, its possible negative experiences can be detrimental to an organisation in terms of their customers' commitment. In the service industry specifically, the negative effects can be seen with service failures and experiences that result in dissatisfaction.

There is little literature available on the concept of 'shocks' and its effect of immediate dissatisfaction on an individual's decision-making. Consequently, dissatisfaction and service failures, as well as their influences on decision-making and consumer behaviour have been researched in the past to rationalise the notion of an immediate effect of a negative situation on an individual's commitment.

A 'shock' is described by Lee and Mitchell (1994) as a distinguishable experience that causes a shock to a human being, consequently causing the receiver to make a decision about the implication of the shock and to consider possible alternatives. Research that could be found on this notion has focused primarily on the relationship between shocks and employee turnover, where Morrell *et al.* (2004) found that shocks play a vital role in

many employees' decisions to quit their jobs. Although this definition refers to decisions and to the idea of quitting that does suggest an element of commitment choice, the authors' findings did not unequivocally confirm how shocks specifically influence commitment, nor did they investigate shocks that are related to relationship marketing.

By combining the abovementioned rationalisation of relationship marketing with the available research on 'shocks', it was possible to establish one concept that explains the negative and immediate effect of a relationship jolt on an individual, namely; 'relationship shocks'. This combined definition of relationship shocks will be applied throughout this study and will form the basis on which the conceptualisation of the concept will be discussed.

As one of only a few studies that mention the concept of 'shocks', Lee and Mitchell (1994) suggest that alternative theoretical perspectives, as well as a thorough categorisation of the different types of shocks are needed to gain a deeper understanding of this topic.

Johnston (1998) notes that in terms of dissatisfaction, a customer may respond to a service failure situation by engaging in negative word-of-mouth or deciding not to use the organisation's services or products again. According to Weun, Beatty and Jones (2004), severe service failures refer to a customer's perceived intensity of a service failure situation. These authors argue that the more intense the service failure experience, the greater the perceived loss for the customer. Similarly, Wuen *et al.* (2004) found that severe service failures decrease the likelihood that a customer will remain committed to an organisation.

3. RESEARCH PROBLEM, OBJECTIVES AND HYPOTHESES

The existing literature focuses primarily on the effect of shocks on employee turnover, but places almost no emphasis on the possible effect of relationship shocks on customer commitment. This lack in the literature has created the opportunity to examine an under-researched concept, with the overall aim of benefiting organisations with their relationship development. Therefore, this study investigates the effect that the different levels of relationship shocks have on both affective and calculative commitment. The primary objectives of the study are firstly to identify the different types of relationship shocks; and secondly, to empirically assess the differences between the different levels of relationship shocks on both affective and calculative commitment.

Based on the preceding objectives of this study the null hypotheses are as follows:

H₀¹: There is no difference between the different levels of relational shocks and affective commitment.

H₀²: There is no difference between the different levels of relational shocks and calculative commitment.

4. RESEARCH METHOD

An experimental research design was selected, given that this study essentially tested a causal relationship by investigating the influence of relationship shocks on commitment. The specific relationship shocks and their manipulation were determined by conducting a pre-test prior to the design of the data collection instrument and final experiment. The dependent variable was commitment that constituted the development of the primary data collection instrument itself. The literature available on commitment was used to identify existing scales on affective and calculative commitment that were subsequently used for

the design of the questionnaire for this experimental study. The data collection instrument and the scales used will be explained in the section that follows.

4.1 Pre-test

In order to determine relevant and accurate scenarios depicting three different levels of shocks that could be experienced by customers, a pre-test was conducted. A total of 15 scenarios were identified and formulated in such a way that it represented five low-shock scenarios, five medium-shock and five high-shock scenarios. By awarding a value out of 10, respondents were asked to indicate the degree of shock that they experienced when reading each of the 15 scenarios. Once the pre-test was completed, the average points were calculated for each scenario. The lowest score scenario was labelled as a 'low-shock scenario', the highest score scenario was labelled as a 'high-shock scenario', and the middle score was labelled as a 'medium-shock scenario'. These three levels of shock scenarios were used as foundation for the main study.

4.2 Main study

A field experiment was conducted, where respondents were required to answer a questionnaire following the exposure to one of the three levels of shock scenarios. The respondents were divided into three separate groups, to allow for each group of individuals to be exposed to only one specific level of shock, and to ensure that the manipulations in the independent variable were controlled among the different groups. A self-administered, standardised questionnaire was used for all three groups. Once a group was exposed to a specific shock, the questionnaire was submitted and respondents were requested to complete it.

4.2.1 Measurement instrument

Both affective and calculative commitment (which are the two dependant variables in this study) are well-documented constructs in the marketing literature, therefore a number of scales for their measurement were available. The use of existing scales also improved the construct reliability of the measurement instrument. This study predominantly made use of the scales of Coote, Forest and Tam (2003) and Gutiérrez, Cillán and Izquierdo (2004).

A seven-point Likert scale was used containing statements with values ranging from 1 to 7 (where 1 represents strongly disagree, and 7 represents strongly agree). A total of 12 items were employed in the final questionnaire, six pertaining to affective commitment and six pertaining to calculative commitment.

4.2.2 Context and sampling plan

The mobile phone industry was selected as the specific service industry on which the study could be based. In addition, given that a student sample was employed in this study, the mobile phone industry was deemed to be an appropriate choice, as most (if not all) students own a mobile phone and are believed to be familiar with this industry. The target population and primary sampling unit of this study consisted of all individuals who owned a mobile phone at the time of the study, and who thus had interactions with a mobile service provider. The secondary sampling unit comprised all undergraduate students between the ages of 18 and 25 years, with the tertiary sampling unit comprising undergraduate students from a specific multi-cultural South African university. It was envisaged that 600 respondents would participate in the study (200 per sub-group); however, the exact number of students participating in the research was dependant on class attendance.

4.2.3 Data collection and analysis

Three groups of respondents were formed, and each of these groups received the same questionnaire. However, each group was exposed to either a low-, medium- or a high-shock scenario. Once a group was introduced to a specific shock, respondents had to complete the questionnaire relative to the shock that they were exposed to. Data were analysed by means of the statistical program SPSS version 24. The reliability of the measurement instrument was assessed according to Cronbach's alpha, while ANOVAs were used to assess possible differences between the three different samples.

5. RESULTS AND FINDINGS

The empirical results will be discussed in the next two sections, namely those of the pre-test followed by the results of the main study.

5.1 Results of the pre-test

The objective of the pre-test was to identify low-, medium- and high-shock scenarios from an initial set of 15 scenarios. Respondents had to award a maximum value of 10 to each of the 15 shock scenarios. From the pre-test, three levels of shock scenarios emerged, which were used for the main study. These scenarios are shown in Table 1.

Table 1: Results of the pre-test

Scenario number	Level of shock	Scenario	Average	Label
1.	Unhelpful staff. Expected to be a low- shock scenario	I walked into my service provider's store and needed help with setting up my new phone. I waited for ages but nobody helped me. I then approached someone behind the counter but the person just brushed me off by saying that someone would attend to me soon. After having waited 20 minutes and no one attempting to assist me, I left the store.	3.33	Low shock
11.	Paying for another person's contract. Expected to be a medium- shock scenario.	When checking my bank statement I saw that my cell phone contract for this month had been deducted by means of a debit order as usual. When I looked further, I noticed that two other debit orders were deducted for cell phone contracts that were not mine. The money was automatically taken from my account even though the contracts were not mine.	7.22	Medium shock
9.	Disappearing airtime. Expected to be a high- shock scenario.	My airtime balance seemed to be low lately and I felt as if I was using more airtime than I should. I needed to make a phone call later during the day, and so I checked my balance in the morning to make sure that I had enough airtime. Later in the day I checked again just to make sure that I would not need to buy more airtime, and saw that my balance had decreased with R65. I had not sent any messages or made any calls other than checking my balance and my	9.09	High shock

		airtime disappeared without me using it.		
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5.2 Results of the main study

Following the selection of the three different levels of shock scenarios, three separate groups of respondents were formed. This was done, so that each shock level could be displayed to a separate group of individuals, and to ensure that the manipulations of the independent variable were controlled among the different groups. Each shock level was assessed separately, while still ensuring that the dependent variable of the study remained constant throughout. Consequently, the comparison of results was feasible and the objectives and hypotheses of the study could be tested in the most effective way. The influence of relationship shocks on both affective and calculative commitment was assessed by means of ANOVAs in SPSS (version 24), where the experiment allowed for the difference between each level of relationship shocks to be further examined.

5.2.1 Realised sample

A total of 706 respondents participated in the study, comprising 189 respondents to shock 1 (low-shock scenario), 270 respondents to shock 2 (medium-shock scenario) and 247 respondents to shock 3 (high-shock scenario). However, a number of responses had to be removed due to respondents not owning a mobile phone, while other responses were incomplete. The final number of respondents was 697.

Both the hypotheses of this study indicated a test of differences and as a result, two-way ANOVAs were conducted to test the hypotheses. An ANOVA was employed to determine the statistical differences between affective and calculative commitment for each of the three levels of relationship shocks, and similarly to compare the results of each level (for example low shock) with the other two levels (medium and high shocks).

5.2.2 Reliability analysis

Reliability was assessed by means of calculating Cronbach alphas for both the dependent variables, namely affective and calculative commitment. The Cronbach alpha value for affective commitment was 0.854, whilst a value of 0.633 was achieved for calculative commitment. Although the value of 0.633 was below the generally accepted cut-off value of 0.7, it was still found to be reasonably reliable (Zikmund, Babin, Carr & Griffin, 2010). This relatively low reliability level was quite surprising, because all the items relating to calculative commitment which were sourced from the available literature established reliability scores above reasonable doubt. Nonetheless, this relatively low level of reliability (which can possibly be ascribed to sampling concerns) could be seen as a limitation of the study.

5.2.3 Assessment of differences

In order to assess possible sample differences, the Levene's test for homogeneity of variance was performed. The results are presented in Table 2.

Table 2: Levene's test of equality of error variances

Commitment type	F	df1	df2	Sig.
Affective commitment	.233	2	694	.792
Calculative commitment	1.178	2	694	.309

As indicated in Table 2, the respective significance levels are 0.792 for affective commitment and 0.309 for calculative commitment. This indicates that $p > 0.05$, signifying that the homogeneity of variance is satisfied. The homogeneity of variance was therefore not violated.

In order to determine whether there was a difference between both affective and calculative commitment and the three levels of relationship shocks, ANOVAs were conducted. The results are presented in Table 3.

Table 3: Results from ANOVAs, affective and calculative commitment

Dependant variables	Type III Sum of squares	df	Mean square	F	Sig.
Affective	7.317	2	3.658	2.756	.064
Calculative	10.665	2	5.332	6.572	.001

Table 3 indicates a possible significance in terms of affective commitment. When considering the corrected model significance value, it can be seen that $p > 0.05$ at a value of 0.064. This value signifies that there is no difference between the different levels of relationship shocks and affective commitment. It can therefore be argued that no differences exist among the different levels of relationship shocks when assessing their influence on affective commitment (hence, a poor predictor).

When analysing the results of the second dependent variable, namely calculative commitment, the corrected model significance value of 0.001 shows that there is indeed a difference between the different levels of relationship shocks and calculative commitment. This finding implies that the intensity of a relationship shock (in terms of low, medium or high shock), has an effect on a person calculative commitment.

Details regarding multiple comparisons of the two dependent variables are depicted in Table 4.

Table 4: Multiple comparisons

			Mean Difference	Std. Error	Sig.
Affective commitment					
Gabriel	Low shock	Medium shock High shock	.2555 .1823	.11013 .11179	.059 .277
	Medium shock	Low shock High shock	-.2555 -.0732	.11013 .10211	.059 .854
	High shock	Low shock Medium shock	-.1823 .0732	.11179 .10211	.277 .854
Calculative commitment					
Gabriel	Low shock	Medium shock High shock	.2777 .2807	.08609 .08739	.004 .005
	Medium shock	Low shock High shock	-.2777 .0029	.08609 .07982	.004 1.000
	High shock	Low shock Medium shock	-.2807 -.0029	.08739 .07982	.005 1.000

Table 4 provides evidence that no statistically significant differences could be found between affective commitment and any of the relationship shock levels. It can therefore be deduced that the emotional attachment that an individual has towards their mobile service provider will not be influenced by the different levels of relationship shocks. H_0^1 is therefore supported, since no differences could be found between the different levels of relationship shocks and affective commitment. The implication of this finding is discussed under “practical managerial implications and recommendations”.

On the other hand, significant differences were found between the different shock levels pertaining to calculative commitment, specifically between low- and medium-shocks, and between low- and high-shocks. However, no difference was detected between the medium- and the highshock scenarios. H_0^2 is therefore only partially supported.

It can therefore be established from this study, that the extent of a negative and immediate effect of a relationship shock to an individual has a significant influence on their awareness of costs associated to end a relationship with their mobile service provider. Conversely, the extent of a negative and immediate effect of a relationship shock does not influence an individual’s emotional attachment to their mobile service provider.

6. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The results of the study show that it does not matter how extensively a customer is shocked when considering their emotions. This finding was unexpected, since it does not necessarily concur with the literature; as Schwarz (2000) points out, individuals often use their affective responses to evaluate a specific situation.

Given that the study was conducted in a South African context, it can be concluded that the South African market has differing reactions than those that have previously been studied. South African consumers tend to not having a trusting relationship with their service providers in general, and thus emotional attachment is not as significant when analysing customer commitment to service providers. Odd-Helge (2004) supports this notion by suggesting that “the majority of South Africans have very good reasons to be distrustful”, considering the history of local authorities being unreliable. Given the poor service and unreliability of many South African service providers, it is not surprising to find that consumers are not emotionally attached to their mobile service provider and prefer to adopt a more rational approach with regard to their commitment. Odd-Helge (2004) furthermore found that commitment is primarily influenced by trust in a local government, authorities and fellow citizens, and that in South Africa in particular, it is a challenge to address the mistrust of municipalities. All these factors reveal how South African consumers perceive and experience their service providers, and how committed they truly are to them.

In addition, the findings indicate that, when considering customers’ emotions, a shock remains a shock to them, regardless of its severity or intensity. These findings could stem from the experiences of South African consumers, who are exposed to various service failures and disappointments. As a result, they no longer have emotional attachments to their service provider and therefore their level of affective commitment is also very low. Calculative commitment is the second dependent variable that was assessed in this study. According to Bansal *et al.* (2004) calculative commitment refers to a cost-based attachment to an organisation that binds a consumer to their service provider because of their need to remain with the service provider. The results of this study indicate that the cost of ending a relationship with a mobile service provider is influenced by different levels of relationship shocks. In other words, the extent to which an individual is shocked will influence their awareness of costs associated with ending a relationship with their mobile service provider.

Bansal *et al.* (2004) established that a customer’s degree of calculative commitment is low when assessing their need to stay with their existing service provider. This finding indicates that the need to stay with a particular service provider - and thus a customer’s calculative commitment - is not always as strong as expected. This notion is also supported by the present study, which found that the different levels of relationship shocks played a significant role in influencing calculative commitment. Consequently, the findings suggest that the degree of a customer’s calculative commitment to their mobile service provider is generally low, which in turn indicates that there is limited commitment to remain with the mobile service provider purely because of the need to do so.

Additionally, Fullerton (2003) asserts that calculative commitment encourages a consumer to maintain a relationship as long as the customer feels comfortable with the service provider. It can be assumed that when a customer experiences a relationship shock, or a negative and immediate effect of a relationship jolt, they would no longer feel comfortable with their service provider. This outcome will have an influence on calculative commitment, and the customer might consider ending a relationship with their service provider.

7. LIMITATIONS AND FUTURE RESEARCH

Due to the general lack in the literature on the topic of relationship shocks from a customer’s perspective, this study was conceptualised from the perspective of organisational shocks that focus on employees. It can therefore be argued that this study was to a certain extent exploratory in nature. Further research is recommended to develop an understanding of the negative and immediate effect of relationship shocks on a

customer's commitment towards a service provider. It is also suggested that alternative methodologies are explored to investigate this objective.

The relatively low reliability level of the calculative commitment scale used in this study could also be regarded as a limitation to the study. As indicated earlier, this outcome was rather unexpected, because the study made use of well-established scales that emanated from the literature. Furthermore, the generalisability of the results of the study might be questioned, especially since a student sample was used, and the fact that the study was limited to the mobile phone industry.

8. CONCLUSIONS

Despite the fact that relationship commitment is a well-researched topic in the marketing literature, the influence of relationship shocks on customer commitment remains unexplored. It is against this background that this study investigated the effects of the different levels of relationship shocks on a customer's commitment towards a service provider.

The results failed to confirm a relationship between the different levels of relationship shocks and affective commitment. However, the level of a relationship shock was found to have a substantial effect on a customer's calculative commitment towards their mobile service provider. These findings show that the extent to which an individual is shocked has no effect on their emotional attachment to their service provider, but does influence their awareness of costs associated with ending a relationship with their service provider.

Although this study might be viewed as exploratory in nature, this is mainly due to the limited literature on the influence of relationship shocks on customer commitment. Against this background, the study makes a valuable contribution as it provides a solid foundation on which further research on relationship shocks in marketing can be conducted.

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THE ROLE OF A REFERENCE GROUP ON CONSUMER PURCHASING BEHAVIOUR: A LITERATURE REVIEW

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THE ROLE OF A REFERENCE GROUP ON CONSUMER PURCHASING BEHAVIOUR: A LITERATURE REVIEW

Abstract: Consumer purchasing behaviour necessitates understanding the factors that encourage purchases. Existing literature demonstrates that reference groups have significant influence on consumers' purchasing behaviour. However, the existing literature is limited. The purpose of this study is to provide an overview of existing knowledge on the role of a reference group on consumer purchasing behaviour. The researchers reviewed literature available in relevant text books and research articles available in databases such as Emerald, Science Direct, JSTOR, EBSCO, Google-scholar and Pro-Quest. The exploration of literature indicates

that while a consumer may consider whether to follow the group consciously or not, in most cases, one will agree with the group subconsciously. The literature reveals that consumers are likely to associate their behaviour with membership and aspirational groups while avoiding disclaimant groups. There is a further indication from this review that group influence is strong when the consumer purchases publicly consumed luxuries.

Keywords: Reference groups, group influence, consumer behavior.

1. INTRODUCTION

Consumer purchasing behaviour can be described as all the psychological and physical activities that individuals perform to satisfy their needs and wants (Chinaka, 2016). It involves all behaviours that individuals showcase in searching, using, examining and disposing of goods and services that will fulfil their needs and wants. Consumer behaviour reveals what consumer needs and wants are, how they think, feel and choose products and services. According to Wirtz and Mattila (2014), consumer behaviour focuses on how consumers select, evaluate and consume products and services. Consumer purchasing behaviour explains those factors that clarify how and why individuals behave in a particular way when buying and consuming a product. Consumer purchasing behaviour describes all the attitudes, preferences, intentions and decisions concerning consumers' behaviour in the market place when buying a product or service. Therefore, it contains all the psychological, emotional and physical activities that individuals use during selection, purchase, use and disposal of products and services that satisfy their needs and desires (Babin & Harris, 2013). It is important for marketers to understand the factors that determine consumer behaviour (Akinfenwa & Okang, 2015). According to Gillani (2012), consumer behaviour is influenced by both the internal and external factors. Internal factors refers to the individual's personality such as learning capacity, value system, perception and motivation, while external factors refers to environment surrounding the consumer such as friends, social norms, peers, religious groups and role models (Reza & Valeecha, 2013). As a result, individuals use their friends, opinion leaders, family members, and celebrities as their social reference group (Babin & Harris, 2013). Social scientists found that group membership is a major determinant of individuals' behaviour (Madinga, Maziriri & Lose, 2016). Sociologists, social psychologists, and cultural anthropologists firmly hold the view that almost everyone in the community belongs to a particular group, and those social reference groups have an impact on their attitudes, values and conduct. These groups in effect become the reference points from where individuals take cues to configure their values and standards. The reference group may act as an essential ideal point of consultation whether consciously or unconsciously, when individuals decide between brands to buy (Kotler, Brady, Goodman and Hansen, 2009). In addition, Hoyer, MacInnis and Dasgupta (2008) argue that consumers compare themselves to their reference groups as a way of guidance in the development of their own attitudes, beliefs, knowledge, and/or behaviours.

Reference group influences have a tendency to shape and lead consumer choice mainly for branded products. This is evidenced from a study conducted by Latif, Saleem and Abideen (2011) in Pakistan, where research found that celebrities and sports personalities influence the purchasing behaviour of consumers. More so, the consumer's decision to be or not to be loyal to a particular brand can mainly be determined by the type of reference group that contributes valuable brand information. Nevertheless, individuals may purchase specific brands mainly because of the "need to identify with" or "need to belong to" particular associations.

2. LITERATURE REVIEW

Dwelling upon the literature available in relevant text books and research articles available in databases such as Emerald, Science Direct, JSTOR, EBSCO, Google-scholar and Pro-Quest, this section deals with the theoretical framework for understanding a reference group (social identity theory), types of reference groups, types of reference group influence, and reference group classifications. The fundamental purpose for reviewing literature is to understand the subject area of the present study and pinpoint research gaps to be addressed in the future studies (Lose, Nxopo, Maziriri & Madinga, 2016).

2.1 Theoretical framework for understanding reference groups

To understand reference group influence on consumer behaviour, social identity theory will be used. Social identity theory (SIT) is based on the assumption that people want to belong to a group. Based on this theory, individuals' behaviour is influenced, among other things, by the people they associate with.

2.1.1 Social Identity Theory (SIT)

Social identity has been used by psychologists to understand the link between individuals and the functions of groups (Brewer, 2001). Sociologists and psychologists view SIT as a crucial aspect in determining human behaviour (McKinley, Mastro & Warber, 2014). According to Solomon (2006), a human is a social creature that needs to belong to a particular group in which they try to conform and use other persons as reflections on how to behave.

Hogg and Abrams (1988) define social identity as an individual's knowledge about his or her membership to a social group. Social group refers to a number of individuals who share similar social identification and view themselves as being part of the same social category (Stets & Burke, 2000). These individuals often, through a social comparison process, judge themselves as either "Us or Them" (Hogg, 2001). There are two main categories that have been formulated to classify individuals into social groups. Individuals with similar characteristics to self are classified as the in-group while individuals who are different from the self are classified as the out-group (Campbell, 1997). This categorisation of groups' results in evaluation, where the in-group is often judged positively and the out-group is judged negatively (Stets & Burke, 2000).

The social identity theory further evaluates the influence of groups such as friends, peers, family and the community on an individual. The effect of such evaluations results in a unified response by group members in terms of their expected behaviours and expectations (Brewer, 2001) and how they fit in a group (Pratt, 2003). Consequently, group behaviours may compel individuals to act in a particular way, giving rise to group pressure, especially when it comes to usage of symbolic products such as apparel and fashion brands (Brittain, 1963). This is particularly so with regards to young consumers. According to Bearden and Rose (1990), young consumers value group identity in such a way that before they make a purchase they consider the views of others. Markert (2004:14) defines youth as those individuals between the age of 12 and 31 in 2017

2.2 Reference groups

Studies (Al-Azzam, 2014; Al-Duhaish, Mohammad, Ra'ed & Zu'bi, 2014) have examined the influence of reference on consumer attitudes and opinions. Reference is commonly referred to as an individual's sense of self, derived from perceived belonging in social groups (Reza & Valeecha, 2013). When individuals belong to a group, they are likely to grow a sense of identity

(Chen & Xin-Li, 2009). A person who identifies himself or herself as an affiliate of a particular social group will regularly conform to core characteristics of that specific social group, inviting that person to take the group's interest to heart – including their buying behaviour (Reed, Forehand, Puntoni & Warlop, 2012). Consequently, group identity has a great impact on an individual's behaviour (Akerlof & Kranton, 2005). Overall, once individuals see themselves as part of a group, they derive self-esteem from that group affiliation and embrace behaviours that are consistent with the stereotypes related to their group identity.

Consumers' brand choices for products such as food (Roper & La Niece, 2009), clothes and mobile phones (Mudondo, 2014) have all been found to be influenced by consumers' group identity. Relating a brand with a consumer's group identity has also been established to impact the extent of self-brand connection the consumer forms with the brand (Milena & Natalia, 2010). As such, reference groups can govern what types of brands individuals purchase (Ebrahim, 2012; Haverila, 2011).

Consumers even choose their way of gathering information about fashionable brands based on their group identity (Christopher, John & Sudhahar, 2014). Thus, consumers frequently seek out information from other consumers' prior to purchase to minimise the risk of making bad decisions. A consumer who looks for the opinions of others in a group, makes the others a reference point of the purchase decision-making process to which she or he could turn to. Hence, Ramanathan and McGill (2007) opine that groups may also have an impact on how the consumer feels towards particular products or brands. As proposed by Kaufmann, Loureiro, Basile and Vrontis (2012), this type of group is referred to as a reference group. According to Muniz and O'Guinn (2001), certain reference groups may exist exclusively around the usage of a particular brand or product. Hogg (2003) maintains that reference groups source the consumers with numerous social identities, which combine with the consumer's self-concept to complete his or her entire identity. However, these groups are not equally exclusive and, therefore, these consumers may be influenced by various reference groups at the same time (Luna, Ringberg & Peracchio, 2008). The reference groups' classifications are described below:

2.3 Reference group classifications

Reference groups have been categorized into three core classifications and these contain the contractual group also known as membership group, the aspirational group and the disclaimant group also referred to as the dissociative group. According to Schiffman and Kanuk (2000), the foundation of the above grouping include the individual's affiliation or degree of communication or collaboration with the group and whether the group has a good or bad influence on the consumer's behaviour, attitudes and values. It is important to understand that reference groups can be "large or small" or "formal or informal", with the latter putting forth a high and more powerful normative influence on the consumer since there are usually high levels of daily interaction; whilst the former is more pronounced in as far as comparative influence is concerned (Bamosy, 2006). The three main reference group categories are discussed below:

2.3.1 Membership/Associative groups

Membership groups are individuals that interact with each other on a regular basis and whose culture (values, attitudes, and standards) they subscribe to. As a result, these individuals tend to influence each other's behaviour, including purchasing behaviour. These groups include social networking circles, friends, social clubs, residential neighbourhood association, one's family, country club and religious denomination.

Membership reference groups can be further classified into primary or secondary groups, which assists clarifying the degree to which these reference groups have an influence on the progress of an individual's development (Kotler *et al.*, 2009). This group's family, co-workers, classmates, friends, and neighbours in the primary category because of their daily interaction with each other. Secondary groups comprise for example church members, support group members, trade union members, relatives and other in-frequently interactive individuals, with limited influence on an individual's decision making (Kotler & Keller, 2006).

2.3.2 Aspirational Group

An aspirational group contains people or groups an individual wants to associate with. It is made-up of people with whom the individual venerates and adores and some they personally know, while others are composed of individuals the consumer can either identify with or admire, e.g. celebrities, movie stars, soccer players, politicians and so forth. The individual does not necessarily hold membership to the aspirational group or have any contact but receives high levels of positive influence. Thus, it often serves as a positive influence on that person's attitude or behaviour (Khan, Kamal, & Saleem, 2016).

2.3.3 Avoidance/Disclaimant Group

It is a group that consumers avoid or distance away from whose influence is considered as negative and as such the consumers study the behaviour, "dress or mannerisms of a disliked group and scrupulously avoid buying anything that might identify him or her with that group", Bassomy (2006). In some instances, this is a group consumers hold membership of or have frequent interaction with but dislike the values and attitudes of the group. As such, individuals tend to embrace the values and behaviour that are in opposition to their avoidance group.

2.4 Types of reference groups

Escalas and Bettman (2003) refer to reference groups as those groups a consumer will compare their behaviour to. Bristol and Mangleburg (2005) point out that reference groups are divided into two types, known as normative and comparative reference groups.

2.4.1 Normative reference groups

Normative reference groups are defined as groups of people that have an influence on individuals' values, norms, and behaviour (Pentina, Prybutok & Zhang, 2008). A normative reference group comprises of family, peers and work groups (Zubai & Bataineh, 2013). According to Subramanian and Subramanian (1995), individuals learn and develop their norms and values through direct interaction with their normative reference group. Normative reference groups are divided into various categories, which are discussed below:

2.4.1.1 Family influence

Social sources such as the family often influence consumer-buying behaviour (Sharma, 2011). Bearden and Etzel (1982) maintain that the family influence on the individuals' consumption behaviour tends to be very strong, as family tends to help shape the individual's values, attitudes, and buying behaviour, through the process known as socialisation (Lamb, 2004). The socialisation process is defined as the manner parents pass cultural values and norms to children (Tucker, 2011).

2.4.1.2 Peer influence

Bristol and Mangleburg (2005) define peer influence as “the extent to which peers exert influence on the attitudes, thoughts, and actions of an individual”. The degree of peer influence varies across products (Khan *et al.* 2016). As a result, several studies (John and Christopher, 2013; Christopher, John, & Sudhahar, 2014) found that peer influence is strong, especially in the consumption of luxury products that often are consumed publicly. Makgosa and Mohube (2007) indicate that young consumers seek their peers’ opinions before purchasing luxury products.

2.4.1.3 Work group influence

Work groups are a more formal primary reference group that have a great influence on what an individual purchases because the members of this group interact frequently (Reza & Valeecha, 2013). According to Shiffman and Kanuk (2007), work groups are classified into two types, formal work groups and informal friendship-work groups. The formal work group comprises of people who work together as part of a team; therefore, they have an ongoing opportunity to influence each other’s purchasing and consumption-related attitudes and actions. However, people who formed a friendship due to working for the same organisation are considered to be informal friendship-work group. These individuals might not even work for the same department but often meet during company functions or tea breaks. As individuals spend a significant amount of their time at their workplaces interacting with colleagues, they tend to influence each other’s consumption behaviour (Bearden & Etzel, 1982). This is true, especially when it comes to products such as clothing (McDermott & Pettijohn, 2011), mobile phones (Singh & Goyal, 2009) and cars (Reza & Valeecha, 2013).

2.4.2 Comparative reference group

Escalas and Bettman (2003) maintain that comparative reference groups are formal groups where individuals do not interact often with their group members; however, they indirectly influence these individuals (Martin & Bush, 2000). Cocanougher and Bruce (1971) assert that the influence of comparative reference groups is possible only when individuals’ attitudes are favourable towards these groups. Celebrities are a good example of comparative reference groups (Ahmed, Farooq & Iqbal, 2014). This type of comparative reference group is discussed below:

2.4.2.1 Celebrities

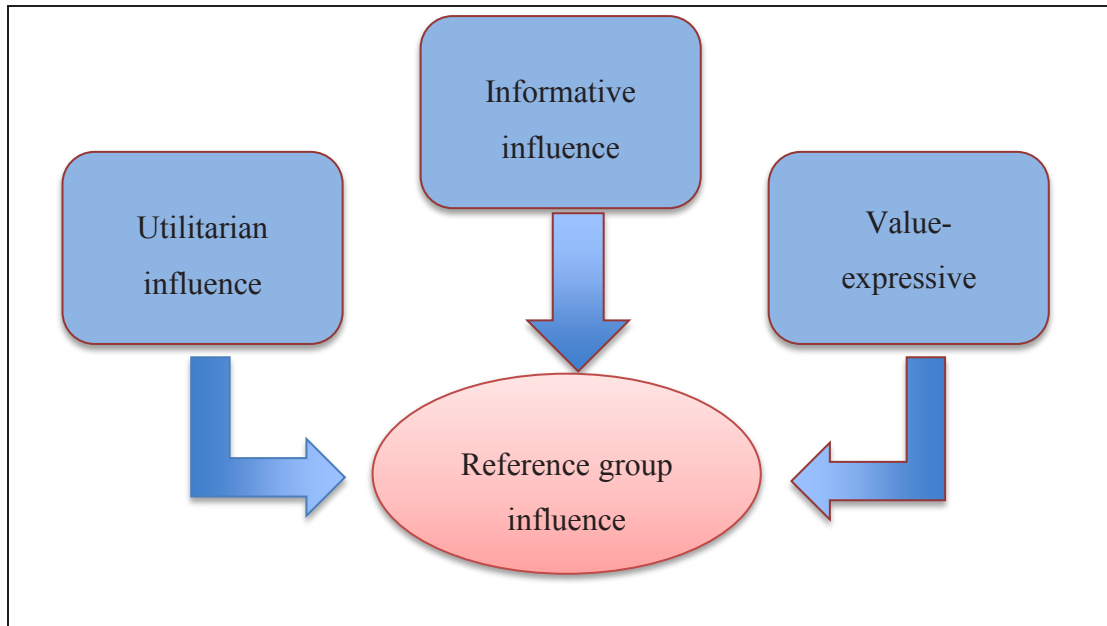
Celebrities are individuals who are well known to the public (Ahmed *et al.*, 2014). These individuals have special skills and live extraordinary lifestyles (Slisbury, 2009). Many people desire to be like them to the extent that they even imitate their consumption behaviour (Wang, 2005). As a result, celebrities are viewed as a powerful force in creating interest or actions with regard to buying or consumption of goods and services (Lafferty & Goldsmith, 2004). As such, companies pay celebrities a lot of money to endorse their products, in anticipation that the celebrity fans will respond positively to the celebrity’s association with their product (Shiffman & Kanuk, 2007).

2.5 Types of reference group influence

There are two schools of theory for reference group influences. The first school of theory categorized reference group influence into three different types of influences, namely value-expressive, information and utilitarian (Al-Nahdi, 2015, Bearden & Etzel, 1982). While the other school of theory indicates that there are only two types of reference group influence, which are a normative and informative influence (Burnkrant & Cousineau, 1975; Park and Lessig, 1977; Bearden & Etzel, 1982). Actually, these two classifications of theories provide the same content but only differ in the level of classification. According to the second theory,

normative influence contains two parts known as a utilitarian and value-expressive influence (Park & Lessig, 1977; Bearden & Etzel, 1982). Figure 1 reflects the types of reference group influence.

Figure 1: The types of reference group influence



Source: Adopted from Park and Lessig (1997)

2.5.1 Informational influence

Informational influence only takes place when the consumer conducts research before making an informed decision on what to purchase or consume. When individuals are uncertain on what to buy, they search for more information from different sources of information (Kelman, 1961). Consumers are more likely to accept information from credible sources (Bearden & Etzel, 1982). In addition, when consumers lack information concerning a certain brand or the experience of consuming a particular product, they may feel that the information and suggestion from their reference group are trustworthy and therefore accept it with a high degree of confidence. For instance, consumers trust recommendations from doctors, celebrities, opinion leaders, role models and so forth. However, according to Han and Kim (2010), there are some boundaries of informational influence as stated that, “The information influence only functions when the individual regards the behaviour and value of reference group members as potentially useful information and takes them into consideration.”

2.5.2 Utilitarian Influence

Utilitarian influence is known as a “compliance process”, in which consumers are prepared to satisfy a particular group’s expectation in order to gain their praise or to avoid punishment from the group (Kelman, 1961). Rock (1990) confirmed this is his famous Asch Experiment where he discovered that the participants were willing to copy group answers, even changing their original correct answers in the process. This reveals how individuals strive to associate themselves with particular social groups in order to remain acceptable or to obtain a position in the society. The same knowledge has been utilized extensively in the field of marketing communication, where an advertisement shows an individual attaining a certain position by merely purchasing and consuming a specific branded product.

2.5.3 Value-Expressive Influence

This influence may best be described by the “identification process” in which individuals are willing to act in a manner that makes them look similar to those in the group they want to belong to in a society (Zubai & Bataineh, 2013). According to Han and Kim (2010) individuals even adjust their behaviour to emulate their reference group. Therefore, under value-expressive influence, consumers may enthusiastically follow their reference group’s beliefs and rules, while rejecting the praises or punishments received, and decide to completely accept and internalize the value of that reference group.

3. RECENT STUDIES ON REFERENCE GROUP INFLUENCE IN DIFFERENT CONTEXTS

Al-Nahdi, Ghazzawi and Abu Bakar (2015) investigated the behavioural factors that influence Real Estate purchasing. The findings from their study indicated that the intentions to buy Real Estate are influenced by location, public service, and the reference group. In addition, Panthura (2011) asserts that a reference group has a strong influence over publicly consumed products. As such, the study conducted by Razak, Ibrahim, Osman and Alias (2013) also found that reference groups have a strong influence on intentions to buy a house in Malaysia.

Hsu, Kang and Lam (2006) explored Chinese travelers’ opinions on three reference groups’ views and motivations to conform with them concerning the trip decision to Hong Kong. The study established that individuals are more likely to comply with their primary reference group’s (i.e., family, cousins and friends) opinions than their secondary reference group’s (i.e., travel agents) opinions concerning visiting Hong Kong. Therefore, reference group influence appears to be all pervasive across a wide array of decision areas.

The study conducted by Pimp (2007) found that individuals that stay in a collectivistic community, like Thailand, gain an education so that they can be accepted in their respective societies. The choice of an education institution is highly influenced by the reference groups in Thailand, especially friends and family. Before choosing a career individuals need to ensure that they enroll for study in the right course and do not oppose social approval.

In 2013, Reza and Valeecha examined the influence of social reference groups on automobile purchasing decisions among the young executives. The findings of the study revealed that the younger generation is more likely to be influenced by the reference group when buying a car, compared to the older generation. Previous studies indicate that a reference group plays a major role in consumer behaviour for goods utilized in public settings, such as an automobile. The study further revealed that the reference group also influences the preference for certain brands and products.

Hoffmann and Broekhuizen (2009) have demonstrated the relevance of “consumers’ susceptibility to interpersonal influence in an investment context. In a survey of individual investors, investment-related knowledge, psycho-social risks, and social needs emerge as antecedents that explain investors’ susceptibility to informational and normative influence. The study shows that investor’s susceptibility to normative influences increases transaction frequency, whereas susceptibility to informational influence decreases transaction frequency”.

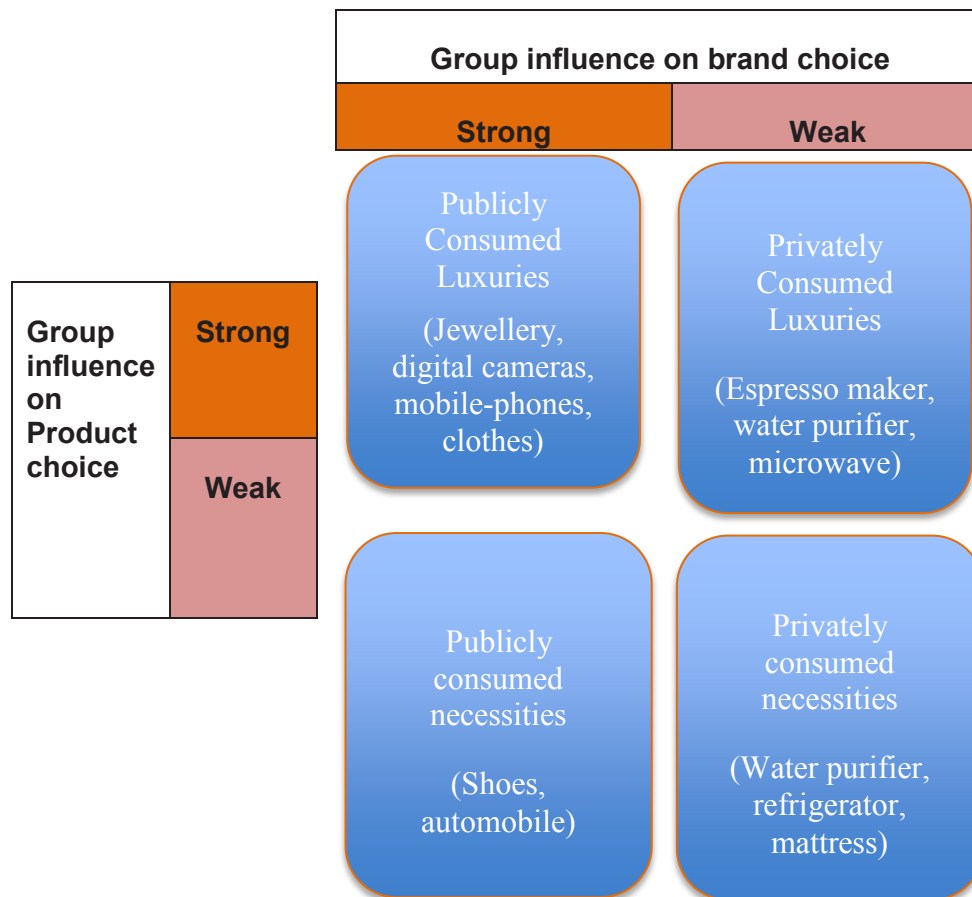
Heinz and Kühling (2009) examined the factors of pro-environmental consumption, concentrating on the influence of reference groups and the study established that consumption patterns of reference individuals meaningfully influence all types of pro-environmental consumption. As such, their influence is established to be the highest in the case of organic food consumption.

4. MEASURING REFERENCE GROUP INFLUENCE

The reference group influence on purchasing decisions is a function of two conditions. The first condition affecting the purchase decision is that the product should be "exclusive" in some way (Al-Jeraisy, 2008). As a result, the reference group has a stronger influence on consumers when they buy luxury products than when they buy necessities (Panthura, 2011). Luxury products can be defined as products owned by few people (Bock, Eastman & McKay, 2014), while necessities are owned by almost everyone. The second condition is visibility dimensions. Visibility dimensions refer to the product and brand being seen and identified by other people. This has an effect mainly on brand selection decisions (Gillani, 2012). Visibility dimension is divided into two broad categories; private and public dimension. The purchasing decisions of products that are consumed in public are more influenced by a reference group, while the influence of reference groups on privately consumed products is weak (FrouzanFar, Sorayya & Faezeh, 2012). Public products are goods that other individuals are aware that you own and use. Furthermore, they can easily identify those products. On the other hand, private products are the products that consumers can use at home or at their private spaces. Except for consumers' immediate family, other people will not be aware that an individual possesses or uses the product.

Combining the concepts of public versus private consumption and luxury versus necessity products produces the following four conditions: (1) publicly consumed luxuries, (2) publicly consumed necessities, (3) privately consumed luxuries, and (4) privately consumed necessities. The following figure illustrates the degree of influence on publicly versus privately consumed products and luxury versus necessity items.

Figure 2: Public vs. Private and Luxury vs. Necessity dimensions with product and brand choice



Source: Adopted from Bearden and Etzel (1982)

5. CONCLUSION

Reference groups are known as social groups that are significant to an individual and against which the individual compares himself or herself. Early research focused on classification systems for the reference groups to which an individual turns as a standard for behaviours. In order to understand reference group influence on consumer behaviour, social identity theory was used. Social identity has been utilised by psychologists to understand the link between individuals and the functions of groups. A human is a social creature that needs to belong to a particular group in which they try to conform and use other persons as reflections on how to behave. For example, a member group is a reference group to which an individual belongs, whereas an aspiration group is a reference group to which an individual aspires to belong. Research also revealed that consumers avoid associating themselves with certain groups and those groups are known as "avoidance group". More recent reference-group research is based on conformity and social comparison theory. Consumers use other individuals as a source of information for decision making and assessing their beliefs about the world. This evaluation of opinions and abilities uses relevant others who share beliefs and are similar on relevant dimensions. Three types of reference-group influence have been identified in consumer research: informational, utilitarian, and value expressive.

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**CONSUMER PURCHASE DECISIONS: EXPLORING THE EFFECTS OF PRODUCT
PACKAGING ELEMENTS OF ALCOHOLIC BEVERAGES**

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Please indicate topic (i.e. Marketing)

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ABSTRACT

Product packaging design and its various elements have become more complex due to the advancement of its role into being a critical factor of marketing communication. The role that packaging plays in the determination of consumer purchase decisions has been a recognised area of research in recent years. This study sought to explore the various packaging elements

and how it effects consumer purchase decisions. Exploratory Factor Analysis (EFA) was performed on the items using Varimax rotation with Kaiser Normalization. Regression and multiple regression analysis was performed to test for causality between the verbal and visual element and purchase decisions. Verbal elements had no significant effect. Packaging size as part of visual elements however was shown to be the most significant precursor of purchase decisions. Time pressure was also considered as a predictor and was repeatedly shown to significantly impact on the final purchase decision of alcoholic beverages.

1. INTRODUCTION

The role of packaging has changed drastically over recent years. Once considered as merely housing for a product, packaging is now seen as an extension of a product itself. Although still fulfilling the intended role of product housing, packaging has become an important marketing communication tool (Madar, 2015; Neacsu, 2014) which speaks to the quality of the product (Chrea, Melo, Evans, Forde, Delahunty, & Cox, 2011; Bottomley & Doyle, 2006). Product packaging can trigger approval or rejection of a product which determines the likelihood of whether the product will be purchased for consumption or not. It has inadvertently become an important aspect of strategic marketing functions which ultimately impacts on the way in which consumers behave. The way in which consumers behave comprises a combination of activities or influences that occur before, during, and after a purchase (Parumasur & Roberts-Lombard, 2014). The perception consumers have of product packaging is an essential milestone in the decision-making process and is considered the final step in the consumer behaviour process (Deliya & Parmer, 2012).

Packaging has been an essential research topic in recent times. It has however experienced a significant shift in focus from that of its product housing functions to that of its' role in marketing and advertising (Madar, 2015). Packaging has therefore been established as a vital tool in marketing communication that has a bearing on purchasing behaviour (Deliya & Parmer, 2012). Individual packaging characteristics such as colour or shape do not have significant effects on consumer purchasing behaviour and cannot be analysed in isolation. For this reason, it would be pertinent to address this relationship from a multi-faceted viewpoint to include elements such as visual and verbal elements of product packaging and how it affects consumers purchase decisions. The time (or lack of time) consumers have to make a final purchase decision also impacts on the final consumer purchase decision (Lin, Liang, Teh, & Lai, 2015) and was subsequently also considered as a determinant of consumer purchase decisions in this study.

2. LITERATURE REVIEW

A key question is whether packaging elements collectively or separately have an influence on consumer purchase decisions. The following sections investigate packaging from a visual and verbal perspective and ties the elements into consumer purchase decisions.

2.1 Packaging

Representing the extrinsic element of a product (Deliya & Parmar, 2012), packaging is a crucial element for communicating the benefits associated with a product and can thus be seen as a silent yet expressive sales function (Cousté, Martos-Partal, & Martinez-Ros, 2012). Taking consumer perceptions into account, packaging plays an important role when faced with a choice of comparatively similar products (Gómez, Martin-Consuegra, & Molina, 2015). It is for this reason that the role of packaging has evolved into a strategic marketing function. Packaging allows for easy product and brand identification as well as dissemination of product information which also contributes towards whether the product is convenient and easy to use, ultimately influencing the final purchasing decision (Mishra & Jain, 2012).

Kuvyaite, Dovaliene, and Navickiene (2009) are of the view that packaging is the most valuable tool for marketing communications. It can however not be quantified for measurement in such general terms such as product housing or protection, and a more detailed focus on specific elements of packaging is required. Packaging elements are therefore characterised by verbal and visual elements which make room for more of a detailed and robust interpretation of the effects on consumer purchase decisions (Leng, 2010).

2.1.1 Verbal elements of packaging

Verbal elements include packaging features such as product information, country of origin, and branding. Within the context of this study, country of origin is not considered as the packaging subjects of this study include only beverages produced by South African Breweries (SAB). Henceforth, product information and branding are discussed.

Product information pertains to the information that appears on the exterior of product packaging. This includes information such as when the product was made or packaged,

the ingredients contained within the product, and in some cases assembly instructions (Leng, 2010). The way in which consumers experience products is enhanced when packaging sets up sensory expectations, such as what consumers see or smell for example, that are compatible with the overall image of the product in the mind of the consumer (Spence, 2012). This may so be the case where consumers are mindful of which ingredients they choose to consume, or what percentage of alcohol they prefer in their beverages.

Product differentiation occurs less seemingly as a result of product quality or functionality due to ever increasing levels of similarity of products in the marketplace. Beverage manufacturers, in this case, produce similar categories of products such as beer, fruit ciders, wine, or bourbons. These similarities between brands impede on the route in which marketing communication takes to lure consumers away from competitors (Tangari & Smith, 2012). This is where branding begins to play an important role. As is the case in any product or service industry with similar offerings, differentiation can be achieved through effective positioning of the manufacturer's brand in the minds of consumers. Branding assists in the formation of perceptions in the consumer's mind that contribute to the overall image of a business (Girma & Adissu, 2016). In the case of the alcoholic beverage industry, effective brand positioning could bear dividends through positive consumer associations of the brand's products which have an impact on purchase decisions.

2.1.2 Visual elements of packaging

Visual elements of packaging include the colour of the label or packaging, the size of the package, the material of which the packaging is made, and the graphics that appear on the packaging. The colour displayed on packaging plays a role in the consumer's decision-making process in that it contributes to various consumer moods and draws the attention of potential consumers by standing out from its' competitors (Raheem, Nawaz, Vishnu, & Imanuddin, 2014). Colour also illustrates the inherent properties of certain products that speak to consumer perceptions of taste and levels of healthiness such as in the case of food products (Vasiljevic, Pechey, & Marteau, 2015). Colours such as blue and green for example are associated with higher healthiness perceptions than red (Vasiljevic, *et al*, 2015) when displayed on food packaging.

Every visual stimulus processed by the human perceptual system contains colour information which features as an important factor in decisions and judgements (Elliot,

Niesta, Greitemeyer, Lichtenfeld, Gramzow, Maier & Lui, 2010). Perceptive thoughts on colour are stored in memory with associated concepts, or with associated experiences such as that of food or beverage products in the past (Hanss, Bohm & Pfister, 2012; Grossman & Wisenbitt, 1999). Pertaining to food or beverage products, colours kindle pleasant or unpleasant experiences of particular products or brands. This posits a plausible link between perceived appropriateness of colours and their association with specific product categories (Hanss *et al.*, 2012; Singh, 2006). Colours depicted on packaging consequently play a role in consumer perception development.

Economic stagnation, rising commodity costs, and increasing concerns about waste and overconsumption has brought to the fore the importance of product packaging size (Esterl, 2011; Krishna, 2009; Scott, Nowlis, Mandel & Morales, 2008). After decades of 'supersizing' products for added consumer perceived value, businesses have begun experimenting with smaller packaging sizes to counter rising raw material costs (Felten, 2012). Reputable organisations such as Coca-Cola, Kelloggs, and some restaurant franchises have adopted this approach. However, packaging size reduction doesn't come without its' risks. Consumers may perceive product downsizing as being a dishonest effort by businesses to increase profits, and tend to associate smaller product packaging with less derived value. As a result, companies rarely announce changes in product size to avoid a negative consumer response (Kolk, Lee, & van Dolen, 2012). These innovations are therefore gradually phased into the market without communicating it into the marketplace.

Regarding packaging material, there are certain benefits associated with glass packaging, hence glass bottles in the case of beverages, to include the retention of flavour, the prevention of moisture penetration such as in the case of cardboard packaging, and the ease of opening and closing of a bottle. Notably, consumers associate glass bottles with that of premium products and perceive the products packaged in glass of being of higher quality (Ojha, Sharma, Sihag, & Ojha, 2015). That being said, glass packaging does have its drawbacks to include the brittle nature of glass, the possible food or beverage spoilage due to light penetration, and its' physical weight resulting in high associated transport cost (Mirnezami, 2010). These negatives have somewhat been addressed through the application of coatings to improve the strength and breakage resistance of glass bottles allowing manufacturers to use thinner glass subsequently reducing its weight (McKown, 2000), all of which has a rollover effect on transportation costs.

Aluminum tin cans is considered the most versatile form of beverage packaging as it offers a combination of unmatched physical protection of its contents, barrier properties against light spoilage, recyclability, consumer acceptance, and formability which refers to the ability of manufacturers to form the tin can into any desirable shape (Ojha, *et al.*, 2015). Another benefit is its' decorative potential in that manufacturers have sufficient space on the tin cans to apply graphics for branding purposes.

As the final visual element of packaging, graphics are what make up the physical image of the product which contributes to brand image perceptions (Pegler, 2014; Silayoi & Speece, 2004). Visually appealing graphics attract consumer's attention possibly diverting attention away from competing products (Rundh, 2005). The graphics could depict a specific product characteristic that highlights heightened value for consumers, or it could be a catchy and entertaining graphic that elicits further attention from the consumer. In the case of food or beverage products, consumers try to imagine the taste, feel, or smell of a product while engrossing the graphics depicted on the packaging, all of which plays a role in the development of purchase decisions (Underwood, Klein, & Burke, 2001).

2.2 Time Pressure

Consumers' ability to engage in thoughtful reflection when having to make a purchase decision is adversely affected when subjected to time constraints (Phillips, Fletcher, Marks, & Hine, 2016). Clement, Kristensen, and Gronhaug (2013) found that consumers under time pressure do not pay attention to fewer products, as consumers still scan their eyes across the various brands available. Consumers under time pressure also neglect to pay more attention to the branding and product information (Clement *et al.*, 2013). These findings support Phillips *et al.*'s (2016) position that consumers' thoughtful reflection is compromised when experiencing time constraints. Consumers experiencing time pressure do not necessarily spend less time in front of a particular product category (Clement *et al.*, 2013).

2.3 Consumer Purchase Decisions

For an individual to make a decision to purchase an alcoholic beverage, options from which to choose need to be present. A decision can be defined as the selection of an option from two or more choices (Schiffman & Kanuk, 2004). Purchase decisions involve a series of

judgments made prior to a purchase decision that begins once a willingness to buy has been established (Borishade, OlalekeOluseye, Favour, & Prosper, 2015). Consumer purchase decisions do not occur in isolation as it involves a progression of thoughts and judgements as a part of a process.

Schiffman and Kanuk (2004) identified three levels of consumer decision-making regarding the degree of effort they require namely extensive problem solving, limited problem solving, and routine response behaviour. Extensive problem solving occurs when the level of consumer involvement is high. Typically consumer involvement is high when purchasing an item that involves the investment of a lot of time and money. An example of this would be when researching for the purpose of purchasing a motor vehicle. Wide-ranging information is gathered permitting consumers to make informed purchase decisions. Moderate levels of consumer involvement occur when information about a product is limited such as when purchasing clothing for example. Limited problem solving takes place at this level of consumer decision-making due to the lower levels of financial investment and time required to purchase clothing.

Routine response behaviour occurs when the level of consumer involvement is low such as when purchasing fast-moving consumer goods to include consumables. Consumers are not required to gather information about these products due to their high levels of purchasing frequency or experience. Purchases thus occur on a routine basis as consumers are copiously aware of all that needs to be known about the product and have formed a habit of purchasing this particular product.

2.4 Consumer Decision-Making Process

Lantos (2015) developed the decision-making process which contains various stages through which consumers must proceed for a final decision to be made. Originally coined as the consumer buying process by Kumar and Tyagi (2004), the consumer decision-making process consists of 5 stages and is considered a marketers' roadmap to getting into consumer's minds. This roadmap purposes to assist marketers in determining the most appropriate marketing mix and assists in the development of the most suitable integration of marketing communication tools (Qin & Foosiri, 2016) based on the understanding of each stage of the process. This process is illustrated in figure 1.

Figure 1: Consumer Decision-Making Process

Source: Lantos (2015)

As the first stage of the consumer decision-making process, problem recognition occurs when consumers feel they have a need or desire that has gone unfulfilled (Lantos, 2015). The consumer has thus come to the conclusion that there is a discrepancy between the actual and desired condition which may have inadvertently been stimulated by internal or external motivations (Kumar & Tyagi, 2004). The recognition of the problem subsequently provokes consumers to be better informed on ways in which to address it.

This provocation plausibly leads to the gathering of information on how to address the problem. This process, referred to as information search, involves consumers collecting information to reduce doubt consequently lowering consumer perceived risk. Before information is collected from the marketplace, an internal search occurs where consumers attempt to determine whether or not they already have enough information that will allow them to make an informed and low-risk purchase decision (Lantos, 2015). This existing information will have been acquired from previous experience. Internal searches inevitably have one of three outcomes. Consumers can either make an immediate purchase decision of a preferred product based on their current knowledge of available options. Consumers may put the process of decision-making on permanent or temporary hold due to financial or time constraints. Or the consumer may decide to expand the search to external sources (Lantos, 2015) to include information contained from within the marketplace.

If the collection of marketplace information takes place, consumers mould their individual beliefs around the information gathered on the various brands available which effect their levels of desirability for a particular brand. Once sufficient information about various brand options has been gathered, consumers can evaluate the alternatives to identify the most suitable alternative (Lantos, 2015).

Post-purchase behaviour involves the evaluation of the actual product after a purchase has been made. This evaluation includes attitudes, preferences, and judgements (Lantos,

2015) as to whether the product was able to satisfy the need identified in the problem recognition stage. Consumers do not necessarily progress through all the stages as some stages may be skipped or reversed (Qin & Foosiri, 2016). In the case of high involvement decisions where extensive problem solving takes place, consumers would typically progress through all the stages of the consumer decision-making process (Schiffman & Kanuk, 2004). This is explained by the fact that high involvement decisions occur when purchasing products that incur high financial and time costs.

3. PROBLEM INVESTIGATED

Product packaging has a proven effect on consumer purchase decisions (Deliya & Parmar, 2012; Kuvykaite, Dovaliene, & Navickiene, 2009). Individual consumers, however, vary in terms of what they deem important as well as what catches their attention pertaining to various packaging elements (Raheem *et al.*, 2014). Upon likening the effect of visual versus verbal elements on consumer purchase decisions, Silayoi and Speece (2004) determined that visual elements feature as having a stronger influence on consumer purchase decisions. The quandary regarding the afore-mentioned studies rests on the fact that there are no clear-cut definitions made as to what they mean when referring to consumer purchase decisions. This is evidenced by the interchangeable use of the terms purchase decisions and purchase behaviour.

This study consequently details the consumer decision-making process of which purchase decisions forms but only the penultimate step in a 5 stage process. Considering the fact that consumers need not progress through all the stages of the consumer decision-making process, this study focuses only on the stage where the final purchase decision is made and is viewed as the pivotal stage in the process before an actual purchase takes place.

4. RESEARCH OBJECTIVES

Given that product packaging cannot be quantified for measurement into such general terms as packaging or product housing, this study sets off with the purpose of exploring the various packaging elements and their effects on consumers' purchase decisions.

5. RESEARCH METHODOLOGY

This study adopts an exploratory and quantitative research design. 300 usable questionnaires were collected from respondents of a legal drinking age of 18 years and older. The questionnaires were distributed amongst consumers in various liquor stores across the city of Bloemfontein, South Africa, through the adoption of convenience sampling. The questionnaire consisted of three sections. The first section contained demographic questions about the age of respondents, gender, and SAB alcoholic beverage most often purchased. The second section contained rating scale statements measuring perceptions of consumer purchase decisions using five-point Likert-type scale questions ranging from strongly disagree to strongly agree. The third section of the questionnaire contained rating scale statements pertaining to the visual and verbal elements of packaging, also using Likert-type scale questions ranging from strongly disagree to strongly agree. The second and third sections' items were all addressed by the respondents pertaining to the SAB beverage they most often purchased.

For the section containing the visual and verbal elements, an adapted version of Deliya and Parmar's (2012) measurements scales were used. This instrument asks consumers to rate their perceptions of the various visual and verbal elements of packaging to generate an overall impression of alcoholic beverage packaging. The Statistical Package for the Social Sciences (SPSS) version 24 was used to report on the demographic variables of the dataset. SPSS was also used to regress the dependent variable (purchase decision) onto the independent variables (packaging elements) through the use of regression and multiple regression techniques. Through the use of multiple regression, the various elements of packaging were used to build a model that would be most appropriate for explaining consumer purchase decisions.

5.1 Reliability and Validity of Constructs

Measurement reliability is concerned with the internal consistency of items and whether items within a questionnaire reliably reflect the underlying construct, they intend to measure (Christensen, Doherty, Bjorner, & Langberg, 2016). The most commonly applied method to test for reliability is the Cronbach's Alpha which should reflect a value of 0.7 or higher to be considered reliable (Pallant, 2013). Some items were removed from the constructs graphics, colour, materials, and product information in order to raise the Cronbach's Alpha value to above the acceptable level of 0.7. The measurement constructs

subsequently all projected suitable levels of reliability with Cronbach’s Alpha values reporting above 0.7.

Exploratory factor analysis (EFA) was performed on the items using Varimax rotation with Kaiser Normalization. Six iterations were expected as the EFA covered items pertaining to six underlying constructs (brand, graphics, colour, size, product information, material), however only five iterations converged. This was due to graphics and colour converging into one single factor resulting in a lack of discriminant validity between the two constructs. The items of the two constructs were joined into one construct and subsequently renamed ‘coloured graphics’. The EFA revealed no cross-loadings across the various constructs satisfying discriminant validity criteria for the remaining constructs.

Convergent validity which pertains to whether the measures of the constructs that should be related are in fact related. All measures were shown to satisfy convergent validity criteria with factor loadings above 5 (see table 1), with the exception of one item under the material construct (factor loading of 0.441). This item was removed and EFA analysis was repeated. The removal of the item resulted in only two items remaining for the material construct, and compromised the constructs reliability as illustrated in Table 1. The material construct was therefore excluded from further analyses.

Rotated Component Matrix^a

	Items	Component					Cronbach's Alpha
		1	2	3	4	5	
Brand	15.1	0.776					0.8688
	15.2	0.777					
	15.3	0.768					
	15.4	0.674					
	15.5	0.662					
Graphics	10.2		0.787				0.8205
	10.3		0.810				
	10.4		0.660				
Colour	11.1		0.634				0.8708
	11.3		0.599				
	11.4		0.752				
Size	12.1			0.732			0.8500
	12.2			0.624			
	12.3			0.762			
	12.4			0.799			
	12.5			0.651			
Product Information	14.1				0.738		0.7310
	14.3				0.826		

	14.4				0.764		
Material	13.2					0.801	0.4840
	13.4					0.704	

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 5 iterations.

Table 1: Exploratory Factor Analysis

5.2 Use of single-item measure for Purchase Decision and Time Pressure

The use of single-item measures has been the subject of strenuous debate in literature. Proponents of conventional multi-item measures strongly advocate multiple-item use (Boyd, Grove, & Hyatt, 2005; Diamantopolous & Winklhofer, 2001). Most textbook literature dealing with measurement development agree with the view of multiple-item measures (Viswanathan, 2005; DeVellis, 2003). Single-item measures are quite often deemed notoriously unreliable due to inconsistent responses obtained in repeated use of the measure (Churchill, 1979) and it is widely agreed that longer scales contribute to more reliable measures. It is also considered that no parameter estimations can take place in structural equation models with single-itemed reflective models for example (Fuchs & Diamantopolous, 2009).

On the other hand, evidence suggests that the presence of additional items can significantly reduce the value of the added items by inflating error term correlation which occurs when the measures do not fully represent an actual relationship between the independent and dependent variable (Drolet & Morrison, 2001). This may result in minimal added value being added by any additional measurement items. Respondents may also partake in mindless response behaviour (Drolet & Morrison, 2001) as a result of inferences they may make with remaining items of a particular scale (Fuchs & Diamantopolous, 2009).

Proponents of multiple-item scales also argue that single-item measures fail to capture a construct from different angles (Wirtz & Lee, 2003) compared to multiple-item scales raising validity concerns. Here it can be argued that from a content validity perspective, single-item measures yield better insights into respondent perceptions since the item may be easier to understand (Wanous, Reichers, & Hudy, 1997). In terms of certain criteria stipulated by Fuchs and Diamantopolous (2009) in which single-item measures are deemed acceptable, an example of one such concrete construct (Rossiter, 2002) would be 'buying intention'

which is not considered an abstract construct as is the case of creativity or corporate culture (Fuchs & Diamantopolous, 2009) for example.

This study subsequently adopts single-item measures for purchase decision and time pressure due to the concrete nature of the measures. Any additional items to these measures may result in error term correlation and subsequently diminish any derived value intended for the measures in their entirety. From a face validity perspective, there are no conceivable additional items that can be logically applied to the already well understood and concrete constructs.

6. RESULTS AND FINDINGS

6.1 Respondent Demographics and Descriptive Statistics

Of the 288 respondents that indicated their age, 169 (58.68%) were female and 119 (41.32%) male, resulting in a relatively even spread gender representation. The majority of respondents (84.7%) were under the age of 30 years old equating to a relatively young sample population. 10.7% of respondents were in their 30's, with only 4.5% of the population being older than 50 years old.

Table 2 provides a breakdown of male and female purchases regarding the alcoholic beverage they purchase most often. Male respondents notably purchase full bodied beers most often (Castle Lite and Carling Black Label) where female respondents are more drawn to alcoholic fruity cocktails (Brutal Fruit and Flying Fish).

Alcoholic beverage most often purchased	Gender		Total
	Male	Female	
Castle Lager	9	3	12
Castle Lite	37	15	52
Castle Milk Stout	1	6	7
Carling Black Label	20	5	25
Carling Blue Label	3	2	5
Hansa Pilsener	4	4	8
Flying Fish	13	31	44
Grolsch Premium Lager	1	0	1
Miller Genuine Draft	8	4	12
Peroni Nastro Azzurro	1	1	2
Pilsner Urquell	0	1	1
Reds	8	18	26

Brutal Fruit	11	53	64
Sarita	1	8	9
Total	117	151	268

Table 2: Age and Alcoholic Beverage Most Often Purchased

Means and standard deviations of the constructs were calculated (see Table 3). The respondents placed high levels of importance on the size of packaging of alcoholic beverages ($M = 3.77$, $SD = 0.758$) and revealed high levels of agreement with satisfaction on their final purchase decision ($M = 3.95$, $SD = 0.965$).

Table 3: Descriptive Statistics for Scales

Scale	N	Mean	Std. Deviation
Purchase Decision	289	3.95	0.965
Coloured Graphics	300	3.47	0.794
Size	300	3.77	0.758
Product Information	300	3.33	0.760
Brand	300	3.79	0.761
Valid N (listwise)	298		

6.2 Regression and Multiple Regression Analysis

Analyses were performed on how purchase decision regresses on the various visual and verbal elements of packaging. Considering the visual elements, only size was found to have a significant effect on purchase decisions, albeit a weak positive effect ($\beta = 0.189$; $\text{sig} = 0.012$). Multiple regression was then performed on the visual elements (brand, coloured graphics, and size). A second model was subsequently tested with the inclusion of material as the fourth element of visual elements. Size was found to have significant causality on purchase decisions in both cases ($\beta = 0.172$; $\text{sig} = 0.029$; $\beta = 0.082$; $\text{sig} = 0.033$ respectively) assuming the other variables in the models remained constant. In terms of verbal elements, neither branding nor product information had an impact on purchase decisions, be it individually or as a combined model using multiple regression.

Upon testing its effect on purchase decisions, time pressure was shown to have a significant positive effect ($\beta = 0.242$; $\text{sig} = 0.001$). Summated scales were then created for the visual and verbal elements. Multiple regression was subsequently performed to include visual elements, verbal elements, and time pressure interchangeably regressing purchase

decisions against the respective models. Unaided, time pressure was shown to have significant causality on purchase decisions, this while working on the assumption that the other variables in the proposed models remained constant. Only these significant findings are illustrated in model 1 and 2 in Table 4.

Table 4: Multiple regression on purchase decisions

	Predictors	β Coefficient	Sig	R ²
Model 1	Visual elements	0.141	0.259	0.041
	Verbal elements	-0.860	0.437	
	Time pressure	0.222	0.006	
Model 2	Visual elements	0.087	0.402	0.039
	Time pressure	0.216	0.008	

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

As part of the visual elements of packaging, size of the packaging repeatedly demonstrated an effect on purchase decisions. The alcoholic beverage industry has seen innovations in this regard as beer bottles and tin cans have been made available in sizes larger than the original sizes introduced into the marketplace. Industry managers could however be pressed to innovate further as to create associations between packaging sizes and various occasions for which a particular beverage is being purchased through marketing campaigns. Large corporate gatherings for example could provide justification for the purchase of larger beverage packaging sizes which could result in cost savings for consumers. The same approach could be applied from an individual consumer perspective. Industry managers are therefore tasked with determining exactly where the value lies for consumers pertaining to packaging size, taking into account consumer motivations for purchasing decisions through the possible implementation of short questionnaires at the checkout points that establish the consumer's reason for their purchase of the specific size or quantity of the beverage and the occasion for which the beverages are intended.

Time pressure had the strongest effect on consumers purchase decisions. Businesses have no control over the time available for consumers to make a purchase decision. Industry managers can however turn their attention to this by innovating through means of technology freely available. Encouraging consumers to order alcoholic beverages through their businesses website for example can enable consumers to make immediate purchase decisions due to the low levels of involvement in purchasing alcoholic beverage

consumables. Consumers are therefore able to make purchase decisions without the added pressure of time constraints. The consumers order can then be assembled for immediate collection by the consumer upon arrival at the store. This is an innovation not commonly practiced within the alcoholic beverage industry.

8. CONCLUSIONS

It was the purpose of this research to determine the effect that various packaging elements has on consumer purchase decisions within the context of South African Breweries alcoholic beverages. The exploration of verbal elements (product information and branding) as antecedents revealed no causal effect on purchase decisions. Due to the range of circumstances under which consumers purchase alcohol, no accurate inference could be made on the role product information would play in determining purchase decisions before the analyses were performed. The lack of causality product information displayed therefore requires that a more detailed focus be directed at providing a comprehensive description of what product information comprises. Only then can causality on purchase decisions be established once appropriate measures have been developed.

The lack of causality of brand on purchase decisions presents a major upset in terms of expectations based on extant branding literature. This finding can perhaps be explained by the lack of consideration of other variables such as taste preference which could play an important role in purchase decisions of specific alcoholic brands. This void can also be explained by the fact that only one alcoholic beverage manufacturer was considered in this study (SAB), and no clear distinction was made as to whether the respondents should consider the brand of the manufacturer (SAB) or the brand of the individual alcoholic beverage (for example Castle Lager, Hansa, Flying Fish) indicated as being most often purchased by the respondent.

Important to note is the low levels of explanatory power derived from the models included in this study. Although significant positive relationships were reported relating to package size and time pressure, this study did not consider other variables that could plausibly have been greater predictors of purchase decisions. One such variable would be taste preference within this context. It is therefore recommended that taste preference be considered for future studies as a predictor of purchase decisions in the alcoholic beverage industry. Purchase occasion could also be considered as a predictor, and combined with taste preference could be a better predictor of purchase decisions. With the majority of the respondents (84.7%) being under the age of 30 years old, future studies could be pressed

to obtain populations that are more representative of all ages to avert this limitation. Age could be a critical factor when considering motivations for purchase decisions of alcoholic beverages as the motivations may change over time.

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WINES2WHALES MOUNTAIN BIKE EVENTS: RIDER SEGMENTATION

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WINES2WHALES MOUNTAIN BIKE EVENTS: RIDER SEGMENTATION

ABSTRACT

Sport participants invest a considerable amount of effort and time to actively participate in sporting events. Hosting a successful sport event, will not only provide a memorable, worthwhile experience for participants, but will also attract, retain and grow participation. This paper identifies different rider segments, specific to mountain bike sport events, through an analysis of the experiences of committed participants at the 2014 First National Bank Wines-2-Whales Mountain Bike Events (FNB W2W MTB Events). An online survey was conducted during participant registration, and a total of 244 questionnaires were administered. The results confirm various possible segment clusters. After considerable evaluation, 3 clusters were identified as viable segmentation possibilities.

THE INFLUENCE OF MUSICAL CONGRUENCE IN ADVERTISING ON ATTITUDE AND INTENT

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THE INFLUENCE OF MUSICAL CONGRUENCE IN ADVERTISING ON ATTITUDE AND INTENT

ABSTRACT

The influence of congruence of different musical elements (tempo, timbre, and pitch) in a television advertisement on consumers' purchase intent and brand attitude were explored in a South African context. The primary objective of the study was to investigate the influence of musical congruity and music congruity elements on attitude and intent. Two focus groups and an experiment were used to determine the outcome of the hypotheses. One television advertisement with four different musical manipulations were used. The results indicated that there were no significant differences between the different experimental groups as well as between the congruent music and the incongruent music. Implications of the results and recommendations for future research are discussed.

1. INTRODUCTION

"Research is rubbish and is killing the industry" Wallace Seggie, creative director, uttered when asked about research (Seggie, 2016). These are worrying words since research reduces the risk of a company, and helps to keep the focus on what the consumers want and need (Fletcher, 2013). Also, since it is costly to market a company (especially on television)

(Severson, 2013), it is imperative to reduce the risks of creating an advertisement or marketing campaign that does not speak to the intended audience.

One component that is critical to the success of an advertisement, is the music used in the advertisement, even so, some advertising agencies only show the screenshots of the advertisement to participants during market research, and do not expose them to the music used in the advertisement itself (Seggie, 2016). Music has been stated to be “up to 50% of a commercial” (Simmons, 2005), meaning that music communicates the message to consumers as much as the visual image of the advertisement. However, marketers often only add music to advertisements afterwards, rather than to use it as a method of communicating to consumers (Sturgess, 2007).

Music in advertisements can elicit an emotional response (DePuy, 2013), and can build an emotional relationship with the consumer (Simmons, 2005). Mood and arousal can be influenced by making use of music in advertisements (Jain & Bagdare, 2011:290), which can alter the purchasing behaviour of consumers (Redker & Gibson, 2009:2690; Brodsky, 2010:2). However, as music is a complex structure, it is not yet understood how music influences these responses as research has produced mixed results in terms of consumer responses on the fit, familiarity, and presence of music (Park, Park & Jeon, 2014:768). If companies could understand better how the complex structure of music influences consumers’ responses, these companies can use music to manipulate consumers to respond in a specific manner (Simmons, 2005), and they might be more willing to conduct proper market research on their proposed advertisements.

2. LITERATURE REVIEW

2.1 Musical Elements

Music consists of a complex multidimensional structure (Kellaris & Kent, 1994:382). The multidimensional structure of music can be manipulated in various ways to form either congruent or incongruent music in a television advertisement. In past research, as can be seen in Table 1, elements of the musical structure such as tempo and timbre have been manipulated to achieve incongruence in a scientific research experiment and have found that tempo can influence consumers’ verbal recall, while timbre have affected consumers’ verbal recall as well as their affective response (Oakes, 2007:45). However, the effect of incongruence in music in advertisements in South Africa is yet unknown.

Table 1: Musical Structure Congruity Elements

Influence on Consumers	Musial Congruity Element
Verbal Recall	Score Image Tempo Timbre
Visual Recall	Genre
Affective Response	Score Timbre
Purchase Intent	Score Mood
Attitude	Association Genre Lyrics

Source: Adapted from Oakes (2007:45)

All music or sound comprises of pitch, timbre, time, and loudness, the roots of music, and can function independently from one another. Different psychological processes and neural

substrates (a part of the nervous system that controls a specific behaviour or psychological state) underpin these components of music (Stewart, Von Kriegstein, Warren & Griffiths, 2006:2537), meaning that these distinctive components of music could induce different reactions in consumers if manipulated separately. Pitch, timbre, and time (tempo) will be evaluated in this study. However, as consumers have control over the volume of their television and computers, the influence of volume in advertisements will not be evaluated – the volume will stay constant throughout.

2.1.1 Pitch

In music, pitch is used by composers to construct melodies (patterns of pitch over a period), harmonies (performing more than one melody concurrently), and chords (presenting more than one pitch simultaneously) (Stewart *et al.*, 2006:2535). When a melody is transposed to a different key (from A major to D major, for example), the melody retains its essential form, provided the individual relations among the notes remains identical (Deutsch, 1999:359).

Watson (1942:34) determined that music with higher pitch levels are considered to be happier music. Also, research has found that pitch can influence the taste of food (Crisinel, Cosser, King, Jones, Petrie & Spence, 2012:203). Some studies have reported that low-pitched music were associated with pleasantness, while other studies found the opposite (Jaquet, Danuser & Domez, 2014:64) when they investigated the effect of pitch level on the perceived emotions of consumers. Therefore, not much is known about the effect that pitch has on consumers – especially in an advertising context. More research is therefore needed to investigate the influence of pitch in advertisements on consumers and how it influences their attitude towards a television advertisement.

2.1.2 Tempo

Tempo refers to the overall pace or speed of the musical composition (Levitin, 2006:15; Oakes & North, 2006:505). Tempo, therefore, is simply how often and how far apart the sound waves are created. If the sound waves are produced in a shorter space of time apart, the tempo will be quicker than when the sound waves are produced a longer time apart from each other.

In research, tempo has been found to be able to alter the pace of certain consumer behaviours (Kuribayashi & Nittono, 2014:1; Kämpfe, Sedlmeier & Renkewitz, 2010:440), such as making purchases in a retail setting. Kuribayashi and Nittono (2014:7) found that positive feelings were induced by moderate tempos (60 or 120 beats per minute), while extremely fast or extremely slow musical tempo did not have this effect. Tempo (in conjunction with preference) has been shown to have a significant influence on the amount that consumers within a restaurant setting spends on food and drink – slower music in conjunction with slower consumption influence consumers to increase spending (Caldwell & Hibbert, 2002:912).

However, not much is known about the effect of tempo on consumers in television advertising, and more research is needed to see whether this structural element of music can have specific effects on consumers' purchase intentions. In an experiment, tempo can be separated from other musical elements, such as volume and pitch, and manipulated separately (Oakes, 2003: 686). Tempo is investigated in this study to understand more of its effect on consumers in advertisements. Should companies have a better understanding of how tempo in advertisements affect consumers, they can apply this knowledge when creating their advertisements in the future.

2.1.3 Timbre

When equally loud notes on the same pitch is played by different instruments, consumers will note a difference in the sound. For example, if a C-note is played on a violin, it will sound

different that a C played on a trumpet even though it is the exact same note. The difference in the sound is called timbre, sound quality, or tone colour (Josephs, 1967:67) and can be used to express different parts of the “musical palette” (Stewart *et al.*, 2006:2535). Essentially, timbre can distinguish one instrument from another (Stewart *et al.*, 2006:2535), when the instruments are both playing the same note or melody (Oakes & North, 2006:505).

When a certain part of a musical instrument vibrates, it produces a sound. When this sound is analysed, it will reveal that the vibration is a combination of many partial tones (Seashore, 1938:96). Mostly, these partial tones are harmonics – which is integral multiples of the fundamental, or lowest, tones (Josephs, 1967:67). There are, however, also upper partials, the overtones, of which the harmonic is a special case (Josephs, 1967:67). These upper partials are what determines the sound colour or timbre of the instrument (Seashore, 1938:20). These tones differ from instrument to instrument, as it is what helps consumers to distinguish different instruments.

Not much is known about the effect of timbre on consumers, especially in advertising. However, as timbre can affect the mood of consumers listening to music (Lu, Liu & Zhang, 2003:83), it could also influence consumers’ behaviour. Therefore, this study will manipulate timbre to understand more about this structural element of music and its effect on consumers.

2.2 Music in Television Advertisements

The ubiquitous nature of music causes it to be intimately entwined with marketing activity (Oakes, Brownlie & Dennis, 2011:93). In marketing, music can contribute to an effective advertisement in six ways: by providing entertainment, adding structure or continuity, by making the advertisement more memorable, making use of lyrical language, by targeting a specific market, and by establishing authority (Huron, 1989:560). When music provides entertainment, it makes the advertisement more attractive, and engages the attention of consumers (Becker-Olsen, 2006:578). Music can also tie together a series of visual images in an advertisement, and thereby providing structure (Huron, 1989:561). Music is also used to drive the concept of the advertisements and to act as a facilitator to drive the concepts of the advertisement (Seggie, 2016).

Music and sounds are used in advertising not only to communicate non-verbally to consumers, but also to trigger the emotion of the consumer (Lewis, Fretwel & Ryan, 2012:80). According to Lewis *et al.* (2012:80), the most successful marketing campaigns use elements of emotional marketing to appeal to consumers, and thereby emphasises how important music is in an advertisement. Even though music is such an effective tool to communicate to consumers, it is often a low priority in the creative advertising process, and is added as an afterthought in the process (Oakes & North, 2006:505). However, as music can have a large impact on consumers as well as their decision to purchase, brands need to consider the music added to advertisements more carefully.

The use of music in television advertisements changed during the 1960’s when the use of music in film inspired a new way of using music in advertisements (Martin, 1959:1). The use of music in films are composed to evoke emotional responses from the audience, and the use of music, not as a jingle, but as a tool to assist in arousing emotions apart from the image, was introduced. After the successful advertising campaign of McDonald’s, who used a memorable song in their advertisement, many other companies followed suit, and the 1970’s and 1980’s was filled with songs that consumers found emotionally appealing (Taylor, 2012:116). Today the principle of music as a tool to evoke emotions is still used in practice and, utilised properly, music can increase the effectiveness of communicating a message to consumers (Alpert, Alpert, & Maltz, 2005:369).

One of the properties of music is that it lingers in the mind of the listener, therefore brands make use of music in an advertisement (Huron, 1989:562) in the hope that the advertisement,

as well as the brand or product, will be remembered by consumers. Researchers have found that utilising music in advertisements can lead to an increase in recall (Alpert *et al.*, 2005:370; Semenik, Allen, O'Guinn, & Kaufmann, 2012:344), can create awareness for the brand, and persuade consumers to purchase the advertised product or service (Kubacki & Croft, 2004:580). Music can alter the mood of consumers, thereby influencing their purchasing behaviour (Redker & Gibson, 2009:2690). Therefore, music is a useful tool for persuasion in advertisements (Alpert *et al.*, 2005:369).

In South Africa, music is widely used in television advertisements. A wide variety of music is used in the advertisements – from the catchy tune used in the Blue Ribbon bread advertisements (“My Mom is so Cool”), the upbeat “Can’t hurry love” used in Coca Cola’s advertisement (Share a feeling, share a coke) (Marsland, 2016), and the more dramatic music used in Momentum Insurance’s television advertisement (Seconds). In South Africa, there are about 2500 television advertisements released each year (Marsland, 2016), making it even more of a challenge for companies to have an impact on consumers. Companies, therefore, need to be informed about how their advertisements can influence consumers as well as the role that the music in the advertisement can have on consumers and their behaviour.

2.3 Consumer Attitude

Attitude is defined as a lasting organisation of perceptual, emotional, motivational, and cognitive processes with respect to an aspect in the environment (Hawkins & Mothersbaugh, 2013:384) and varies along a continuum, for example favourable to unfavourable (Semenik *et al.*, 2012:187). Attitudes of consumers are learnt (Parumasur & Roberts-Lombard, 2014:203), and if they are based on personal experience with the brand, attitudes can be lasting (Semenik *et al.*, 2012:187). Even though attitudes are consistent with the behaviour they reflect (Parumasur & Roberts-Lombard, 2014), they can change (Schiffmann & Kanuk, 2010:247). Consumers develop an attitude through the influences of family members, peer groups, by information gathered themselves, through their own experiences, and from the influence of their own personalities (Assael, 1994:274). Advertising, therefore, can also have an influence on consumers’ attitudes, as advertising provides these consumers with information which they can be exposed to willingly or unwillingly.

Attitude consists of three components: an affective, cognitive, and conative component (Parumasur & Roberts-Lombard, 2014:204). The three attitude components are consistent, meaning that a change in one attitude component results in the change of the other two attitude components (Parumasur & Roberts-Lombard, 2014:207).

The cognitive component refers the beliefs that the consumer has with regards to a specific object (Parumasur & Roberts-Lombard, 2014:204; Solomon, 2007:237). The component refers to an individual’s cognitions, which is the knowledge and perceptions that an individual acquires by means of direct experience with the attitude object, or by gathering information from other sources (Schiffmann & Kanuk, 2010:249).

The feelings or emotional reactions of an individual represent the affective component of attitude (Solomon, 2007:237). The affective reactions to a product or brand vary by individual and situation (Hawkins & Mothersbaugh, 2013:388). The emotional state of the consumer at the time the consumer encounters the product or brand, can influence how the consumer perceives the brand or product (Schiffmann & Kanuk, 2010:250).

The conative component (sometimes referred to as the behavioural component) is the likelihood or tendency of the consumer to react towards a brand or product in a certain way (Schiffman & Kanuk, 2010:251). The actual behaviour of the consumer can also be included in the conative component (Hawkins & Mothersbaugh, 2013:390). Companies can make use of coupons, free samples, and price reductions to encourage consumers’ trial behaviour

(Parumasur & Roberts-Lombard, 2014:213) in the hope that it will lead to future purchases of the brand.

2.3.1 Brand Attitude

The brand attitude of a consumer is a predisposition to respond in a favourable or unfavourable manner towards a specific brand after exposure to the brand's advertisement (Dhurup, 2014:1540). Brand attitude can therefore be influenced by an advertisement of the brand. Marketers can achieve a positive evaluation of the brand by structuring the advertisements in such a way as to influence consumers' beliefs and evaluations regarding the favourable consequences of utilising the advertised brand (Shimp, 1981:9). By emphasising specific product attributes and benefits, marketers can influence the brand attitude of consumers (Shimp, 1981:9). Consumers' attitude towards the brand influences their purchasing behaviour and choice of brand (Sicilia, Ruiz & Reynolds, 2006:141), and a positive brand attitude has been found to improve customer loyalty (Liu, Li, Mizerski & Soh, 2012:925).

Brand attitude can be enhanced when consumers perceive the advertisement to be self-congruent (Hong & Zinkhan, 1995:71), or when there is a congruence between the spokesperson's image and the image of the brand (Lalwani, Lwin, & Ling, 2009:142). Research has found that when the music in the advertisement is congruent with the advertisement theme, it positively affects consumer brand attitude (Lalwani *et al.*, 2009:142). Congruence, thus, appears to have an impact on consumer's attitude towards brands. It is also evident to note that there are different ways in which consumers can perceive an advertisement to be congruent, such as congruent with themselves (self-congruence), with the spokesperson used in the advertisement, as well as congruence between the music used in the advertisement and the overall theme of the advertisement. The focus of this study is on the congruence of music and how it impacts consumer behaviour – the attitude of consumers and ultimately their intention to purchase the product or brand.

2.4 Purchase Intent

Research has shown that there is a positive relationship between consumers' attitude towards the brand and their intention to purchase the brand (Teng, Laroche & Zhu, 2007:29; Dhurup, 2014:1540). Purchase intention is a way in which researchers can judge the determination of consumers to purchase a specific brand (Teng *et al.*, 2007:29) and is therefore used as a predictive measure of consumer behaviour (Morwitz & Schmittlein, 1992:391). It is not always possible to measure actual purchase, the intent of consumers to purchase a product or service can then serve as an indicator of future purchases. Purchase intent rates are often higher than actual purchase, as the intent to purchase a product does not always translate into an actual purchase, but it is a useful predictor to use (Jamieson & Bass, 1989).

Music in advertisements and the effect on purchase intent have found mixed results in the past – some studies confirming that the background music of an advertisement can influence purchase intent (Alpert *et al.*, 2005; Oakes & North, 2013), while another did not find a significant influence of the background music on purchase intent (Morris & Boone, 1998). It is yet to be determined what the influence of background music in television advertisements is on consumers in a South African context.

There are three different theories that explains consumers' reaction to music in advertisements. The classical conditioning theory, the elaboration likelihood model, and the theory of musical congruity (fit). For the purpose of this study, the focus will be on the theory of musical congruence.

2.5 Musical Congruence

The concept of musical congruence argues that music can positively influence high involvement consumers if the music used in the advertisement is congruent with the advertisement, or the consumers' perceptions of the relevance of the music to the principal message of the advertisement (Park *et al.*, 2014:770). Music is seen as congruent when the music fits the attributes of the product as well as the brand in question (Yeoh & North, 2010(a):165) and when it fits with the cultural, textual, or stylistic context of the verbal and/or visual message of an advertisement (Hubbard & Crawford, 2008:171). Music is also seen as congruent when looking at the perceived appropriateness of the meaning and feelings of the music in accordance with the message of the advertisement (Craton & Lantos, 2011:398).

Music plays an important role in advertisements, as it can communicate meaning, information, as well as affect (North & Hargreaves, 1997:273). Congruent music can have a positive influence on consumers' information processing, and can lead to an increase in recall of the brand and the advertisement (Park *et al.*, 2014:770). Consumers are more likely to purchase the product if the advertisement contains music that fits the brand (Brodksy, 2010:3). Different musical styles or genres can have different effects on consumers' perceptions of the product or advertisement (Brodksy, 2010:6). More than one genre or style of music can be perceived as congruent, but they can highlight different characteristics of the product or the brand (Zander, 2006:468; Brodksy, 2010:6).

Several studies have conducted research on the effect of musical congruity on consumers (Lalwani *et al.*, 2009). However, none have been conducted in a South African context. Also, several studies conducted on the presence, familiarity, and fit of music have found mixed results – some found positive results, whereas others found negative or no results (Park *et al.*, 2014:768).

The reason for this discrepancy could be the fact that different musical constructs were manipulated to attain congruity or incongruity of the music in the different studies. The extent to which a musical piece is congruent or incongruent with a product or advertisement might be determined by its tempo, mode, instrumentation, and other elements such as pitch and volume (Yeoh & North, 2010(b):7). The different musical elements (tempo, timbre, volume, pitch) could play a role in the congruity of music in advertisements. These different elements as well as musical congruity have not yet been researched in South Africa.

3. PROBLEM INVESTIGATED

Marketing communication is an integral part of marketing. However, consumers are confronted daily with marketing clutter (Rotfield, 2006:180), and it can be difficult for brands to break through this clutter (Pieters, Warlop & Wedel, 2002:765). Sensory marketing is a method that can be used in which marketers stimulate the senses of the consumers (Krishna, 2011:333) to break through the clutter. Using music to influence the sense of hearing of consumers in an advertisement can stimulate consumers and influence their behaviour, making music an important element of an advertisement. However, companies do not always test the effect of the music in the advertisements on the target market.

Advertisements are expensive for marketers, especially television advertisements. Therefore, marketers cannot afford to make a television advertisement that is unsuccessful. As music can make up up to 50% of the advertisement (Simmons, 2005), and is a means to communicate a brand message to consumers (Inskip, MacFarlane, & Rafferty, 2007:688), music is an integral component to the success of advertisements. However, more research needs to be conducted to understand how music influences consumers. Research has shown that congruity between the brand and the music, leads to more positive consumer evaluations of the brand (Zander, 2006:467).

However, the concept of congruity is not defined properly yet – researchers have made use of different definitions of congruity in advertisements, which has resulted in mixed results (Park *et al.*, 2014:768). The difference in definitions has led to researchers using different elements of music congruity in advertisements. As recommended by Oakes (2007:46) and Simmons (2005), more research is needed to explore how the different ways in which music can be congruent, such as tempo or musical key, affects consumers' affective and cognitive responses. The study will therefore attempt to reduce the gap in the literature by adhering to Oakes' (2007:46) and Simmons' (2005) recommendation.

The consumers' attitude towards the brand, attitude towards the advertisement, and purchase intent (the affective and cognitive responses of consumers) will be investigated. The objective of this study, therefore, is to investigate the relationship between music congruity, music congruity elements, and its effect on attitude and intent. The research will contribute towards a better understanding of congruity, will help marketers in understanding how they can manipulate different elements of music to influence consumers, and will help composers to understand which aspects of music is important in advertising compositions, which will ultimately improve marketing communications.

4. RESEARCH HYPOTHESES

The hypotheses of this study are presented in this section.

4.1 Primary Hypothesis

H₀: Musical congruity and music congruity elements do not significantly influence cognitive and affective attitude toward the brand and the advertisement, and intent.

4.2 Secondary Hypotheses

H₀₁: Musical congruity does not significantly influence affective attitude toward the brand.

H₀₂: Music congruity elements do not significantly influence affective attitude toward the brand.

H₀₃: The interaction between musical congruity and music congruity elements do not significantly influence affective attitude toward the brand.

H₀₄: Musical congruity does not significantly influence cognitive attitude toward the brand.

H₀₅: Music congruity elements do not significantly influence cognitive attitude toward the brand.

H₀₆: The interaction between musical congruity and music congruity elements do not significantly influence cognitive attitude toward the brand.

H₀₇: Musical congruity does not significantly influence purchase intent.

H₀₈: Music congruity elements do not significantly influence purchase intent

H₀₉: The interaction between musical congruity and music congruity elements do not significantly influence purchase intent.

5. RESEARCH METHOD

After conducting secondary research to gather information for the objectives and impetus of the study, primary research was conducted in the form of both qualitative and quantitative research.

5.1 Research Design

The study made use of two focus groups, a thought-listing technique, and an experiment. The focus groups were used to gather more information from the participants in terms of their views of music in used in television advertisements, as well as to conduct a pre-test on the potential questionnaire and to establish whether the questions were easily understood. Once the focus groups (consisting of 6 to 10 participants) were conducted, a thought-listing technique was used to determine the congruence of the music, even after it was established by a professional advertising music composer. The participants in the thought-listing were asked to describe the mood of the music, and any other words they think of when exposed to the music. The experiment was then conducted, and set up as shown in Table 2. Group 2, 4, and 6 were exposed to the same advertisement with the same congruent music, whilst groups 1, 3, and 5 were exposed to the same advertisement with different, incongruent music. Group 1 were exposed to music that was incongruent in terms of tempo, group 3 in terms of timbre, and group 5 in terms of pitch.

Table 2: Experimental Layout

Musical Element	Musical Congruence	
	Congruent	Incongruent
Tempo	Group 1	Group 2
Timbre	Group 3	Group 4
Pitch	Group 5	Group 6

As evident in Table 2, for each musical composition, one group of participants were exposed to the stimulus, thus there were no participants who were exposed to more than one of the advertisements.

5.1.1 Stimulus Development

The music used in the advertisements were manipulated by a professional composer. The music was manipulated to be incongruent with the feel of the advertisement in terms of either pitch, timbre, or tempo. The pitch of the incongruent pitch music was much higher than the congruent music, whilst the tempo of group 2 (as indicated on Table 2), was much slower than the congruent music. The music for group 4 (as indicated on Table 2) made use of completely different and strange instruments than the congruent music for the stimulus to make the music incongruent with regards to the advertisement. The advertisement features different scenes with music in the background and a man's voice talking every time a new scene appears. The images and voice in the advertisement was kept constant for all the advertisements.

5.1.2 Data Collection Process

The participants were selected by means of asking potential Generation Y consumers whether they are willing to participate with the possibility of winning a week's worth of coffee. The participants were Generation Y South Africans, because these consumers are an important target market for companies as these individuals have a larger disposable income than previous Generations (Jang, Kim, & Bonn, 2011:803). Also, music is very important to this generation, so much so that Burberry launched Burberry Acoustic to attract more Generation Y customers to their brand (Lipp, 2010). Thus, Generation Y participants were used to study the use of music in advertisements. The experiment was conducted in a laboratory setting where participants were exposed to the advertisement three times, during which they completed an online survey that was emailed to them before the session started.

5.1.3 Data Collection Instrument

The data was collected by making use of an online survey. Both Likert scale and semantic differential scales were used to collect the data. The scales used in the survey were previously used in other studies, adopted to fit the context of the current study. Cognitive attitude towards the brand (Lalwani *et al.*, 2009), affective attitude towards the brand (Spears & Singh, 2004), and the purchase intent (Spears & Singh, 2004; Neese & Taylor, 1994) of the participants were measured.

6. DATA ANALYSIS

SPSS was used to analyse the data that was collected. The validity of the data was established first by making use of factor analysis and the factor loadings determined that the data was indeed valid. The reliability of the data collection instrument was determined by calculating the Cronbach Alpha for all the scales used in the survey. The Cronbach Alpha for all the scales loaded above 0.7, and was therefore deemed reliable. The normality of the data was then determined to ensure that the data adheres to the prerequisites for parametric data. The results of the Kolmogorov-Smirnov test can be seen in Table 3.

Table 3: Normality Tests

Factor	Significance
Affective Attitude towards the Brand	0.20
Cognitive Attitude towards the Brand	0.18
Purchase Intent	0.20

As indicated in Table 3, the data was normally distributed (Field, 2005:93). The homogeneity of variance is also assumed when making use of parametric tests (Field, 2005:64). Therefore, Levene's Test was conducted to determine the variance of the data.

Table 4: Levene's Test

Factor	Significance
Affective Attitude towards the Brand	0.02
Cognitive Attitude towards the Brand	0.82
Purchase Intent	0.37

As can be observed from Table 4, the homogeneity of variance was not significant in most the factors, except for affective attitude towards the brand. The outcome of Levene's test guides which inferential statistics and post-hoc tests should be used when further exploring experimental differences – where Levene's test delivered a significant result, the Welch/Brown Forsyth test was used to assess experimental differences whereas the ANOVA test was used to determine experimental differences where variances were found to be homogenous according to Levene's test. Also, when Levene's test delivered a significant result the Games-Howell post hoc test was used, whilst for equal variances Hochberg's GT2 post-hoc test was used.

A Univariate Analysis was conducted in the form of a two-way ANOVA to determine the both the interdependent and interaction effects of musical congruence and musical congruity elements on affective attitude towards the brand (H_{01} - H_{03}), cognitive attitude toward the brand (H_{04} - H_{06}) and purchase intent (H_{07} - H_{09}).

Table 5: Two-Way ANOVA

Factor	Congruence	Musical Element	Interaction
Affective Attitude towards the Brand	0.96	0.81	0.81
Cognitive Attitude towards the Brand	0.39	0.73	0.73
Purchase Intent	0.33	0.59	0.59

As can be concluded from Table 6, there were no significant differences between the incongruent music (in terms of tempo, timbre, and pitch), and the congruent music. Therefore, the hypotheses were not rejected.

7. IMPLICATIONS AND RECOMMENDATIONS

The results of this study indicate that musical congruence and musical congruity elements did not significantly influence consumers' cognitive attitude toward the brand, affective attitude toward the brand and purchase intent (H_0 to H_{09} were not rejected).

A previous study conducted by Morris and Boone (1998) found similar results in terms of the consumers' attitude towards the brand and their purchase intent. The study concluded that the idiosyncratic nature of advertisements had an influence on the results. However, this does not mean that the music used in the advertisement is not of importance, as music has an effect on consumers' mood and arousal (Morris & Boone, 1998), even if it does not directly influence their attitude towards the brand or their intention to purchase – it still has artistic value. Thus, brands still need to consider the music of each advertisement in the context of the whole advertisement.

During the qualitative research participants indicated that music in advertisements are important and influence them. Music can have an influence on the mood of consumers as well as their emotions. In this study, congruence was tested as per the theory of the congruence of music. Future research, however, could investigate whether the mood generated by the music, rather than its congruence, could have a significant impact on consumers' behaviour and attitude. In this study, different musical congruity elements were analysed to determine its effect on consumers. However, none of them were found to have a significant influence on consumers.

In this study, the stimulus advertisement included a speaking voice as well as music in the background. Although the voice remained constant each time the stimulus was introduced to an experimental group, the question arises whether the speaking voice and associated words perhaps subdues the effect of the background music and its perceived congruence. It could thus be that the placement of music in an advertisement (background versus foreground) could influence its perceived role in the advertisement. Future research could investigate the placement of music in an advertisement. The play-off between music and spoken words in advertisements could also be investigated.

The definition of congruence used in this study could also have contributed to the results of the research. The level of congruence of the music used in the study was determined by a professional composer, and was further validated by thematic analysis. The music used in the advertisement was thus seen as congruent when the perceived appropriateness of the meaning and feeling of the music were in accordance with the message of the advertisement (Craton & Lantos, 2011:398). However, music can also be perceived to be congruent if it fits with the stylistic, cultural, or textual content of the verbal or visual message of an advertisement (Hubbard & Crawford, 2008:171). Future research could assess whether differential results could arise from varying definitions of congruence.

8. CONCLUSION

The quantitative research assessed the influence of different musical elements (tempo, timbre, and pitch) and levels of musical congruity (congruent and incongruent) on consumer's intention to purchase the advertised product and their attitude towards the brand. No significant influence could be found. Thus, an incongruent tempo, timbre, or pitch did not result in varying consumers attitude or purchase intent.

However, the qualitative research inferred Generation Y's awareness of music and provided evidence for countering the previously mentioned statement made by an advertising and music specialist that "research is rubbish and killing the (marketing) industry". Considering participants feedback about the importance of music in advertisements, research that assesses advertisements in its totality, including visuals, words and other sounds in addition to music, is recommended.

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THE X (AND Y) FILES: APPLYING BEST-WORST SCALING TO INVESTIGATE WINE ATTRIBUTES AMONGST DIFFERENT GENERATIONAL COHORTS IN SOUTH AFRICA

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Please indicate topic: Marketing Management

THE X (AND Y) FILES: APPLYING BEST-WORST SCALING TO INVESTIGATE WINE ATTRIBUTES AMONGST DIFFERENT GENERATIONAL COHORTS IN SOUTH AFRICA

ABSTRACT

Wine consumption in South Africa has been at a relatively low rate of 7 litres per capita in recent years, but the overall demand for wine has been growing by approximately 4% per year as new consumers enter the market. Though older consumers typically consume most wine, it seems that younger consumers are rapidly adopting wine as their preferred beverage. Younger consumers, for example, consider wine to be fashionable, sophisticated and an enjoyable beverage.

The theory of planned behaviour has been used extensively to explain the consumer decision-making process and investigate factors that play a role in the final decision a consumer makes. In the field of wine decision making, previous studies have shown that many factors may influence the final choice of a consumer when buying a bottle of wine which is typically seen as a highly complex product to buy.

As different age groups seem to consider different factors when considering which wine to purchase, it is important to understand the behaviour of different age groups of wine consumers. Research has revealed differences in the level of importance assigned to certain wine attributes (such as recommendations, the front label and wine variety) between Generation Y respondents and older respondents.

At present, scant published research is available on wine purchase behaviour amongst different generational cohorts in the South African context. This study therefore aims to contribute to wine marketing literature by exploring factors that influence wine consumption amongst Generation X and Generation Y wine consumers in South Africa. The study endeavours to investigate which wine factors different generations consider to be important when selecting a bottle of wine and whether there are differences in the importance of factors that influence wine consumption amongst Generation X and Generation Y consumers.

A self-administered questionnaire will be used to collect data from a target population of South African Generational X and Y wine drinking consumers. A non-probability sampling technique will be used and the web-based questionnaire will be sent to individuals on the database of a well-known wine estate in the Western Cape. Furthermore, a link to the questionnaire will also be posted on Facebook.

The Best-Worst scaling technique will be used to measure the importance that respondents assign to a number of pre-determined wine attributes (such as origin of the wine and information on the back label). Independent samples t-tests will also be used to compare the Best-Worst scores of the different generations investigated.

The contribution of this study is that it seeks to provide role players in the wine industry with a more detailed picture on wine consumer behaviour of different generational cohorts in South Africa. The results could assist role players in the South African wine industry to develop customised marketing strategies for different cohorts (Generation X and Y) to ultimately increase the sales of wine in South Africa.

DOES TELEMARKETING RING TRUE IN SOUTH AFRICA? THE MODERATING ROLE OF INDIVIDUAL AND SITUATIONAL VARIABLES ON NEGATIVE WORD-OF-MOUTH LIKELIHOOD AND CORPORATE IMAGE

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Key words: telemarketing, negative word-of-mouth, corporate image, consumer variables, situational variables, privacy

DOES TELEMARKETING RING TRUE IN SOUTH AFRICA? POSSIBLE ADVERSE EFFECTS ON NEGATIVE WORD-OF-MOUTH LIKELIHOOD AND CORPORATE IMAGE

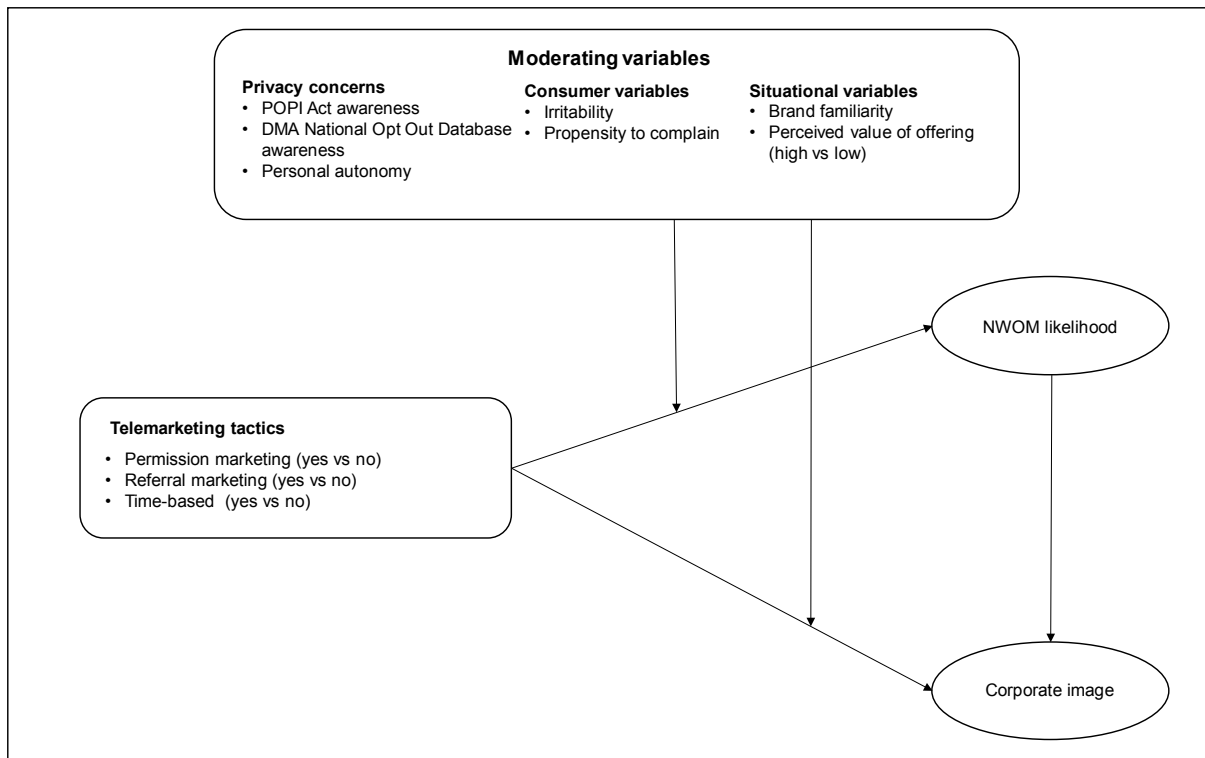
ABSTRACT

Telemarketing is central to many South African organisations' direct marketing strategies and profitability goals. This focus can be attributed to mobile phones that increase the number of consumers reached and sophisticated customer database software that eases collection and sharing of information. While some organisations may consider telemarketing as beneficial, many consumers regard it as spam, intrusive, and a violation of their privacy. These consumer sentiments are reflected in the increased adoption of number-identifier mobile applications (such as Truecaller and Truemessenger), and the growing number of customers registering on the National OPT OUT database offered by the Direct Marketing Association of South

Africa (DMASA). Preliminary results from in-depth interviews with telemarketers reveal that some organisations use different telemarketing tactics to mitigate negative consumer sentiments and increase sales. These tactics include only contacting consumers who gave permission to be contacted, making use of referral marketing (your friend Sandra gave me your number), and using time-based tactics (calling at convenient time intervals). Despite these tactics, preliminary results from in-depth interviews with four consumers, who earn a middle to high income, reveal that not only are they annoyed by such tactics, they actively engage in negative-word-of mouth (NWOM) about the organisation to friends and relatives. So far no studies have empirically investigated the influence of different telemarketing tactics on consumers' inclination to engage in NWOM about an organisation. This caveat is surprising since previous studies highlight the adverse effects of NWOM on consumers' assessments of an organisation. Moreover, although previous studies highlight the importance of corporate image as a strategic tool in organisations' long-term success, no studies have considered the impact of undesirable telemarketing tactics on these organisational outcomes.

Against this background this study attempts to assess the impact of consumers' experiences of different telemarketing tactics on NWOM likelihood and corporate image. Theoretical insight is further expanded by including the moderating roles of different individual and situational variables that may affect NWOM likelihood, as well as corporate image assessment. From a managerial perspective, the study's results should provide marketing managers with guidelines to effectively implement telemarketing tactics in such a manner that its possible detrimental effects are minimised. The conceptual framework of the study is depicted in Figure 1.

Figure 1: Conceptual framework



A sequential research design will be followed. Consumer focus groups will be used to explore the perceptions toward different telemarketing tactics and their potential influence on NWOM likelihood and assessment of corporate image. Possible moderators that influence the relationship between perceived telemarketing tactics and NWOM likelihood and assessment of corporate image will also be uncovered. Surveys using Experimental Vignette Methodology (ESM) will then be used conducted to quantify possible cause-and-affect statistical relationships between different telemarketing tactics, NWOM likelihood, and corporate image. Finally, possible moderating effects of different variables on statistical relationships will be assessed by means of structural equation modeling.

AN EMPIRICAL INVESTIGATION OF THE RELATIONSHIP BETWEEN CONSUMER ATTITUDES AND WILLINGNESS TO BUY LUXURY BRANDS

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Consumer Science

AN EMPIRICAL INVESTIGATION OF THE RELATIONSHIP BETWEEN, CONSUMER ATTITUDES AND WILLINGNESS TO BUY LUXURY BRANDS

ABSTRACT

The research attempts to investigate how consumer willingness to purchase luxury branded clothing relates to consumer brand attraction, perceptions on price and attitudes towards purchasing. The paper consults literature pertaining to consumer price perception, brand attraction, consumer attitude towards purchase intentions and willingness to buy. The research developed a conceptual model in order to measure the constructs in a field study conducted in Johannesburg at the University of the Witwatersrand. Data was collected from 267 registered students aged 18 years and older, and analysed empirically using SPSS 22 and AMOS 22 software programs to run Structural Equation Modeling (SEM). The results revealed that consumer attitudes towards purchasing luxury clothing brands had high importance to consumer willingness to buy the brands, however, the relation between brand attraction and willingness to buy was not significant. The contribution of this study was to

enhance the comprehension of extant literature on the relationships between the predictor variables (price perception, brand attractiveness and attitudes) and outcome variable (willingness to buy luxury clothing brands).

1. INTRODUCTION

The presence of expensive luxury brands affords not only marketers the opportunity to differentiate their creative concepts from other brands, but also for consumers to relate with the symbolic identities implied by the luxury brands that they choose. Marketers commit considerable portions of marketing budgets to creating impressions and conceptualising brands that consumers try to relate to or emulate, and numerous brands have done so profitably. It is apparent that consumers are drawn to purchase branded items, and more so, luxury brands. This makes discussions about consumers' motivations to buy luxury brands more topical beyond the branding impressions forged by practitioners.

Luxury brands

It is important to understand what makes a brand luxurious. The elaborate description of luxury brands by Keller (2009) broadens the characteristics of classifying a brand as a luxury brand beyond the higher comparative price (Jackson 2004; Kimes, 2002; Wiedman, Hennigs & Siebels, 2007). According to Chinomona and Maziriri (2017), branding allows businesses to sell their products distinctively among competitors. Luxury brands have evolved past being brands created primarily for economically more affluent consumers with desires of exclusive prestige and self-indulgence (Atwal & Williams, 2009; Brun & Castelli, 2013; Florin, Callen, Mullen and Kropp, 2007; Li, Li and Kambele, 2012). It can be argued that, in order to be sustainable, some brands are reinterpreted and adjusted for mass markets, thereby making them more accessible to comparably less economically affluent consumers, whose expressions of desire may differ considerably from the former consumers (Kapferer & Michaute, 2015). The luxury brand is nonetheless appealing, albeit for dissimilar impressions, which arouses curiosity about the attractiveness of the brand (Cademan, Henriksson & Nyqvist, 2012).

Marketers have also implied and presented luxury brands as higher tier offers attached to a higher price (Dubois, Czellar & Laurent, 2005 as cited in Tynan, McKechnie and Chhuon, 2007). Reciprocally, consumers interpret higher tiered brands experientially (Florin *et al.*, 2007) with the impression that the higher price denotes a unique accomplishment of the brand, for example, higher quality (Aaker, 2007; Nelissen & Meijers, 2011), or elicits greater indulgence (Brun & Castelli, 2013). Among various reasons, the consumers' internal desires to express themselves, either through deserved indulgence, their power to differentiate themselves from lower tiered brands, or ability to experience durable products, provide potential for marketers to conceptualise and position numerous brands aiming to satisfy such desires.

The consumer's assessment of the justified price for the luxury brand may be essential for determining their willingness to pay the high price for the high tiered experience and/or greater indulgence (Brun & Castelli, 2013). Furthermore, their predispositions about purchasing products that exude indulgence, extravagant spending or favourable interpretation of the price potentially have meaningful relevance on their decision to purchase or not purchase the luxury brand. The luxury clothing brands selected for this study encompass elements of high tiered impressions, renowned craftsmanship, popularity, and high price from the perspective of the brand and reciprocated by consumers.

Purpose of the study

The purpose of the study was motivated by interest in the potential relevance of consumer price perception, brand attraction and attitudes towards purchase of luxury branded

clothing available in retail outlets. Although the concept of luxury from the brand's perspective initiates the interpretation of luxury (Florin *et al.*, 2007), the reciprocal perspective of the consumer can potentially reposition the brand. The study investigates empirically the relationships between willingness to buy luxury branded clothing with three antecedents: price perception, brand attraction and attitudes towards purchasing.

2. LITERATURE REVIEW

2.1 Theory of Planned behaviour

The conceptual framework asserted by the theory of planned behaviour (TPB) (Ajzen, 1991) helps research to explain and anticipate human behaviour in precise situations by relating an individual's beliefs and attitudes to intended behaviour. The TPB has become an influential and prominent conceptual framework for the study of reasoned action, which was initially conceptualised in the Theory of Reasoned Action (TRA) (Ajzen, 2002; Van Lange, Kruglanski, & Higgins, 2012). Francis, Eccles, Johnston, Walker, Grimshaw, Foy and Bonetti (2004) suggest that, in order to predict whether or not an individual intends to perform a particular act, there is need to know the following: the individual's motivation to perform the particular act; the individual's experiences of social pressure to act; and the individual's feeling of being in control of the action in question.

This study views the consumer's willingness to buy luxury branded clothing as the behavioural intention, predicted by their perception of the price of the brand, attraction to the brand and attitudes towards buying the brand. Furthermore, it uses theoretical insight on the importance and potential influences of brand attraction, price perception and attitudes on consumer's willingness to purchase luxury brands. The research also probes further research into underlying factors that do not result in brand attracted relating significantly with behavioural intention.

2.2 Research constructs

Price perception

Price perception refers to how consumers relate and interact with the price of a product, attributing its value and worth (Lee, Illia & Lawson-Body, 2011; Lichtenstein, Ridgway & Netemeyer, 1993). This relies on the role that price levels play in creating expectations from the product, more so with highly priced luxury brands (Aaker, 2007). In effect, price alludes to the level of quality of the product, which in itself has bearing on the individual's willingness to purchase the product once they assess their ability and desire to purchase it; and price also depends on their ability to pay for the product (Baines, Fill & Page, 2011). This is more so relevant to luxury clothing brands that perceptually differentiate themselves from other brands in the mind of the consumer. The association of luxury brands with high price has created a stereotype that highly priced brands are of better quality and social standing (Nelissen & Meijers, 2011), thereby making them attractive and trustworthy to consumers who reciprocate with the desired perception.

Brand attraction

The American Marketing Association (AMA) describes a brand as a name, term, design, logo, other feature or combination of them that differentiate one seller's products from others. The concept of branding, which also denotes the success of brands, centres on creating customer impressions and experiences uniquely associated with the abovementioned features. The meaning and value of a brand is not solely its ability to express itself, but also its role in helping consumers to create and build their self-identities (Escalas & Bettman, 2009). This study takes the view that an individual's attraction to a brand results from numerous elements and some of these include elements of pleasure, arousal and dominance of the brand. These are dimensions of brand romance cited by Patwardhan & Balasubramanian (2011) in the study of emotional brand attachment and customer loyalty to brands.

Brand attraction, anchored by pleasure, arousal and dominance cues, represents the initial and continuous approach that the consumer has toward the brand, which affects their intention to purchase and repurchase the branded product (Patwardhan & Balasubramanian, 2011). A consumer's positive approach to the brand can likewise be attributed to the dominance of the brand, that is, the tendency of the brand to engage with the consumers' thoughts, memory and evaluations of the brand (Chang & Rizal, 2011). Over time, the consumer's attraction and engagement with the brand are subjected to internal evaluations of their brand experience. For example, the consumer's satisfaction with the quality or durability of the brand can affect whether or not the brand is appealing (and therefore attractive) to the consumer. In this instance, given the high price perception of the luxury clothing brands, the longevity of the branded clothes is an important factor to consider for recursive purchases.

Consumer attitudes towards purchase intention

The TPB asserts that an individual's attitudes or evaluations toward a particular behaviour are determined by their beliefs about the behaviour, in which case, the belief that they are able to purchase luxury branded clothing. Furthermore, the consumer's behavioural intention depends on attitude toward the behaviour and the subjective norms associated with the behaviour (Ajzen & Fishbein, 1980; Zhan & He, 2012). Tan (2002) reports interview-based research with 377 Chinese software users and establishes that purchase intentions are influenced by the perceived moral intensity, degree of consequences, temporal use and social risk, the perceived commercial performance, prosecution and moral judgment. The consumer's attitude towards the purchase of luxury branded clothing is likely determined by the individual's lifestyle and the perceived value (given the price) or benefits of having the luxury clothing (Li, Li & Kambele, 2012). Nonetheless, attitudes towards the purchase are useful for establishing behavioural intention.

Willingness to buy luxury branded clothing

Purchase intention represents the behavioural intention to buy the luxury branded clothing and is reflected in the consumer's willingness pay for the product in the future (Hsu & Shine, 2008). According to Netemeyer, Krishnan, Pullig, Wang, Yagci, Dean, Ricks and Wirth (2004), consumer's willingness to pay strongly allude to brand loyalty and brand equity, which suggests that perceived quality, perceived value cost and brand uniqueness may be the direct antecedents of a consumer's willingness to pay a premium price for a brand. Consequently, a consumer's willingness to pay a premium price may be a direct antecedent of brand purchasing behaviour.

3. RESEARCH HYPOTHESES AND PROPOSED CONCEPTUAL MODEL

Hypotheses

Consumers are able to view and assess prices of brands with reference to their own internal judgements, such as experience, as well as social norms (Heyman & Mellers, 2008). However, luxury brands inherently imply an association of high price with high value, making them differentially more appealing to consumers, thereby allowing for positive formation of price perceptions (Nelissen & Meijers, 2011; Patwardhan & Balasubramanian, 2011). This potentially leads to further engagement, liking and pleasure with the luxury brand, making the brand more attractive (Aaker, 2007; Duarte & Raposo, 2010). Moreover, the role that price levels play in creating expectations from the product, more so with highly priced luxury brands motivates the first hypothesis for the study.

H1: Price perception is directly and positively related to brand attraction

Moon and Balasubramanian (2002) establish that the willingness of consumers to purchase a product is affected by consumers' attraction to the product in view of their different opinions about its price. The disclosure of the price is necessary for consumers

to form their own judgements about the fairness of the price, thereafter influencing their behavioural intention to purchase the product. Therefore the study hypothesises that:

H2: Price perception is directly and positively related to willingness to buy.

The consumer's judgement and view of the fairness of the price of a brand is a major component of their price perception (Lee, Illia & Lawson-Body, 2011). As found by Maxwell (2002) and Lee, Illia and Lawson-Body (2011), their perception affects their interaction with the brand with regard to make a purchase. The notion of associating price with value and quality leads consumers to prefer brands that justify their prices with impressions and experiences desired by the consumer. Conversely, negative perception of price fairness reduces consumers' shopping intention (Maxwell, 2002). This suggests the third hypothesis.

H3: Price perception is directly and positively related to consumer attitudes to purchase

Consumers form preferences about the brands that they are exposed to and experience (Duarte & Raposo, 2010), and generally have a higher propensity to purchase brands that they have positive dispositions about consuming (Chang & Rizal, 2011). Consumers' predispositions about maintaining fashion lifestyles affect their buying decisions about the brands of clothing that they consume (Ko, Kim & Kwon, 2006). Attitudes toward a behaviour such as buying clothing are assessed by consumers relating their predispositions to their social, emotional, perceived utilitarian and perceived economic values, as Li, Li and Kambele (2012) confirm to be significant in a study based in China to determine the influence the willingness of consumers to pay for luxury fashion brands. This motivates the fourth hypothesis for the study.

H4: Consumer attitudes are directly and positively related to willingness to buy

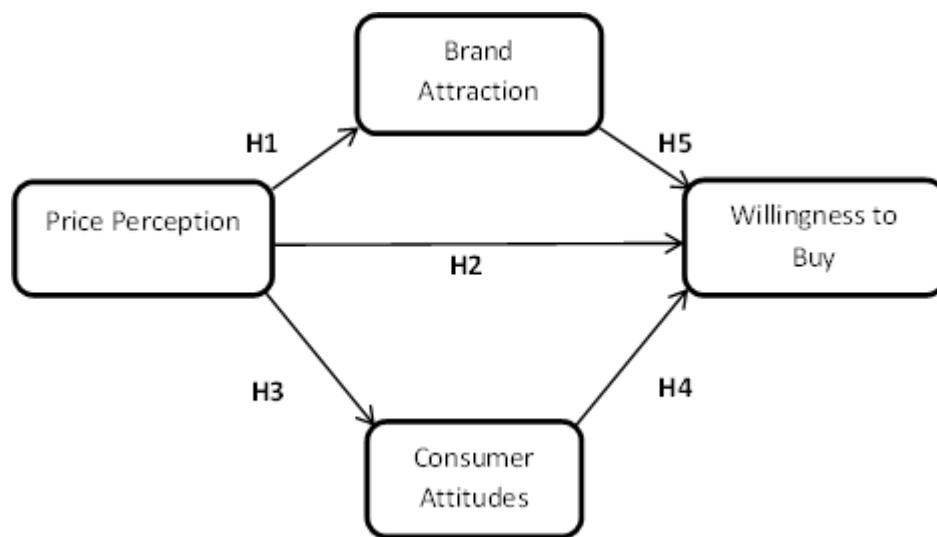
The initial attachment of a consumer to a brand can be evoked by its price as a brand stimulus, among other elements (Patwardhan & Balasubramanian, 2011). Further liking, pleasure or dominance of the brand constitute more attraction to the brand through continuous engagement with it. Initial and subsequent attractions resemble arousal for the brand which the consumer can satisfy by purchasing the brand. The symbolic identity that the brand exudes to a given society motivates consumers to desire and use luxury brands in order to relate with its identity. In an assessment of evaluating whether or not the brand is worth consuming, exposure and dominance for the brand credit the consumer's arousal for it, thereby motivating a positive inclination to purchase it (Chang & Rizal, 2011). The fifth hypothesis was formed based in these inferences.

H5: Brand attraction is directly and positively related to willingness to buy.

Conceptual model

The following conceptual model was developed from the hypotheses

Figure 1: Proposed Conceptual Model



Source: Researcher

4. PROBLEM INVESTIGATED

The problem investigated was to understand empirically the relationship that potentially existed between consumer attitudes and the willingness to buy luxury brands

5. RESEARCH OBJECTIVES

The objectives are listed accordingly; to investigate the relationship between:

- price perception and brand attraction,
- brand attraction and willingness to buy luxury clothing brands
- price perception and the willingness to buy luxury clothing brands,
- price perception and consumer attitude towards purchase intentions of luxury clothing brands, and
- attitude towards purchase and the willingness to buy luxury clothing brands.

6. RESEARCH METHOD

Research design

The study was designed as a cross-sectional deductive research, carried out based on a quantitative design to gather data for empirical analysis for the research (Burns & Bush, 2002; Creswell, 2009; Malhotra & Birks, 2007). The survey was designed to collect information on a self-administered questionnaire anchored by Likert scale measurement items adapted from various research instruments for price perception, brand attraction, attitude towards purchasing and willingness to buy. Structural equation modelling (SEM) was employed to determine simultaneous relations among the construct variables implied by the conceptual model (Anderson & Gerbing, 1998; Bollen, 1989; Nusair & Hua, 2010; Schumacker & Lomax, 2004).

Sample description

The sample comprised of 267 students (of who 240 were aged 18 to 25) randomly approached across the university campus to ensure that all students had an opportunity to participate (Daniel, 2011). Approximately 75% of the respondents were undergraduate

students who enjoyed and purchased luxury clothing brands, in particular, Hugo Boss, Kurt Geiger and Levi's.

7. RESULTS AND FINDINGS

This section of the paper presents the results and findings of the study. Over 50% of respondents made seasonal purchases of their favourite brands while 3.7% made weekly purchases. Summative details are presented in Table 1.

Table 1: Sample Characteristics

Gender	Freq.	%	Marital Status	Freq.	%
Male	143	53.56	Married	2	0.7
Female	123	46.07	Single	254	95.1
Prefer not to say	1	0.37	Prefer not to say	11	4.1
Total	267	100	Total	267	100
Age	Freq.	%	Money Spent	Freq.	%
18-19	90	33.7	>R250	25	9.4
20-25	156	58.4	R250- R500	73	27.3
26+	21	7.9	R501- R1000	115	43.1
Total	267	100	< R1000	53	19.9
			Total	267	100
Highest academic level achieved	Freq.	%	Occupation	Freq.	%
High School	202	75.7	Student	267	100
Diploma	8	3.0	Total	267	100
Degree	49	18.4	Purchasing	Freq.	%
Post Graduate	7	2.6	Weekly	10	3.7
Other (Specify)	1	0.4	Monthly	56	21.0
Total	267	100	Seasonally	139	52.1
			Annually	54	3.0
Luxury brand	Freq.	%	Other	8	100
Hugo Boss	77	28.8	Total	267	100
Levi's	114	42.7			
Kurt Geiger	23	8.6			
Total	267	100			

NB: Freq. = frequency; % = percentage of sample; R = South African Rand.

Scale accuracy analysis

Confirmatory factor analysis (CFA) was run to verify accuracy analytics of reliability and validity in the initial phase of SEM. The reliability of constructs reached minimum thresholds of 0.6 for Cronbach's Alpha (α) and composite reliability (CR) (Burton, Ryan, Axelrod, Schellenberger, and Richards, 2003; Harrington, 2009), thereby confirming internal consistency of all constructs except for price perception (CR = 0.546). Discriminant and convergent validity were verified using average variance extracted (AVE), comparative highest shared variance (HSV) and item-total correlations. All constructs returned AVE of greater than 0.5, thereby confirming discriminant validity (Calder, Phillips & Tybout, 1983; Bagozzi, Yi & Phillips, 1991; Nusair & Hua, 2010). Only the items that returned factor loadings above 0.5 for the CFA were retained for further analysis through path modelling and hypothesis testing. Consequently, acceptable levels were achieved for CFA model fit indices GFI, CFI and NFI (> 0.9), chi square (< 3) and RMSEA (< 0.08) (Barrett, 2007; Baumgartner & Hombur, 1996; Bentler & Bonett, 1980;

Byrne, 2001; Prapavessis, Gaston & DeJesus, 2015). Accuracy analysis details are presented in Table 2.

Table 2: Accuracy Analysis Statistics

Construct variables	Descriptive Statistics				Cronbach's Test		CR	AVE	HSV	Factor loading
	Mean value	St dev	Item-total	α						
PP (price perception)										
PP1	3.48	1.24	0.37							0.57
PP3	4.29	1.03	0.32							0.42
PP5	3.94	1.16	0.41	3.83	1.13	0.60	0.55	0.71	0.26	0.52
PP6	3.63	1.12	0.43							0.58
BA (brand attraction)										
BA1	4.22	0.83	0.64							0.77
BA2	4.21	0.86	0.54							0.67
BA3	3.72	0.89	0.44	4.03	0.88	0.75	0.85	0.51	0.24	0.52
BA6	4.06	0.94	0.50							0.58
BA10	3.91	0.91	0.45							0.55
CA (consumer attitude)										
CA11	3.74	1.01	0.61	3.73	0.95					0.72
CA12	3.95	0.88	0.53			0.74	0.75	0.55	0.26	0.69
CA13	3.76	0.94	0.53							0.61
CA14	3.46	0.96	0.47							0.56
WTB (willingness to buy)										
WTB1	3.66	1.09	0.40							0.52
WTB2	3.56	1.16	0.43							0.56
WTB3	3.99	0.88	0.48	3.78	0.44	0.69	0.71	0.50	0.41	0.63
WTB4	3.90	0.95	0.61							0.75

CFA model fit: chi square (χ^2/df)=2.46; GFI=0.901; CFI=0.971; NFI=0.952; RMSEA=0.062; significance level $p < 0.01$.

Path Modelling and Hypotheses Testing

Table 3: Hypothesis Test Results of SEM Analysis

Proposed relationship	Hypothesis	Path coefficient	P-value	Supported/ Rejected
PP → BA	H ₁	0.62	***	Supported and significant
PP → WTB	H ₂	0.05	0.804	Supported and but insignificant at ($p > 0.05$)
PP → CA	H ₃	0.91	***	Supported and significant
CA → WTB	H ₄	0.62	***	Supported and significant

BA → WTB	H ₅	0.01	0.913	Supported and but insignificant at (p>0.05)
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Structural Model Fit: Chi-square (χ^2/DF) = 2.167; NFI = 0.823; RFI = 0.787; IFI = 0.896; TLI = 0.873; CFI = 0.894; RMSEA = 0.066 significance level $p < 0.05$; $p < 0.01$ OR $p = ***$

H1 - Price perception relates positively and moderately strong with brand attraction, as hypothesised. This gives the impression that perceptions that young consumers have about their favourite luxury clothing brands significantly relate positively with their attraction towards the brand. The notion of pleasure and liking of a brand has previously been supported by Patwardhan and Balasubramanian (2011) through emotional attachment of a brand, and confirmed in this study.

H2 - The relation of price perception to willingness to buy is very weak and not significant, contrary to the hypothesis. The behavioural intention of consumers shows little bearing on their perception of the price. This may be due to the impression that consumers will purchase their favourite luxury clothing brands irrespective of the high price, similar to a case of South African sub-culture of youth who express their identities through branded fashion and other elements (Mchunu, 2017). There are motivation for purchasing branded fashion and price is an indicator of the value that consumers are obtaining from the brand (Boguslaw, 2015).

H3 and H4 - Perceptions of price relate positively and very robustly to consumers' attitudes toward purchasing their favourite luxury clothing brand. Although price perceptions are insignificant to willingness to buy, the predispositions about making the purchase have very significant bearing on the price perception. This alludes to perceptions of price resembling the perception of quality or prestige of the luxury brand associated with the brand, and further, of purchasing the luxury brand. Which is reflected by the positive and moderate relation of consumer attitudes to their willingness to buy the brand.

H5 – The relation of consumer brand attraction to their willingness to buy returned a weak and insignificant path coefficient, thereby failing to accept the hypothesis. This is surprising given that positive cues about the brand have insignificant bearing on the willingness of the consumer to buy the brand, particularly since elements such as the dominance of the brand are important for the consumer to engage with the brand and consider initial and repeat purchasing of the brand (Chang & Rizal. 2011; Patwardhan & Balasubramanian. 2011). It is important for further research to ascertain underlying factors that may result in such a contradictory outcome.

8. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The study offers results that are potentially useful to managers with respect to price perceptions. The relevance of consumer perceptions on the pricing of luxury clothing brands is highly emphasised in this research as it may strongly influence consumer's attitudes towards purchasing the brands. Pricing strategies are therefore instrumental in directing attitudes about purchasing luxury brands, which managers maintain may be desirable for sales and profits. Similarly, the perspectives of brand managers regarding the attractiveness of brands may benefit from incorporating into pricing strategies such that consumers perceive the value of the brand to be higher than the price as this has relation to the attractiveness of the brand. However, it is important to acknowledge that, although attractiveness of luxury brands to young consumers does not relate significantly to their willingness to purchase, the dominance of the brand is essential for maintaining a position in the mind of the consumer, which is potentially more beneficial than not having a position in the market.

9. CONCLUSIONS

The price perceptions of young consumers may affect their attraction to their favourite luxury clothing brands, although the attraction to the brand appears to not have significant bearing on their behavioural intention to purchase the brands. Potentially, other factors may be involved in their willingness to purchase the brands that are not reflected in the liking, pleasure or dominance of the brands. Additionally, price perceptions of luxury clothing brands do not appear relevant for determining consumers' willingness to purchase the brands as the acquired value of the brand may be more desirable than the price itself, as reflected in the highly positive effect of attitudes toward purchasing on willingness to buy the brand.

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TECHNOLOGY TRANSFER OFFICES AND UNIVERSITY-INDUSTRY RELATIONSHIPS: THE ROLE OF RELATIONSHIP MARKETING.

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TECHNOLOGY TRANSFER OFFICES AND UNIVERSITY-INDUSTRY RELATIONSHIPS: THE ROLE OF RELATIONSHIP MARKETING.

ABSTRACT

Different motives for universities and industry partners entering a relationship have been revealed. Universities are thought to benefit mainly in economic terms, complemented by benefits such as the application of basic research results to industry problems. In contrast, the main benefit for organisations is to acquire knowledge, technology and access to talent. In this regard, technology transfer (TT) literature has taken an essentially transactional, instead of a relational, perspective. Consequently, university-industry relationships (UIRs) are yet to receive attention from relationship marketing (RM) researchers. Hence, the research problem identified for this study is the evaluation of the role of relationship marketing in university-industry relationships.

A mixed methods research approach (sequential exploratory, dominant QUALITATIVE - quantitative research design) will be used. The process will commence with a qualitative phase (Phase 1.1, semi-structured one-to-one phone/Skype interviews with technology transfer officers and 1.2, a structured, self-administrated questionnaire, completed by the technology transfer officers), drawn on total population sampling as a type of purposive sampling technique. Based on the feedback received from the interviews, themes will be identified and the information obtained, will lead to the development of questionnaires. The questionnaires will be distributed to relevant industry partners (Phase 2.1) and to other potential industry partners (Phase 2.2), which will be based on snowball sampling. The data gathered in the qualitative phase of this study will educate the quantitative research phase.

The data gathered in phase 1.1 will be analyzed by using the Interactive Qualitative Approach (IQA). Both induction and deduction will be used in the process of coding. Furthermore, the identification of themes will be essential to this process. By using, a process of inductive coding, affinities will be identified and the researcher will then make use of axial coding processes in order to reorganize and refine, defining the range of meaning for each affinity. For the purpose of ensuring or improving reliability, emphasis will fall on synchronic reliability. This refers to the extent of similarity of observations, from different sources within a specified period. The data obtained during Phase 1.2 and 2 of this research study, will be processed by using the Statistical Package for Social Sciences (SPSS). Descriptive statistics will be used to describe the respondents using frequencies tables and selected cross-tabulations.

The main contribution of this study is within the development of a basis for research in a university-industry environment through combining the well-known theory of RM with the developing area of TT. This will also construct a distinctive learning opportunity for practitioners and theorists in both RM and TT areas. Furthermore, this study will contribute to TT and RM theory through improving the successful practice and understanding of UIRs, and conceptualizing the relationships characterized by universities and industry partners. Moreover, this study will explore how RM can enhance overall collaboration strength and success and consequently have a direct economical impact on university performance. Thus, UIR quality can act as a predictor for long-term TTO success, which is often difficult to determine.

AN EMPERICAL STUDY ON MEASURES RELATING TO IMPACT INVESTING IN SOUTH AFRICA

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AN EMPERICAL STUDY ON MEASURES RELATING TO IMPACT INVESTING IN SOUTH AFRICA

ABSTRACT

Impact investing enhances the understanding of sustainability as a non-divisible combination of economic, social and environmental elements which provides an opportunity for creating social change. Over the past years, impact investing has developed networks, standards, and policies but metrics to measure social impacts are largely missing. The study formulates hypotheses where links between various social outcomes and growth are statistically tested. The study is based on a survey of 159 respondents who are players in the impact investing industries. Study findings are analysed using correlational and multiple regression analysis. The findings show positive and significant findings in terms of higher levels of social impact, sustainability and impact investment growth. Study implications highlight that social outcomes which can be measured are essential when considering enterprises are facing intensifying demands for improved effectiveness and sustainability in light of diminishing funding from traditional sources.

1. INTRODUCTION

Society increasingly expects businesses to account for their social and environmental value, as they are embedded in society and its physical environment (Baker, 2011; Byerly, 2015). Considering the macro-level trends facing the world today, there seems to be a discernible shift toward re-embedding economic and business activity in deeper social and environmental contexts from both the 'rethinking business' and social business perspectives (Nicholls, 2011; Tan et al., 2005; Urban, 2015). The traditional bifurcated view of economic versus social value has resulted in a reality where high financial returns are not reconciled with social, environmental, cultural, and ethical impacts (Bozesan, 2013; Fortune et al., 2016; Singh and Bodhanya, 2014; Urban and Kujinga, 2017).

Recognising such contextual challenges, scholars are looking beyond businesses as only having an economic component or Schumpeterian purpose, where entrepreneurs drive innovation and activate structural changes in an economy, but also recognize a social component (Bosma et al., 2012; Urban, 2015; Ziegler, 2010). Porter and Kramer (2011) suggest the principle of 'shared value', which is concerned with policies and operating practices that enhance the competitiveness of a business while simultaneously advancing the economic and social conditions in the communities in which it operates. Shared value creation focuses on identifying and expanding the connections between societal and economic progress.

Impact investing is another response to the challenges facing society in the 21st century and attempts to create measurable positive impact beyond financial returns (Höchstädter and Scheck, 2015). Impact investing provides an opportunity for the creation of economic and social value that has the potential to improve the quality of life and make social progress. Impact investment has been termed 'investing with purpose' because of its pursuit for positive social change that is not driven through philanthropy. Instead, impact investing is about making profit-seeking investments, through traditional debt and equity instruments, while supporting firms that seek to change communities for the better (Bozesan, 2013).

Scholars note that although a uniform definition of impact investing is absent (Born, 2013; Harji et al, 2014; Partidge, 2013) two essential components of the definition are significant - financial return and non-financial impact. Impact investing is distinguished from traditional investments as it pursues both financial returns and intentionally addresses social and environmental challenges. Impact investing reintegrates the understanding of value as a non-divisible combination of economic, social and environmental elements (Bugg-Levine and Emerson, 2011; Höchstädter and Scheck, 2015). Research has proved that impact investing combines the often-opposed forces of capitalism and social justice to solve major social problems and generate financial returns (Porter and Kramer, 2011).

Impact investment, social enterprise, non-profit and philanthropic studies (Choi and Majumdar, 2014; Mirabella et al., 2007) are relatively new areas of study, and consequently the emphasis of most publications has tended to be centred on issues of definition with designs that rely on anecdotal evidence. Few of these publications focus on impact investment that incorporates an outcomes assessment of their activities (Jiao, 2011; Meyer and Gauthier, 2013). Over the past years, the industry has developed networks, standards, and policies but measurement standards that have always been abstract (Jackson, 2013). This is somewhat surprising when noting that this rapidly expanding sector of the economy is evolving without effective evaluation tools that can provide reliable measurement and impact assessment (Lyon and Fernandez, 2012; Roy, 2012).

Recognizing the gap in literature, this study provides a much needed account of current thinking about measuring the outcomes of impact investments. The evaluation of impact space represents a rising and significant part of the broader sustainability, Non-Governmental Organisations (NGO's) and social enterprise landscape (Vinaygathan and Pallegedara, 2014) even though impact assessment has yet to become standard practice for firms. Current practices focus on readily available metrics rather than broad socio-economic indicators, creating a substantial lack of information around social impact (Roy, 2012; Urban, 2015). Moreover, few studies focus on impact investment that incorporates an impact assessment of their activities, particularly in an African context (Venter and Urban, 2015).

The study makes several contributions to the literature, where it is one of the first in an African market context to investigate the nature and perceived levels of social outcomes for impact investing. In South Africa, social outcomes have unequivocal application where

traditional government initiatives are unable to satisfy the entire social deficit, where challenges to non-profit accountability are acute, and where the survival of many NGO's is at stake (Gugerty, 2010; Urban and Kujinga, 2017). Such challenges are exacerbated by a social context characterised by massive inequalities in education, housing, the HIV/AIDS pandemic, and high unemployment and poverty rates (Venter and Urban, 2015). It is anticipated that this study conducted in an under-researched region, South Africa, will contribute to the literature on impact investing metrics in a unique and meaningful way.

This article starts with a brief overview of the literature under investigation in order to substantiate the formulation of hypotheses. Survey data is then collected and statistically analysed to test the hypotheses. Results are analysed and interpreted, whereupon conclusions, limitations and future research areas are delineated.

1. LITERATURE REVIEW

2.1 Substantiality and impact investing

According to the United Nations' Brundtland (1987) Commission, sustainability is the ability to meet today's needs and not disturb the future generation's ability to meet their needs. It is concerned with how to foster societal and environmental development without disturbing and endangering the living conditions of humans (Sheehan et al., 2014). Many corporates in the developed world now have at the very least a sustainability or environmental policy, with increasing numbers explicitly addressing corporate social responsibility (CSR) issues in their strategic planning (Urban, 2015).

A critical review of the literature highlights the differences between impact investing and other related terms such as CSR, social responsible investment (SRI), environment social and governance (ESG), and traditional investing. Impact investing differs from traditional SRI where the focus is on identifying and avoiding big companies with perceived negative business practices or products (negative screening) (Brest and Born, 2013). Trovato (2014) however, argues that SRI screens out sectors to achieve financial return and avoid social harm. Impact investing, on the other hand, looks at investments that intentionally create a positive social impact. Other researchers indicate that impact investing seeks to solve social and/or environmental challenges proactively, while SRI seeks to improve corporate governance practices through ESG criteria (Venter and Urban, 2015).

The concept of investing to achieve social outcomes is not a new phenomenon (Höchstädter and Scheck, 2015); however, the origin of the term 'impact investing' could be traced to 2007 and 2008 Rockefeller Foundation meetings in Italy that focused on building an industry for investing in social and environmental impact (Jackson et al., 2012). Since its formation impact investing has been growing in recognition, prominence and size (Partridge, 2013). According to the Global Impact Investing Network (GIIN), (2015), impact investments are funds that are given to social entrepreneurs with the intention of generating social, environmental and financial return. According to Höchstädter and Scheck (2015), practitioners define impact investing from various perspectives, namely cultural, developmental, economic, governance and social (environmental). Impact investing manifests across different asset classes and financial products including private equity, venture capital and debt (Greene, 2014). Jackson (2013) describes impact investing as mobilization of capital for investments, with the intention to generate positive social impact beyond financial return. Others see impact investing harnessing entrepreneurship, innovation and capital to empower social improvement (Social Impact Investment Taskforce, 2014), while simultaneously redefining the role of business in society (Turker, 2009). Notwithstanding the different conceptualisations, all definitions of impact investing have in common the achievement of societal and environmental changes through capital investments.

Jackson (2013) categorises impact investing according to classes of actors namely asset owners, managers, demand-side and service providers: and he assigns user roles to categorise impact investing. There are four major players in the impact investing field, namely fund owners or investors, fund managers, communities or beneficiaries and the service providers who usually assist fund managers and communities by providing services to them (Jackson, 2013). Investors measure and consider investment options across asset classes, whilst fund managers monitor and evaluate their operations (Jackson, 2013). Impact investors propose and implement private debt deals, and avail loans, guarantees and other debt instruments as well as equity and quasi-equity, to fund managers and organizations whose aim is to support the disadvantaged with affordable products, jobs, income, and services, such as food, health care, housing, education, energy and environmental protection (Brest and Born, 2013; Jackson, 2013; Venter and Urban, 2015).

2.2 Impact investing measures

Despite the proliferation of literature on impact investing, it has been noted that the industry still lacks consistency and transparency on how fund managers define, compare, measure and report on social impact. For instance one organisation might include part time jobs when measuring job creation whilst another will only include full time jobs (Stubert, 2013). Impact measurement is vital to the field of impact investing in order to legitimise the industry, as effective impact measurement brings about value for all role players, mobilizes capital, and brings about transparency and accountability (Social Impact Investment Taskforce, 2014).

Impact investing, as a new form of investing, requires new ways of measuring its returns. According to Bugg-Levine and Emerson (2011), such measurement should track multiple returns of the investment. It typically measures profit in terms of financial and quantifiable social metrics. According to Urban (2015), Impact investing augurs for lowering of risk while increasing internal rate of return and measurable positive impact (social and environmental). Internal rate of return and measurable positive social impact become the ultimate goal (maximisation of profit and social wealth for the shareholders and the society). Ideally, social impact should be equal to or better than financial return.

Impact investment is considered to have an impact only if it increases in numbers and in quality of the enterprise's social outcomes, above what would have occurred (Brest and Born, 2013). Nicholls (2011) agrees with the notion that social entrepreneurs use social impact reporting, to build legitimacy, performance and access resources. Previous research has also shown that enterprise growth means that more jobs are going to be created, and this will result in people's lives being improved (Venter and Urban, 2015). Social enterprise growth, like any other growth of an enterprise, can impact profitability through increased revenue, reduction of costs and economies of scale. Social enterprises also pursue growth to increase profits by growing market share and by facing competition, just like conventional companies. However, for many social entrepreneurs, their value creation is not gauged by how much profit they make, nor by how much they grow, but by the social impact made (Jackson, 2013; Peredo and Chrisman, 2006).

There are many different types of outcomes that an enterprise may manifest but there are two main fundamental impacts (Brest and Born, 2013). Product impact: these are goods and services produced by the enterprise. Examples of these goods and services include, clean water, sanitation, malaria safety nets, medication, etc. The other type of impact is the operational impact which is the management practices of the enterprise on its employees' health and economic security, as well as its effect on jobs and the well being of the communities in which it operates. These impacts are categorised as 'outputs' which are products and services produced by an enterprise and 'outcomes' will then be the effect of the outputs in improving communities (Brest and Born, 2013; Kramer, 2005).

Recognising that a key issue confronting the evaluation of outcomes, four 'metrics' are used in this study which will hopefully facilitate a better assessment for impact investing. These outcomes are discussed to indicate their underpinning in the hypotheses, in terms of: (1) social impact, (2) innovativeness of solution, (3) expandability/replicability and (4) sustainability (McLoughlin et al. 2009; Kramer, 2005; Urban, 2015).

Social Impact: Impact in this context, is defined according to the organisation's goals and the social problems it seeks to address. Organisations that have recorded levels of social impact for the good are usually those that have been able to clearly define and articulate their social and environmental goals. Measuring social impact can assist social organisations to prove to communities, donors, civil society and government that their operations and projects are benefiting the communities (Venter and Urban, 2015). It means that they will have set their priorities right and clearly communicated organisational objectives to their staff members, who in turn are empowered to act decisively on measures. Moreover research indicates that such organisations have the potential to grow in size and capacity to impact more societies (Tan et al., 2005). Following prior empirical evidence in the first instance it is hypothesised that:

Hypothesis 1: There is a positive relationship between higher levels of social impact and growth in terms of impact investing

Innovativeness: Social innovation involves carrying out new combinations and developing capabilities to uncover social innovations that can change people's lives (Ziegler, 2010). Business innovation is market driven (Gulev, 2016) whereas social innovation has human needs as its focus. Social innovation is conceptualised as more ambiguous and complex than conventional innovation as applied by commercial ventures, due to the higher number of stakeholders having different interests, value sets and priorities (Lettice and Parekh, 2010). Social innovation is an interactive process that brings forth new knowledge and capabilities which in turn, will be used to generate new business ideas and grow the organisation (Ziegler, 2010). Following such a line of reasoning it is anticipated that:

Hypothesis 2: There is a positive relationship between higher levels of innovativeness and growth in terms of impact investing

Replicability: Investors and managers of social organisations are eager to take a solution that has worked to solve a social problem somewhere, and then scale it up so that it becomes wider. Social organisations replicate their ideas to widen their impact as well as to expand their business (Urban, 2015). Replicability and innovation usually work hand in hand meaning that organisations have to come up with innovative solutions for them to be able replicate solutions that worked somewhere else. There are many methods of replicability or scalability, franchising being the most common one. Franchising is when another organisation is allowed to operate using the same brand as the first organisation including the name, logo, mission, strategies and objectives (Dees, 2004). Based on these findings links are anticipated insofar:

Hypothesis 3: There is a positive relationship between higher levels of replicability and growth in terms of impact investing

Sustainability: Social enterprises, globally, are adopting business-like strategies to empower societies and increase their chances of having lasting or sustainable social impact (Dees and Anderson, 2003). Organisations are considered sustainable when they properly manage their human, financial, manufactured and natural capitals within the society from which they operate, while adopting business-like strategies to empower societies and increase their chances of having a sustainable social impact (Dees and Anderson, 2003). Investors are driven to sustainable investing when the characteristics of

the return on investment can be improved by factoring in sustainability into the investment decision. Considering that sustainable investing and the study thereof is a growing phenomenon and it is growing even faster than the investment industry as a whole, in the last instance it is hypothesised that.

Hypothesis 4: There is a positive relationship between higher levels of sustainability and growth in terms of impact investing

2. PROBLEM INVESTIGATED

The research question can be summary as follows: After fund managers measure and report on the outcomes of their endeavours, does any measurement outcome bring growth to their organisations by securing them more capital from the investors? The measurement outcomes being analysed would be social impact, innovativeness, sustainability and replicability.

3. RESEARCH OBJECTIVES

Main objective

Evaluation of measurement metrics to determine which one brings more value to the organisation and will lead to its growth.

Sub-objective

To evaluate measurement metrics in pursuit of determining which one brings more value to the organisation and will lead to its growth. The following sub objective is therefore envisaged from this:

After evaluation of its initiative and reporting on social impact, on innovativeness, on sustainability and on replicability: what benefit does the organisation derive in terms of growth? Do any of these metrics bring about growth of the organisation? The research analysed if any of these metrics was correlated to growth of the reporting organisation.

4. RESEARCH METHOD

The context of this study is the impact investing industry. The sampling frame of the study is derived from a population of the South African Impact Investment Network membership listings of 67 organisations (SAIIN, 2015). Additionally the sampling frame included a global organisation aimed at strengthening developing countries' capacities in monitoring, evaluation and performance management to support a focus on results and evidence-based decision-making - the monitoring and evaluation centre (CLEAR, 2016) which is situated in a major South African university.

A cross-sectional research design was adopted using an online self-administered survey to collect primary data. The unit of analysis was the individual as they typically hold some levels of decision-making power, and are engaged in strategic discussions for their respective organizations. A written request was submitted to the relevant organisational regional head office to obtain necessary permission for staff to participate and to administer the survey. Based on the population size an electronic survey yielded a total of 518 qualifying individuals which were coded into a database where a random numbers program was applied to randomly select individuals across organisations. This multistage screening rendered a final sample of 159 complete responses, yielding a 30.7 percent response rate. This was regarded as a reasonable response rate, given that a number of emails did not reach the recipients presumably due staff mobility, error in capturing email addresses,

and/or strict email policy among the organizations surveyed (Cooper and Schindler, 2011). To ensure sufficient variability and a high regional representativeness, the survey was evenly distributed among the four major cosmopolitan provinces of South Africa: Cape Town, Durban, Johannesburg and Pretoria.

Sampling characteristics reveal that 52.83% of respondents were male and 41.53% were female, while 38.93% were in the 20-29 years old category and 33.96% in the 30-39 age category. The majority of respondents (46.54%) have a completed a diploma or degree whilst a further 16.35% have a postgraduate qualification.

Care was taken to ensure clarity in measurement terminology and to ensure that the items of the questionnaire addressed the hypotheses. Existing instruments were scrutinised for suitability and the following items were used for constructing the instruments for this study. All items were measured with five-point Likert scales ranging from strongly agree (five) to strongly disagree (one). For the independent variables, several evaluation measures used in the field of social enterprises (Innobasque, 2013; Urban, 2015) were scrutinised for suitability of use: these included the SROI index (Roy, 2012), the Skoll Foundation measuring innovation measures (Kramer 2005), the Canadian Centre for social entrepreneurship measures (Johnson, 2003), and the social impact measures from the Centre for the Advancement of Social Entrepreneurship (Dees et al., 2002). In the final instance measures from each of these sources were selected that best encapsulate the themes and areas of impact investing and included the dimensions of social impact (four items), innovation (three items), replicability (three items) and sustainability (four items).

Growth as the dependent variable was captured using a mixed approach as successful organisations achieve high performance both in sales growth and profitability, with different developmental pathways (Murphy, et al., 1996). Following past studies (Dahlqvist et al. 2000; Steffens et al. 2009), a composite of four commonly used performance measures pertaining to growth were used (8 items). Growth was treated as a perceptible measure for the past three years (performance over three years is broad enough time-space to account for seasonal and cyclical variations in business practices and performance). Absolute growth was simply computed as the size at 1 year minus the size of the previous year. These growth indicators have been shown to have acceptable criterion-related validity using a range of both categorical and continuous criterion variables (Steffens et al. 2009).

Statistical programs - SAS and SPSS software were used to analyse the data. Correlation, covariance and multiple regression models were employed to analyse the data in order to determine the predicted relationships between the specified variables (Cooper and Schindler, 2011). Since the study uses self-reporting measures at one point in time, common method bias may influence the results and conclusions. A number of procedural and statistical steps were taken to minimize this risk. Procedurally, in order to reduce socially desirable responses and item ambiguity, the questionnaire featured specific, clear, concise items, with a 'counter-balanced' question order, and the respondents could choose to remain completely anonymous (Podsakoff et al., 2003). Statistically, to ensure rigor in the results all items relating to the independent variables (IV) and dependent variables (DV) variables were explored in a single principal component analysis (PCA), using Harman's one-factor test (Podsakoff et al., 2003) to check if one component accounted for most of the variance. Five components with eigenvalues greater than 1.0 were detected, which accounted for 66 percent of the variance. The largest component accounted for only 14 percent. These results suggest that common method bias was not identified and is not a serious concern in this study.

5. RESULTS AND FINDINGS

6.1 Instrument validity and reliability

Exploratory Factor Analysis (EFA) using the principal axis factoring with Harris-Kaiser rotation was used to assess the construct validity of the instrument. To test for construct validity first the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were calculated. All the measures had KMO values greater than the minimum required value of 0.5 with significant p-values. Social impact = 0.735; innovation = 0.718; replicability = 0.505 (borderline case accepted); sustainability = 0.669; growth = 0.832. For all the constructs, the probability associated with Bartlett's test was $p < .001$. Eigenvalues greater than one and factor loadings of ≥ 0.7 were regarded as significant (Hair et al., 2010). Consequently, all items within the original hypothesised constructs were retained. Scale reliabilities were calculated using Cronbach's alpha (Nunnally, 1978) for internal consistency and satisfactory results were obtained ($> .70$) in terms of: Social impact = 0.898; innovation = 0.843; replicability = 0.872; sustainability = 0.772; growth = 0.919. Comparisons of means tests were conducted to evaluate the effects of single control variables on growth in isolation to other control variables, with no significant results detected. Similarly, individual one-way ANOVA tests did not find any statistical differences in growth between any of the control variables except for one category of age group (30-39 years old).

6.2 Descriptive and correlational analysis

Table 1 shows the descriptive statistics for the summated scales and the Pearson correlation coefficients of the factors. A summated scale for each construct was computed by calculating the average of the items within the construct. The overall mean scores for the main constructs under study were relatively high, where the mean is the midpoint average on the 1-5 Likert scale. Pearson correlations coefficients were highest between innovativeness and replicability ($r = 0.784$), sustainability and growth ($r = 0.411$), and social impact and growth ($r = 0.712$). Several additional inter-correlations between the factors were noted however there were no extremely high correlations among the independent variables (> 0.9), which mitigates issues of multicollinearity (Cooper and Schindler, 2011).

6.3 Hypothesis testing

Table 2 shows multiple regression results where in the ANOVA section a significant F-score of 11.352 ($p < 0.001$) was obtained. However considering the limited amount of variance (Adjusted R Square = 21.9%) explained by the independent variables means that the predictive and explanatory power of this model is limited and a fair amount of work needs to be conducted to further understand the influence of social outcomes on growth. In terms of the coefficients, only two of the four predictors have a positive and significant relationship with growth, namely social impact ($t = 2.354$; $p = 0.02$) and sustainability ($t = 3.179$; $p = 0.002$). This means that hypothesis 1 and 4 are supported, while the empirical evidence cannot support hypothesis 2 and 3.

Table 1 Descriptives statistics and Pearson's' correlations for all factors

Factors	Mean	Standard Deviation	Social impact	Innovativeness	Replicability	Sustainability	Growth
Social impact	3,975	0.988	1				
Innovativeness	3.534	1.012	.287**	1			
Replicability	3.619	0.991	.365**	.784**	1		
Sustainability	3.997	0.878	.365**	.360**	.158*	1	
Growth	3.466	0.917	.393**	.324**	.311**	.411**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Source: Author's research data derived through survey data

Table 2 Multiple Regression results: Growth as the dependent variable

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.490 ^a	0.240	0.219	0.59679		
a. Predictors: (Constant), Sustainability, Replicability, Social impact, Innovativeness						
ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16.173	4	4.043	11.352	0.000 ^b
	Residual	51.287	144	0.356		
	Total	67.460	148			
a. Dependent Variable: Growth						
b. Predictors: (Constant), Sustainability, Replicability, Social impact, Innovativeness						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.664	0.315		5.289	0
	Social impact	0.145	0.062	0.196	2.354	0.02
	Innovativeness	0.041	0.092	0.056	0.441	0.66
	Replicability	0.099	0.082	0.151	1.212	0.227
	Sustainability	0.281	0.088	0.27	3.179	0.002
a. Dependent Variable: Growth						

Source: Author's research data derived through survey data

The positive and significant finding in terms of higher levels of social impact and growth is in line with prior studies where tangible results that impact people's lives lead to growth of activities which are widespread and span several communities (Urban, 2015). Research confirms that one of the more critical challenges faced by social enterprises is the measurement of their social impact (Nicholls, 2011). Social impact is considered to be the consequences to (communities) that alter the ways in which people live, work, play, relate to one another, organize to meet their needs and generally cope as members of society. It also includes cultural impacts involving changes to the norms, values, and beliefs that guide and rationalize their cognition of themselves and their society (UN, 2006).

Similarly the positive and significant finding between higher levels of sustainability and growth reflects the literature which confirms that social enterprises are seeking sustainable solutions in order to remain relevant and grow (Dees and Anderson, 2003). The nexus between financial sustainability and need has evolved with organizations such as the National Centre for Social Entrepreneurs which developed a Mission/Market/Money Matrix to help social enterprises establish whether their intended venture or project is financially sustainable, while at the same time in keeping with its core mission (Venter and Urban, 2015).

Counterintuitive results were obtained for the innovation and replicability dimensions as they did not relate to growth of impact investing. This is somewhat surprising considering that replicability and innovation usually work hand in hand to widen social impact as well as to grow social ventures (Urban, 2015). Creating new products or services, or new ways of delivery are required by social enterprises to satisfy the needs embedded in the social market specifically in the process bringing about social change. Through innovation, social enterprises unlock value by creating a platform for sustainable solutions through a synergistic combination of capabilities, products, processes and technology to create a social and strategic fit into underdeveloped, unchartered markets (Mair and Marti, 2006).

6. PRACTICAL MANAGERIAL IMPLICATIONS & RECOMMENDATIONS

The evaluating for impact investment space represents a new and significant part of the broader sustainability landscape, and this study has made a contribution to the literature which emphasises the importance of measuring the outcomes of impact investments. Recognising the lack of available metrics measuring meaningful social outcomes, this study has focused on the relationship between sustainability, replicability, social impact, innovativeness and the growth of impact investing.

Today NGOs and social enterprises are operating in a highly competitive environment characterised by tighter financial restrictions, with several organisations vying for the same donor funds (Weerawardena and Mort, 2006). Moreover, these enterprises are facing intensifying demands for improved effectiveness and sustainability in light of diminishing funding from traditional sources.

Principally the results also have contextual relevance where in South Africa, which is currently beset by many social inequalities. Impact investors need to look for the most effective methods of investing in social enterprises by evaluating their initiatives in terms of the social outcomes as conceptualised in the current study. By demonstrating solid impact and sustainability, social enterprises can develop capacity and add value to meet the needs of groups who have been failed by previous government attempts in social redress. Moreover, the success of impact investing hinges largely on the environment within which it takes place and impact-investing ecosystems require a network of different role players and intermediaries.

The study has important implications, as there is a need to analyse impact investing in an emerging market context as social interventions which can be measured offer the promise of empowering marginalised segments of the population in these economies. Emerging economies are unique environments that offer the ability to obtain fresh insights, expand theory and increase understanding by incorporating more contextualised considerations (Bruton et al., 2008). By conducting research in an under-researched context, such as South Africa, researchers will now be able to compare empirical findings with studies conducted in similar contexts.

Impact investors and fund managers may benefit from the findings of this study as it shows the effect of the measurement metrics that bring about higher levels of growth for impact

investing. Depending on which metric that each project is strong in, management can now make an informed choice on which metric to concentrate on to increase growth. Further, practical implications of this study are that fund managers need to be transparent in their reporting if they want to grow their initiatives. They need to declare how much social impact they are having on the societies, how innovative they are, how their initiatives are replicable and lastly, how sustainable they are, in order to attract investments.

The study is not without limitations as no official or comprehensive data-base is yet available on impact investing and social enterprises in South Africa. This makes any generalisability of the results risky as no comprehensive population and sampling frame could be identified. Additionally, the study has typical survey design limitations in that survey data are self-reported and the study is prone to self-serving bias. Many of the limitations of this study afford interesting opportunities for future work. Based on the cross-sectional nature of this study, which loses the dynamic aspects of social outcomes as they may well change over time with focused reform measures, future research should aim for a longitudinal study to provide further insights and causal inferences into the relationship between these social outcomes and varied performance measures.

7. CONCLUSION

The research found positive and significant relationship between higher levels of social impact and growth. This was also in line with prior studies where tangible results that impact people's lives lead to growth of activities which are widespread and span several communities (Urban, 2015). Another significant finding of this research is that social enterprises find it difficult to measure of their social impact (Nicholls, 2011). Similarly, the research finds a positive and significant relationship between higher levels of sustainability and growth which reflects the literature which confirms that social enterprises are seeking sustainable solutions in order to remain relevant and grow (Dees and Anderson, 2003).

Counterintuitive results were obtained for the innovation and replicability dimensions as they did not relate to growth of impact investing. This is somewhat surprising considering that replicability and innovation usually work hand in hand to widen social impact as well as to grow social ventures (Urban, 2015).

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ESTABLISHING THE ANTECEDENTS OF SERVICE BRAND AVOIDANCE

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ESTABLISHING THE ANTECEDENTS OF SERVICE BRAND AVOIDANCE

ABSTRACT

While much research has been devoted to the positive aspects associated with branding, including brand love, brand affection and brand attachment, the negative aspects associated with brands, and in particular service brands, have not received as much attention. This study investigates service brand avoidance since an understanding of the negative aspects of brands is just as important as that of the positive aspects thereof due to its negative impact on brand equity.

Service brand avoidance refers to customers' deliberate avoidance or rejection of a service brand even though it is available and financially affordable. Behaviour where customers move away or stay away from a brand can thus be considered as brand avoidance and is accordingly viewed as a form of intentional anti-consumption.

While previous qualitative research suggests five antecedents leading to brand avoidance, namely experiential avoidance, identity avoidance, moral avoidance and deficit-value avoidance and advertising avoidance, this has not empirically been tested. The purpose of this study is to broaden our understanding of service brand avoidance by firstly developing a valid and reliable measuring instrument to measure service brand avoidance together with the five antecedents thereof. Secondly, the study establishes whether the service brand avoidance antecedents do in fact predict service brand avoidance.

Data were collected from 327 customers from a leading South African cell phone network provider (CNP) by means of convenience sampling. The CNP sent short message service (sms) messages to prospective respondents inviting participation in the study by clicking on a link directing them to a web-based questionnaire hosted on Qualtrics.

Through principle axis factoring with Varimax rotation, an exploratory factor analysis (EFA) was performed. Using the Eigenvalue (>1) criterion, six factors were extracted from the analysis, while further analyses confirmed the validity and reliability of the newly developed measuring instrument. From the multiple regression performed it was found that deficit-value avoidance, experiential avoidance, identity avoidance and moral avoidance predict service brand avoidance, while advertising avoidance does not.

Findings from this study thus support previous qualitative research suggesting that deficit-value avoidance, experiential avoidance, identity avoidance and moral avoidance predict service brand avoidance. This study's findings, however, contradict existing research suggesting that advertising avoidance could lead to service brand avoidance. Based on the findings from this study, and in particular the newly developed valid and reliable measuring instrument, research on service brand avoidance can move forward by establishing the influence of service brand avoidance on word-of-mouth, customer loyalty and defection and brand equity.

**SERVICE RECOVERY AND CUSTOMER DELIGHT: EXAMINATION OF DIFFERENCES
BETWEEN CUSTOMERS IN DIFFERENT SPENDING GROUPS**

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**SERVICE RECOVERY AND CUSTOMER DELIGHT: EXAMINATION OF DIFFERENCES
BETWEEN CUSTOMERS IN DIFFERENT SPENDING GROUPS**

ABSTRACT

Customer delight is known to exert positive significant influence on levels of customer loyalty even in service recovery situations. This study examined the differences between lower and higher spending customers of cell-phone network service providers in their levels of delight following service recovery efforts. Data used in the analysis was collected from 500 customers from Gauteng, South Africa using a structured questionnaire. The findings revealed significant differences between lower and higher spending customers in their levels of customer delight following service recovery efforts. Lower spending customers showed higher level of delight compared to higher spending customers. The findings point to the need for managers to take cognisance of the fact that service recovery efforts may have different effects on different customer segments. Managers need to identify different recovery strategies that are

appropriate for each customer segment and monitor their effectiveness in ensuring customer delight following service recovery efforts.

1. INTRODUCTION

Ensuring customer satisfaction in service delivery is critical for business success (Bowden-Everson, Dagger & Elliot, 2013:52). Service failure can however not always be avoided. When service failure occurs, customer dissatisfaction and complaints are inevitable. In order to avoid the negative consequence associated with dissatisfaction it is important for service providers to engage in service recovery. Boshoff (2012:1) defines service recovery as the actions firms take to restore a customer to a state of satisfaction after a service failure occurred. Service recovery helps to restore customer satisfaction and prevent customers from spreading negative word of mouth (Boshoff 2012:1; Kruger, Mostert & de Beer 2015:222, and Petzer & De Meyer, 2012:22). Customers who have encountered a negative service experience, followed by a dissatisfying post-recovery encounter with a service provider are more likely to terminate their relationship with that provider and move to a new service provider. This, if unchecked can over time result in loss of market share for the service provider (Gustafsson, 2009:1220).

Finn (2012:99) as well as Alexander (2012:117) observed that in recent years' researchers in service marketing widely noted that it is not enough for firms to focus only on customer satisfaction following service failure but to go beyond this and ensure customer delight. This is because customer delight is known to have high level of positive influence on loyalty after service recovery. Oliver, et al., (1997:312) define customer delight as a remarkably positive emotional response that result from having expectations surpassed to an outstanding and unexpected degree. Studies by Loureiro, Miranda & Breazeale, (2014:102), Bowden-Everson, et al., (2013:54) as well as Swanson & Davies, (2012:264) support the notion that by focusing on customer delight firms are able to retain more customers. Alexander (2012:117) opines that delight can be derived from elements of surprise when a customer interacts with a company. The key determinant to customer delight is that it is an unexpected occurrence that results in a positive customer experience, in order to retain the customer's patronage (Petzer & Steyn, 2006:167). Abbas, Abdullateef & Mokhtar (2015:258) argue that in certain instances surprise is a critical response to service recovery efforts. This is because doing so may assist in replacing the negative emotions, that people often experience as a result of service failure, with positive emotions due to a surprisingly pleasant experience.

In examining customer delight, this study focuses on experiences of customers of cell phone network service providers in South Africa. The cell phone network service provider industry in South Africa is characterised by high levels of competition (Petzer & De Meyer 2012:22). Due to rapid growth in demand for the network, service failures such as slow connection to the internet, dropped calls or limited network coverage are known to occur. As no service company can claim to be exempt from service failure and the consequences thereof, it is particularly important for those operating in highly competitive industries to always look for ways of managing service failure in a way that results in delight. Kruger, et al. (2015:2222) specifically pointed out that it's essential for cell phone network service providers to keep their customers happy especially after a service failure has occurred. The lack of high levels of differentiation between the different service providers and the ease with which customers can move from one provider to the next further necessitates the need for care in managing service failure in the South African cell-phone network service provider industry.

The paper is structured into eight main sections. The next section, section 2, provides a review of the literature. Section 3 and 4 highlights the research problem and objectives of the study respectively. Thereafter, in section 5 and 6 respectively, presents details relating to the research methodology and the results. Section 7 discusses the results and their implications before concluding in section 8.

2. LITERATURE REVIEW

The literature review starts by providing a brief overview of the cell phone network service provider industry in South Africa. In doing so, the four major players in the industry are introduced, details relating to their current market share are given and customer segments in the industry are outlined. Thereafter the literature review focuses on the key concepts in this study including service recovery, perceived justice, customer satisfaction and customer delight. This section also presents the hypothesis posited in the study based on the literature

2.1 Overview of the South African cell phone network service provider industry

The South African cell phone network service provider industry consists of four main players namely Vodacom, MTN, Cell C and Telkom. The first two main players in this industry were Vodacom and MTN who started operations in 1994. In 2001 Cell C entered

the South African mobile industry with Telkom Mobile commencing its operations in 2010 (Cell C, 2016). According to Stats SA (2016) the telecommunications industry earns its income in a number of ways which include airtime, connection income, subscriptions, and mobile device sales. This industry thus provides customers with a range of services to ensure customers are able to stay connected to the rest of the world.

The industry is highly competitive. In November 2015 Vodacom reported a market share of 38.4%, MTN 33.2% with Cell C and Telkom having a market share of 25.1% and 2.6% respectively (Businessstech, 2015). In 2015, the mobile penetration rate in South Africa was sitting at 164.5% (International Telecommunications Union, 2015). The high mobile penetration rate means that for the cell phone network service providers in the country, the only major way to grow their market share is to attract customers from other service providers using strategies that focusses on positively differentiating themselves based on quality, innovation and most importantly service. Service providers who fail to provide this are likely to find it hard to retain customers and/or attract new ones.

2.2 Customer segmentation in the South African cell phone industry

There are two customer segments in the cell phone industry: the prepaid customer segment and the contract customer segment. A study conducted by the Interactive Advertising Bureau (IAB) South Africa and Effective Measure revealed that 40% of cell phone users make use of prepaid services while 60% of cell phone users were on contract (Mybroadband, 2015). The study furthermore highlighted that majority of the prepaid market spend less than R350 per month and a large percentage of the contract market spend R350 and more per month on their cell phone network services.

Prepaid services were only made available in South Africa in the year 1996 (Petzer, et al., 2012:28). Since then this service has proven to be very popular among the lower earning market segment as it allowed the user to control their spending by only loading airtime or data as and when it suited them (Petzer, Mostert, Kruger & Kuhn, 2014:29). Petzer, et al., (2014) noted that contract customers were mainly customers with a stable salary and a good credit score. Most businesses also make use of contract services to run their operations. Seeff (2015) observed that contract customers in South Africa express a lot of unhappiness with the services provided by the cell phone network service providers (Seeff, 2015). According to Seeff (2015) contract customers are locked into 24 months contracts and often pay more than anticipated on a monthly basis. Seeff (2015) also pointed out that cell phone network providers are not transparent with the rates they charge contract

customers and when the bill comes at the end of the month these users are left reeling with the exorbitant bills that they get. Seeff, (2015) further notes that contract customers are forced to take out bundle where customers pay for services they do not use. Often contract customers do not feel that cell phone service network providers are providing them with the service value they expected (Petzer, et al., 2014:25). Service providers have thus a lot to do to ensure they keep these customers satisfied including having service recovery strategies in place in cases where service failure occurs.

In their study, Petzer, et al., (2014:25) found that contract customers are more likely to respond to service failure than prepaid customers. This could result from the fact that contract customers are bound to a longer term contract and generally pay more for services therefore they have higher service expectations than those of prepaid customers. Such customers can be vocal if their expectations are not met. Wilson, Zeithaml, Bitner & Gremler (2012:56) opine that if a customer knows of other providers who can provide a similar service their expectations of service levels become a lot higher. It is therefore important for cell phone network service providers to provide their customers with the best possible service and invest in customer delight strategies which are aimed at increasing customer loyalty and the company profits in the long run. Failure to offer good services to customers can result in them switching to competitors.

Researchers including Orsingher, Valentini and De Angelis (2010) as well as Abbas, et al., (2015:256) however noted that it is not always possible to provide satisfactory services to customers as service failure cannot always be avoided. With service failure being inevitable in any business, the management of it can be an important differentiator. The reason for this is that if not well managed, it can lead to loss of customers, whereas properly managed service recovery efforts can result in customer retention (Chang & Chen, 2013:565). The next section addresses the concepts of service failure and service recovery in more detail.

2.3 Service failure and service recovery

Abbas et al., (2015:252) state that when customers interact with a service provider they expect their needs to be met. Those on contract expect the service provider to act in accordance with the service contract. When these expectations are not met, the customer deems it as a service failure. Service failure can therefore be defined as an organisation failing to meet customer's perceived or actual expectations (Petzer and De Meyer, 2012:25). It is an indication that something in the relationship between the customer and the service provider has gone wrong (Anupam, Dangayach & Rakesh 2011:39; Tsai, Yang

& Cheng 2014:140; Abbas, et al., 2015:257). According to Wilson et al., (2012:340) as well as Bhandari, Tsarenko and Polonsky (2007:177) service failures can occur as a result of a number of reasons including misbehaviour of employees or the service not performing in the manner it is supposed to. In the case of cell phone network service providers, examples of service failure include instances where the network is down and customers are unable to make and receive calls, or where they have been billed incorrectly. It can also occur in instances where customers raise concerns with the service provider and the response they receive is unsympathetic and perhaps even rude.

When service failure occurs it commonly leads to negative feelings towards the service provider such as dissatisfaction and anger (Wilson et al., 2012:340; Harrison-Walker 2012:118). It is therefore imperative that firms invest in ways to rectify service failures through service recovery strategies. Abbas, et al. (2015:257) defines service recovery as the deliberate actions of a service provider to address customer concerns relating to the service they received. If customers feel that, their concerns have been heard it can result in customer satisfaction and retention. However, if a customer feels that the service provider has not taken the necessary steps to adequately address the service failure the customer can defect to a competitor or spread negative word of mouth (Chang & Chen, 2013:565). Thus appropriate service recovery strategies need to be in place to ensure the successful address of service failure in the eyes of customers (Lin, Wang & Chan, 2011:512). The extent to which service recovery efforts will result in positive consequences will normally depend on perceived justice associated with service recovery efforts. The next sub-section looks at the concept of perceived justice.

2.4 Perceived Justice

Perceived justice in the context of service recovery can be defined as how fair the customer experienced the service recovery process (Chang & Chang, 2010:340). Literature on justice in service recovery identifies three main dimensions that are used to assess fairness of service recovery efforts. These include interactional justice, distributive justice and procedural justice (Nikbin, Armesh, Herdari & Jalakamali, 2011:9814; Kim, Kim & Kim, 2009:52). Interactional justice refers to the extent to which a customer feels he has been treated fairly by the service staff during the service recovery process (Kuo & Wu, 2012:129). Distributive justice is about the extent to which the outcome of service recovery is perceived as fair compensation (Wang, et al., 2011:352; Chang, et al., 2010:340). Lastly procedural justice refers to the extent to which the customer feels that the service provider's

processes and procedures are reasonable in order to provide a positive outcome after a service failure (Kuo, et al., 2012:129).

Kim et al., (2009:52) pointed out that the extent to which the customer feels justice in service recovery process determines the level of post recovery customer satisfaction. Studies by Smith and Mpinganjira (2015:40) as well as Kim et al., (2009:60) show that perceived levels of justice exert positive influence on levels of satisfaction with a service provider. The next section examines the concepts of customer satisfaction and customer delight in further.

2.5 Customer satisfaction and delight

In the past, satisfaction was widely seen as the main factor that affects a customer's behavioural intentions (Oliver et al., 1997:312). As time went on it became apparent to researchers that it was possible for business to produce higher levels of service quality that results in satisfaction but not increased loyalty. This is where the importance of going beyond customer satisfaction to customer delight became apparent. Berman (2005:130) notes that customer delight is an emotional reaction that binds a customer to a product. Important components of customer delight include the fact that it is a positive response, it is emotional and it is often surprising or unexpected. Some researchers though note that surprise is not essential for customer delight to occur (Barnes, Ponder, & Dugar, 2011:265; Crofts & Magnini 2011:720). According to Berman (2005:134), one of the differences between customer satisfaction and customer delight is that satisfaction is based on cognitive perception where delight is based on emotion. He argues that satisfaction requires meeting expectations and delight requires doing the unexpected) and that because delight finds its basis in emotion it is more memorable than satisfaction.

While the distinct differences between customer delight and customer satisfaction may be apparent, both concepts find their origins in the expectancy disconfirmation paradigm. The expectancy disconfirmation paradigm states that when a customer purchases and uses a product or service the actual performance levels are revealed. Customers then compare the actual performance levels to their expected performance levels. According to this paradigm negative disconfirmation will occur when the actual performance is lower than the expected performance. Positive disconfirmation occurs when the actual performance is better than the expected performance and confirmation occurs when the product or service performs as expected (Swanson et al., 2012:264; Oliver et al., 1997:315). It therefore stands to reason that customer's expectations are a key determinant of customer delight. Beauchamp and Barnes (2015:338) note that customer expectations sometimes

differ depending on customer segment. In their study they found significant differences in levels of customer delight between customers of different age groups. This study aims at uncovering if there are differences in levels of customer delight between lower and higher spending customers of cell phone network service providers following service recovery efforts. This is in recognition of the fact that monthly spend is an important criteria for segmenting customers in the cell phone network service provide industry. The hypotheses put forward is that:

There are statistically significant differences in levels of delight between low and high spending customers of cell phone network service providers following exposure to service recovery efforts.

Lastly apart from just shedding light on levels of customer delight following service recovery efforts, this study examines whether there are significant differences in customer's levels of delight between different groups of customers categorised according to the amount they spend each month on cell phone services. Knowledge of this is critical for firms in the industry to develop effective service recovery strategies that appeal to different segments of their markets.

3. PROBLEM INVESTIGATED

While a number of studies have been conducted on customer delight (Oliver, et al., 1997; Schneider& Bowen, 1999; Alexander, 2012; Boshoff, 2012) most of them do not look at customer delight after the customer has been disappointed by a firm. As a result not much is known about customer delight post service recovery efforts (Boshoff, 2012; Swanson, et al, 2012). The few studies that have been conducted in this area are mainly based on samples drawn from developed countries (Swanson, et al, 2012:263; Beauchamp, et al., 2015:338). No empirical study could be found that investigated service recovery efforts in relation to this industry and the effects of such efforts on customer delight. This study aims to contribute to the literature by examining customer delight post service recovery efforts in the South Africa cell phone network service industry. Apart from just shedding light on levels of customer delight following service recovery efforts, this study also examines whether there are significant differences in customer's levels of delight between different groups of customers categorised according to the amount they spend each month on cell phone services. The key research question addressed in this study is:

Do customers in different spending categories experience different levels of delight following service recovery efforts?

4. RESEARCH OBJECTIVES

The primary objective of the study is:

To investigate differences in levels of customer delight between lower and higher spending customers of cell phone network service providers following exposure to service recovery efforts.

The secondary objectives of the study are the following:

- To uncover the demographic characteristics of lower and higher spending cell phone network service customers in the study.
- To examine levels of delight among lower and higher spending cell phone network service customers following exposure to service recovery efforts.

To investigate if there are significant differences in levels of delight between lower and higher spending cell phone network service customers following exposure to service recovery efforts.

5. RESEARCH METHOD

This study used a descriptive quantitative research design. The target population for the study was cell phone network service provider customers in Gauteng, South Africa. Due to budget and time constraints this study was limited to only one Province. Gauteng was selected because the researchers were based in Gauteng. Furthermore, Gauteng is the most populated province and the economic hub of the country, attracting people from all other provinces (Southafrica.info, 2015). As there was no list of customers of cell phone network service provider to be used as a sampling frame, non-probability sampling method in the form of quota sampling, was used to choose the respondents. Quota sampling ensured that customers from different gender and age subgroups are represented in the final sample.

Survey method using a structured questionnaire was used to collect data. The questionnaire was self-administered. This data gathering method means that participants read the questions and registers the answers on their own (Hair, et al., 2013:11). The advantages of using a self-administered questionnaire is that the respondents are not influenced by an interviewer and are more comfortable to provide honest responses (Hair et al., 2013:115). Nominal and ordinal scales were used to capture respondents' demographic information as well as patronage behavior. A 7-point semantic differential scale anchored on 1 = satisfied and 7 = delighted was used to measure level of delight.

This is consistent with how delight was conceptualized in past studies including studies by Berman (2005). In responding to questions on delight, respondents were asked to keep a given scenario in mind. The scenario is provided in the appendix 1. B. Com Honours students were used to collect the data as a required course outcome for their Marketing Research Module. A total of 500 usable questionnaires were returned.

The Statistical Package for Social Science (SPSS), version 23, was used to capture, clean and analyse the data collected. Before the main analysis, the customer delight scale was assessed for reliability and convergent validity. Cronbach alpha coefficient was used to assess scale reliability while factor analysis was used to examine convergent validity. The results of the analysis, presented in table 1 shows that customer delight as measured using seven items presented in table 1 is a reliable scale. Its alpha coefficient was found to be 0.944. According to Hair et al. (2013:166) an alpha coefficient of 0.7 and above indicate high levels of reliability. Findings in table 1 also provide evidence of convergent validity. Hair et al., (2013:167) states that factor scores greater than 0.5 on each of the items associated with the scale indicates convergent validity. During the main analysis descriptive analysis was run to determine frequencies, percentages, means and standard deviations. Independent sample t-test as used to test the study's hypothesis. A 95% confidence interval and a 5% level of significance was relied on to accept or reject the hypothesis formulated in this study.

Table 1: Reliability and Validity

	Level of Customer delight statements	Factor Loadings	Alpha Coefficient
CSvCD1	The service of the cell phone network service provider meet or slightly exceeds my expectations VS The service of the cell phone network service provider drastically exceeds my expectations	0.865	0.944
CSvCD2	I believe I received reasonable value from the services offered by the cell phone network service provider VS I believe the value I received from the services by the cell phone network service provider is extremely high	0.862	
CSvCD3	The employees of the cell phone network service provider is competent VS The employees of the	0.855	

	cell phone network service provider is highly competent		
CSvCD4	The services offered by the cell phone network service provider are memorable VS The services offered by the cell phone network service provider are especially memorable	0.887	
CSvCD5	The services offered by the cell phone network service provider are relatively unique VS The services offered by the cell phone network service provider are particularly unique	0.851	
CSvCD6	The cell phone network service provider provides basic post-purchase customer support VS The cell phone network service provider provides the highest level of post purchase customer support	0.866	
CSvCD7	The cell phone network service provider offers basic service recovery VS The cell phone network service provider offers extensive service recovery	0.869	

Source: Computed from data

6. RESULTS

This section presents the results of the analysis. It starts by presenting findings on the descriptive analysis followed by results of hypothesis testing.

6.1 Descriptives

Included in this section are details on the profile of respondents, their cell phone provider patronage behaviour as well as findings on levels of customer delight of both low and high spending respondents.

6.1.1 Respondents demographic profile

Table 2: Descriptives: Demographic profile of respondents

Category	Lower Spending Customers		Higher Spending Customers		All respondents	
	<i>f</i>	Valid %	<i>f</i>	Valid %	<i>f</i>	Valid %
Gender						
Male	116	46.2	128	51.4	244	48.8
Female	135	53.8	121	48.6	256	51.2
Age group						
Gen Y (1981-2000)	130	51.8	119	47.8	249	49.8
Gen X (1965-1980)	67	26.7	84	33.7	151	30.2
Great Gen & Babyboomers (1900-1964)	54	21.5	46	18.5	100	16.0
Highest level of education						
Primary	11	4.4	6	2.4	17	3.4
High School	110	44.0	63	25.3	173	34.6
Diploma	56	22.4	50	20.1	106	21.2
University degree	65	26.0	104	41.8	169	34.0
Postgraduate degree	8	3.2	26	10.4	34	6.8
Racial group						
Black	166	66.1	85	34.1	251	50.
Coloured	31	12.4	43	17.3	74	14.8
Indian	23	9.2	44	17.7	67	13.4
White	29	11.6	75	30.1	104	20.8
Other	2	0.8	2	0.8	4	0.8

As shown in table 2 of the 500 respondents in the study 48.8% were male and 51.2% were female. The respondents were thus relatively well balanced in terms of gender. In terms of age it is clear that the Generation Y respondents made up the largest group in both spending segments. The highest number of respondents of this generation forms part of the lower spending group. The second largest generation group was the Generation X respondents (1965-1980) who made up 30.2% of all the respondents. In this group it's important to note that the highest percentage of respondents form part of the higher

spending customers group with a total of 33.7%. Great Generation and the Baby boomers (1900-1964) were not only the least in terms of numbers but the majority of respondents in this generation category fall within the lower spending segment with a total of 21.5% versus 18.5 % in the higher spending group.

The largest number of respondents had a high school certificate (34.6%) followed by those with a University degree (21.2%). Within the lower spending group high school graduates form the majority of respondents (44%) while within the higher spending group University graduates were the majority (41.8%). In terms of race, the majority (50.2%) of the respondents were black. This racial group proves to be the highest group in both spending categories, with white customers coming in a second.

6.1.2 Patronage Behaviour

Table 3 presents details relating to the cell phone service patronage behaviour of the respondents. The result show that at overall level the majority of the respondents (46.8%) were Vodacom customers followed by 29.8% who were customers of MTN. The results were not different when comparing the two spending groups with 30.7% of lower spending customers using MTN versus the 45.0% of these customers using Vodacom. 48.6% of higher spending customers used Vodacom and 28.9% use MTN. 49.2% of all the respondents were contract customers, whereas 50.8% were prepaid customers. When comparing the two spending groups 74.9% of the lower spending group were prepaid and 73.5 of the higher spending group are contract customers. Results in table 3 also show that respondents had been with their cell phone network service providers for an average of 91.76 months (7.6 years). On average both the lower and higher spending customers had been with their cell phone network service provider for over 5 years.

Table 3: Descriptives: Customer patronage behaviour

Category	Lower Spending Customers		Higher Spending Customers		All respondents	
	<i>f</i>	Valid %	<i>f</i>	Valid %	<i>f</i>	Valid %
Cell phone provider	46	18.3	44	17.7	90	
Cell C	77	30.7	72	28.9	149	18.0
MTN	3	1.2	2	0.8	5	29.8
Virgin Mobile	113	45.0	121	48.6	234	1.0

Vodacom	12	4.8	10	4.0	22	46.8
Telkom						4.4
Customer type						
Contract	63	25.1	183	73.5	246	49.2
Prepaid	188	74.9	66	26.5	254	50.8
Variable	Lower Spending Customers		Higher Spending Customers		All respondents	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Average period with service provider	81.07	59.02	102.53	72.20	91.76	66.72

6.1.3 Customer Delight

After analysing the background characteristics of the respondents, the analysis focused on measuring customer delight levels between the two groups. This was in respond to a scenario on service recovery efforts presented to them. Since results from factor analysis show good convergent validity, overall level of delight was also calculated as a summated average of the 7 statements.

Table 4: Descriptives – Customer Delight

Items and Overall level of Customer delight	Lower spending customers		Higher spending customers		All respondents	
	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev
<p>Expectations</p> <p>The service of the cell phone network service provider meet or slightly exceeds my expectations VS The service of the cell phone network service provider drastically exceeds my expectations</p>	4.76	1.66	4.47	1.65	4.62	1.66
<p>Value</p> <p>I believe I received reasonable value from the services offered by the cell phone network service provider VS I believe the value I received from the services by the cell phone network service provider is extremely high</p>	4.90	1.67	4.53	1.56	4.72	1.63
<p>Employees</p> <p>The employees of the cell phone network service provider is competent VS The employees of the cell phone network service provider is highly competent</p>	4.87	1.74	4.53	1.68	4.70	1.71
<p>Memorable Services</p> <p>The services offered by the cell phone network service provider are memorable VS The services offered by the cell phone network service provider are especially memorable</p>	4.66	1.81	4.35	1.71	4.50	1.77
<p>Unique Services</p> <p>The services offered by the cell phone network service provider are relatively unique VS The services</p>	4.60	1.82	4.24	1.78	4.42	1.81

offered by the cell phone network service provider are particularly unique						
Post-purchase support The cell phone network service provider provides basic post-purchase customer support VS The cell phone network service provider provides the highest level of post purchase customer support	4.68	1.72	4.32	1.73	4.50	1.73
Service Recovery type The cell phone network service provider offers basic service recovery VS The cell phone network service provider offers extensive service recovery	4.76	1.72	4.47	1.69	4.62	1.71
Overall level of customer delight	4.75	1.48	4.42	1.48	4.59	1.49

The results, presented in table 4, show that the overall mean for each of the 7 statements were above 4.50 on a seven-point scale. This shows that overall respondents were delighted with the service recovery efforts. The item relating to value and employee ranked the highest overall with a mean score of 4.72 and 4.70 respectively. An examination of the mean scores for the lower and higher customer groups shows some group differences. The overall level of customer delight within the lower spending group is higher than that of the higher spending group.

6.2 Hypotheses testing

An independent sample t-test was run in order to find out if the differences in levels of customer delight between lower and higher spending customers were statistically significant. The results in table 5 show that at overall level, there are statistically significant differences in levels of delight between lower and higher spending customers of cell phone network service providers following exposure to service recovery. Accordingly, the

proposed hypothesis in this study is not rejected. While this is so, it is important to note that the differences between lower and higher spending customers were largely due to four items. The results in table 5 show that there were significant differences between lower and higher spending customers in 4 of the 7 items. These were items related to performance relative to expectations, value received, employee competence, uniqueness of services and perceived post purchase support.

Table 5: Independent samples t-test

Item	Levene's Test for equality of Variances		T-Test for equality of Means			
	F	Sig	T	Sig. (2 tailed)	95% confidence interval of the Mean	
					Lower	Upper
<p>Expectations</p> <p>The service of the cell phone network service provider meet or slightly exceeds my expectations VS The service of the cell phone network service provider drastically exceeds my expectations</p>	0.40	0.84	2.011	0.045	0.07	0.589
<p>Value</p> <p>I believe I received reasonable value from the services offered by the cell phone network service provider VS I believe the value I received from the services by the cell phone network service provider is extremely high</p>	0.305	0.58	2.557	0.011	0.086	0.654
<p>Employees</p> <p>The employees of the cell phone network service provider is competent VS The employees of the cell phone network service provider is highly competent</p>	0.335	0.56	2.206	0.028	0.037	0.638

Memorable Services The services offered by the cell phone network service provider are memorable VS The services offered by the cell phone network service provider are especially memorable	0.401	0.53	1.944	0.052	-0.003	0.617
Unique Services The services offered by the cell phone network service provider are relatively unique VS The services offered by the cell phone network service provider are particularly unique	0.969	0.33	2.230	0.026	0.043	0.675
Post-purchase support The cell phone network service provider provides basic post-purchase customer support VS The cell phone network service provider provides the highest level of post purchase customer support	0.26	0.88	2.352	0.019	0.060	0.666
Service Recovery type The cell phone network service provider offers basic service recovery VS The cell phone network service provider offers extensive service recovery	0.062	0.80	1.862	0.063	-0.016	0.586
Overall level of customer delight	0.020	.889	2.49	.013	0.070	0.591

7. DISCUSSION AND IMPLICATIONS

The main purpose of the study was to investigate whether there are significant differences in the levels of delight experienced between low and high spending customers in the cell phone network industry, post service recovery efforts. This study contributes to the existing body of research on customer delight by looking at the construct through the lens of a service recovery event and also looking at whether different customer groups experience customer delight differently based on their differing expectations.

7.1 Summary of the findings

The results indicate that overall customers experienced high levels of delight after post service recovery efforts. The reasons for high levels of delight can be linked to the unexpected nature of the service recovery efforts and the fact that the service provider not only attempted to meet the customers' expectations but to exceed them. These results are consistent with findings from previous studies conducted by Beauchamp, et al. (2015:338), Bartl, Gouthier and Lenker. (2013:392) and Oliver et al., (1997:312), which state that if a company provides exceptionally high levels of service quality, customers experience high levels of satisfaction which is expressed as customer delight.

The primary objective was to uncover whether there a differing levels of customer delight between low spending and high spending customers. The results proved that this was indeed the case, as the low spending groups exhibited high levels of delight in all of the items used to measure customer delight in this study. The higher spending group only exhibited levels of delight when it came to measuring the value they received and their interaction with the employees. This shows that different customers react differently to the same service recovery strategy.

7.2 Managerial implications and recommendations

Firstly, the results show that in the service context managers can use service recovery strategies to not just satisfy their customers but to delight them. It is important to note that before managers attempt to delight their customer, they have to focus on satisfying their basic needs. Within the cell phone service network provider industry managers should attempt to alleviate the issues that lead to service failure in the first place. These would include no network coverage, dropped calls or exorbitant rates. Research has shown however that service failure cannot always be avoided. The cell phone network service provider industry in South Africa is highly competitive and highly saturated. The product and service offering is highly commoditised and the only way service providers can really compete is through providing exceptional service to their customers.

Managers should therefore invest time and money in appropriate service recovery strategies at each stage of the customer journey. In order for service recovery strategies to be effective and have an impact on the customers' behaviour, it should be memorable and meaningful for the customer based on the situation they find themselves in. These changes coupled with customer delight strategies could result in a cell phone network

service provider emerge as the clear market leader and standing our head and shoulders above their competitors.

Secondly, the study proved that low spending groups displayed high levels of delight in all of the items used to measure customer delight. High spending customers' levels of delight were only significant when they considered the value they received and their interaction with the employees.

Managers should implement different service recovery strategies based on the amount of money a customer spends on a monthly basis. Customers who spend more than R350 per month- mainly contract customers- expect better service delivery and are likely to be less forgiving when a service failure does occur. In order to delight these customers' cell phone service network providers would have to focus on providing these customers with exceptional value post service failure. Lower spending customers are more forgiving and slightly easier to please. These facts alone prove that managers can not apply a blanket approach to service recovery if they aim to delight their customers.

8. CONCLUSION, LIMITATION AND FUTURE RESEARCH

This study aimed at uncovering customer delight levels post service recovery among customers of South African cell phone network service providers. The primary objective was to compare low spending customers (spending less than R350 per month) to high spending customers (spending R350 or more per month), in terms of how delighted they were after a service recover encounter with their cell phone network service provider. The study also looked at the demographic profiles of customers in these two groups. The study uncovered that overall, the customers exhibited high levels of delight post the service recovery encounter. It also showed that low spending customers were particularly more delighted than the higher spending customers with the service recovery efforts.

The findings of the study emphasised the importance of exceeding customer's service level expectations after a service failure has occurred. Due to the competitive nature of this industry, the service providers should go above and beyond to ensure they keep their customers delighted as this leads to higher levels of loyalty. The study also highlighted the fact that customers are different and that it takes a lot more to impress a high spending customer. Therefore different service recovery strategies are important to ensure that the firm speaks to each customer segment at their point of expectation.

While the results from this study provides a number of managerial implications, the study is not without its limitations. Data was only gathered within the Gauteng area due to budget restraints. In addition to this the study used non probability, quote sampling to gather data. The effect of this is that the results sample of participants are not a true likeness of the target population (customers of cell phone network service providers in SA), and that the results cannot be generalised to the entire South African population. The recommendation here is that upcoming research should attempt to include more provinces within the country and use probability sampling to allow for generalisation.

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Appendix 1: Service Recovery Efforts Scenario

After experiencing an incorrect amount being charged on my cell phone account, I contacted my cell phone network service providers' call centre to rectify the problem. After punching in my ID number and cell phone number as requested by the automated response, my telephone call was answered within 30 seconds by an operator in my home language who called me by my name. The operator listened to my problem and was able to rectify the mistake within a couple of minutes. To apologise for the mistake, the operator indicated that my cell phone network service provider would provide me with a free airtime and data bundle worth R100. After completing the telephone call, I received a sms indicating that the free bundle was loaded onto my account and a message was included indicating what the cell phone network service provider would do to ensure the problem would not occur again.

**IMPROVING CUSTOMER SERVICE THROUGH THE MARKETING-LOGISTICS
INTERFACE FOR AUTOMOTIVE SUPPLIERS IN THE EASTERN CAPE**

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**IMPROVING CUSTOMER SERVICE THROUGH THE MARKETING-LOGISTICS
INTERFACE FOR AUTOMOTIVE SUPPLIERS IN THE EASTERN CAPE**

ABSTRACT

Customer service to both internal and external customers is essential for the success of a business. Both internal and external customer service levels are dependent on how well internal business functions integrate. Overall success within a business firm is partially dependent on the level of internal customer service generated as it impacts directly on the customer service level offered to its external customers. As every business consists of different business functions, research suggests that businesses perform better through functional interdependence that is when departments devote resources to well-defined cross-functional interfaces.

Both marketing and logistics functions have a common objective of ensuring customer satisfaction through good customer service. Conflict between marketing and logistics functions could arise in areas of inventory, order processing, product initiatives, pricing decisions, promotion, packaging decisions and distribution. Therefore, an integration of the marketing and logistics activities will eliminate the underlying problem. Recent literature focusing on the automotive industry, underlines how a competitive advantage can be created through a proper

marketing and logistics interface. This integration could result in the achievement of improved customer service levels and therefore an increase in the overall performance of the firm.

The purpose of this study is to investigate how automotive suppliers in the Eastern Cape can use the marketing-logistics interface as a means of improving their customer service levels. For this reason a positivistic research paradigm involving the use of a quantitative approach will be adopted in this study. More specifically, a survey methodology will be adopted with the aim of collecting data from a sample size of 200 respondents consisting of marketing and logistics practitioners from the automotive suppliers.

It is envisaged that the results, findings and recommendations of this study will be provided to automotive suppliers in the Eastern Cape to improve the overall performance of these firms.

**THE RELATIONSHIP BETWEEN SELECTED DEMOGRAPHIC VARIABLES AND THE
MARKETING AND BRANDING PRACTICES OF FAMILY SMEs**

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**THE RELATIONSHIP BETWEEN SELECTED DEMOGRAPHIC VARIABLES AND THE
MARKETING AND BRANDING PRACTICES OF FAMILY SMES**

ABSTRACT

The primary objective of this study was to investigate the relationship between several demographic variables and selected marketing and branding practices adopted by family SMEs. A survey using a structured questionnaire was used to gather the necessary data. The population consisted of owners of family SMEs operating in South Africa. In total 325 questionnaires were useable for statistical analysis. Scale validity and reliability was assessed and ANOVAs were conducted to test the hypothesised relationships. The results indicate that the size of the family SME and the owning generation have a significant influence on the marketing and branding practices adopted by the family SME. More specifically older (second and third generation owned) family SMEs are more likely than their first generation counterparts to use their recognised family name as a brand when doing business and as a basis for their marketing strategy and material.

1. INTRODUCTION

The important contributions of family businesses to the economies of countries are well documented (Family Firm Institute, 2015; Yu, Lumpkin, Sorenson & Brigham, 2012). These contributions do, however, not always materialise as a result of the many challenges faced and the subsequent high failure rates experienced by family businesses (Kaunda & Nkhoma, 2013; Tetteh, 2008). Many of the challenges these businesses face arise due to their unique nature (Hnatek, 2015; Kaunda & Nkhoma, 2013) and the interaction between the family and the business and vice-versa. Family conflict, a lack of ownership and management succession planning, as well as nepotism, are examples of challenges facing these businesses. It is this interaction between the various subsystems (family, management and ownership) that hinders family business longevity (Zachary, Danes & Stafford, 2013; Taruwinga, 2011).

However, several authors (Zellweger, Kellermanns, Eddleston & Memili, 2012; Botero & Blombäck, 2010; Craig, Dibrell & Davis, 2008), are of the opinion that family businesses can use the family subsystem as a marketing tool to enhance their longevity, and that marketing could play a vital role in the success of family SMEs (Astrachan & Astrachan, 2015b; Bosch, Tait & Venter, 2011; Craig et al., 2008). Several authors (Pijanowski & Hack, 2013; Chirico, Ireland & Sirmon, 2011; Micelotta & Raynard, 2011) contend that family businesses are in a fortunate position, in that they can utilise their family business status as an important marketing and branding tool. Furthermore, Chirico et al. (2011) and Craig et al. (2008) indicate that a strong family brand represents competitive bundles of resources that are not only intrinsic to the family, but are also valuable, rare and difficult to imitate. Thus, family businesses can leverage their familiness to achieve a sustainable competitive advantage over non-family businesses (Carrigan & Buckley, 2008).

Although literature (Blombäck & Craig, 2014; Zellweger et al., 2012; Craig et al., 2008) suggests that family businesses can leverage their familiness to develop a unique business brand, numerous theoretical and empirical gaps exist regarding the marketing practices of family SMEs. In addition, little is known about the premise of marketing and branding a business as family-owned, how this influences business performance (Craig et al., 2008) and whether the demographic characteristics of these family SMEs influence their marketing and branding practices. Therefore, the focus of this study is on the influence of selected demographic variables on the marketing and branding practices of family SMEs.

2. PROBLEM STATEMENT AND PRIMARY OBJECTIVE

Existing research among family businesses has to date primarily focused on topics such as succession planning, governance and conflict within family businesses. As such limited information is available on the marketing and branding practices of family SMEs (Pounder, 2015; Benavides-Velasco, Quintana-Garcia & Guzman-Parra, 2011; Krappe, Goutas & Von Schlippe, 2011; Zachary, 2011; Craig et al., 2008). Van Scheers (2011) and O'Donnell (2011) contend that despite numerous previous studies focusing on marketing practices in larger businesses, there is a growing interest in the marketing practices adopted by SMEs, whether family-owned or not. Zellweger et al. (2012), as well as Craig et al. (2008), concur that more in-depth research is required regarding the marketing and branding practices adopted by family SMEs.

It is well recognised that family businesses are heterogeneous and differ in terms of family involvement, legal form, age, size, scope, and industry (Melin, Nordqvist & Sharma, 2014; Kraus, Harms & Fink, 2011). Research (Chang, Chiang & Han, 2015; Kashmiri & Mahajan, 2014; Suryani, 2011; Sundaramurthy & Kreiner, 2008) also

suggests that the demographic profile (age, qualification) of the family business owner and the age (Botero, Thomas, Graves & Fediuk, 2013; Zellweger et al., 2012), size (Gallucci, Santulli & Calabrò, 2015; Micelotta & Raynard, 2011) and nature of operations (Astrachan & Astrachan, 2015b; Burghausen & Balmer, 2015) of the family SME influences the marketing and branding practices adopted by family businesses.

Against this background, the primary objective of this study is to investigate the relationship between selected demographic variables (*Age of the owner, Ownership generation, Tertiary qualification of the owner, Number of employees, and Nature of the family business*) and the marketing and branding practices adopted by family SMEs. To achieve this objective, the research questions are posed as follows: Does the demographic profile of the family SME owner influence the choice of marketing and branding practices? Do the characteristics of the family SME influence the marketing and branding practices implemented in the business?

3. LITERATURE OVERVIEW AND HYPOTHESES DEVELOPMENT

3.1 Selected marketing and branding practices of family SMEs

It is well recognised in literature (Agyapong & Acquaaah, 2016; Flören, Jansen & Berent-Braun, 2015; Douglas, Douglas & Davies, 2010; Craig et al., 2008) that a differentiation competitive orientation is more applicable than a low-cost leadership strategy to both family and non-family SMEs. More specifically, Craig et al. (2008) asserts that a customer service differentiation competitive orientation (also known as customer-centricity) and a product differentiation competitive orientation (also known as product-centricity) are the most commonly used in SMEs. For this reason, the marketing strategies or differentiation competitive orientations investigated in this study are *Customer service differentiation* and *Product differentiation*. For the purpose of this study a *Customer service differentiation* competitive orientation refers to the family business distinguishing itself from other businesses through innovation in marketing techniques, higher quality standards than competitors, by keeping a tight control of expenses, and by means of quick delivery and responding immediately to customer orders. Furthermore, in this study a *Product differentiation* competitive orientation refers to the family business distinguishing itself from other businesses by developing and/or selling new and speciality products and/or services, investing in research and development (R&D) facilities, upgrading existing products' appearance and performance, and emphasising product and/or service for high price market segments.

In addition, given that various researchers (Zellweger et al., 2012; Memili, Kimberly, Eddleston, Kellermanns, Zellweger & Barnett, 2010; Craig et al., 2008) have successfully demonstrated that the promotion of family business and a family business image can play an important role in the performance of family SMEs, this study also investigates these two marketing and branding practices which are operationalised as follows: *Promotion of family business* refers to the family business being promoted as a family business to suppliers, customers, potential employees and financiers, whereas *Family business image* refers to the family business basing their marketing strategy on the fact that they are a family business, and in doing so, including their family business status in advertising material and using their recognised family name as a brand when doing business.

3.2 Demographic variables and marketing and branding practices of family SMEs

According to Kashmiri and Mahajan (2014), the *Age of the owner* has a significant influence on the marketing and branding practices adopted by family businesses. Older

individuals are in a better position than younger individuals to promote their family name because they have had longer to establish a credible and trustworthy reputation in their community (Kashmiri & Mahajan, 2014). However, Sundaramurthy and Kreiner (2008) contend that older individuals are often more likely to separate the identity of the family from that of the business, while younger family business owners are more likely to integrate the two identities.

Literature also suggests that the *Tertiary qualification of the owner* influences the marketing and branding practices adopted by the family businesses (Chang et al., 2015; Binz, Hair, Torsten, Pieper & Baldauf, 2013; Suryani, 2011). According to Suryani (2011) and Terzidis and Samanta (2011), the second generation in family businesses is often more educated than are the founding members. In other words, the second generation is more likely to have a tertiary education than the founding members, resulting in them understanding and acknowledging the importance of marketing and branding, which is often overlooked by the less-educated first generation (Suryani, 2011; Terzidis & Samanta, 2011).

Despite a lack of evidence demonstrating the influence of the *Ownership generation* on the marketing and branding practices of family businesses, Beck, Janssens, Debruyne and Lommelen (2011) contend that there is a difference between the management practices undertaken by first- and later-generation family business owners, with the former being considered more risk-averse. Later-generation family business owners are required to adapt to new competitive conditions in which they are forced to seek new ways to reinvent themselves, one of which can be family business branding (Gallucci et al., 2015; Beck et al., 2011). Similarly, several authors (Botero et al., 2013; Zellweger et al., 2012; Blombäck & Brunninge, 2009) suggest that there is a positive relationship between the age of the family business and the business being promoted as family-owned. Older and/or multi-generational family businesses can promote their wealth of knowledge and expertise accumulated over generations to their stakeholders (Astrachan & Astrachan, 2015b; Blombäck & Brunninge, 2009). The study of Micelotta and Raynard (2011), as well as those of Smit, Binz and Schwass (2010) cited in Astrachan (2014) and Blombäck and Brunninge (2009) reveal that older family businesses are more likely to base their marketing and branding practices on the heritage and values of the founding members.

Several studies (Astrachan & Astrachan, 2015b; Burghausen & Balmer, 2015; Gallucci et al., 2015; Zellweger et al., 2012; Rubenstein, 1990) suggest that the *Nature of the industry* in which a business operates is likely to influence the marketing and branding practices adopted. More specifically, Rubenstein (1990) found that family businesses operating in the manufacturing industry were the least likely to be named after the family name. According to Micelotta and Raynard (2011), family businesses operating in industries with high-technology intensity are less likely to promote their family's background on their websites. A possible reason could be that the stakeholders of manufacturers do not find it important (Astrachan & Astrachan, 2015a), and that the family connotation can evoke associations of being stuck in tradition or resistant to change (Zellweger et al., 2012), while the industry in which they operate in is continuously evolving. On the other hand, Gallucci et al. (2015) found that family businesses operating in more traditional industries such as wineries, can particularly benefit from promoting and branding the business as family-owned, since "family" evokes associations of quality and tradition in the minds of customers. In addition, family businesses operating in more traditional industries are more likely to adopt a family business brand that promotes the history and heritage of the family, and also make references to the number of generations having owned the family business (Astrachan & Astrachan, 2015b; Gallucci et al., 2015).

Several studies (Gallucci et al., 2015; Micelotta & Raynard, 2011; Craig et al., 2008) have investigated the relationship between the *Number of employees* (size of the family business) and the marketing and branding practices adopted by the family business. According to Micelotta and Raynard (2011), smaller family businesses are more likely than larger family businesses to integrate the family identity into the corporate identity. Similarly, Craig et al. (2008) reports that smaller family businesses are more inclined to use their family name as a differentiating factor in the market.

Based on the aforementioned discussion, the following null hypotheses have been formulated and will be subjected to empirical testing in this study:

- H₀¹: There is no relationship between the selected demographic variables (*Age of the owner, Ownership generation, Tertiary qualification of the owner, Number of employees, and Nature of the family business*) investigated in this study and family SMEs using a *Customer service differentiation* competitive orientation.
- H₀²: There is no relationship between the selected demographic variables (*Age of the owner, Ownership generation, Tertiary qualification of the owner, Number of employees, and Nature of the family business*) investigated in this study and family SMEs using a *Product differentiation* competitive orientation.
- H₀³: There is no relationship between the selected demographic variables (*Age of the owner, Ownership generation, Tertiary qualification of the owner, Number of employees, and Nature of the family business*) investigated in this study and *Promotion of family business*.
- H₀⁴: There is no relationship between the selected demographic variables (*Age of the owner, Ownership generation, Tertiary qualification of the owner, Number of employees, and Nature of the family business*) investigated in this study and *Family business image*.

4. METHODOLOGY

This study adopted a positivistic research paradigm and implemented a quantitative research approach which was deductive and cross-sectional in nature. A survey using a self-administered, structured questionnaire was used to gather the necessary data.

4.1 Population and sample

The population consisted of family SMEs operating within the borders of the Eastern Cape province of South Africa. To date, there is no national database or provincial list of small businesses in South Africa, therefore criterion and convenience sampling were used to identify potential respondents. For the purpose of this study, a family SME was defined as one where at least two family members actively work in the business, whereby a single family owns more than a 50 per cent share in the business, and the business has been in operation for at least one year, employing more than five, but fewer than 200 full-time employees.

4.2 Measuring instrument and data collection

The measuring instrument used in this study consisted of a cover letter and several sections. The first section requested demographic information relating to the owner of the family SME, as well as the family SME. This section also included a question verifying that the respondent and family SME met the criteria for participation. In doing so it was possible to minimise non-response error. The other sections required family SME owners to respond to several statements measuring *Customer service differentiation, Product*

differentiation, Promotion of family business and Family business image. The statements made use of five-point Likert-type scale, interpreted as: *Strongly agree* (5), *Agree* (4), *Neutral* (3), *Disagree* (2), and *Strongly disagree* (1). The number of items for each of the aforementioned independent variables, as well as the sources for these items, are summarised in Table 1.

Table 1: Measuring Instrument Items

Independent variables	Items	References
Customer service differentiation	5	Flören et al. (2015); Johnson, Dibrell and Hansen (2009); Craig et al. (2008); Davis, Dibrell and Janz (2002); Dess and Davis (1984).
Product differentiation	5	Johnson et al. (2009); Craig et al. (2008); Davis et al. (2002).
Promotion of family business	4	Astrachan and Astrachan (2015b); Craig et al. (2008).
Family business image	7	Flören et al. (2015); Zellweger et al. (2012); Memili et al. (2010); Craig et al. (2008).

Potential family SME owners were approached by fieldworkers and requested to participate in the study. Five hundred questionnaires were personally delivered and collected upon completion. Completed questionnaires were examined to ensure that they met the criteria for participation and were correctly completed. The useable questionnaires were captured onto an Excel sheet. The mean-substitution approach was used to replace missing values. This approach was considered suitable as the levels of missing values were very low (Hair, Black, Babin & Anderson, 2010). Of the distributed questionnaires, 403 were returned but only 325 met the criteria for participation and were useable for statistical analysis. An effective response rate of 65 per cent was achieved. Given the response rate, non-response bias was not considered to be a problem in this study. The development and distribution of the questionnaire was subjected to the research ethics approval procedures at the Nelson Mandela Metropolitan University, and it was concluded that no potential harm to the respondents existed.

4.3 Data analysis

The statistical software, STATISTICA version 13 was used to perform the statistical analysis in this study. Factor analysis was performed to examine the construct validity of the scales measuring the marketing and branding practices. More specifically, tests for uni-dimensionality were undertaken. A measurement construct is regarded as uni-dimensional when an individual underlying trait is responsible for all common variance among item responses (Robins, Fraley & Krueger, 2009). These tests were deemed appropriate given that the scales adopted had been used in previous studies (see Table 1). Principle components analysis was specified as the extraction method to produce an unrotated factor matrix. Factor loadings of greater than 0.5 (Hair, Black, Babin & Anderson, 2014) were considered significant. Cronbach's alpha coefficients were used to assess the degree of internal reliability of the various scales. A Cronbach's alpha coefficient (CA) of 0.70 and greater was regarded as providing sufficient evidence of reliable scales (Nunnally, 1978). Thereafter, ANOVAs were undertaken to determine whether relationships exist between the demographic variables (*Age of the owner, Ownership generation, Tertiary qualification of the owner, Number of employees, and Nature of the family business*) as independent variables, and the marketing and business branding practices investigated. These marketing and branding practices, namely *Customer service differentiation, Product differentiation, Promotion of family business and Family business image*, served as the dependent variables in this analysis.

Furthermore, a post-hoc Scheffé test was used to identify significant differences between the mean scores of the various categories within each demographic variable. If the post-hoc Scheffé test revealed significant differences, eta-squared values were calculated to assess whether these differences were of practical significance. The criteria of Gravetter and Wallnau (2014) were used to assess the levels of practical significance.

5. EMPIRICAL RESULTS

5.1 Sample description

Demographic information pertaining to respondents and the family SMEs participating are summarised in Tables 2 and 3. The majority of respondents were male (79.92%) and of the White (56.92%) ethnic group. With regard to the age of the respondents, the majority were between the ages of 40 to 49 (30.15%), followed by 50 to 59 years (29.23%), and 30 to 39 years (19.08%), respectively. Of the 325 family business owners who participated, 70.77 percent indicated that they possessed a tertiary qualification, and most (47.69%) indicated that they had been the owner of the family business for between 1 and 10 years.

From Table 3 it can be seen that the majority of family SMEs that participated in this study were owned by first generation family members (56.62%). Most of the family SMEs employed fewer than 10 employees (46.77%), or between 11 and 20 employees (19.38%). The most prominent industries for the family SMEs were the service (43.39%) and retailer and/or wholesaler (32.00%) industries.

Table 2: Demographic Profile - Family SME Owners

Gender	Male	250	79.92
	Female	75	23.08
	Total	325	100.00
Age	20 - 29 years	32	9.85
	30 - 39 years	62	19.08
	40 - 49 years	98	30.15
	50 - 59 years	95	29.23
	> 60 years	38	11.69
	Total	325	100.00
Ethnic affiliation	Asian	34	10.46
	Black	59	18.15
	Coloured	40	12.31
	White	185	56.92
	Not willing to say	7	2.16
	Total	325	100.00
	Yes	230	70.77

Tertiary qualifications	No	95	29.23
	Total	325	100.00
Tenure (Length of ownership)	1 - 5 years	81	24.92
	6 - 10 years	74	22.77
	11 - 15 years	59	18.15
	16 - 20 years	52	16.00
	21 + years	59	18.16
	Total	325	100.00

Table 3: Demographic Information – Family SMEs

Ownership generation	First generation	184	56.62
	Second generation	106	32.62
	Third generation and older	35	10.76
	Total	325	100.00
Number of employees in the family business	< 11	152	46.77
	11 - 20	63	19.38
	21 - 30	36	11.08
	31 - 40	22	6.77
	41 - 50	13	4.00
	> 51	39	12.00
	Total	325	100.00
Nature of the family business	Retailer and/or wholesaler	104	32.00
	Manufacturer	38	11.69
	Service industry	141	43.39
	Other	42	12.92
	Total	325	100.00

5.2 Validity and reliability

As illustrated in Table 4, the results of the tests for uni-dimensionality show that the factor loadings for all constructs were above 0.5 (Hair et al., 2014). Except for *Customer service differentiation*, all constructs reported CA coefficients of greater than 0.7 (Nunally, 1978). With a CA coefficient of 0.548, *Customer service differentiation* was not considered for further statistical analyses.

Table 4: Validity and Reliability Results

Variables	Original items	Items loadings	Min. and Max. loadings	CAs
Customer service differentiation	5	5	-0.693 to -0.554	0.548
Product differentiation	5	5	-0.770 to -0.594	0.755
Promotion of family business	4	4	-0.871 to -0.812	0.858
Family business image	7	7	-0.815 to -0.601	0.859

Based on the results of the factor analyses, the operational definitions of the dependent variables are summarised in Table 5.

Table 5: Operational Definitions

Factor	Operationalisation
Product differentiation	<i>Product differentiation</i> refers to the family business distinguishing itself from other businesses by emphasising products and/or services for high price market segments, developing/selling new products and/or services, investing in research and development facilities to develop and sell speciality products and/or services, as well as upgrading existing products' appearance and performance.
Promotion of family business	<i>Promotion of family business</i> refers to the family business being promoted as a family business to suppliers, potential employees, financiers and customers.
Family Business image	<i>Family business image</i> refers to the family business using its recognised family name as a brand when doing business and the fact that they are a family business as a basis for their marketing strategy and material.

Given that *Customer service differentiation* was no longer subject to empirical testing the hypotheses were renumbered as follows:

- H₀¹: There is no relationship between the selected demographic variables (*Age of the owner, Ownership generation, Tertiary qualification of the owner, Number of employees, and Nature of the family business*) investigated in this study and family SMEs using a *Product differentiation* competitive orientation.
- H₀²: There is no relationship between the selected demographic variables (*Age of the owner, Ownership generation, Tertiary qualification of the owner, Number of employees, and Nature of the family business*) investigated in this study and *Promotion of family business*.
- H₀³: There is no relationship between the selected demographic variables (*Age of the owner, Ownership generation, Tertiary qualification of the owner, Number of employees, and Nature of the family business*) investigated in this study and *Family business image*.

5.3 Analysis of variance

In section A of the measuring instrument, respondents were requested to provide demographic information pertaining to themselves and their family SME. Several ANOVAs was undertaken to determine whether relationships exist between these

demographic variables and the family SMEs marketing and branding practices, namely *Product differentiation*, *Promotion of family business* and *Family business image*.

From Table 6 it can be seen that no significant relationship exists between the demographic variables *Age of the owner*, *Ownership generation*, *Tertiary qualification of the owner* and *Nature of the family business*, and the dependent variable *Product differentiation*. Thus these variables have no influence on the family SME using a *Product differentiation* competitive orientation. However, a significant ($p < 0.05$) relationship between the demographic variable *Number of employees* and *Product differentiation* was reported, thereby implying that the number of employees in a family business has an influence on the business using a *Product differentiation* competitive orientation or not. The eta-squared value (0.043) showed this difference to be of medium practical significance. The post-hoc Sheffé test revealed that family SMEs which had between 11 and 20 employees ($\bar{x} = 4.092$) scored significantly ($p < 0.05$) higher mean scores than family SMEs which employed more than 50 employees ($\bar{x} = 3.616$) for *Product differentiation*. In other words, smaller family SMEs were more likely to adopt a *Product differentiation* than larger family SMEs.

Table 6: Demographic Variables and Product Differentiation

Dependent variable: Product differentiation		
Independent variables	F-values	Sig.(p)
Age of the owner	1.245	0.290
Ownership generation	0.522	0.593
Tertiary qualification of the owner	0.468	0.494
Number of employees	2.927	0.013*
Nature of the family business	0.216	0.885

(* $p < 0.05$)

The results of the ANOVA reveal that no significant relationship exist between *Tertiary qualification of the owner* and *Number of employees*, and the dependent variable *Promotion of family business* (see Table 7). These results suggest that whether the family SME owners have a qualification or not, and whether the business employs a few or many employees has no influence on the family SMEs promoting itself as family-owned. However, significant positive ($p < 0.05$) relationships between the demographic variables *Age of the owner*, *Ownership generation* and *Nature of the family business*, and the dependent variable *Promotion of family business* were reported. Despite a statistically significant relationship being reported, the post-hoc Sheffé test revealed no differences in mean scores between the various age categories. In other words, the age of the family business owner has no influence on whether the family business is promoted as a family business to suppliers, potential employees, financiers and customers, or not. Similarly, despite the ANOVA indicating a significant positive ($p < 0.05$) relationship between *Nature of the family business* and *Promotion of family business*, the post-hoc Sheffé test revealed that there are no significant differences in the mean scores reported by family SMEs operating in different industries.

However, respondents in second generation ($\bar{x} = 3.693$) family SMEs reported a significantly higher ($p < 0.05$) mean score than respondents in first generation ($\bar{x} = 3.293$) family SMEs. The eta-squared value (0.035) showed this difference to be of small practical significance. The results of the post-hoc Sheffé test indicate that second

generation family SMEs are more likely than first generation family SMEs, to promote the business as family-owned to employees, financiers, customers and suppliers.

Table 7: Demographic Variables and Promotion of Family Business

Dependent variable: Promotion of family business		
Independent variables	F-values	Sig.(p)
Age of the owner	2.549	0.039*
Ownership generation	6.004	0.002*
Tertiary qualification of the owner	0.371	0.542
Number of employees	0.595	0.703
Nature of the family business	3.023	0.030*

(*p < 0.05)

As seen in Table 8, the results of the ANOVA reported that there are significant positive ($p < 0.05$) relationships between demographic variables *Age of the owner*, *Ownership generation* and *Number of employees*, and the dependent variable *Family business image*. However, the post-hoc Scheffé test revealed that there are no significant ($p < 0.05$) differences in the mean scores for different age categories, nor the number of employees for *Family business image*. In other words, neither the age of family business owners, nor the number of employees influences whether they used their recognised family name as a brand when doing business and the fact that they are a family business as a basis for their marketing strategy and material. The post-hoc Scheffé did, however, reveal that second ($\bar{x} = 3.508$) and third generation ($\bar{x} = 3.465$) family SMEs scored significantly higher ($p < 0.05$) mean scores than first generation ($\bar{x} = 3.008$) family SMEs. The eta-squared value (0.075) showed this difference to be of medium practical significance. This implies that second and third generations are more likely to use their recognised family name as a brand when doing business and the fact that they are a family business as a basis for their marketing strategy and material, than first generation family SMEs. The results also indicate that neither the industry in which the family SMEs operates nor the owner of the family SME has a tertiary qualification or not, has an influence on the family SMEs using their family name as a tool for branding and marketing.

Table 8: Demographic Variables and Family Business Image

Dependent variable: Family business image		
Independent variables	F-values	Sig.(p)
Age of the owner	3.023	0.018*
Ownership generation	13.146	0.000*
Tertiary qualification of the owner	0.041	0.839
Number of employees	2.637	0.023*
Nature of the family business	1.175	0.319

(*p < 0.05)

Against the background of the results presented above, the test results of the null hypotheses stating that there are no relationships between the demographic variables investigated in this study and marketing and branding practices of family SMEs (*Product*

differentiation, *Promotion of family business* and *Family business image*) are summarised in Table 9.

Table 9: Summary of Null Hypotheses Tested

	Null Hypothes	Demographic variable	Decision
H ₀ ¹	There is no relationship between the selected demographic variables investigated in this study and family SMEs using a <i>Product differentiation</i> competitive orientation.	Age of the owner, Ownership generation, Tertiary qualification of the owner, Nature of the family business.	Accepted
		Number of employees	Rejected
H ₀ ²	There is no relationship between the selected demographic variables investigated in this study and <i>Promotion of family business</i> .	Age of the owner, Tertiary qualification of the owner, Number of employees, Nature of the family business.	Accepted
		Ownership generation	Rejected
H ₀ ³	There is no relationship between the selected demographic variables investigated in this study and <i>Family business image</i> .	Age of the owner, Tertiary qualification of the owner, Number of employees, Nature of the family business.	Accepted
		Ownership generation	Rejected

6. DISCUSSION

This study investigated relationships between several demographics variables (*Age of the owner*, *Ownership generation*, *Tertiary qualification of the owner*, *Number of employees*, and *Nature of the family business*) and selected marketing and branding practices adopted by family SMEs. The results show that the demographic variables *Age of the owner*, *Ownership generation*, *Tertiary qualification of the owner* and *Nature of the family business* had no influence on the family business using a *Product differentiation* competitive orientation. Laforet (2013) also found that the tertiary qualification of family business owners had no influence on the number of new product launches, or product improvements implemented among family businesses. The findings of the current study did, however, report a relationship between the *Number of employees* and the family SME using a *Product differentiation* competitive orientation. The post-hoc Sheffé test revealed that smaller family businesses were more likely than larger family businesses to utilise a *Product differentiation*. These findings contradict those of Terk, Viia, Lumiste, Heinlo, Ukrainski, Klaamann and Kurik (2007) who found that medium-sized Estonian businesses were more likely than smaller businesses to utilise a product differentiation. However, several studies (Sultan, 2015; MacGregor, Bunker & Kartiwi, 2010; Craig et al., 2008) have reported that both small and medium-sized businesses make use of a product-related competitive orientation.

The results of the study show that no relationships exist between the demographic variables *Age of the owner*, *Tertiary qualification of the owner*, *Number of employees*, and *Nature of the family business*, and the family SMEs being promoted as a family business to suppliers, potential employees, financiers and customers (*Promotion of family business*). These findings contradict those of Kashmiri and Mahajan (2014), Botero et al. (2013) and Micelotta and Raynard (2011). First, Kashmiri and Mahajan (2014) suggest that older individuals are in a better position than younger individuals to

promote their family name, because they have had longer to establish a credible and trustworthy reputation in their community. Second, Botero et al. (2013), as well as Micelotta and Raynard (2011), highlight that the nature of the industry in which the family business operates is positively related to them promoting the business as family-owned. Gallucci et al. (2015) state that family businesses operating in more traditional industries such as wineries can particularly benefit from promoting and branding the business as family-owned, because the term “family” evokes associations of quality and tradition in the minds of customers.

The results do, however, show that *Ownership generation* had a significant influence on *Promotion of family business*. More specifically, second generation family SME owners were more likely than first generation owners to promote their business as a family business to employees, financiers, customers and suppliers. This finding concurs with those of Botero et al. (2013) and Blombäck and Brunninge (2009) who also reported a positive relationship between the age of family businesses and them promoting the business as family-owned. A possible reason for this is that older family businesses can promote their wealth of knowledge and expertise accumulated over generations to their stakeholders.

The findings of this study report no significant positive relationship between the demographic variables *Tertiary qualification of the owner*, *Number of employees*, and *Nature of the family business*, and *Family business image*. Despite these findings, Micelotta and Raynard (2011), as well as Craig et al. (2008), suggest that smaller family businesses are more inclined than larger ones to use their family name as a differentiating factor in the market. A significant relationship is, however, reported between *Ownership generation* and *Family business image*. As such this study shows that older (second and third generation owned) family SMEs are more likely than first generation family SMEs to use their recognised family name as a brand when doing business and the fact that they are a family business as a basis for their marketing strategy and material. These findings are consistent with that of Zellweger et al. (2012) who found that older, more established family businesses, are more likely than younger, less established family businesses, to project a family business image to stakeholders.

7. IMPLICATIONS

The current study has implications for both researchers and owners of family SMEs. For researchers, it is worth noting that the scales used to measure the selected marketing and branding practices under investigation in this study were sourced from existing studies. For the constructs *Product differentiation*, *Promotion of family business* and *Family business image*, all the items loaded as expected. As such, the validity of the scales measuring these constructs was confirmed in the South African context. However, the scale measuring *Customer service differentiation* was not found to be reliable and could not be included in the statistical analysis. Comparisons with existing studies are therefore not possible and future studies should focus on improving the scale measuring *Customer service differentiation*.

It is well documented in the family business literature that promoting the family SME as a family business has implications for financial performance. Therefore, it is recommended that all family SME owners, irrespective of their demographic profiles or the size and nature of their businesses, investigate and capitalise on the possible advantages of marketing and branding their businesses as family-owned. These advantages could include, amongst others, gaining a competitive advantage, differentiating itself from other family and non-family businesses, improving the reputation of the business among customers, being a source of pride for the family and

increase the cohesion of the family unit and its relationships with customers, partners, and employees that builds a remarkable brand.

8. LIMITATIONS AND CONTRIBUTIONS

This study has several limitations that should be highlighted. Given the nature of the non-probability sampling techniques adopted, the findings cannot be generalised to the entire South African family SME population. The sample was also skewed in that the majority of respondents were from one ethnic group and thus not representative of all ethnic groups in the country, and that most family business respondents were first generation family SMEs. The responses of participants were based on their own perception and collected using self-reporting measures. The aforementioned introduces some degree of bias in the responses provided, which could ultimately influence the validity of the data (Kim & Kim, 2013; De Jong, 2010).

A further limitation of this study is that it only focussed on certain demographic variables as well as on selected marketing and branding practices. For example, it evaluated the competitive orientations of family SMEs using only one of Porter's orientations, namely differentiation. Although differentiation was investigated from a customer and product perspective, it is recommended that future studies also include the low-cost and focused strategies because different industries require business to emphasise different competitive orientations. Despite the various limitations identified, the current study makes several contributions.

Research on marketing and branding practices among family businesses, specifically family SMEs, has largely been unexplored by researchers. Additionally, little is known about the premise of marketing and branding a business as family-owned, and the factors influencing the marketing and branding practices adopted in developing countries such as South Africa. As far as could be established, no other study investigating this topic among family SMEs in South Africa exists. By investigating the influence of several demographic variables on the adoption of selected marketing and branding practices, this study has contributed to the body of knowledge on marketing and branding practices adopted by family SMEs operating in South Africa.

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**THE IMPACT OF BUSINESS PRACTICES ON THE PERFORMANCE OF SMES IN THE
WINELANDS DISTRICT, WESTERN CAPE**

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**THE IMPACT OF BUSINESS PRACTICES ON THE PERFORMANCE OF SMES IN THE
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ABSTRACT

The high failure rate of small businesses in South Africa is a concern and drives research on business practises and successful SME performance. This study examines the extent to which certain business practices, which are associated with successful business performance, are practised by small and micro businesses, and whether engagement in these practises correlate with improved business performance, as measured by on the total factor productivity of the small firms investigated. Some of the variables tested in this study have not yet been tested in previous studies on SME performance in South Africa.

The Quarterly Employment Survey for the first quarter of 2017 reported 48000 job losses. This number includes individuals with various levels of skill, who may decide on an entrepreneurial journal and start their own small businesses, but lack the skills to manage their own businesses. If business owners take on the responsibility of managing operations themselves, but apply ineffective practices, restrictive business performance and lack of growth may result. In order to survive amidst tough economic trading conditions, businesses need to implement good business practices. Various practices contributing to business success have been developed over the years, yet the implementation of these practices remain a cause of concern. This study examines not only the implementation of business practices, but also the possible influence that these practices might have on the survival and performance of the business.

Two studies have recently been undertaken, which both examined the influence of business practices on SME performance. One local study examined the influence of six business practices whereas the World Bank study, conducted by McKenzie and Woodruff, surveyed micro and small firms in seven developing countries (excluding South Africa). This study is similar to that conducted by the World Bank, and differs from the former study concerning the business practices measured. It is also suggested that the practices measured by the World Bank report and this study, are more basic (management) practices as opposed to the more often measured higher level and more sophisticated management business practices.

The research question being posed is: "Do business practices influence the performance of small and micro businesses in South Africa?" The primary objective of this study is to determine whether there is a relationship between the implementation of business practices and the total factor productivity of small firms in South Africa.

A previously validated questionnaire, was used to collect data telephonically. The non-probability convenience sample comprised small businesses in the Stellenbosch area that have existed for at least three years and employ 1 - 50 full-time, paid employees. Descriptive and inferential statistical analysis are reported on. Forty respondents participated in the study.

This study could not find that the implementation of the business practices measured had any influence on the performance of small and micro businesses in South Africa, except in the case of costing and record-keeping. It is concluded that sample is too small to achieve statistically significant results on all the variables tested.

ORGANISING FOR VALUE SPILLOVERS: EXPLORING EFFECTIVENESS OF SOCIAL ENTERPRISING IN GAUTENG

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ABSTRACT

Though scholars recommend entrepreneurial strategies that deal directly with the beneficiary market, - and in turn give rise to automatic social value spill-over from transactions – in practice this is difficult to achieve from the onset in many developing country environments and perhaps in certain regions within developed countries. We therefore seek to understand this reality: the many business models representing varying degrees of entrepreneurship and the resultant organising that takes place to implement them; and the effectiveness of these models, in terms of mission drift and financial sustainability. In order to develop this understanding we explore seven social enterprises in Gauteng, South Africa. To facilitate our analysis we develop a framework depicting the strategic responses of social entrepreneurs to their developing country environment, the organisational process including the business

models adopted and the effectiveness of this process. We find that many enterprises choose models that serve clients who are not beneficiaries. When considering that these models cannot spill over value to beneficiaries more sustainably and is at risk of being ineffective, our framework can explain the trajectory required for these social enterprises to become more effective.

1. INTRODUCTION

The traditional entrepreneur anticipates and organises his/her value proposition around a market that can afford the new product or service. The social entrepreneur, however, organises for “an underserved, neglected, or highly disadvantaged population that lacks the financial means or political clout to achieve the transformative benefit on its own” (Martin & Osberg, 2007: p35). This organising by the social entrepreneur represents an active process, which can be labelled as “social enterprising” (Diochon & Andersen, 2009). Social enterprising involves identifying an opportunity to improve social well-being, then acquiring and employing the resources required to do so. The effectiveness of social enterprising can be determined by the social value spilled over from its transactions and, whether such spillovers can continue over the lifetime of its operations. To sustain these spillovers, social enterprises develop sustainable operations that leverage commercial contracts, which often initiates a hybrid model including both commercial and social value chains. In some environments, this integration of commercial and social value chains is achieved easily and spillovers are automatic, because the transactions are conducted with the beneficiaries themselves: the commercial clients are the beneficiaries. In environments such as South Africa (SA), however, where high levels of poverty, inequality and unemployment exist, social entrepreneurs are required to adopt models where clients and beneficiaries are different. With these models, paying clients either subsidise the transactions with beneficiaries or enable beneficiaries to work to produce the same products or services offered to these clients. Researchers remain keen to explore how social enterprises organise themselves in complex environments to more effectively spillover value to disadvantaged beneficiaries. As such, the current study considers social enterprises that operate in Gauteng, SA.

Current research indicates that an entrepreneurial process is required to more effectively spillover value in complex environments. “The fact that some organisations pursuing social aims are effective in “transforming society” while others are not, despite a similar environmental context suggests that effectiveness is determined by the process undertaken” (Diochon & Anderson, 2009: p 11). To this extent, it has been suggested that the only effective way to sustain value spillover is a market process, where “market” not only reflects the number of beneficiaries but also their need for these products and services, and their ability to afford them. According to this view, encouraging social enterprises to address market failure, where affordability is already an issue, will not give rise to effective social enterprises. This seems contradictory to the very definition of beneficiaries as highly disadvantaged and lacking the financial means or political influence. However, tremendous innovation is required so that the social enterprise participates in one simple value chain, which includes both commercial transactions and social impact (Santos, Pache & Birkholz, 2015). This innovation is difficult to achieve when considering that transaction obstacles – inability

to pay, difficulty of access or unwillingness to pay – will constrain the implementation of an ideal type of Market Hybrid (Santos et al, 2015), where beneficiaries are the clients and spillover is automatic and financially self-sustainable. Instead, carefully designed management practices are required to implement alternative Hybrids; and so an important element of the strategy and process in response to this environment is an innovative management practice. In reality, this type of capability is often not available within developing countries such as SA and thus social enterprises respond to their environment with different degrees of entrepreneurialism. We therefore need to begin to understand the current reality: the many business models representing varying degrees of entrepreneurship (Peredo & McLean, 2006); and the resultant management practice that takes place to implement these business models; and the effectiveness of these relative to a Market Hybrid.

In order to develop this understanding the researchers explore seven social enterprises in Gauteng, SA. The researchers intend to increase the number of cases and thus this research is still in progress. Drawing from Diochon and Andersen (2009) and Santos et al. (2015), a framework was developed depicting the strategic responses of social entrepreneurs to their environment, the organisational process including the business models adopted and the effectiveness of this process. Santos et al. (2015) suggests four hybrid business models, namely the Market Hybrid, Blending Hybrid, Bridging Hybrid and Coupling Hybrid. These models arise from whether social enterprises develop solutions to serve beneficiaries directly and thus automatically spillover social value to them.

The current study will develop the understanding of social enterprise effectiveness in the Southern African region, which still requires further development (Littlewood & Holt, 2015). Our study also enables us to test the insights of Diochon and Andersen (2009) and Santos et al. (2015) in an environment where there appears to be good funding opportunities through SA's Broad-Based Black Economic Empowerment (BEE) policies; but with funders impinging on the enterprises autonomy and risks presented by a individuals that cannot afford products and services. The study also enables us to understand the path that social enterprises can take to become more effective considering that the market in developing countries might not allow for one to respond with a Market Hybrid from the onset. Our study shows that many social enterprises in Gauteng begin with Bridging and Coupling Hybrids, which increase the risks of mission drift and compromises financial sustainability because the beneficiaries cannot afford to be clients. This requires that social enterprise staff have the capabilities to operate value chains to serve clients on a commercial basis and integrate a different group of beneficiaries into the same value chain; or develop a different value chain because other interventions such as counselling, mentoring or training is required to enable social value spillover. As a result, an understanding of management practices needs to be developed to gauge the effectiveness of the spillover or to gauge how to traverse the path from these business models to an ideal type Market Hybrid. We begin with a description of the SA environment for social enterprises.

2. LITERATURE REVIEW AND PROBLEM

2.1 The South African Background

As shown below, the SA environment presents many challenges for social enterprises. The institutional environment arising from BEE policies also makes this environment quite unique. This environment shapes the strategies used by social entrepreneurs in different ways. The response of social enterprises to this environment that we wish to focus on is their choice of business models and respective organisational structures and practices.

The SA environment presents social enterprises with abundant opportunities to address social ills with a transactional approach. For example, SA has the highest level of inequality in the world, with a Gini index of 63 (World Bank, 2009); and about a third of its population live in poverty (Central Intelligence Agency World Fact Book, 2014). A major reason for this inequality is the stubborn unemployment rate, now at 27% (StatsSA, 2016).

Structural changes in the economy has resulted in the demand for more skilled labour. Many of the unemployed are less educated and unskilled; and the demand for them arising from, for example, primary industries such as agriculture and mining, has continued to decline. The country has been described as a land of “two nations”: a rich, formal economy and a poor, informal one (Mbeki, 1998; Nattrass & Seekings, 2001). Coupled with HIV/AIDS and its effect on an increasing levels of orphans (Trading Economics, 2014; UNAIDS, 2014), low national skill and education levels, high crime rates and poor access to clean drinking water and housing (Africa Check, 2013) the provision of social services, traditionally supported by charity and government, is under severe strain. In this instance, private resources that can be used efficiently and effectively become valuable to provide social services, which also requires a nation's social entrepreneurs to be motivated to provide these services (Doeringer, 2010). However, in SA, social entrepreneurs might lack the management capability to combine resources in an innovative way to achieve the financial sustainability that is necessary for the enterprise to remain socially effective. We focus on this effectiveness from an organisational and business model perspective.

Unlike the US and the UK, in SA support is not designed to address the hybrid type operations of a social enterprise (GreaterCapital, 2011). If a formal policy were to be developed, it will require a legal definition of social enterprise. Fury (2010) suggests a working definition of a social enterprise comprised of three elements, namely “i) Has a primary social purpose – has a clearly stated social purpose as its core objective; ii) Uses a financially sustainable business model – has a realistic prospect of generating sufficient income to exceed costs, now, or at some point in the future; and iii) Is accountable and transparent – has a mechanism for ensuring accountability to its beneficiaries”. She contends that if we apply this definition, social enterprises already operate in SA.

Non-profit legal entities, for example, are permitted to make profits to sustain themselves financially. In order to achieve financial sustainability, regulations stipulate that profits must be entirely re-invested into the non-profit or Section 21 Company as it is referred to in SA. Another legal entity operating in SA is the co-operative (co-op), which can have a for-profit legal status and can attract grant funding. Nevertheless, with poor management practices, co-ops might be formed quite easily but remain

difficult to maintain (Wanyama, Develetere & Pollet, 2008). Then there is the for-profit, when its core operations fulfil a social mission in plain sight we can consider it a social enterprise.

The above legal entities assume that all enterprises can be self-sustaining. For those still struggling to procure resources, legal definitions can be helpful because, in SA, funders (both state and private) will channel money to certain legal entities given the tax incentives and BEE policies, for example. The BEE policy framework encourages both direct and indirect empowerment of local Black people (Reddy & Hamann, 2017); and it is the indirect mechanism of BEE that has potential to support social entrepreneurs. Companies are recognised by BEE scorekeepers when they procure from Black-owned enterprises, develop small, Black-owned enterprises through training or access to finance, and develop those entities involved in socio-economic development that can support health, education, housing, or other social initiatives on condition that their Black beneficiary base is at least 75%. However, to access BEE support through corporate enterprise development efforts, social enterprises must be registered as for-profits; and to access support through corporate socio-economic development efforts they must be registered as non-profits. Some flexibility does exist: non-profits can access enterprise development funds if their mandate is to develop local enterprises. This is the case in many micro-finance or incubator-based social enterprises (GreaterCapital, 2011). Enterprise development funding through BEE can serve as a valuable resource since it is as much as three times the size of socio-economic development budgets, so qualifying as a legitimate destination of enterprise development funding is a major opportunity to get finance for social enterprises on preferential terms (Fury, 2010; GreaterCapital, 2011). Other parts of SA's regulatory environment such as local tax codes favour those non-profits that operate as traditional charities.

As a result, social enterprises in SA must often operate as 'chameleons', changing the way they define themselves according to the type of organisation for which the finance is designed (GreaterCapital, 2011). To simulate the hybrid nature of the low-profit limited liability company (L3C) and the community interest company (CIC) recognised in the US and in the UK respectivelyⁱ; and to be eligible for both enterprise development and donor funding social entrepreneurs tend to operate both for-profit and non-profit organisations which incurs high administrative costs (Claeyé, Shumba & Steinman, 2015; Steinman, 2010).

These two legal entities work together, and often the non-profit hires the for-profit's services – management services, for example - at market rates. Alternatively, the for-profit pays the non-profit for the products that it sells to the market. In addition, the for-profit can donate money to the non-profit. "This donation is subject to donations' tax on both sides; however, unless the non-profit is a public benefit organisation (PBO) and a Section 18a company.ⁱⁱ These tax exemptions can help an organisation stretch its income streams, and in the case of 18a status they can actively encourage donations and grants" (GreaterCapital, 2011: p12).

Though there is no separate SA policy on social enterprise (Fonteneau, 2011), there is an emerging institutional environment developing around social enterprises

(Littlewood & Holt, 2015). For instance, there are many existing policies, regulations and initiatives which have a direct bearing on social enterprise development, which include registration and obligation of companies and non-profit organisations; tax law; BEE, Corporate Social Investment (CSI), enterprise development, and provision of business development services (Fury, 2010). There is also The Cooperatives Act 2005, the Cooperative Development Policy 2004, the Cooperative Banks Association 2007, and more recently the Cooperatives Development Agency and an Integrated Strategy on the Promotion and Development of Cooperatives (Wessels & Nel, 2016; Westoby, 2014). A co-op, can operate as a "profit-sharing" or "surplus sharing" legal entity. It is owned and controlled democratically by its members who can be employees or the very producers or consumers of its products or services. Its underlying principle is that an enterprise should be owned and controlled by the people it serves, and share any surpluses on the basis of each member's cooperative contribution (as a producer, labourer or consumer) rather than their capacity to invest financial capital. Essentially, it subscribes to the socio-economic philosophy of economic democracy: an expansion of decision-making power from a small minority of corporate shareholders to a larger majority of public stakeholders.

The BEE and co-op policies have attempted to play a significant role with mixed success. Apart from its BEE policy, government departments such as Basic Education, Health, Human Settlements, Rural Development and Land Reform, Water and Sanitation as well as Social Development have policies in place to uplift the local community. Nevertheless, the country has not gone without service delivery protests, so much so that opposition parties are gaining ground on the African National Congress led government on the back of promises to improve service delivery (Peyper, 2016).

Despite this type of support, most social enterprises tend to fail. One explanation for this is that social entrepreneurs themselves are embedded in the social situation that they are attempting to address. They come from low income and low skilled backgrounds and themselves have unmet social needs (Karanda & Toledana, 2012). Those in the rising Black middle class who might have the skills to operate a social enterprise efficiently and effectively tend to favour high paying employment in government and the corporate sector with little inclination towards any entrepreneurial activity. To lure budding social entrepreneurs there is often the promise of government support through tenders.

In addition, therein lies another explanation. 'Tenderpreneurship', commonly associated with BEE, has infiltrated the social enterprise space as well. In this space, nowhere has it become more prominent as it is in the increase of co-ops to solve community related social issues. Co-ops have an organisational design based on voluntary and open membership, democratic member control, and profit distribution among members (Borda-Rodriguez & Vicari, 2014; Ortmann & King, 2007). As with the experiences in BEE policy implementation, members of co-ops consider promises of tenders as being crucial for success. This has raised concerns of whether the members of the new co-ops really decided, voluntarily, to pursue business activities via a co-op or whether they were influenced to do so to get public sector contracts and grant funding (Westoby, 2014).

In SA, grants are offered to co-ops by various state funds and departments. These grants amounted to almost R1bn between 2005 and 2009, according to a presentation by the Department of Trade & Industry (dti) to Parliament in 2010. The Department of Small Business Development's Co-operative Incentive Scheme (CIS) alone funded 1,167 co-ops to the value of R283.5m between its launch in April 2005 and March 2014. (Wessels & Nel, 2016; dti, 2015).

The Free State provincial government attempted to utilise the co-op model to assist it with providing services to the local community. As a result, they targeted thirty percent of procurement from rural and township enterprises and co-ops. However, the rapid growth in co-op numbers since 2010 in the Free State is matched by an exceptionally high failure rate with only 37% of surveyed firms remaining operational in 2014 and a mere 4% having a turnover much better than their turnover from informal activities prior to registering the cooperatives (Wessels & Nel, 2016). As a result, 'formalisation of cooperatives does not appear to have had any meaningful impact on combatting poverty, unemployment or inequality and raises the question whether the overall strategic approach has not been an immense opportunity cost for the country's development (Wessels, 2014: 32). Some of the organisational reasons for include grant dependence, low skill levels, lack of adequate market research and business planning, and internal disputes. Similarly, a government policy, which is driven by the perceived need to register co-ops, many of which lack business plans in the case of the Free State, as opposed to facilitating an enterprise conducive environment, needs to be revised. Clearly, support for co-ops must go beyond just a focus on their establishment and provide active support for their operation, governance and training needs and must assist with market identification and business strategy formulation. This will require a rethink on the part of the state as to what they should be doing, a more selective process of establishing co-ops and long-term commitment to their continuity and success.

2.2 Conceptual Background

"Neither profit maximisers nor charities, neither capitalists nor social activists, social enterprise hybrids primarily use commercial means to achieve a social or environmental mission and adopt different legal forms depending on their regulatory environment (e.g., associations, cooperatives, community interest companies in the UK, benefit corporations in the U.S., for-profit companies owned by nonprofits in France, and charitable limited companies in Germany). Social enterprise hybrids attempt to combine the best of both worlds: create value for society in areas where markets and governments are failing, while developing financially sustainable operations that leverage commercial contracts and enable reaching scale" (Santos et al., 2015: p38).

We look to Diochon and Andersen (2009) who adapted Tushman and Nadler's (1986) congruence model of organisational effectiveness to derive two polar "ideal types" – one based on traditional concepts of non-profit organisations and one that employs entrepreneurship as a strategy for achieving social aims. These ideal types form the extremes of a continuum; and a predisposition toward either of them forms the basis of classification. "Effectiveness – innovation in dealing with the challenges of social exclusion and marginalisation and, increased self-sufficiency and sustainability –

depends upon the extent to which the process components are congruently configured to foster entrepreneurship” (Diochon & Andersen, 2009: p7).

Diochon and Andersen (2009) argue that many social enterprises seem predisposed to ineffectiveness from the outset when they simply respond to market failures, which signal low revenue potential. This problem has been exacerbated by equating demand (the number of potential customers) to a market, which limits demand to only those customer or clients with an with an unsatisfied need or want and an ability and willingness to pay for the product and/or service offering. Increased financial sustainability is best achieved by targeting a profitable model from the onset.

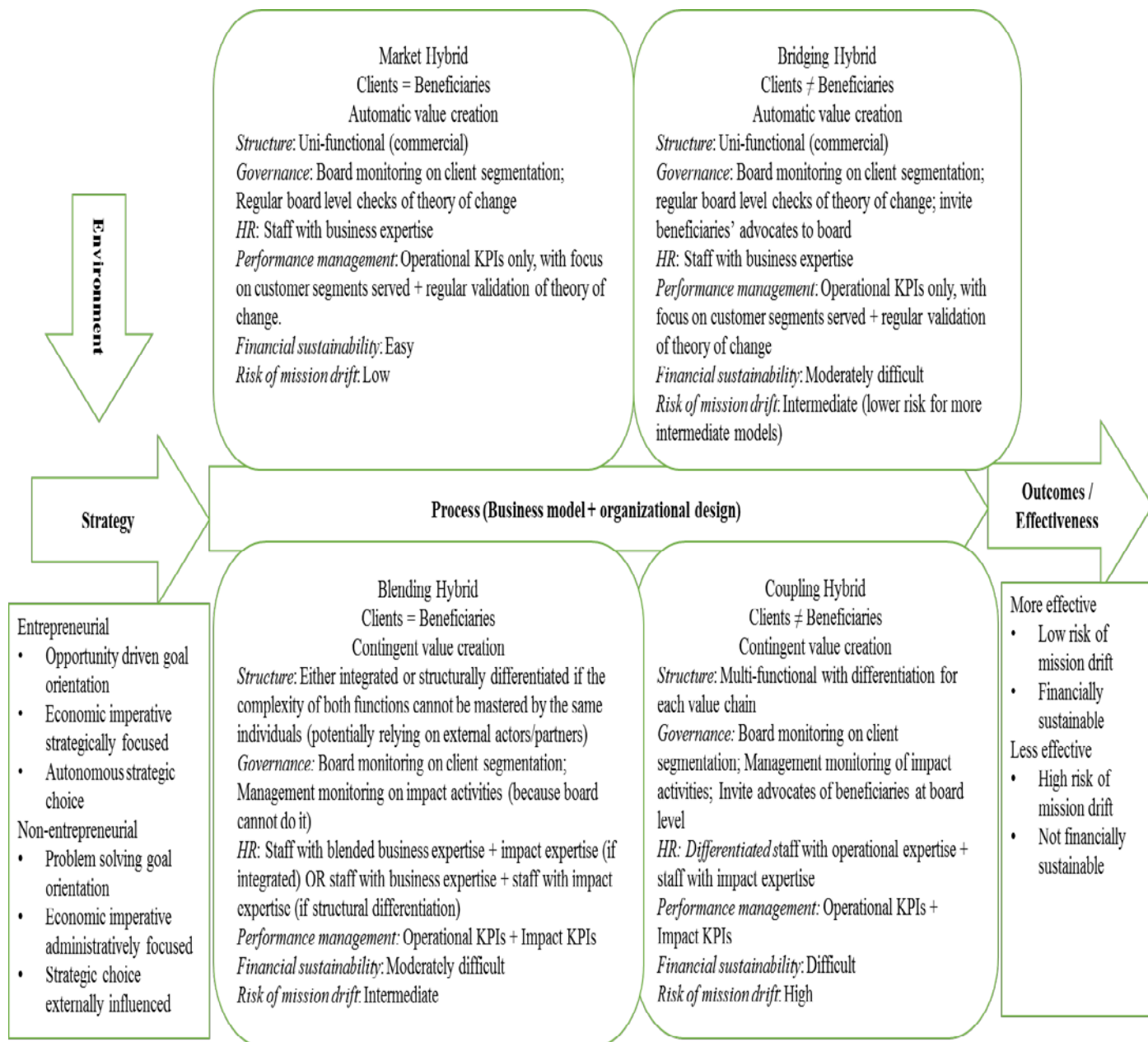
According to Santos et al. (2015), this profitable model corresponds to a Market Hybrid business model where clients and beneficiaries comprise the same individuals and an automatic value spillover is possible because no additional interventions are necessary to facilitate the spillover. The Market Hybrid business model combines resources and activities to allow the social enterprise to both capture and create value; where profit is the value captured by the social enterprise for its shareholders, partners or members, and impact is the value created by the social enterprise for society through a social or ‘green’ mission. Value spills over from the transacting partners into broader society; and when beneficiaries are the transacting partners, spillover is more likely. For example, a commercial firm that sells kerosene lamps generates “strong negative spillovers to society in the form of carbon emissions, safety hazards, and health issues due to the inhaling of kerosene fumes” (Santos et al, 2015: p41). As long as the transacting party sees value in the lamp and is willing to pay for it, the commercially oriented enterprise will continue to capture value from the transaction and, unless there is a legal or ethical requirement, it will not readily incur costs to reduce the negative (Santos et al, 2015). On the other hand, a social enterprise, operating in same market, will develop a deliberate social and environmental mission, which for example, might include a value proposition to reduce carbon emissions by replacing kerosene burning with a LED-based rechargeable lamp. Such a lamp can also decrease societal health care costs from not inhaling kerosene fumes, and improve educational outcomes due to a better reading light for children to study.

As social enterprises move away from traditional concepts of non-profit organisations, they develop hybrid business models (Santos et al, 2015), which attempt to integrate commercial and social value chains. As described above, the ideal type of business model is a Market Hybrid. The Market Hybrid is advantageous because it enables the social entrepreneur to sustain the enterprise financially. Problems can occur when an entrepreneur’s enthusiasm to meet the enterprise’s financial goals begins to overwhelm its social mandate leading to mission drift: where social ventures drift away from their goals to address social ills by instead focusing on profits in order to remain viable (Foster & Bradach, 2005).

In Figure 1 below, we integrate the framework of Santos et al (2015) into Diochon & Andersen’s (2009) social enterprising framework. We suggest that a framework to examine the strategies that social entrepreneurs use to respond to their environment and its subsequent effectiveness can be explained more simply by the four different business models with respective organisational structures and management practices.

These models are labelled Market Hybrids, Blending Hybrids, Bridging Hybrids, and Coupling Hybrids. The contingent value is captured by the estimate of automatic spillovers relative to the total potential spillovers. The degree of overlap between clients and beneficiaries is captured by the percentage of revenues originating from beneficiaries versus the total budget. In addition, outcomes are framed in terms of the risk of mission and the ease of financial sustainability.

Figure 1: Social Enterprising Hybrid Framework



Source: adapted from Diochon & Andersen (2009) and Santos et al (2015))

According to above refinement, congruency within the organisational process itself can be achieved by aligning two dimensions: (i) level of contingent value spillovers and (ii) degree of overlap between clients and beneficiaries. In the short to medium term, the

congruence model posits that effectiveness in influencing societal wellbeing is dependent upon the degree of congruence (or fit) between these two dimensions and the extent to which the pattern of congruence matches the basic requirements of the strategy. When the strategy fits the environment, congruence is associated with organisational effectiveness: sustaining itself financially and attaining its promised social mission. The degree of overlap necessary between clients and beneficiaries can be determined by three transaction obstacles: (i) inability to pay, (ii) difficulty of access and (iii) unwillingness to pay (Santos et al, 2015).

In the Market Hybrid, the beneficiaries are also the paying clients; and thus the value spillover happens automatically. The organisation has commercial activities targeted at a social mission. For example, social entrepreneurs target beneficiaries who cannot afford traditional commercial healthcare. They develop innovative ways to provide healthcare at a low cost so that this segment of the population can derive health benefits just like those that can afford commercial private healthcare. Since they focus on one activity:

“Market Hybrids are best designed with a uni-functional organisational structure centred on commercial activities. When it comes to recruitment for Market Hybrids, staff with operational business expertise should be prioritised. The accomplishment of the social mission being synergistic with the provision of commercial products or services, it is important to seek the highest level of operational business expertise. This ensures operational efficiency, which leads, in turn, to higher social performance. An advantage of this recruitment pattern is that it allows for the development of a very homogeneous culture in the hybrid organisation, with organisational members adhering to similar logics and norms of behaviour, thus lowering internal tensions and the potential for conflict” (Santos et al, 2015: p 46).

Blending Hybrids, like Market Hybrids, also serve paying clients who are also the beneficiaries of their societal mission. However, positive societal spillovers are not automatic but contingent on interventions such as training or mentoring. For example, a social enterprise that provides loans to low-income clients who wish to start a business needs to mentor them in money management and using the surplus wisely. Social benefit arises when clients use surplus income to send children to school, buy food instead of spending the surplus on alcohol and gambling. If these interventions do not take place, it can lead to over-lending, and increased defaults. In order to provide these interventions, Blending Hybrids incur additional costs, which puts their financial sustainability at risk. Blending Hybrids must employ staff with competencies to perform the commercial activity as well as the required intervention to achieve societal impact. The organisational structure can be integrated with the same organisational members performing both the commercial activities as well as the social interventions; or it can be differentiated with different organisational members performing each of the commercial and social intervention activities.

In Bridging Hybrids, clients are different from the beneficiaries and thus organisational activities must be designed to bridge the needs and resources of both constituencies. The business model integrates clients and beneficiaries in the same intervention. This organisational structure can be useful when it is difficult to lower the costs or change the offering enough for the beneficiaries to be able to afford, access, or want the

product/service. Bridging Hybrids thus design activities to serve paying clients and then use the profits to subsidise the intended beneficiaries who cannot afford to pay for the product or service. For example, the Arvind Eye Hospital in India provides cataract surgeries at market prices to affluent and middle-class clients in order to gain a margin that allows offering cataract surgeries to low-income populations who cannot afford them and, as a result, they are neglected by the public health systems. Another example includes those social enterprises that vie for grants and donations from government entities, donors or foundations and then use this money to provide products and services to targeted beneficiaries. These grants are often matched to the promised outcomes in outcomes-based contracts. These social enterprises require staff with a clear expertise in delivering the service or product that they sell. The staff should also possess learning skills since they have to adapt to the different needs of clients and beneficiaries. For example, in the cross-subsidization model, staff members need to understand and adapt to the culture of low-income beneficiaries who purchase their products, while still being able to sell to corporate clients.

Coupling Hybrids also have clients and the beneficiaries that are different with most value spillovers not happening automatically, requiring distinct social interventions alongside the commercial activities. Social enterprises can build a dual offering for paying clients that are not part of the beneficiary segment based on complementary needs. For example, a social enterprise might hire unemployed beneficiaries on a project basis to provide catering services to clients on a commercial basis with competitive levels of quality and price. The spillover to society comes not from hiring these beneficiaries since other more productive people could be hired in their place. It comes instead from the counselling and training given to these unemployed people, which allows them to create work routines, to present themselves well, and, critically, to find a regular job after their tenure in the social enterprise, thereby ensuring their integration in society. The provision of training and counselling services make these social enterprises financially vulnerable and they usually require subsidies from governments or private donors, which can also depend on a strong regulatory framework defining the activities entitled to subsidy.

To mitigate against diminishing its social impact, the Coupling Hybrid should not lose control over the relationship with its beneficiaries. Whereas outsourcing is possible in the Blending Hybrid because clients and beneficiaries overlap, it is not recommended in the case of the Coupling Hybrid. Thus, it becomes important for the social enterprise to hire staff that can perform both the commercial and the social impact activities with the highest level of expertise. Alternatively, it can hire different groups of staff each with expertise in commercial and social impact operations, respectively. To ensure the co-ordination between these structurally differentiated groups of staff, it will be important for the social enterprises to create coordination mechanisms and processes that can prevent the emergence of tensions between potentially conflicting demands from clients and beneficiaries.

2.3 Problem Investigated and Objective

Scholarly research into social entrepreneurship in SA is still at a nascent stage. Yet the environment provided by SA – poor service delivery by the state and protesting

communities, high levels of corruption and unemployment, high income inequality and a burdensome regulatory environment (Rogerson, 2010) – can offer insights into emerging explanations of social enterprise and social entrepreneurial behaviour. It will be useful to examine social enterprise in SA in terms of Santos et al's (2015) typology of hybrid models. We can establish which hybrids tend to be more prevalent and look at the possible reasons for this. Our objective here is thus to conduct exploratory research on hybrid models that are used by social entrepreneurs operating in the Gauteng Province of South Africa.

3. METHODOLOGY

3.1 Data Collection

Seven social enterprises were identified through the University of Johannesburg's Centre for Social Enterprises and Social Development. They had interacted with the centre as trainees in one of the centre's development programmes. A structured questionnaire was used to collect data through a one to one in-depth interview with the researchers. Interviews lasted at least an hour and these were audio recorded. In some cases the interaction lasted for up to four hours as researchers were taken on field tours to allow them to better appreciate the on-site activities that were taking place. Our findings emanate from these interviews as well as the observations made during the site visits.

3.2. Analytic Strategy

We followed an inductive approach. We developed case narratives from our primary interviews and we used secondary data from the internet in cases where organisations had established web pages. With our existing narratives in mind we developed a preliminary framework using existing theory from literature on the effectiveness of strategic responses by social enterprises to their environments and the social enterprise business model literature. This framework is beginning to serve as the starting point for an iterative process, in which we use our case data to test and extend an emerging model. According to our framework, we need to return to our cases to look at the management practice of social enterprises, aside from verifying our case narratives.

3.3 Case Descriptions

Blue Disa: Blue Disa began operating as a commercial enterprise providing project management services and eventually transitioned into a hybrid that included farming co-ops in the Lawley community, south of Johannesburg. Initially it served as a self-employment vehicle for Kopano Mohapi, after he had exited paid employment as a project manager in the office of the Auditor General. Mohapi also seeded a few churches prior to seeking employment in government; and he continues to serve as a pastor.

During his pastoral ministry, he came face to face with poverty, HIV/AIDS and saw the rise in the number of the orphans in the surrounding community because of the death of their parents who could not overcome their battle against AIDS. Pastor Mohapi yearned to put his project management skills into practice and to develop a more

practically oriented Christian mission that goes beyond church services and counselling.

Having worked for the state before he was aware of the dti's co-op program. Co-ops are viewed as a vehicle for economic empowerment and as a means for ordinary people to acquire the means of production; and are actively encouraged by the SA government (Wessels & Nel, 2016). The government also sees it as an opportunity to create numerous jobs and ease the unemployment burden especially in the peri-urban and rural areas. This is also expected to ease the burden on the cities arising from increasing urbanisation.

The State usually grants land free or leases land on free leaseholds to co-ops. With Lawley surrounded by large tracts of land, Pastor Mohapi came upon the idea of starting an agri co-op, which will be linked to his commercial enterprise: Blue Disa. He obtained 200 hectares of unused land from the Department of Public Works. The idea was to develop a hybrid food crop and energy plantation farm to assist with job creation and poverty relief in the local community. Though Blue Disa grows some cash crops it focuses on niches where they know they can capitalise instead of competing with mainstream farming. They grow bamboo and Moringa, for example.

Bamboo has a number of uses from furniture to a high fibre food used to prevent chronic constipation and colon cancer. Bamboo also breathes high amounts of carbon dioxide; and thus Blu Disa uses it to trade carbon credits to the corporate market. Moringa leaves contain all the essential amino acids, and a wealth of essential nutrients. They are used for food and as a natural remedy for many health conditions – including cancer. They are also used as forage for livestock, killing parasites and to aid against endemic diseases in developing countries.

Mohapi invited the community to participate in a series of primary co-ops; each run by five households each of which leases a hectare of land. The income generated is expected to support each household and any additional labour that it employs. The co-ops receive training and basic infrastructure through a secondary co-op, which is a non-profit managed by Blue Disa, which also trades the bamboo and other crops on behalf of the secondary co-op. The project is still ongoing with 20 for-profit primary co-ops developed so far and using up 100 of the 200 hectares provided by government. Each of the co-ops employs at least two assistants.

The Institute of Event Management: Social entrepreneur Janet Landy decided to enter the event management industry in a novel manner. Drawing from her experience in operating Party Design a for profit event design and decor company, she came upon the idea to use events such as conferences and festivals for social inclusion. Conferences and festivals serve as a marketplace for products and services provided by former unemployed people who were trained by the Institute, constituted as a “not for profit” company limited by guarantee. In turn, the Institute set up two secondary co-ops: The Skills Village and The Ishishini Business Association. The Ishishini Business Association provides to its members a social and business network that can support the development of an enabling co-op environment through advocacy, lobbying, business info, networking and education and skills development. For instance, it trains

unemployed people to convert fabric into table cloths and linen for use at festivals and corporate events. In this way manufacturing and business skills are acquired and the upliftment of the community is promoted. In essence, Ishinini operates as a WISE or work integrated social enterprise (Nyssens, 2006), which helps low qualified unemployed people, who are at risk of permanent exclusion from the labour market. People are integrated into work and society through productive activities linked to the 'events' industry.

The Skills Village, modelled around 'placemaking', accommodates a number of primary co-ops in a large public space owned by Landy. Numerous saleable artefacts – tangible outcomes of the training and skills imparted through these co-ops - are showcased in various pockets of spaces around the property owned by Landy. It is an open plan space where members can easily crossover to one another's space to interact and share ideas. The idea is for members to maximize shared value. Placemaking facilitates creative patterns of use, paying particular attention to the physical, cultural, and social identities that define a place and support its ongoing evolution. It capitalizes on a local community's assets, inspiration, and potential, and it results in the creation of quality public spaces that contribute to people's health, happiness, and wellbeing.

Rea iketsetsa Arts Project: Rea iketsetsa – a Sotho word meaning, "we are doing it for ourselves" began as a non-profit entity with a social mission to help unemployed people with any type of artistic talent. The enterprise organises shows for the public and provide free workshops to budding artists. For example, the enterprise has provided grooming and training to unemployed performing and creative artists - who were often at risk to alcohol and drug abuse - including those that had not performed publicly before but had the potential to do so. However, with grant funding running dry, the social entrepreneurs decided to add two commercial enterprises to the organisational framework. One commercial entity entered the event management industry and charged fees to manage events and provide entertainment. The entity also sold the artwork of the creative artists. The other focused on marketing and communications. Both entities channels funds to Rea iketsetsa Arts Project.

The Kliptown Youth Centre: The Kliptown Youth Centre – a non-profit entity – is located in Kliptown, a place of immense historical and cultural importance in the history of SA, and a place where the Freedom Charter was adopted in 1955. The youth of Kliptown face immense challenges. Not only do they have to walk to local schools outside Kliptown, they cannot afford the cost of uniforms, shoes, lunch and books. It is no surprise that many youth turn to drugs and crime at an early age. In a community afflicted with immense poverty, a high unemployment rate of 70 percent, a HIV/AIDS rate of 25 percent, and teenage pregnancy provides educational support and afterschool activities for the disadvantaged youth of this township.

The Centre provides support for orphans as well as other vulnerable children and youth from 12 to 25 years of age. They provide fee support to students at primary, secondary and tertiary levels. Tutoring support is provided to high school students to increase their chances of matriculation. The youth are also provided with have access to computers and sports facilities. The Centre also provides children with two nutritious

meal a day. In addition, the youth are also encouraged to be active and participate on soccer and netball teams as well as various types of cultural dances and drumming.

Siyafunda Community Technology Centre: Siyafunda – in Zulu, it means ‘we are learning’ – operates as a non-profit. It provides information technology training, hardware skills and maintenance and support services, and operates internet cafes. The first operation began on facilities provided by a local medical doctor located in the Palm Ridge community located southeast of Johannesburg. It also receives support from corporate sponsors such as SAP, Cisco, INTEL and Microsoft. Together with these sponsors and other stakeholders, such as local government and other community based non-governmental organisations it has delivered Community Technology Centres to previously disadvantaged areas. Individuals who once served as trainers at Siyafunda run these centres. Siyafunda identified and nurtured the entrepreneurial potential of these former trainers also providing them with skills in bookkeeping.

The centres operate on business principles. Users are charged an affordable fee. This creates commitment from the user and an incentive for the centre manager to handle it as a business. Understanding and paying the costs shows the former trainers how to operate an enterprise. These skills are necessary to be innovative, sustainable and service oriented.

Inspire Foundation: This is a non-profit entity, which focuses on education and training. At inception, it assisted high school learners in disadvantaged communities in the Eastern Cape. It sought to improve their pass rates in gateway subjects such as Mathematics and Science in the Eastern Cape. It also provided information about other education related development programmes. After some time, the foundation identified other areas of impact. From 2014, the foundation established four focus streams - Inspire Academy, Inspire School Support, Inspire Personal Development and Inspire Career Awareness - to tackle various educational challenges independently.

Vuyani Dance Company: Vuyani Dance Company is a for profit company that was born out of the original non-profit organisation, Vuyani Dance Theatre, which remains the company’s corporate social investment entity. The company and its team of dancers have provided acclaimed and award-winning theatrical works. It has also created and choreographed works for corporates including Audi, De Beers, Rand Merchant Bank and Eskom. Vuyani Dance Theatre continues to work in the communities where its dancers originate; here they work with local schools to identify and mentor promising young dancers. Once a year, these youngsters are then given the opportunity to display their newly acquired skills on a professional stage during Vuyani Week.

4 FINDINGS

The main findings are listed below (more findings are available in Table 1 below):

4.1 Strategy

- Only one enterprise has an entrepreneurial strategy: Inspire Foundation – a social enterprise that provides education services in the Eastern Cape.
- The entrepreneurial dimension most prominent among the enterprises is their opportunity rather than problem focus. However, most are still administratively focused leaving little effort towards the outcomes. In addition, financial needs have led to strategic choices that are largely externally influenced.

4.2 Business Model

- None of these enterprises has adopted a Market Hybrid business model. Inspire Foundation though capable of functioning as a Market Hybrid uses a Blending Hybrid business model because counselling interventions are still necessary to achieve the targeted Matric pass rates and entry into tertiary institutions.
- Most have chosen Coupling and Bridging Hybrid business models where beneficiaries are not payers.

4.3 Organisational Structure and Management Practice

- Many of these social enterprises operate as multiple organisations, combining for-profit with non-profits.
- Many enterprises – Rea iketsetsa, Vuyani and Institute of Event Management have begun as non-profit entities adding for profit entities later.
- A few like Inspire Foundation, the Kliptown Youth Centre and Siyafunda have remained non-profit since it.
- One enterprise – BlueDisa – began as a for-profit and later added more for-profits with a co-op structure that can attract grant funding.
- We have yet to delve into their management practices such as the human resource strategy and governance. This means that we will set up a second interview round.

4.4 Outcomes/Effectiveness

- Because their major source of income is from the beneficiaries themselves, Inspire Foundation and Vuyani seem to be on a path to being financially sustainable.
- However, Vuyani shows signs of mission drift with its for-profit entity referring to their outreach efforts, conducted by the non-profit entity - as CSI initiatives, which many purely commercial enterprises also undertake in SA.
- All, except for the Inspire Foundation, appear to be at risk to mission drift, and not being effective in attaining their social mission over the longer-term.

Table 1: Summary of Findings

Social Enterprise	Strategy (response to environment)	Business Model				Outcomes / Effectiveness
		Social enterprise hybrid type	Level of contingent value spillovers	Degree of overlap between clients and beneficiaries	Managerial levers	
Blue Disa	<p>Goal orientation – Opportunity driven to enable community to earn an income and develop resources of their own.</p> <p>Economic imperative – Still focused on resource procurement (means). State and BEE type enterprise development and socio-economic development resources are targeted.</p> <p>Strategic choice – subject to government influence because of funding dependence</p>	Bridging – Beneficiaries allocated farmland to produce saleable crops and carbon credit to a different client groups.	Value spillover is automatic.	0% of revenue from beneficiaries. Even when clients of carbon credits are available it does not make adequate funding thus grant income still required at early stage.	<p>Organisational structure – A for profit helps operate the non-profit secondary co-op which in turn manages the for-profit primary co-ops.</p> <p>Board governance – Unclear – will have to clarify this in a second interview. Ideally beneficiaries' advocates should be represented on boards.</p> <p>HR strategy – The social entrepreneur and his assistant has skills in project management, carbon credits and knowledge of agriculture. They will need to expand this to other staff.</p> <p>Performance management – second interview required to probe KPIs.</p>	<p>Goal achievement – not all 100 primary co-ops are operational and earning an income.</p> <p>Resource utilization – organisation still relies on funding and is not yet self-reliant</p> <p>Adaptability – not yet entrepreneurial and adaptable to environment</p>
Institute of Event Management	<p>Goal orientation – Opportunity driven to enable unemployed to generate income on their own.</p> <p>Economic imperative – Co-ops still struggle to pay rent</p> <p>Strategic choice – autonomous though dependent on tenders and thus some state influence</p>	Coupling - Two different value chains for “Event” projects and work-integrated learning are coupled.	Contingent on training and projects. Value spillover not automatic.	Beneficiaries pay rent (still a small % of revenue)	<p>Organisational structure – A non-profit (IEM) runs two secondary co-ops (for profit).</p> <p>Board governance – Unclear – will have to clarify this in a second interview.</p> <p>HR strategy – The social entrepreneur and associates have skills in event management.</p> <p>Performance management – second interview required to probe KPIs.</p>	<p>Goal achievement – Primary co-ops struggle to pay rent and are not yet self-sufficient.</p> <p>Resource utilization – Co-ops still rely on donations from a related for profit entity run by Landy's husband</p> <p>Adaptability – IEM is entrepreneurial and adaptable to environment but at risk to mission drift in order to subsidise survivalist type co-ops</p>
Rea iketsetsa Arts Project	<p>Goal orientation – Opportunity driven to enable community to earn an income.</p> <p>Economic imperative – The Arts Project relies on two commercial entities.</p>	Coupling – Training and counselling provided to budding artists and “event” type projects are sought from clients	Contingent on training and projects	0% revenue from beneficiaries	<p>Organisational structure – A non-profit has two for-profits linked to it.</p> <p>Board governance – Unclear – will have to clarify this in a second interview.</p>	<p>Goal achievement – Ad-hoc projects means artist have no sustained opportunity.</p> <p>Resource utilization – Relies on for-profits partners</p>

Social Enterprise	Strategy (response to environment)	Business Model				Outcomes / Effectiveness
		Social enterprise hybrid type	Level of contingent value spill-overs	Degree of overlap between clients and beneficiaries	Managerial levers	
	Strategic choice – subject to external influence				HR strategy – The social entrepreneur has skills in dance and music. Performance management – second interview required to probe KPIs.	Adaptability – If for-profits are successful they could adapt to employ artists permanently
Inspire Foundation	Goal orientation – Opportunity driven to encourage learners to chase dreams/ opportunities. Economic imperative – self-sustaining model enables it to focus on the social outcome. Strategic choice – largely autonomous due to only 20% grant funding	Blending – some counselling is blended into education services	Contingent on counselling students on careers and personal wellbeing	80% revenue from beneficiaries	Organisational structure – One non-profit entity. Board governance – Unclear – will have to clarify this in a second interview. HR strategy – Skilled tutors are hired. Performance management - learner test scores, number of beneficiaries qualifying for tertiary entry, number of learners that graduate from the higher education systems (second interview to look at actual process)	Goal achievement – enable matric pass for university/Technicon entry, graduating to participate in productive economy of the country. Resource utilization – Largely self sufficient Adaptability – Entrepreneurial – considering purchasing property to build training facilities
Siyafunda CTC	Goal orientation – Problem driven – address access to technology by youth. Economic imperative – still resource driven with equipment and funds provided by various corporates through their BEE programmes. Strategic choice – largely autonomous	Bridging – provides training services to other NGOs and government which is used to subsidise training and access to technology by unemployed youth	Contingent on training and mentoring	10% from beneficiaries	Organisational structure – A single non-profit. Board governance – Unclear – will have to clarify this in a second interview. HR strategy – Skilled master trainers. Performance management – no measures in place.	Goal achievement – Unclear. Resource utilization – still reliant on corporate donations Adaptability – Entrepreneurial with trainers opening their own centres and services extended to computer repairs and internet cafes
Kliptown Youth Centre	Goal orientation – Problem driven to address youth issues in Kliptown. Economic imperative – still resource driven. Strategic choice – external influence	Coupling – Corporate and government funding coupled with beneficiary interventions	Contingent on interventions	0% from beneficiaries.	Organisational structure – A single non-profit. Board governance – Unclear – will have to clarify this in a second interview. HR strategy – Unclear. Performance management – second interview required to probe KPIs.	Goal achievement – unclear with no KPIs (second interview). Resource utilization – Not self-sufficient Adaptability – not entrepreneurial

Social Enterprise	Strategy (response to environment)	Business Model				Outcomes / Effectiveness
		Social enterprise hybrid type	Level of contingent value spill-overs	Degree of overlap between clients and beneficiaries	Managerial levers	
Vuyani Dance Company	<p>Goal orientation – Opportunity driven – training and employment of dancers.</p> <p>Economic imperative – still resource driven with 40% from BEE type grants and 60% from earnings from non-beneficiaries.</p> <p>Strategic choice – largely autonomous</p>	Bridging – Train and employ non- academic young people as dancers and provide dance productions to paying clients	Automatic benefit as employees	0% from beneficiaries	<p>Organisational structure – A for profit dance company (began as a non-profit dance theatre which is still involved in outreach to schools with arts & culture as a subject).</p> <p>Board governance – Seems to be a commercial type board with no beneficiary advocates? (Second interview).</p> <p>HR strategy – Trained dancers are employed.</p> <p>Performance management – unclear - Some dancers have grown to be choreographers and have also started satellite programs within their communities (second interview).</p>	<p>Goal achievement – Unclear. Seems to be a case of mission drift.</p> <p>Resource utilization – Still rely on 40% grants</p> <p>Adaptability – Entrepreneurial (but possible mission drift)</p>

5. IMPLICATIONS

Through multiple case studies, we set about exploring how social enterprise hybrids in the Gauteng Province of SA respond to the local environment and its resultant effectiveness. SA presents an environment with adequate financial support from government and corporate BEE programmes. However, with high levels of poverty, inequality and unemployment it also presents an environment where targeted beneficiaries cannot afford products and services provided even by social enterprises. Social enterprises therefore have to be innovative in their strategies when developing business models. Many simply rely on grant funding and corporate donations and thus operate as traditional non-profits.

Our findings reveal that none of the social enterprise hybrids has adopted the Market Hybrid business model with respective organisational structures and management practices suggested by Santos et al (2015). This business model offers the most promise of automatic and efficient social value spillover. This might be due to both challenges presented by the SA environment and the local social entrepreneur's own capacity and capability. Often the social entrepreneurs themselves come from disadvantaged backgrounds with little human and financial capital resources. The one enterprise – Inspire Foundation – that has the most potential to transition into a Market Hybrid currently operates as a Blending Hybrid. Inspire Foundation was started by young entrepreneurs who graduated from the University of Cape Town and have honed their skills in merchant banking and management consulting. They seem to have developed adequate financial and human capital. Another social enterprise – Institute of Event Management – is unique in this environment in that it has privately

available financial capital, but human capital constraints prevent it from transitioning into a Market Hybrid. For Coupling Hybrids the trajectory towards a Market Hybrid might mean first restructuring into a Blending or Bridging Hybrid, and during that time developing the capacity of its beneficiaries to pay for products and services.

Largely then, strategic responses to the SA environment are predisposed towards the non-entrepreneurial and traditional side of the strategy continuum (Diochon & Andersen, 2009). Though many of these enterprises are opportunity driven, capitalising on the potential to generate and reinvest profits (Alvord, Brown & Letts, 2004; Dees, 1998), they have struggled to develop a strategy that enables them to move beyond external resource procurement and thus are still developing administratively. Many of our social entrepreneurs are also from disadvantaged communities with little financial and human capital resources and thus they tend to use the social enterprise for their own economic survival. External funding from corporate and government is the resource strategy most often used leading to strategic choices that are externally influenced with little autonomy (Austin, Stevenson & Wei-Skillern, 2006; Mair & Marti´, 2006) for the social entrepreneur to be innovative.

Most of the social enterprises have responded to the SA environment by developing Coupling and Bridging business models with organisational structures consisting of multiple legal forms. This happens because the SA institutional environment has yet to recognise a social enterprise hybrid that can operate commercially and still draw on grants when necessary. This also happens also because the complex social situation requires numerous interventions for positive value spillovers. Providing these additional interventions (such as training, awareness raising, and mentoring) is required for the generation of social impact, yet it adds additional costs and complexity to the social enterprise organisational structure (Santos et al, 2015).

The value spillover is also compromised because the Coupling Hybrid business model, for example, is the least financially sustainable; and with the most risk of mission drift (Santos et al, 2015). The Bridging Hybrid too has only moderate financial sustainability and an intermediate risk of mission drift. Those Bridging Hybrids that have developed a more integrated business model might have a lower risk of mission drift. The choice of Coupling and Bridging hybrids, together with the use of multiple legal forms, is driven by an environment in which beneficiaries cannot afford the social enterprise's products or services. Social enterprises thus turn to models where non-beneficiary clients subsidise the costs of serving beneficiaries or where funds are sourced from government and corporates. More innovation is required here to traverse this environment.

Even when beneficiaries can be converted to clients, the SA context – diverse in cultural and socio-economic circumstances - poses challenges. Thus, costly interventions are required to achieve the targeted social outcomes. For example, because learners are at risk of not matriculating, which limits their chances of entering tertiary education and becoming economically productive citizens, Inspire Foundation chose not to provide only technical type knowledge. Many learners also require counselling and social support; many of them will become first generation matriculants with little domestic support on how to deal with the stresses of formal education while

still being burdened with societal and socio-economic problems. Many are left on their own to develop strategies on how to cope in this environment.

Coupling, Bridging and Blending Hybrids are a necessary start on this road to address social ills with the help of private capital in this particular SA environment. What is needed then is an awareness by social entrepreneurs that financial sustainability and the social mission is at risk if enterprises were to continue with these business models over the longer term. What is also required is a support system to help them transition away from Coupling Hybrids in the short to medium term and perhaps into Market Hybrids over the longer term.

Our study has enabled a better understanding of how the congruence model of organisational effectiveness (Diochon & Andersen, 2009) helps us to understand how the SA context – good funding opportunities through BEE but poor markets with risks of external influences and systemic dependency - presents challenges for social entrepreneurs and how many local entrepreneurs have responded in their choice of organisational strategy. We have enriched the congruence model with Santos et al's (2015) insights on business models, organisational structure and effectiveness. This has helped us provide a somewhat parsimonious take on social enterprise effectiveness with a focus on two variables: mission shift and financial sustainability. The hybrid business models has also helped us to frame the activities – addressed more generically in the congruence model – and as a result understand the nuances that can lead to ineffectiveness. In particular, we can see how activities linked to the Coupling, Bridging and Blending Hybrids can limit the effectiveness of the social enterprise over the medium to longer term. This can be seen in the mission drift experienced by the Vuyani Dance Company, for example.

Practically, an understanding of these strategic responses, subsequent activities and resultant effectiveness can help develop interventions by policymakers and management consultants to assist social enterprises to improve their effectiveness: to be financially sustainable and to overcome any risk of mission drift. Management tools can be developed on how to transition between the various business models suggested by Santos et al (2015). Policymakers need to design incentives, local co-op programmes for example (Wessels & Nel, 2016), that can be directly traced to the organisational effectiveness of the social enterprise. In addition, policymakers ought to explore the use of the UK's CIC or the US's L3C legal forms to enable a single organisational structure, considering the inefficiency and possible link to ineffectiveness of multiple legal forms operated by social entrepreneurs in SA.

Our research is not without any limitations. We have yet to delve into the management practices of the social enterprises including the performance management and governance recommendations made by Santos et al (2015). Given the inherent risk of prioritising clients over beneficiaries, the board plays an important role in monitoring the segmentation of the two groups with the goal of ensuring the balance required to achieve the enterprise's social mission. For example, Santos et al recommend:

“To make Coupling Hybrids work, we recommend establishing structural differentiation so that the organization develops an internal capacity to perform both the commercial and the impact

operations with the highest level of expertise. In some cases, this may happen through the development of a separate legal entity. In contrast to the Blending Hybrid, the impact activity should always remain under the control of the hybrid (instead of being outsourced to partners) because the Coupling Hybrid should not lose control over the relationship with its beneficiaries. If this happens, the focus on the social mission is seriously jeopardized and, over time, its hybrid nature may disappear and its potential for impact could be diminished. Structural differentiation will require Coupling Hybrids to recruit differentiated staff, i.e., different groups of organizational members with expertise in commercial and social impact operations, respectively. To ensure the coordination between these structurally differentiated groups of organizational members, it will be important for these organizations to create coordination mechanisms and processes that can prevent the emergence of tensions between potentially conflicting demands from customers and beneficiaries” (2015:p50).

We also need to test our understanding of the client and beneficiary overlap with our social entrepreneurs. This will necessitate us revisiting our respondents. In addition, we need to add to our set of cases a few innovative enterprises. Our selection of cases is limited to survivalist type social enterprises who have taken paths that are more traditional. There are social entrepreneurs operating in SA that have produced innovative products that they sell directly to their beneficiaries. It will be useful to explore their business models and the circumstances that has enabled them to adopt more entrepreneurial strategies despite the challenging SA environment.

6. CONCLUSION

In a developing country environment it might be difficult to practice social enterprising geared for effectiveness from the onset. Automatic social value spillovers from transactions is not possible because beneficiaries often cannot afford to transact. And thus business models are chosen, which targets a market that needs and can afford the products and services produced by the social enterprise. Beneficiaries either work to produce these services or products or are subsidised by paying clients; and often these social enterprises continue to rely on grants and donations to subsidise the costs of operating the enterprise. Overall, however, there appears to be a path to effectiveness, begun with less enterprising models that become more enterprising as beneficiaries develop the capacity to afford products or services, or the enterprise uses its newfound experiences to innovate.

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ⁱ In the US and the UK, legitimacy of social enterprise has been formalised. In the US regulations were created for a low profit limited liability company (L3C), which directs its surpluses to social mission but can still distribute a small amount of profit to investors; and thus it encourages private investment. The L3C can also attract grant funding from the many corporate foundations in the US. In the UK, government recognizes a community investment company (CIC), which allows non-profits to trade and also attract investors beyond grant funders. The UK government has set up a special social enterprise fund (Doeringer, 2010).

ⁱⁱ “An organisation will only enjoy preferential tax treatment after it has applied for and been granted approval as a Public Benefit Organisation (PBO) by the Tax Exemption Unit (TEU). The South African Government has recognised that certain organisations are dependent upon the generosity of the public and to encourage that generosity has provided a tax deduction for certain donations made by taxpayers. The eligibility to issue tax deductible receipts is dependent on section 18A approval granted by the TEU, and is restricted to specific approved organisations which use the donations to fund specific approved Public Benefit Activities. A taxpayer making a *bona fide* donation in cash or of property in kind to a section 18A-approved organisation, is entitled to a deduction from taxable income if the donation is supported by the necessary section 18A receipt issued by the organisation or, in certain circumstances, by an employees’ tax certificate reflecting the donations made by the employee. The amount of donations which may qualify for a tax deduction is limited” (SARS, 2015).

STAKEHOLDER PERCEPTIONS AND THE USE OF “FAMILY” IN SELECTED MARKETING AND BRANDING PRACTICES OF FAMILY SMEs

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STAKEHOLDER PERCEPTIONS AND THE USE OF “FAMILY” IN SELECTED MARKETING AND BRANDING PRACTICES OF FAMILY SMEs

ABSTRACT

The primary objective of this study was to investigate the influence of *Stakeholder perception* on the use of “family” in the marketing and branding practices of family SMEs. A survey, using a structured questionnaire, was undertaken. The population consisted of owners of family SMEs operating within the borders of the Eastern Cape province of South Africa. Criterion and convenience sampling were used and questionnaires were administered by field workers. In total 325 questionnaires were useable for statistical analysis. Scale validity and reliability was assessed, descriptive statistics calculated and Pearson's product moment correlations established. Simple regression analyses and ANOVAs were undertaken to investigate the hypothesised relationships. The results show that *Stakeholder perception* influences marketing and branding practices and that older and second generation owners of family SMEs are more likely to perceive that their stakeholders think it is important that they are a family business than do younger and first generation owners of family SMEs.

1. INTRODUCTION

The definition of a stakeholder can take on a narrow or broad scope. The classical (and most frequently cited) definition is that of Freeman (1984:25), namely that “a stakeholder in an organisation is any group or individual who can affect or is affected by the achievement of the organisation's objective”. Alkhafaji (1989) is of the opinion that when

defining stakeholders, one should only refer to those groups with a vested interest in the survival of the firm. A stakeholder can be described as any group or individual that is affected by the firm's success or failure (Heath & Norman, 2004), has a vested interest in the survival of the firm (Alkhafaji, 1989), or can affect or is affected by the achievement of the organisation's objective (Freeman, 1984:25). Typically, stakeholders include groups such as financiers, employees, customers, suppliers and even local communities.

Stakeholder theory attempts to ascertain which groups are stakeholders in a business, and accordingly deserve management attention (Neubaum, Dibrell & Craig, 2012). Instrumental approaches to stakeholder theory hold that to maximise shareholder value over an uncertain time frame, managers ought to pay attention to key stakeholder relationships. Firms have a stake in the behaviour of their stakeholders, and attention to stakeholder issues may help a firm to avoid decisions that might prompt stakeholders to undercut or impede the firm's objectives (Berman, Wicks, Kotha & Jones, 1999). Just as shareholders have a stake in, and are affected by a business's success or failure, stakeholders such as customers, suppliers, employees and local communities are similarly affected (Heath & Norman, 2004). These important "outsider" stakeholder groups often make a vital contribution to the success and growth of the family business (Sharma, 2004). Within the family business literature, numerous studies (e.g. Baskin, Floberg & Zdeb, 2014; Venter, Van der Merwe & Farrington, 2012; Bingham, Dyer, Smith & Adams, 2011; Cabrera-Suarez, de la Cruz Deniz-Deniz & Martin-Santana, 2011; Farrington, Venter & Boshoff, 2010; Stavrou, Kassinis & Filatheou, 2007) have used stakeholder theory to shed light on the actions and performance of family businesses.

Stakeholder theory contends that to maximise the value of the business, managers ought to pay attention to stakeholders. Stakeholder theory primarily maintains that firms which are managed for optimal stakeholder satisfaction do better than those firms that only maximise shareholder interests (Scholl, 2001). It is argued that firms that create and sustain stakeholder relationships based on mutual trust and cooperation will have a competitive advantage over those that do not (Melin, Nordqvist & Sharma, 2014; Berman et al., 1999). Managers who do not devote time and resources to their stakeholders may have reason to find that the commitment of their stakeholders is in doubt (Phillips, 2004). Numerous researchers (Zellweger, Kellermanns, Eddleston & Memili, 2012; Memili, Kimberly, Eddleston, Kellermanns, Zellweger & Barnett, 2010; Craig, Dibrell & Davis, 2008) have also demonstrated that the promotion of a family business with a family business image can play an important role in the performance of family SMEs. For this reason, it is important that family SMEs pay attention to the perceptions of their stakeholders when designing and implementing their marketing and branding practices. The purpose of the current study is therefore to investigate whether stakeholder perceptions influence the implementation of selected marketing and branding practices among family SMEs. In doing so, it provides family SMEs with insight into whether promoting themselves as a family business is influenced by the perceptions of their stakeholders. In addition, it informs marketers of the importance to stakeholders of using "family" when developing material for their family business clients.

In the current study, family SMEs refer to small businesses where at least two family members actively work in the business, whereby a single family owns more than a 50 per cent share in the business, and the business has been in operation for at least one year, employing more than five, but fewer than 200 full-time employees. This description is based on the family business definitions of other South African authors (Visser & Choloane-Tsoka, 2014; Van Der Merwe, 2010), while the criteria of employee numbers is based on the National Small Business Amendment Act 23 of 2003 (Bosch, Tait & Venter, 2011:579). Family SMEs were specifically chosen as the focus of this study because of their

contributions to the economics of countries (Family Firm Institute, 2015; Yu, Lumpkin, Sorenson & Brigham, 2012), including developing countries such as South Africa.

2. PROBLEM STATEMENT AND PRIMARY OBJECTIVE

Stakeholder theory suggests that family SMEs who build relationships with and consider the views and perceptions of their stakeholders, will perform better than those who do not (Scholl, 2001; Berman et al., 1999). Despite these suggested benefits, however, research using stakeholder theory in family business studies has been “rather tangential” (Melin et al., 2014:180). While several studies (Beck & Kenning, 2015; Botero, Thomas, Graves & Fediuk, 2013; Okoroafo & Koh, 2009; Carrigan & Buckley, 2008) have investigated how family businesses are perceived by different stakeholders, few have investigated the influence of stakeholder perception on the use of “family” in selected marketing and branding practices. In addition, the extant literature on the marketing and branding practices of family SMEs is limited (Pounder, 2015; Benavides-Velasco, Quintana-Garcia & Guzman-Parra, 2011; Krappe, Goutas & Von Schlippe, 2011; Zachary, 2011; Craig et al., 2008) and several authors (Zellweger et al., 2012; Craig et al., 2008) contend that more in-depth research on this topic is needed. Additional research could provide marketers with insights into whether promoting businesses as “family” businesses will appeal to stakeholders and ultimately add to their bottom line.

In their study, Flören, Jansen and Berent-Braun (2015) focused on investigating the perception of family SME owners, with the intention of uncovering how important do these owners think it is to their stakeholders that they are a family business. The aforementioned, and the extent to which family businesses take cognisance of this in their marketing and branding strategies, is the focus of the present study. One could argue that it makes little or no sense to assess stakeholders’ perceptions by asking anyone other than the stakeholders themselves. However, someone’s reality is that which they perceive people to think, rather than that which people actually think. It is their perceived reality that influences their decision-making. This approach has also been used in studies on company image and reputation. For example, company image has been measured from the perspective of a company’s manager, generally referred to as the construed external image of the company, or perceived external prestige (Smidts, Pruyn, & Van Riel, 2001). Construed external image describes someone’s beliefs about how others outside the company are likely to view the company (Dutton, Dukerich & Harquail, 1994).

Anecdotal and empirical evidence (see literature section below) suggests that a family business promoting its family status is important to stakeholders – but whether this importance is considered by family business owners when implementing their marketing and branding practices, is unknown. Furthermore, Isherwood (2016) as well as Astrachan and Astrachan (2015a) suggest that family businesses should establish what the term “family business” signifies in their respective industries and to their stakeholders, before marketing and branding their businesses as family-owned.

Against this background, the primary objective of this study was to investigate the influence of *Stakeholder perception* on the use of “family” in selected marketing and branding practices among South African family SMEs. *Stakeholder perception* refers to the family business owners perceiving that their customers, employees, suppliers and financiers think it is important that they are a family business. To achieve this objective, the research questions are posed as follows: Do the owners of family SMEs perceive that their stakeholders think it is important that they are a family business? Do they take cognisance of these stakeholder perceptions in the marketing and branding of the family SME? Does the profile of the owners of the family SME and the family SME itself influence these perceptions?

3. LITERATURE OVERVIEW AND HYPOTHESES DEVELOPMENT

According to Berndt and Tait (2012:150), stakeholders are a “group of individuals who can be influenced by the business, as well as its actions, and in turn can also influence the business and its actions”. In addition, stakeholders are commonly categorised as either internal (employees) or external, with the latter including customers, suppliers and financiers (Carroll & Buchholtz, 2015; Chiu, 2009). A growing body of literature (Gallucci, Santulli & Calabrò, 2015; Zellweger et al., 2012; Micelotta & Raynard, 2011; Memili et al., 2010; Zellweger, Eddleston & Kellermanns, 2010) suggests that family businesses can utilise their family business status, and unique familiness to establish a family business brand, and in doing so, project a family business image to stakeholders. However, from a practical perspective, it is imperative for family businesses to first investigate how important it is for stakeholders that the business is family-owned before embarking on such practices (Astrachan & Astrachan, 2015b; Bernard, 2014; Zellweger et al., 2012), since various researchers (Astrachan & Astrachan, 2015b; Bernard, 2014; Micelotta & Raynard, 2011; Parmentier, 2011) contend that perceptions of family businesses vary among stakeholders.

Gallucci et al. (2015) and Zellweger et al. (2012) found that promoting the family business status can be more important for certain family businesses than for others. In some instances such as family businesses operating in traditional industries, promoting the family business status can lead to perceptions of quality and expertise (Gallucci et al., 2015; Blombäck & Craig, 2014), while in other industries (such as the technology sector and industrial goods) promoting the business as family-owned may create a perception of a lack of professionalism (Block, Fisch, Lau, Obschonka & Presse, 2016; Astrachan & Astrachan, 2015a; Astrachan & Astrachan, 2015b; Zellweger et al., 2012; Micelotta & Raynard, 2011).

Despite several studies (Flören et al., 2015; Zellweger et al., 2012; Carrigan & Buckley, 2008) indicating that stakeholders attach significant value to family businesses as a result of the family business status and positive family business image, the majority of family businesses choose not to reveal their family business status and family background to stakeholders in their marketing and branding activities (Flören et al., 2015). Many family businesses choose to downplay the family aspect of the business, since it can induce negative associations for consumers and lead to increased public visibility and scrutiny of the family (Astrachan & Astrachan, 2015b).

In their study, Astrachan and Astrachan (2015b) found that of the 125 family businesses investigated, 79 per cent promoted the business as family-owned to employees, 67 per cent promoted it to customers and only 46 per cent promoted the business as family-owned to suppliers. Similarly, Mahlatji (2007) investigated the basics of corporate brand management in top South African companies, where respondents were asked to indicate how important stakeholders (customers, suppliers, employees) are to their corporate brand. In the study, the majority of respondents indicated that customers, employees and suppliers are critical to their corporate brand (Mahlatji, 2007). However, despite the importance of stakeholder perceptions, only a small percentage of family businesses investigated whether their stakeholders actually think it is important that they are a family business (Astrachan & Astrachan, 2015b). This implies that most family businesses promote their family businesses without input from their stakeholders.

Flören et al. (2015) also investigated whether directors in family businesses perceived that their customers, suppliers, employees and financiers thought it was important that they are a family business. They reported that the majority of directors perceived that these stakeholders regard it as important that their business is family-owned. Based on their findings, Flören et al. (2015) reported that many respondents indicated that because

stakeholders consider it important that they are a family business, they would in future investigate the use of the term “family” in their marketing and branding practices.

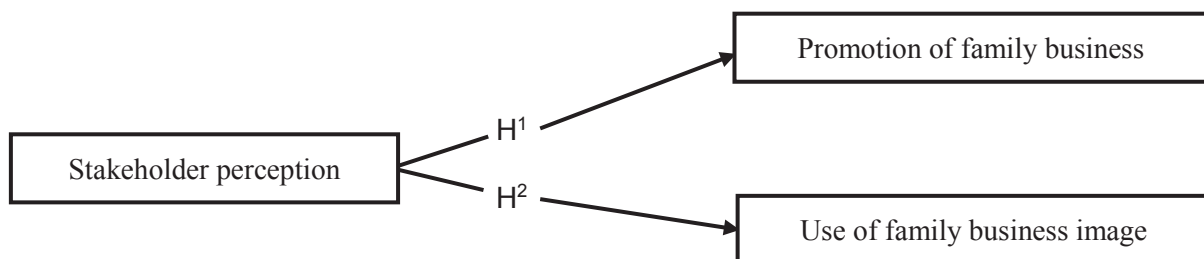
The extent to which customers, employees, suppliers and financiers think it is important that they are a family business (*Stakeholder perception*) and whether this importance influences the marketing and branding practices (*Promotion of family business* and *Use of family business image*) implemented by the family business is investigated in this study by means of empirically testing the following hypotheses:

H¹: There is a positive relationship between *Stakeholder perception* and *Promotion of family business*.

H²: There is a positive relationship between *Stakeholder perception* and *Use of family business image*.

In the current study, *Promotion of family business* refers to the family business being promoted as a family business to suppliers, customers, potential employees and financiers, whereas *Use of family business image* refers to the family business basing their marketing strategy on the fact that they are a family business, and in doing so, including their family business status in advertising material and using their recognised family name as a brand when doing business. As such, *Promotion of family business* is action-orientated whereas *Use of family business image* is content-orientated. As illustrated in Figure 1, *Stakeholder perception* serves as the independent variable, while *Promotion of family business* and *Use of family business image* serve as the dependent variables. It is important to note that two separate relationships were tested.

Figure 1: Stakeholder Perception and the Use of “Family” in Selected Marketing and Branding Practices



It is well recognised that family businesses are heterogeneous and differ in terms of family involvement, legal form, age, size, scope, and industry (Melin et al., 2014; Kraus, Harms & Fink, 2011). These differences could influence how they interact with and perceive the role of various stakeholders. Research (Chang, Chiang & Han, 2015; Kashmiri & Mahajan, 2014; Suryani, 2011; Sundaramurthy & Kreiner, 2008) suggests that the demographic profile (age, qualification) of the family business owner and the age (Botero et al., 2013; Zellweger et al., 2012), size (Gallucci et al., 2015; Micelotta & Raynard, 2012) and nature of operations (Astrachan & Astrachan, 2015b; Burghausen & Balmer, 2015) of the family SME, influences the marketing and branding decisions made. The perceptions of being family-owned have also been found to differ depending on the nature of family business operations and on the industries in which they operate. Results show that in some industries, stakeholders have positive perceptions of family ownership, whereas in other industries these perceptions are negative (Astrachan & Astrachan, 2015a; Gallucci et al., 2015; Blombäck & Craig, 2014; Zellweger et al., 2012). It can therefore be assumed that the aforementioned demographic characteristics could also influence perceptions of how stakeholders view the importance placed on the business being a family business. To test this assumption, the following null hypothesis is proposed for this study:

H₀: There is no relationship between *Stakeholder perception* and the selected demographic variables (*Age of the owner, Ownership generation, Tertiary qualification of the owner, Number of employees, and Nature of the family business*) investigated in this study.

4. METHODOLOGY

This study adopted a positivistic research paradigm and implemented a quantitative research approach which was deductive and cross-sectional in nature. A survey using a self-administered, structured questionnaire was used to gather the necessary data.

4.1 Population and sample

The population consisted of family SMEs operating within the borders of the Eastern Cape province of South Africa. To date, there is no national or provisional database or list of small businesses in South Africa, therefore criterion and convenience sampling were used to identify potential respondents. For the purpose of this study, a family SME was defined as one where at least two family members actively work in the business, whereby a single family owns more than a 50 per cent share in the business, and the business has been in operation for at least one year, employing more than five, but fewer than 200 full-time employees. The aforementioned served as criteria for selection to participate in the current study.

4.2 Measuring instrument and data collection

The measuring instrument used in this study was a questionnaire consisting of a covering letter and several sections. The first section requested demographic information relating to the owner of the family SME, as well as the family SME. This section also included a question verifying that the respondent and family SME met the criteria for participation. In this way it was possible to minimise non-response error. The other sections required family SME owners to respond to several statements measuring *Promotion of family business, Use of family business image* and *Stakeholders perception*. The statements made use of five-point Likert-type scale, interpreted as: *Strongly agree* (5), *Agree* (4), *Neutral* (3), *Disagree* (2), and *Strongly disagree* (1). The number of items for each of the aforementioned as well as the sources for these items are summarised in Table 1.

Table 1: Measuring Instrument

Independent variables	Items	References
Promotion of family business	4	Astrachan and Astrachan (2015b); Craig et al. (2008).
Use of family business image	7	Flören et al. (2015); Zellweger et al. (2012); Memili et al. (2010); Craig et al. (2008).
Stakeholder perception	4	Flören et al. (2015).

SME owners responded by means of self-reporting to the independent and dependent variables at the same time, and from the same measuring instrument. As such, concerns relating to common method variance (variance in observed scores is partially attributed to the method used) and common method bias (degree to which correlations are inflated due to method used) are raised (Meade, Watson & Kroustalis, 2007). Several procedural methods were implemented proactively to reduce the possibility of common method bias. The items on the scale were kept simple, specific and concise, and were constructed carefully to avoid ambiguity, vagueness and being double-barrelled (Podsakoff,

MacKenzie, Lee & Podsakoff, 2003). In addition, respondents were assured of anonymity and that no answers were right or wrong (Podsakoff et al., 2003).

Potential family SME owners were approached by fieldworkers and requested to participate in the study. Five hundred questionnaires were personally delivered and collected upon completion. Completed questionnaires were examined to ensure that they met the criteria for participation and were correctly completed. Those that did were captured onto an Excel sheet. The mean-substitution approach was used to replace missing values. This approach was considered suitable as the levels of missing values were very low (Hair, Black, Babin & Anderson, 2010). Of the distributed questionnaires, 403 were returned but only 325 met the criteria for participation and were useable for statistical analysis. An effective response rate of 65 per cent was achieved. Given the response rate and the sampling method, non-response bias was not considered to be a problem in this study. The development and distribution of the questionnaire was subjected to the research ethics approval procedures at the Nelson Mandela Metropolitan University, and it was concluded that no potential harm to the respondents existed.

4.3 Data analysis

The statistical software, STATISTICA version 13 was used to perform the statistical analysis in this study. Factor analysis was used to examine the construct validity of the scales measuring the independent and dependent variables. More specifically, tests for unidimensionality were used. A measurement is regarded as unidimensional when an individual underlying trait is responsible for all common variance among item responses (Robins, Fraley & Krueger, 2009). These tests were deemed appropriate, given that the scales measuring the independent and dependent variables had been used in previous studies (see Table 1). Principle components analysis was specified as the extraction method to produce an unrotated factor matrix. Factor loadings of greater than 0.5 (Hair, Black, Babin & Anderson, 2014) were considered significant. Cronbach's alpha coefficients were used to assess the degree of internal reliability of the various scales. A Cronbach's alpha coefficient of 0.70 and greater was regarded as providing sufficient evidence of reliable scales (Nunnally, 1978). Thereafter, descriptive statistics were calculated to summarise the sample data and Pearson's product moment correlations to establish the correlations between the factors under investigation. Finally, simple regression analyses and analyses of variance were undertaken to test the hypothesised relationships.

5. EMPIRICAL RESULTS

5.1 Sample description

The majority of respondents who participated in this study were male (79.92%), with 23.08 per cent being female. With regard to age, the majority were between the ages of 40 to 49 (30.15%), followed by the group of 50 to 59 years (29.23%), and 30 to 39 years (19.08%) respectively, while only 9.85 per cent of respondents were between the ages of 20 and 29 years. In terms of the ethnic affiliation of respondents, the majority of respondents were White (56.92%), followed by Black (18.15%), Coloured (12.31%), and Asian (10.46%) respondents. Of the 325 family business owners who participated, 230 (70.77%) indicated that they possessed a tertiary qualification, while 29.23 per cent of the respondents did not. Most of the respondents (47.69%) indicated that they had been the owner of the family business for between 1 and 10 years, and only 16 per cent were the owners for between 16 and 20 years.

The majority of family businesses were first generation family businesses (56.62%), with only 10.76 per cent being owned by the third generation or older family members. Most of

the family businesses in this study employed fewer than 10 employees (46.77%), and between 11 and 20 employees (19.38%), while very few (4.00%) employed between 41 and 50 employees. The most prominent industries for the family businesses were the service (43.39%) and retailer and/or wholesaler (32.00%) industries. The remaining family businesses operated in the manufacturing (11.69%) or other (12.92%) industries that were not specified.

5.2 Validity and reliability

In testing the unidimensionality of the independent and dependent variables, principal component analysis was specified as the method of factor extraction. Bakar, Rahim and Ibrahim (2015) cited in Uden, Hericko and Ting (2015) contend that factor loadings above 0.5 are acceptable when testing for unidimensionality. All constructs reported factor loadings above 0.5 (see Table 2). Furthermore, all constructs reported Cronbach's alpha coefficients of greater than the minimum requirement of 0.7 (Nunnally, 1978). Sufficient evidence of validity and reliability for the scales used is thus provided.

Table 2: Validity and Reliability Results

Variables	Original items	Items loadings	Min. and max. loadings	CAs*
Promotion of family business	4	4	0.871 - 0.812	0.858
Use of family business image	7	7	0.815 - 0.601	0.859
Stakeholder perception	4	4	0.897 - 0.813	0.868

* Cronbach's alpha coefficients

Based on the results of the factor analyses the operational definitions of the constructs investigated in this study are summarised in Table 3.

Table 3: Operational Definitions

Factor	Operationalisation
Promotion of family business	<i>Promotion of family business</i> refers to the family business being promoted as a family business to suppliers, potential employees, financiers and customers.
Use of family business image	<i>Use of family business image</i> refers to the family business using its recognised family name as a brand when doing business and the fact that they are a family business as a basis for their marketing strategy and material.
Stakeholder perception	<i>Stakeholder perception</i> refers to the family business owners perceiving that their employees, financiers, customers and suppliers think it is important that they are a family business.

5.3 Descriptive statistics

For discussion purposes, the response categories on the five-point Likert scale were categorised as follows: $1 \leq x < 2.333$ were categorised as disagree; $2.333 \leq x < 3.667$ as neutral, and $3.667 \leq x \leq 5.000$ were categorised as agree. The descriptive statistics of both the dependent and independent variables are presented in Table 4.

Table 4: Descriptive Statistics

Factors	Mean	Std. dev.	Disagree %	Neutral %	Agree %
Promotion of family business	3.462	1.022	14.770	36.620	48.610
Use of family business image	3.220	0.885	17.846	49.231	32.923
Stakeholder perception	3.276	0.934	18.153	46.154	35.693

Promotion of family business returned a mean score of 3.462 with most respondents agreeing (48.61%) with the statements measuring this factor. More than one-third (36.62%) were, however, neutral with regard to the business being promoted as a family business to suppliers, potential employees, financiers and customers. *Use of family business image* returned a lower mean score ($\bar{x} = 3.220$), with nearly half of the respondents being neutral (49.23%) with regard to the statements measuring this factor. Only one third of respondents agreed (32.923%) that their family business used its recognised family name as a brand when doing business, as well as the fact that they are a family business, as a basis for their marketing strategy and material. *Stakeholder perception* returned a lower mean score ($\bar{x} = 3.276$), with most of the respondents being neutral (46.15%) with regard to their employees, financiers, customers and suppliers thinking that it was important that they are a family business. In summary, less than half of the respondents promoted themselves as a family business or used their family name as brand when doing business, and only one-third perceived that their stakeholders thought that their status as a family business was important.

5.4 Inferential statistics

In order to determine the correlation between *Stakeholder perception*, and the *Promotion of family business* and *Use of family business image*, Pearson's product moment correlation coefficients were calculated. In Table 5 it can be seen that all constructs were significantly ($p < 0.05$) and positively associated with each other. These associations were also considered strong (Choudbury, 2009).

Table 5: Pearson's Product Moment Correlation Coefficients

Factors	1	2	3
1 Promotion of family business	1.00	-	-
2 Use of family business image	0.687	1.00	-
3 Stakeholder perception	0.640	0.605	-

(**Bold** = $p < 0.05$)

Two simple regression analyses were performed to determine the influence of *Stakeholder perception* on both the *Promotion of family business* and *Use of family business image*. As indicated in Table 6, a significant positive linear relationship ($b = 0.700$; $p < 0.001$) exists between *Stakeholder perception* and *Promotion of family business*. Accordingly, the more that family business owners perceive that their employees, financiers, customers and suppliers think that it is important that they are a family business, the more likely they are to promote their businesses as a family business to stakeholders. As a result, support is found for hypothesis H¹ stating that there is a positive relationship between *Stakeholder perception* and *Promotion of family business*.

Table 6: Stakeholder Perception and Promotion of Family Business

Dependent variable: Promotion of family business	R² = 0.410		
Independent variables	Beta	t-value	Sig.(p)
Intercept	1.165	7.320	0.000
Stakeholder perception	0.700	14.987	0.000**

(** p < 0.001)

The results shown in Table 7 demonstrate that a statistically significant positive linear relationship ($b = 0.572$; $p < 0.001$) exists between *Stakeholder perception* and *Use of family business image*. This means that the more the family business owner perceives that their employees, financiers, customers and suppliers think that is important that they are a family business, the more likely the family business is to use its recognised family name as a brand when doing business, in addition to using the fact that they are a family business for their marketing strategy and material. Support is found for hypothesis H² stating that there is a positive relationship between *Stakeholder perception* and *Use of family business image*.

Table 7: Stakeholder Perception and Use of Family Business Image

Dependent variable: Use of family business image	R² = 0.365		
Independent variables	Beta	t-value	Sig.(p)
Intercept	1.345	9.411	0.000
Stakeholder perception	0.572	13.639	0.000**

(**p < 0.001)

The results of the analyses of variance undertaken are presented in Table 8 and show a significant ($p < 0.05$) relationship between the demographic variables *Age of the owner* and *Ownership generation*, and the dependent variable *Stakeholder perception*. These results suggest that the age of the family business owners has an influence on their perception of whether their employees, financiers, customers and suppliers think it is important that they are a family business. An eta-squared value (0.069) showed this difference to be of medium practical significance. In support, the post-hoc Scheffé test showed that there were significant differences between the *Age of the owner* categories of respondents in terms of *Stakeholder perception*. The results revealed that respondents who are 60 years and older ($\bar{x} = 3.730$) scored significantly higher ($p < 0.05$) mean scores for *Stakeholder perception* than did respondents between the ages of 30 to 39 ($\bar{x} = 3.061$). Older family SME owners are therefore more likely than younger family SME owners to perceive that their stakeholders think it is important that they are a family business.

A significant relationship ($p < 0.05$) was also reported between *Ownership generation* and *Stakeholder perception*. The eta-squared value (0.024) showed this difference to be of small practical significance. The results of the post-hoc Scheffé test showed that second generation family businesses owners ($\bar{x} = 3.436$) reported significantly higher ($p < 0.05$) mean scores for *Stakeholder perception* than did first generation family business owners ($\bar{x} = 3.148$). Second generation family SME owners are thus more likely than first generation family SME owners to perceive that their stakeholders think it is important that they are a family business.

No significant relationships were reported between any of the variables *Tertiary qualification of the owner*, *Number of employees* and *Nature of the family business*, and

the dependent variable *Stakeholder perception*. As such, whether the family business owner has a qualification or not has no influence on *Stakeholder perception*. Furthermore, the size of the family business and the industry in which it operates is unrelated to the family business owner perceiving that their employees, financiers, customers and suppliers think it is important that they are a family business.

Table 8: Demographic Variables and Stakeholder Perception

Dependent variable: Stakeholder perception		
Independent variables	F-values	Sig.(p)
Age of the owner	5.950	0.000*
Ownership generation	4.070	0.018*
Tertiary qualification of the owner	0.068	0.792
Number of employees	1.014	0.409
Nature of the family business operations	2.467	0.062

(*p < 0.05)

Against this background, the null hypothesis (H_0) stating that there is no relationship between demographic variables investigated in this study and *Stakeholder perception*, is accepted for *Tertiary qualification of the owner*, *Number of employees* and *Nature of the family business operations*, but not for *Age of the owner* and *Ownership generation*.

6. DISCUSSION AND MANAGERIAL IMPLICATIONS

Most of the respondents in the current study do not promote their business as a family business to their stakeholders. This finding contradicts those of Astrachan and Astrachan (2015b), who found that most family businesses in their sample did do so. Astrachan and Astrachan's (2015b) sample consisted of much older family businesses than the sample in the current study, where many are first generation family SMEs. This sample difference could explain the contradictory findings. Almost 50 per cent of respondents were neutral concerning the use of their family name as a brand and a basis for marketing. The studies of Zellweger et al. (2012) and Memili et al. (2010) also reported most of their respondents as being neutral about using their family name as a brand and a basis for marketing, while the study of Flören et al. (2015) found that the majority of family businesses chose not to reveal their familial nature to stakeholders in their marketing and branding practices.

It is possible that the family SMEs participating in the current study refrain from promoting themselves as family businesses and from using their family name as a basis for marketing, because the business identity and image may overlap with that of the family. Family businesses tend to be cautious about the image they present to stakeholders (Melin et al., 2014) because a negative image of the family business can also negatively affect the image of the family itself (Flören et al., 2015; Memili et al., 2010). Another possible explanation for the findings of the current study could be that family SMEs are known to have limited resources (Price, Stocia & Boncella, 2013; Laforet, 2013; Kotey, 2005). Establishing a family business brand is time-consuming and expensive. With limited resources, family SMEs may not be investing that which is required to promote the business as family-owned (Miller, 2015; Schwass & Glemser, 2014).

The literature (Flören et al., 2015; Zellweger et al., 2012; Carrigan & Buckley, 2008) contends that stakeholders attach significant value to family businesses because of their family business status and positive family business image. However, most respondents in

the current study were neutral with regard to their stakeholders thinking that it was important that they are a family business. This result is supported by Flören et al. (2015), who also found that the majority of family business directors in the Netherlands were neutral with regard to their stakeholders thinking that it was important that they are a family business. However, Flören et al. (2015) reported that more than half of the directors either agreed or strongly agreed that employees in particular found it important that the business was a family business.

A possible explanation for most respondents in the current study not promoting their business as a family business or for them being neutral towards using the family name as a basis for branding and marketing, as well as for perceiving their family business status as not important to stakeholders, is that the majority were first generation family SMEs. The study of Micelotta and Raynard (2011) as well as that of Smit, Binz and Schwass (2010) cited in Astrachan (2014), reveal that older family businesses are more likely to base their marketing and branding practices on the heritage and values of the founding members than are younger family businesses. Older family businesses are able to do this because their expertise, reputation and legacy has accumulated over generations (Astrachan & Astrachan, 2015b; Blombäck & Brunninge, 2009). First generation family businesses, as was the case for the majority of respondents in the current study, would not yet have built up a family name, heritage or legacy. This usually only develops over time and successive generations. Furthermore, despite meeting the criteria for being family SMEs, many may not even have considered themselves in those terms, let alone evaluated the importance of their family status to their stakeholders. The results of the current study also support this explanation, in that older family SME owners perceived their stakeholders as finding it important that they are a family business, more so than younger family SME owners did. Second generation family SME owners were also more likely than first generation family SME owners to perceive that their stakeholders consider their family business status important. By ensuring successful successions going forward, current family SME owners will allow future generations to benefit from and use their family name, heritage and legacy in their future marketing endeavours. Only then will the true value of them being a family business and the importance thereof to stakeholders be revealed.

The findings of the current study do, however, show that the more family SME owners perceive that their stakeholders think their status as a family business is important, the more likely they are to promote themselves as a family business and to use their family name as a brand when doing business. With few exceptions, most family business studies support the notion that family businesses have a natural tendency to be predisposed to respond to their stakeholder needs (Melin et al., 2014). The findings of the current study support this notion, in that family SMEs who perceive that their being a family business is important to their stakeholders, are responding by adapting their branding and marketing accordingly. However, rather than basing their branding and marketing decisions on construed perceptions, family SMEs should investigate and base their decision on actual stakeholders' perceptions. This can be achieved by asking customers, employees and suppliers how important it is to them that the business is a family SME. In order to obtain feedback from financiers, owners of family SMEs could also solicit their views on the matter.

In the current study no relationship was reported between the industry in which the family SME operates and the family business owner perceiving that their stakeholders think it is important that they are a family business. This finding contradicts the literature in that several studies (Gallucci et al., 2015; Zellweger et al., 2012) report that promoting the family business status can be more important for certain family businesses than for others, as well as create different perceptions among stakeholders in different industries (Astrachan & Astrachan, 2015a; Gallucci et al., 2015). The finding in the current study could

be attributed to the broad industry categories given to respondents for describing the nature of their business operations.

7. LIMITATIONS AND CONTRIBUTIONS

This study has some limitations that should be highlighted. Given the nature of the non-probability sampling techniques adopted and that the sample was drawn from the Eastern Cape province only, the findings cannot be generalised to the entire South African family SME population. The sample was also skewed in that the majority of respondents were from one ethnic group rather than being representative of all ethnic groups in South Africa. Another possible factor affecting the results is that most family business respondents were first generation family SMEs. Furthermore, the industry categories available to respondents for describing the nature of their family business operations were very broad, including retail, wholesale, manufacturing and services. More details on the nature of the family business operations could have added significantly to the findings of this study.

The responses of participants were based on their own perceptions and were collected using self-reporting measures. The aforementioned introduces some degree of bias in the responses provided, which could ultimately influence the validity of the data (Kim & Kim, 2013; De Jong, 2010). A further limitation of this study is that it only focused on perceived stakeholder perceptions with regard to *Promotion of family business* and *Family business image*. Despite these limitations, however, the current study makes several contributions.

Research on stakeholder perceptions and the influence thereof on marketing and branding practices among family businesses, specifically family SMEs, has largely been unexplored by researchers. Furthermore, little is known about the factors influencing these practices in developing countries such as South Africa. As far as could be established, no other study investigating this topic among family SMEs in South Africa exists. This study has provided greater insights into the level of importance that family SME owners assign to their stakeholders knowing that they are a family business, and how they could use their family business status to project a family business image to stakeholders. In this respect, a contribution to the body of knowledge on the role of stakeholders in the marketing and branding practices adopted by family SMEs operating in South Africa has been made. Future research on this topic is, however, still needed.

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**EFFECTS OF ICT ADOPTION BY SME OWNERS ON PRODUCTION IN THE
BOROLONG AREA OF BOTSWANA**

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SSMEs and family business

EFFECTS OF ICT ADOPTION BY SME OWNERS ON PRODUCTION IN THE BOROLONG AREA OF BOTSWANA

ABSTRACT

Information and communication technology (ICT) has been the main focus of the Botswana government to strengthen the small and medium enterprises (SMEs) in the country. This paper investigates the effects of information and communication technology (ICT) within the small and medium enterprise environment (SME) of the Borolong area of Botswana. A quantitative research approach was followed, where sixty-seven (67) SMEs were surveyed. The study deals with accessibility of ICT tools, drivers of ICT adoption, barriers towards ICT adoption, effects of ICT adoption and lastly it looks at training and funding opportunities available in Botswana. ICT adoption by SME's owners on production in Borolong area of Botswana is very slow and as such the research wanted to find out what could be the cause of this slow rate of ICT adoption. This research will help SMEs and other related stakeholders to work together and improve the rate of ICT adoption in the Borolong area of Botswana.

1. INTRODUCTION

The government of Botswana is playing a very active role in encouraging the adoption of ICT among SMEs. It wants to promote economic growth, through human development, creation of employment, poverty eradication and others. This aim could be made possible by the effective adoption of ICT tools by SMEs (Botswana Government, 2012:80). It has realized the critical role of ICT as an enabler in the quest to realize its socio-economic objectives and translate its vision into reality. According to Franco, Dias, and Pereira (2012:24) the importance of ICT in the economy has increased since the 1990s. ICT adoption has brought many positives to businesses globally, for example its adoption has resulted in quick turnaround of production, innovative products and employees can work remotely around the globe (Kalusopa, 2005:414).

Firms are re-engineering their operations and investing a lot of their money specifically for ICT solutions and this is done to take advantage of the consistently ever-changing business environment. Knowledge is the cornerstone of this new environment, and it is mostly called the knowledge economy. Customers in this new era want to buy knowledgeable and innovative products and this can only be achieved through the use of ICT (Modimogale & Kroeze, 2011:02). Large firms have more financial muscle, more skilled employees, and with all this, they have utilized advantages of ICT to attain a

competitive advantage over their rivals. Most governments are encouraging SMEs to use ICT because this will lead to economic growth and they will also thrive in these ever-changing global demands. The government does this because they acknowledge the contribution done by SMEs towards Gross Domestic Product (GDP) and creation of employment opportunities (Franco et al., 2012:25).

2. LITERATURE REVIEW

Globalisation and digitalization have drastically changed the way business is done and competes in the market place; information and communication technology (ICT) are the drivers of this change. According to Modimogale and Kroeze (2011:02), change has given rise to a new economy, which is known as the knowledge economy. Knowledge is vital for economic growth and it is what we sell and what customers buy (Procter & Shemi, 2013:16). Mutula and Van Brakel (2006:405) agree that ICT has sped up the pace of globalization and increased the complexity of business practices because firms not only need to be familiar with their local context but also with global developments. Therefore, to compete in the knowledge economy, countries need a strong ICT literacy skills base that can innovate and adapt quickly to the rapidly-changing environments. More emphasis is placed on the knowledgeable worker than ever before, the knowledge economy relies heavily on ICT; it has led to the rapid growth of ICT sectors (Procter & Shemi, 2013:17).

Countries like Botswana, China, India and Korea have created conducive environments to enable SMEs to capture lucrative new business opportunities (Sampong & Akomea-Bonsu, 2012:154). Botswana has offered a reduction in import duties for IT hardware and created infrastructure in software technology parks (Procter & Shemi 2013:18). Botswana's thriving ICT sector has in turn propelled positively the country's economic development. According to Mutula and Van Brakel (2006:406) SMEs outside the ICT sector have also benefited by adopting ICT in their own operations, enabling them to communicate quickly, increase productivity, develop new business opportunities, and connect to global networks.

Mutula and Van Brakel (2006:402) also agree that ICT plays a pivotal role in giving SMEs a competitive edge but inadequate access to information is a problem and is due to lack of ICT infrastructure. Access to information helps SMEs to make better and competitive business decisions. According to Apula and Ige (2011:210), SMEs can only survive in this competitive environment if they have adequate access to information.

Many governments are encouraging SMEs to adopt ICT into their businesses and Yusuf (2013:10) cautioned that ICT should be adopted with the intention that it will lead to growth of the firm. Governments must thoroughly assess whether SMEs really need ICT before implementing an adoption strategy and they must also help SMEs in choosing the best strategy for their firms and avoid a one-size fits all approach because SMEs have different ICT needs (Modimogale & Kroeze, 2011:04). SMEs have different ICT needs because of their annual turn-overs, number of employees, nature of business, ownership and geographical location (Mwobobia, 2012:90).

Modimogale and Kroeze (2011:02) define ICT as the array of primarily digital technologies designed to collect, organize, store, process and communicate information within and external to an organization and, in our case, SMEs. According to Yusuf (2013:11) it can be referred to as technologies that pertain to the new science of collecting, storing, processing and transmitting information whereby information, computing and telecommunications are converging. ICT covers technologies like the simple telephone, point-of-sale systems, stand-alone PCs, networked environments, Internet and credit card facilities (Sampong & Akomea-Bonsu, 2012:153). According to Mporu, Milne and Watkins-Mathys (2010:02), ICT is defined as technology that enhances the processing, gathering, distribution and use of information. They categorised ICT into the following technologies; information, telecommunications and networking technologies. This includes websites, computers, Internet, fixed-line telephones, broadband, wireless communications devices, mobile phones networks, and various specialized forms of equipment.

Ongori (2009:79) refers to ICT as technologies and tools that people use to share, distribute and gather information and also to communicate with one another or in groups, through the use of computers and interconnected networks. In addition, ICT are mediums, which utilize both telecommunications and computer technologies to transmit information. Apula and Ige (2011:208) refer to ICT as a wide range of computerized technologies. ICT is any technology that enables communication and the electronic capturing, processing and transmission of information. Bayo-Moriones, Billón and Lera-López (2013:125) have stated that these technologies include products and services such as desktop computers, laptops, handheld devices, wired or wireless intranet, business productivity software such as text editor and spread sheet, enterprise software, data storage and security, network security and so on. In Nigeria, commonly used ICTs include Internet, Personal Digital Assistants (PDAs), Automated Teller Machines (ATMs), mobile phones and smart cards (Apula & Ige, 2011:208).

ICT refers to technologies that pertain to the new science of collecting, storing, processing and transmitting information whereby information, computing, and telecommunications are converging (Sebusang & Masupe, 2005:11). ICT is any technology used to support information-gathering, processing, distribution and use (Chandamoyo & Dumbu, 2012:124). More precisely ICTs can be viewed as all forms of technologies and products for a wide range of software, hardware, telecommunications and information management techniques, applications and devices used to create, produce, analyse, process, package, distribute, retrieve, store and transmit or receive information electronically in a digital form such as computers, email, internet, websites, social networking and other wireless communications devices, networks, broadband, and as well as the various specialized devices and applications associated with them, such as satellite systems and videoconferencing (Yusuf, 2013:011).

The vice-president of Botswana has acknowledged that Botswana as a country has come far with ICT issues and it has transformed the country into knowledge economy. Through government programmes like the National ICT policy called Maitlamo, the government of Botswana has given Botswana a road-map towards effective use of ICT tools. There are also other initiatives like Nteletsa 2, international connectivity mobile network, national optic fibre and the backbone network. All these initiatives increase digital literacy and provide universal access to ICT (More, 2015:3).

Botswana generally compares well with developing countries, particularly in terms of the existence of conditions that are conducive for SMEs to thrive, even though it is clearly surpassed in some indicators by South Africa and Namibia, fellow members of SACU and close competitors. Comparison with developed economies depicts Botswana as fairly far from creating an enabling environment for SMEs to grow and develop. (Nkwe, 2012:32).

3. PROBLEM INVESTIGATED

The use of ICT has been recognised as a catalyst for improving firm performance and enabling SMEs in to be competitive and innovative (Procter & Shemi, 2013:11). There remains a gap in the literature to find out the effects of ICT adoption on production within SMEs in Borolong area of Botswana and this is the main aim of this paper. It is envisaged that ICT adoption within SMEs in Botswana could contribute to more competitive SMEs that may potentially create jobs, alleviate poverty and improve Botswana's competitiveness globally. The study investigates the effects of ICT adoption by SME

owners on production in the Borolong area of Botswana. The following are the research questions posed by the study:

- Do the SMEs of Borolong area have access to ICT tools?
- What are the key driving forces of ICT adoption by SMEs in the Borolong area?
- What are the effects of ICT adoption by SMEs on production in the Borolong area?
- What are the barriers facing SMEs' adoption of ICT tools in the Borolong area?
- Are funds and training programmes available to assist SMEs of the Borolong area in adopting ICT into their businesses?

4. RESEARCH OBJECTIVES

The purpose of the study was to determine the effects of ICT adoption by SMEs owners on production in Borolong area of Botswana. The following are the research objectives the study would like to achieve:

- To find out whether the SME's of Borolong areas have access to ICT tools.
- To establish the key drivers of ICT adoption by SMEs of the Borolong area.
- To find out the effects of ICT adoption by SMEs on production in Borolong area.
- To identify the barriers preventing SMEs' adoption of ICT tools in Borolong area.
- To establish the availability of funds and training programme for ICT adoption by SME's in Borolong area.

5. RESEARCH METHOD

A quantitative approach was used to draw conclusions from the surveyed data. The study covered SMEs which were based mainly in villages of the Borolong area of Botswana were the study units and these villages are Pitsane, Goodhope, Metlojane, Ramatlabama and Thareselele. The total population for this study was obtained from the Department of Industrial Annual Report (2014), which reported that there are seventy-five SMEs operating in the Borolong area of Botswana. All of the SMEs were invited to participate in the research, but only sixty-seven respondents completed the researcher administered questionnaire.

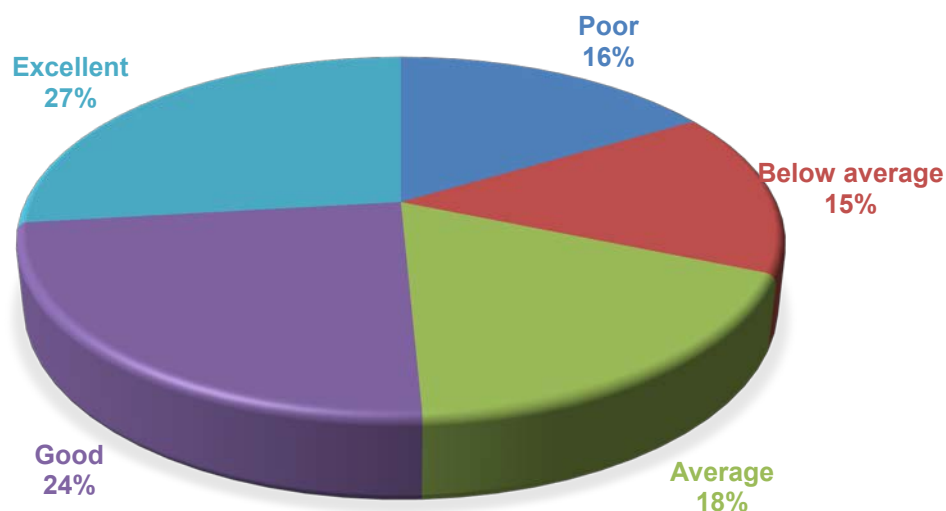
To enhance reliability in this study, the instrument was administered in a consistent and standardised manner. The interview transcripts were reviewed to make sure that no

inconsistencies between single responses exist. This indicated that interviewees understood the questions correctly, understood and provided consistent responses which are indications of reliability (Bryman & Bell, 2011:129). Data of the study showed a reliability of 0.832 for the Cronbach Alpha measure for all 29 items in the survey instrument and this suggests that the collected data was very reliable.

6. RESULTS AND FINDINGS

A total of twenty-seven percent (27%) of SMEs in the Borolong area of Botswana have indicated that they had excellent access to ICT tools, followed by twenty-four per cent (24%) who have good access to ICT tools (see Figure 1).

Figure 1: Business accessibility to ICT tools



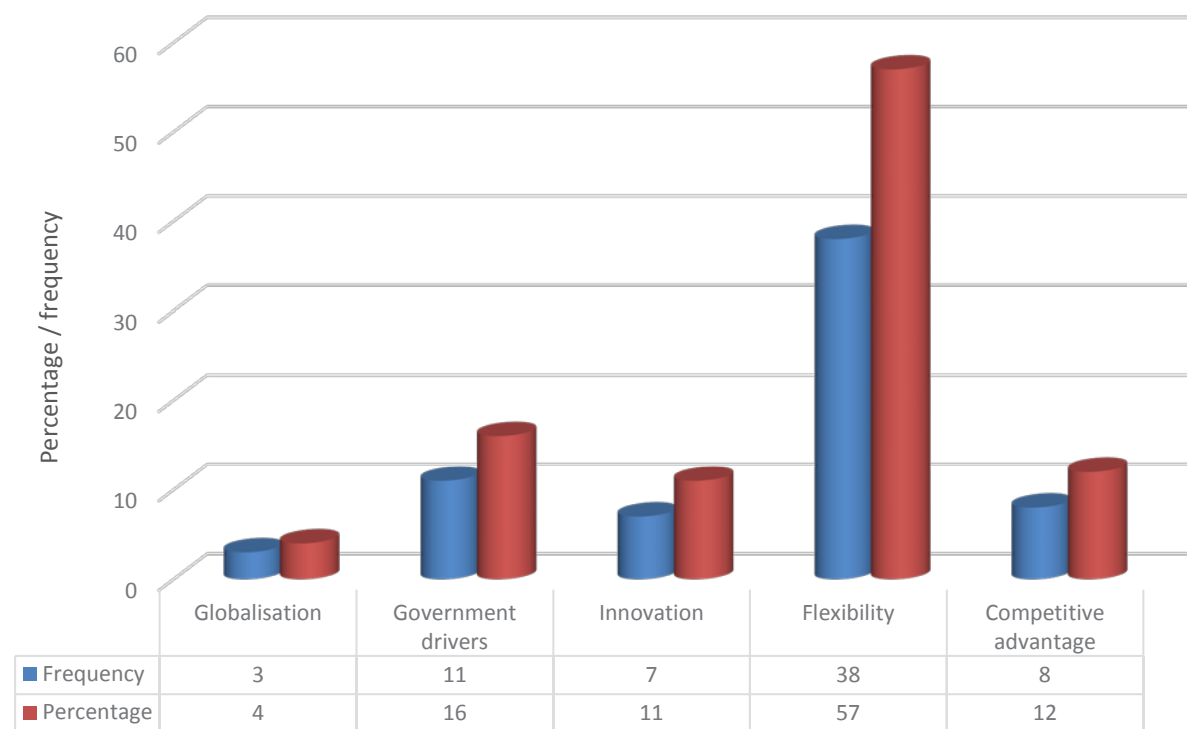
Those with an average level of access to ICT tools make up eighteen percent (18%) of the total population. Only sixteen percent (16%) of the SMES have poor or no access to ICT tools and fifteen percent (15%) have below average access. This means that the majority of SMEs (51%) in the Borolong area of Botswana have access to ICT tools. These could be due to the fact that the government of Botswana is encouraging entrepreneurs to use ICT in their firms. The Botswana government has created The National ICT policy called Maitlamo which is aimed at assisting small-scale entrepreneurs in adopting ICT into their businesses through funds and training opportunities. This study is consistent with results found by research done by Modimogale and Kroeze (2011) which indicated that SMEs in

Gauteng have access to user-friendly tools such as telephone, fax, point of sale (POS) and credit card machines to facilitate the use of ICT in these circumstances.

The results are also in line with a study done by Yusuf (2013) on the Impact of ICT on SMEs in Rwanda. His research found that a total of sixty-four per cent (64%) indicated that they used ICT on regular basis. Eleven percent (11%) indicated that they use it sometimes while a total of twenty-one per cent (21%) make very little use of ICT and five per cent (5%) do not use it at all. Also Mutula and Van Brakel (2006) said that a number of companies in the SME sector were fairly well plugged into technology in Botswana.

The findings of the study indicate that the most driving force for SMEs to adopt ICT is to be flexible and this is reflected by fifty-seven percent (57%) of respondents who have indicated that (Figure 2).

Figure 2: Drivers of ICT adoption

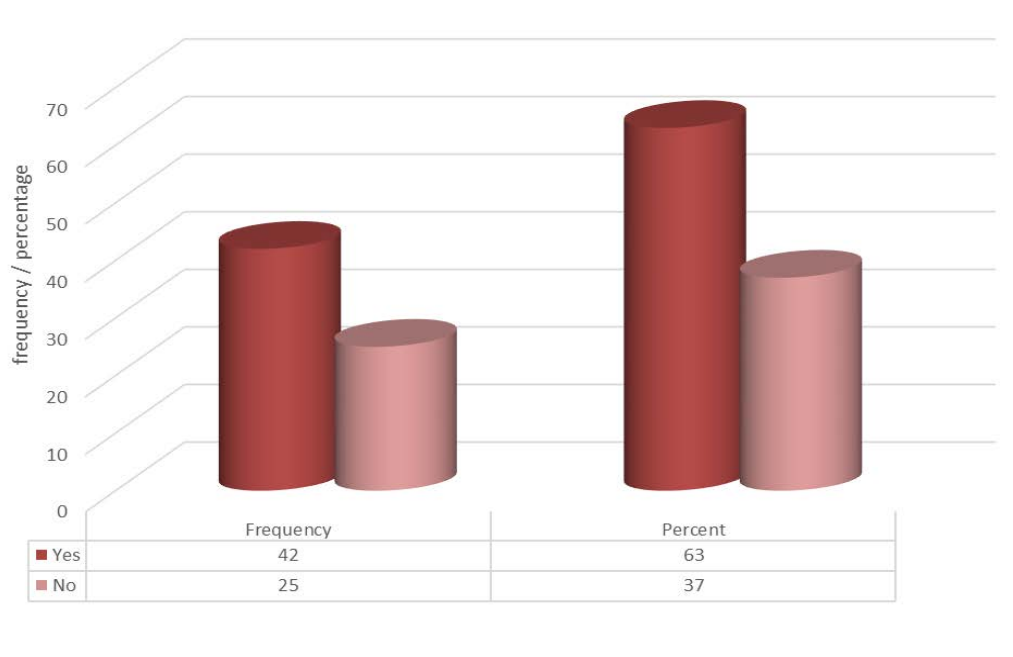


This is followed by sixteen per cent (16%) of respondents who indicated the government as their driver of ICT adoption. The lowest percentage of four per cent (4%) was for those who indicated that globalization was their driver of ICT adoption. This result indicates that the majority of SMEs in the Borolong area of Botswana are driven by the flexibility of ICT tools in running the business.

These results differ from a study presented by the BIDPA report (2009) which indicates that the strongest driving force for ICT adoption by SMEs in Botswana are government drivers. It also differs from a study done by Apulu and Latham (2011) on SMEs of Nigeria where their study indicated that the driving force of ICT adoption in SMEs of Nigeria was to gain a competitive advantage. It can be concluded that it is possible for SMEs in different areas to have different drivers of ICT adoption.

The findings show that 63% of the respondents know how to use ICT tools and only 37% don't have the skills or competence in using ICT tools (Figure 3). Most of the respondents have competence in using ICT tools to due to the on-going ICT training provided by the Government of Botswana through the Maitlamo policy.

Figure 3: Competence in using ICT tools

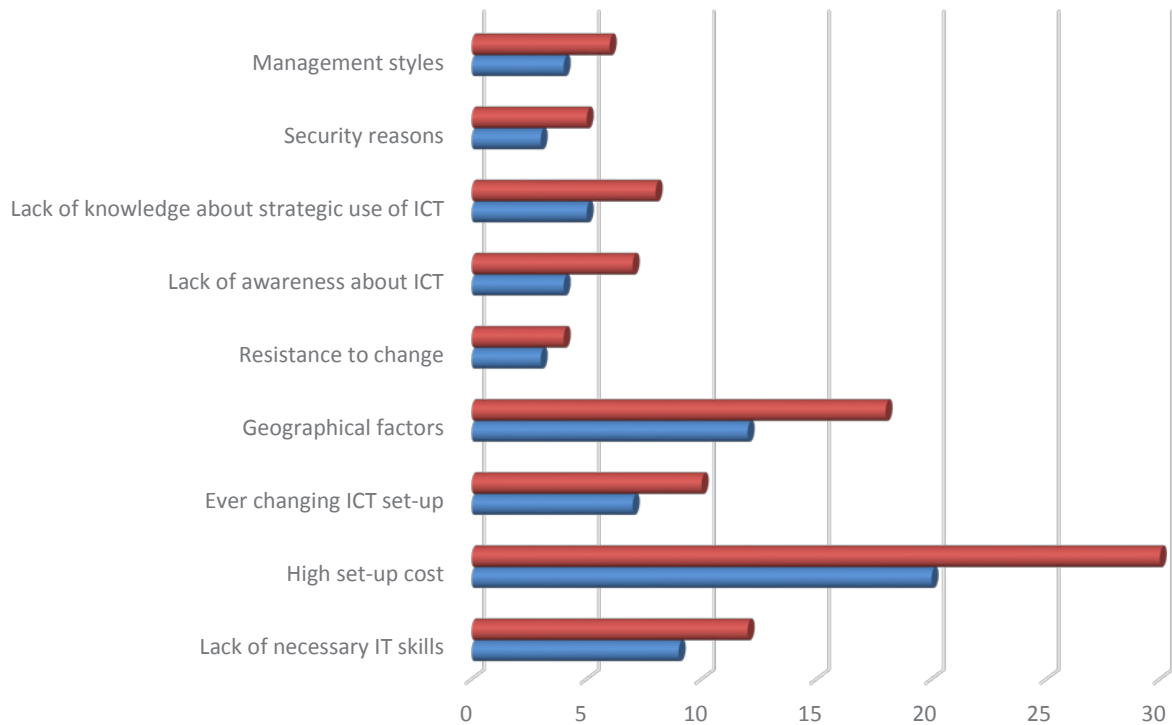


These training activities are done in several villages around the country and everyone is allowed to attend those workshops. These results are consistent with a study done by Modimogale and Kroeze (2011:42). Their study found that 90% of the respondents were competent in using ICT tools. Their study was intended to investigate how ICT usage on SME of Gauteng could give them a competitive edge.

Regarding the limiting factors of ICT adoption, thirty percent (30%) of the respondents indicated that high set-up cost of ICT tools was the major barrier (see Figure 4) preventing ICT adoption and they were followed by those who experienced geographical factors as

barriers with eighteen per cent (18%). Twelve per cent (12%) of the respondents indicated that lack of necessary IT skills as their barrier towards ICT adoption and only ten per cent (10%) was for those who experience the ever-changing ICT set-up as a barrier.

Figure 4: Barriers towards ICT adoption



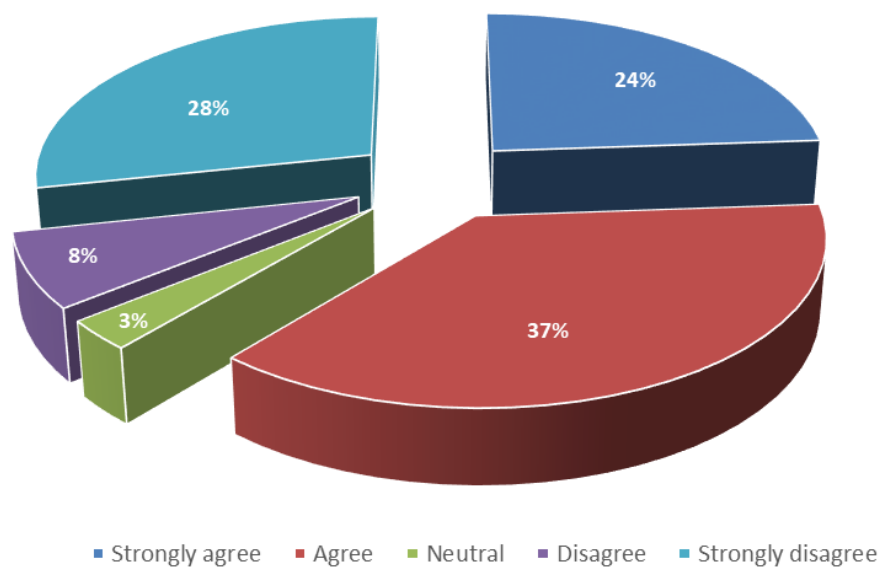
	Lack of necessary IT skills	High set-up cost	Ever changing ICT set-up	Geographical factors	Resistance to change	Lack of awareness about ICT	Lack of knowledge about strategic use of ICT	Security reasons	Management styles
■ Percent	12	30	10	18	4	7	8	5	6
■ Frequency	9	20	7	12	3	4	5	3	4

Only seven per cent (7%) of the respondents explained that lack of awareness about ICT tools and another six per cent (6%) described management styles as a barrier and five per cent (5%) indicated security reasons as a barrier to ICT adoption. Lastly only four per cent (4%) indicated resistance to change as their limiting factor towards ICT adoption.

Most of the respondents considered high set-up cost as their limiting factor and this might be due to the high electricity installation costs into their firms. Even the purchase of the ICT tools was also very expensive. The second highest number of respondents was for those who indicated the geographical area as a barrier and this might be due to the poor network in rural areas and inadequate supply of electricity. Yusuf (2013:66) stated that barriers towards ICT adoption over time change (will not exist forever) and might vary along the adoption ladder. SMEs experiences different barriers from one area to another.

Respondents were asked to indicate the level of funding support they receive from the government (see Figure 5). Thirty-seven per cent (37%) of the respondents agreed that the government of Botswana was supporting them with funds to run their businesses. Twenty-eight per cent (28%) strongly agreed that the government was supporting them with funds. Three per cent (3%) were just not sure whether the government really supports them financially. The second biggest percentage which is twenty-eight per cent strongly disagreed that the government of Botswana was supporting them financially to run their businesses and only eight per cent disagreed that the government of Botswana was supporting their enterprises with funds.

Figure 5: Funding support by the government of Botswana

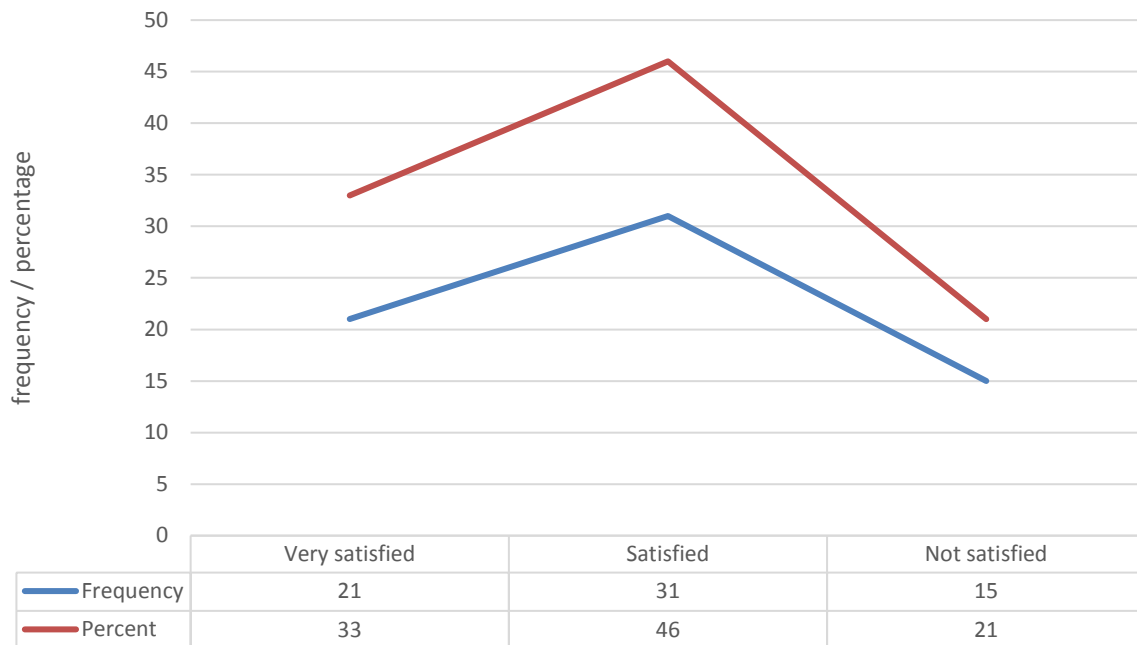


In overall terms, it can be concluded that the majority (61%) of SMEs in the Borolong area of Botswana agree that the government of Botswana is supporting them with funds (through its programmes) to run their business while only thirty-six per cent (36%) disagree that the government supports them with funds. Reasons why most of the respondents agree that they are being supported by the government with funds because most of the SMEs in the Borolong area are formally registered hence they are eligible to receive funds from the government to run their enterprises.

The respondents were asked to indicate their satisfaction level with regard to the training programmes they receive from the government of Botswana. In Figure 6, 46% of respondents showed that they are satisfied with the training programmes provided while

thirty-three per cent (33%) stressed that they were very satisfied with the training programmes provided. Only twenty-one per cent (21%) differed from the rest and indicated that they were not satisfied with training programmes provided.

Figure 6: Funding support by the government of Botswana



Overall, the majority (79%) of the respondents of the Borolong area of Botswana are satisfied with the training provided by the government of Botswana and only twenty-one per cent (21%) of the respondents showed some dissatisfaction. This high percentage of satisfaction can be attributed to the fact that everyone is allowed to attend those training workshops, unlike funding programmes which only assist those SMEs that are formally registered.

To determine the effects of ICT adoption experienced by respondents in the Borolong area of Botswana, they were asked to choose from a list of options (see Table 1) designed to best describe the effects of ICT adoption on production.

Table 1: Effects of ICT adoption on production

	Improves efficiency of production process	Fast and accurate decision making	Improves information gathering and dissemination	Improves inventory control	Improves quality of products	Improves production operations	Enhance innovativeness	Employees can work remotely
Strongly agree	28	39	23	24	66	36	32	55
Agree	40	34	40	45	3	36	39	22
Neutral	5	4	9	7	3	5	5	2
Disagree	19	15	18	15	18	19	22	15
Strongly disagree	8	8	10	9	10	4	2	6
Total	100%	100%	100%	100%	100%	100%	100%	100%

Seventy-seven percent (77%) of all respondents reported ICT to have enabled employees to work remotely. This percentage clearly indicates that through the adoption of ICT, employees can make great inputs on production activities even when they are not on the production site or area. 73% of respondents have shown that the effect of ICT adoption on their production has led to fast and accurate decision making. Another encouraging aspect is improvement in production operations with seventy-two per cent (72%) of all the respondents reporting to have achieved great improvement in production operations. Seventy-one per cent (71%) of respondents also reported to that ICT adoption on their production have enhanced their innovativeness as they are now able to produce better products.

The respondents were then asked to indicate the value that ICT adoption has brought to their business (see Table 2). Seventy-nine percent (79%) of the respondents indicated that ICT adoption to their business has given them the competitive edge over their competitors while 73% experienced an increase in revenue. Another 72% of respondents showed that they experienced an increase in sales since they adopted ICT in to their business. A further 67% of respondents revealed that, ICT has increased their efficiency of marketing hence they are able to penetrate new markets.

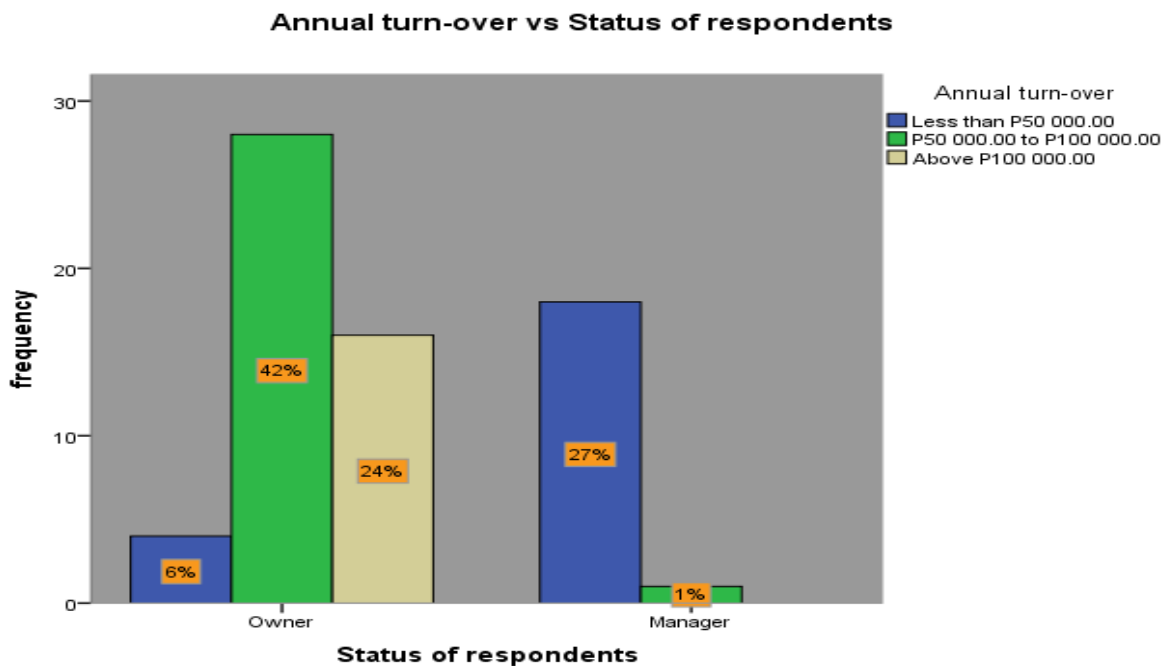
Table 2: The value of ICT adoption on the business

	Better customer responsiveness	Increase efficiency of marketing	Increase sales	Provide competitive advantage	Increase revenue	Firm goals and objectives are achieved
Strongly agree	23	33	21	30	30	34
Agree	40	34	51	49	43	33
Neutral	3	5	9	3	3	10
Disagree	22	16	17	10	19	14
Strongly disagree	12	12	2	8	5	9
Total	100%	100%	100%	100%	100%	100%

The majority of the respondents (63%) also indicated that since they adopted ICT they have been able to excel in responding to customer needs and only 62% of the respondents have shown that ICT enables them to integrate all their business processes. Clearly, there is a positive correlation between responses given under question on effects and value of ICT in the business. This correlation suggests that ICT is becoming a critical aspect for the success of a business and these results are consistent with a study done by Yusuf (2013). Yusuf's study pointed out that ICT adoption positively affects the overall value of the business.

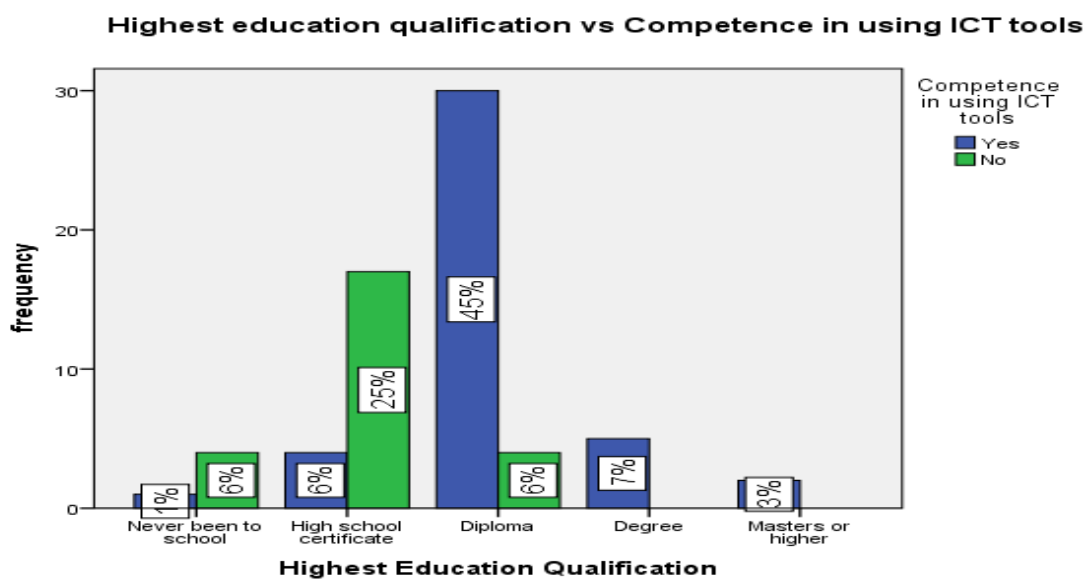
A total of sixty-six per cent (66%) of the respondents have an annual turn-over of above P50 000.00 and they are managed by owners whereas those who are managed by managers they only make one per cent (1%) above P50 000.00 and the rest (27%) have an annual turnover of less than P50 000.00 (see Figure 7). These results suggest that the owner-managed SMEs have a higher annual turnover than those which are managed by managers. These results are consistent with a study done by Modimogale and Kroeze (2011) on the role of ICT on SMEs of Gauteng who explained that owner-managed SMEs have high annual turn-overs. This was due to the fact that owner-managers are responsible for making crucial business decisions for the growth of the SME.

Figure 7: Cross-tabulation of status of respondents and annual turn-over



The findings of the study with regard to cross-tabulation done for highest education qualification and competence in using ICT tools (see Figure 8) show that fifty-five percent (55%) of respondents who hold diploma, degree and master-s or higher qualification are competent in using ICT tools and its only six per cent (6%) of those with a diploma or higher qualification who are not competent in using ICT tools.

Figure 8: Cross-tabulation of education qualification and competence in ICT

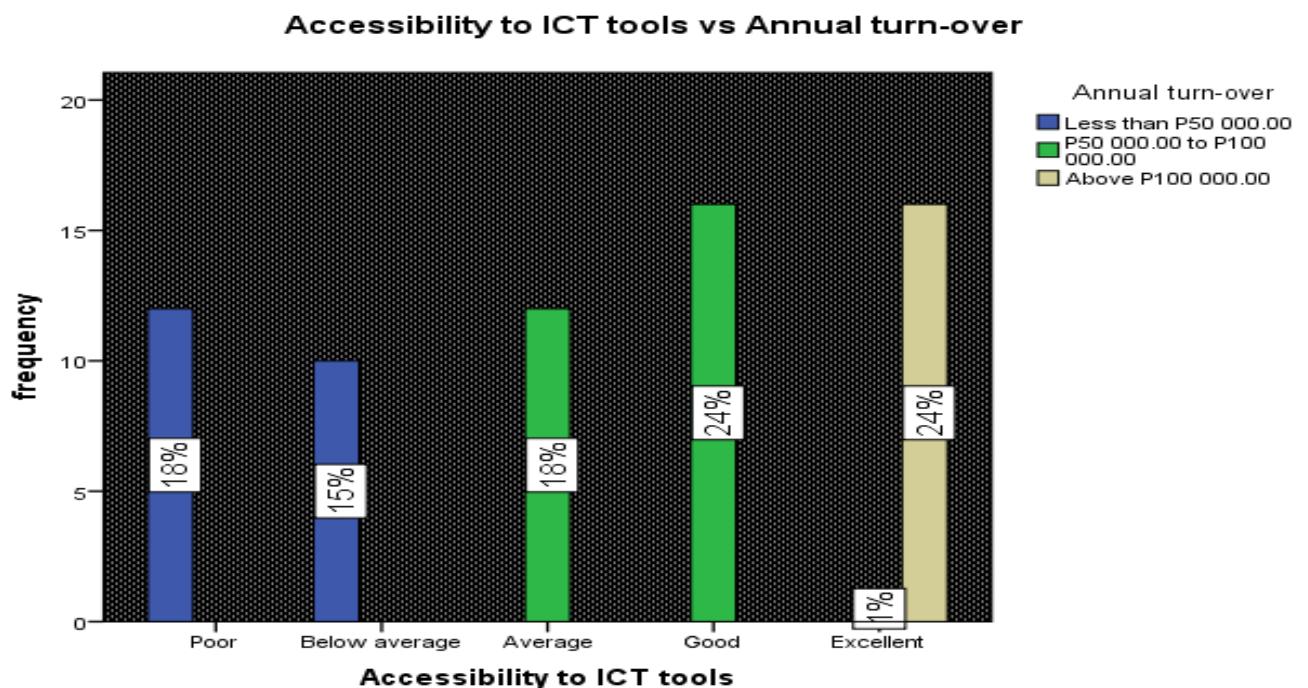


On the other hand, thirty-seven per cent (37%) of respondents are not competent in using ICT tools and their highest education qualification is a higher school certificate and below and its only seven per cent of respondents with the same qualification who are competent in using ICT tools. It can still be observed that all the respondents with degree and master's qualifications are all competent in using ICT tools.

It can be concluded that all the respondents with tertiary education are competent in using ICT tools compared to those who have high school certificates and below. This could be due to the fact that most of the curriculum in tertiary schools includes IT lesson. These results are consistent with the results of a study done by Esselaars, Stork, Ndiwalana and Deen-Swarrary (2007) who investigated ICT usage and its impact on Profitability of SMEs in 13 African Countries. Their study found that 62% of respondents who are competent in using ICT tools also have tertiary educational qualifications.

A cross-tabulation was done to find the correlation between accessibility to ICT tools and annual turn-over (see Figure 9). The findings revealed that forty-nine percent (49%) of the respondents have good access to ICT tools and they have an annual turn-over of P50 000.00 and above. Only thirty-three per cent (33%) of respondents have below average access to ICT tools and they have an annual turn-over of less than P50 000.00.

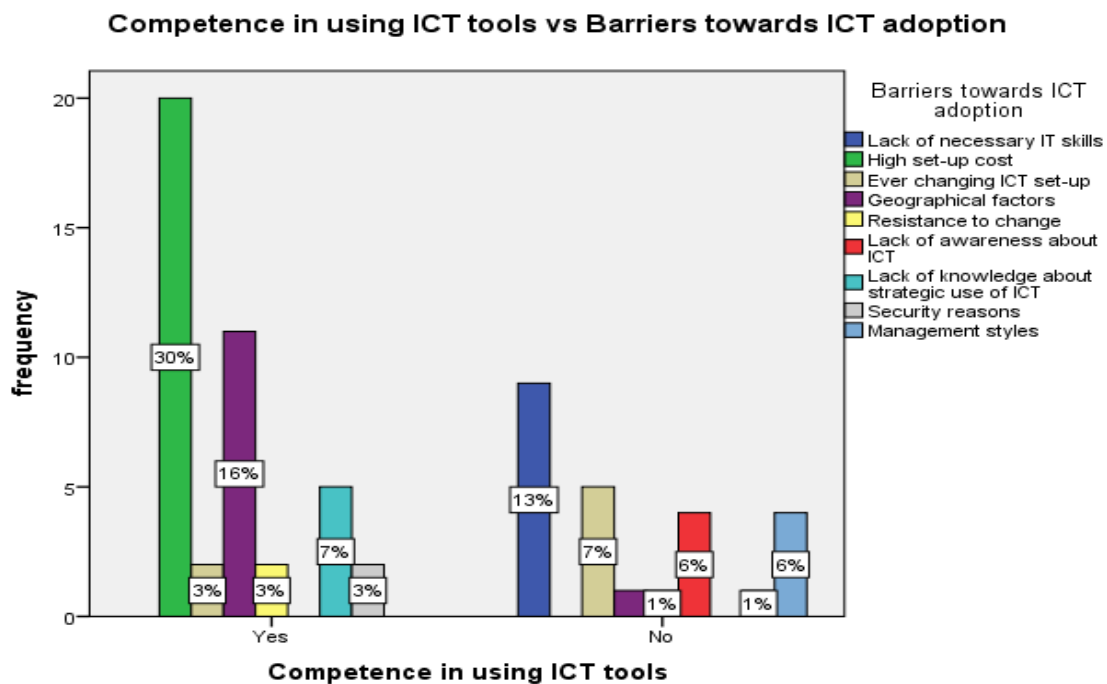
Figure 9: Cross-tabulation of Accessibility to ICT tools and Annual turn-over



It can thus be concluded that there is a positive correlation between using ICT tools in your business and annual turn-over. Most of the respondents who have access to ICT tools have gains higher annual turn overs than those who have less access to ICT tools. This outcome is similar to the outcome of a study done by Esselaars et al. (2007) on the ICT usage and its impact on profitability of SMEs in 13 African Countries. Their findings showed that, SMEs who uses ICT into their business have higher profits than those who do not use it.

Furthermore 31% of the respondents have operated for years more than five and the very same respondents have good access to ICT tools. Thirty-three per cent (33%) of the respondents have been operating for less than five years and the very same respondents have below average access to ICT tools. These results may suggest that having access to ICT tools can sustain the business to operate for many years. These results are consistent with a study done by Modimogale (2008) on ICT and SMEs competitiveness in South Africa. The results of the cross-tabulation in Figure 10 indicates that the majority of respondents (30%) are competent in using ICT tools and their barrier towards ICT adoption is the high set-up cost of ICT.

Figure 10: Cross-tabulation of Accessibility to ICT tools and Annual turn-over

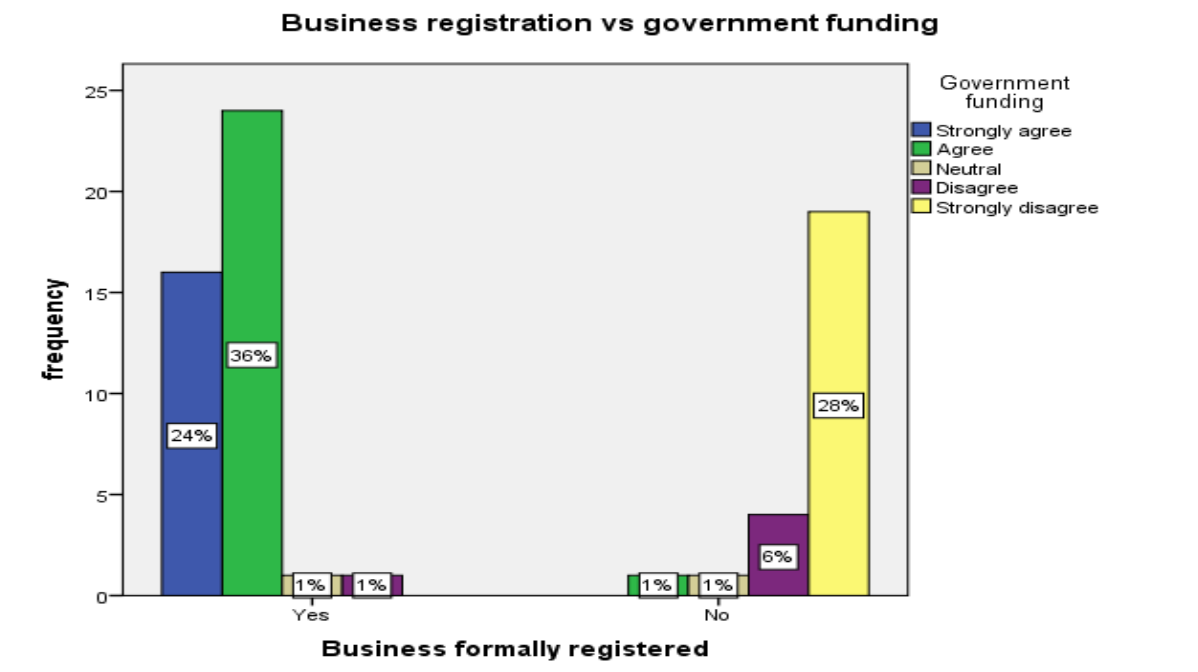


On the other hand, only 13% of respondents who are not competent in using ICT tools experiences lack the necessary IT skills as their barrier towards ICT adoption. It can be

concluded that those respondents with IT skills experiences costs of ICT set-up as a barrier and those without any IT skills experiences lack of ICT skills as a barrier. Furthermore, fifty-seven percent (57%) of respondents are competent in using ICT tools and the very same respondents indicated that flexibility of running a business which comes as a result of using ICT is their main driver of adopting ICT into their business. On the other hand, the majority of respondents who are not competent in using ICT tools (16%) have indicated government as their driver towards ICT adoption. This result shows that respondents who are competent in using ICT tools are in a good position to understand the advantageous flexibility that adopting ICT into your business can bring and that's why most of them have indicated flexibility of ICT tools as their driver to adopt ICT. Those who are not competent in using ICT tools are driven by the government to adopt ICT. The government through its initiatives encourages the SMEs to adopt ICT by providing training and funds. And these initiatives make those SMEs to be aware of advantages that come with the adoption of ICT, hence the government is mostly the driver of ICT adoption for those respondents who are not competent in using ICT tools.

The cross-tabulation findings of Figure 11 shows that sixty percent (60%) of respondent's SMEs are formally registered with the ministry of trade and the very same respondents indicated that they are being assisted by the government with funds to aid the ICT adoption process.

Figure 11: Business registration and government funding



On the other hand, a total of thirty-four percent (34%) of respondents are not formally registered and they have indicated that they are not given financial assistance to run their SMEs. These results are indicative of the policy of the government of Botswana, who only gives financial assistance to formally registered companies with the Ministry of Trade and that's the reason why most of the registered SMEs agrees that they receive government funding and majority of those not registered have indicated that they are not financially assisted by the government.

7. REVISITING THE RESEARCH QUESTIONS

7.1 Do the SME's of Borolong areas of Botswana have access to ICT tools?

With respect to the first question which wanted to find out if SME's of Borolong areas of Botswana have access to ICT tools. The results indicate that a total of fifty-one per cent (51%) of the respondents have access to ICT tools and a total of only thirty-one per cent (31%) of the respondents does not have access to ICT tools. It can be concluded that the majority of SMEs in the Borolong area of Botswana have access to ICT tools. The majority of the respondents have indicated that the ICT tools that they normally use are landline telephones, radio, cellphones, fax machine and computers.

The research findings correlate positively with the literature. According to Mutula and Van Brakel (2007), the government of Botswana owns one of the most extensive computer networks in the country, covering nearly 100 villages and towns, and connecting over 7000 civil servants. SMEs in rural areas have taken advantage of these networks and use them even though they are required to pay in order for them to use them. They normally use these computer networks for printing, faxing and emailing documents.

Moaisi (2005) has also reported that radio is by far the most diffused of all ICTs in Botswana, with 68% of households owning a radio set. Radio is vital for its importance as a medium of information exchange. Procter and Shemi (2013:20) reported that there has been a rapid growth of mobile phone usage since the last five years and most of the people have access to them. Recent initiatives by the government have made it possible for all Batswana to have access to different mobile networks, backbone network, international connectivity, national optic fibre (More, 2015:3).

In conclusion, most of the SMEs found in rural areas have access to few limited ICT tools namely computers, radio, cellphones. They do not have access to all the ICT tools, but the

few that they can access, they actually used in their businesses. A number of interventions are necessary to enable SMEs in rural areas to access all the ICT tools.

7.2 What are the key driving forces of ICT adoption by SMEs in Borolong area?

The research findings indicated that most of the respondents (57%) have adopted ICT because they have been driven by the flexibility that ICT brings into the business. The study has indicated that respondents who are in a position to take advantage of flexibility of ICT are mostly those who are competent in using ICT tools. ICT can offer flexible trading hours at any time of the day (24 hours, 7 days a week). Because they mostly use cell-phones for communication they are able to advertise their products and services through the social media at any time. They can also sell and buy resources through a borderless environment and this is made possible by the flexibility of ICT tools. Lastly ICT offers SMEs flexibility and cheaper solutions in order for them to achieve their business objectives.

The study has also shown that only three per cent (3%) of the respondents have indicated globalization as their driver towards ICT adoption of ICT. These respondents are those who are involved in trading their products around the globe and ICT has made their trading effective and efficient. A cross tabulation of competency in using ICT tools and ICT drivers has indicated that most of the respondents who are not competent in using ICT tools have indicated the government as their driver towards ICT adoption. This can be true because the government has many initiatives geared towards encouraging SMEs to adopt ICT into their business.

The study finding are in line with a study done by Chandamoyo and Dumbu (2012) who have indicated that the following are drivers for ICT adoption in Botswana: globalization, government, flexibility, innovation and competitive edge. Similarly, in this study the respondents have also indicated the same ICT drivers like ones mentioned above and this shows a correlation with the literature. SMEs from different areas will have different drivers of ICT adoption and in Chandamoyo and Dumbu (2012), they found that SMEs in Botswana are driven to adopt ICT because they want to attain competitive edge.

7.3 What are the effects of ICT adoption by SMEs on production in the Borolong area?

The respondents were asked to choose from a list of options designed to best describe the effects of ICT adoption on production. All the responses were positive from list of variable given hence it can be concluded that SMEs who use ICT into their firms have experienced a positive effect on production. They have gained a positive advantage particularly in areas such as production efficiency, fast and accurate decision making, information gathering and dissemination, inventory control, quality of products, improved production operations, innovation and lastly employees can work remotely.

The research findings correlate positively with the information from the literature on effects of ICT adoption on production. According to Chibelushi (2008:730), ICT provides SMEs with the opportunity to conduct business anywhere and Ongori (2009:80) stated that ICT adoption by SMEs provides means to access, process and distribute greater amounts of information to concerned personnel. Franco, Dias & Pereira (2012:26) also stated that ICT adoption can greatly reduce production costs and makes production processes to be more efficient and Improve quality of products. ICT environment helps in fast and accurate decision – making by the SMEs due to increased mobility (Kushwaba, 2011:2235). Apula and Latham (2011:52) indicated that ICT adoption leads to better inventory control, it enhances innovativeness and enterprise performance.

7.4 What are the barriers towards SME's adoption of ICT tools in Borolong area?

The study found that SMEs in Borolong area of Botswana face an array of barriers like other SMEs in other parts of Botswana and the world at large. Respondents were asked to choose from a list of options designed to best describe the different barriers that they encountered. The majority of respondents indicated high set-up cost of ICT tools as their main barrier followed by those who experienced geographical factors as their barrier. Other barriers indicated by respondents includes ever changing ICT set-up, lack of necessary IT skills, resistance to change and lack of awareness about ICT, inadequate knowledge about how to strategically use of ICT, security reasons and poor management styles.

These research findings are consistent with information from the literature review, where, Ongori (2009:81) clearly stated that the barriers to ICT adoption are inadequate knowledge about how to strategically use ICT, lack of appropriate IT skills, the constantly changing

ICT environment, high setup cost of ICT tools and geographical factors. Furthermore, the study done by Franco et al. (2012) mentioned security problems, management styles and resistance to change as among barriers to ICT adoption.

7.5 Are funds and training programmes available to assist SMEs of the Borolong area in adopting ICT into their businesses??

The respondents were asked to indicate the level of funding support that they receive from the government. The majority of respondents (65%) indicated that indeed they are being supported financially by the government of Botswana. The remaining per cent of respondents who disagreed that they are being assisted with funds to adopt ICT are those whose enterprises are not formally registered. Most of the funding assistance is only given to enterprises that are formally registered with the Department of Registry of Companies (Ministry of Trade).

The respondents were also asked to indicate the level of satisfaction with regard to the training programmes that they are provided with to assist in ICT adoption. A total of seventy-nine per cent (79%) indicated that they are satisfied with the training programmes provided by the government of Botswana. This high percentage is due to the fact that; everyone is allowed to attend training programmes without any restrictions.

The above study findings correlate positively with the literature review. According to Moaisi (2005:45), there are many programmes that are aimed at assisting SMEs with funds and training programmes. The literature has indicated a lot of programmes such as:

- CEDA – disburses subsidised funding to SMEs
- BIDPA – provides necessary training to SMEs
- Enterprise Botswana – train SMEs to access both local and external markets
- DTVET – provides training in geared at developing technical and entrepreneurial skills
- BOBS – provides training and facilitating linkages with consultants and financiers
- BDC – provides loans
- NDB – it's a financial institute that that provides a wide range of financial services
- BOCCIM – provides advocacy and training opportunities to SMEs
- LEA – train SMEs and facilitates access to finance
- YGF – provides funds

- E-YEP – provides financial assistance in the form of grants
- Young Farmers Fund – provides funds to SMEs

When looking at all these programmes that are aimed at assisting SMEs with funds and training programmes, it can be concluded that indeed the government of Botswana is providing sufficient training and funding programmes to SMEs and these positively correlates with the research findings.

8. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The following are recommended to SMEs for them to be able to successfully overcome barriers and adopt ICT into their enterprises:

- Employees of SMEs must be educated about ICT and its benefits. SMEs should categorise ICT as a functional area in their businesses and by so doing, they will value the presence of ICT tools in their business and eventually they will start using it to the benefit of the whole enterprise. When recruiting staff, they should employ people with IT skills and experience to do the job.
- Managers of SMEs should be involved in strategic collaboration with other more established enterprise seeking mutual learning and growth in ICT aspects.
- Because SMEs cannot afford to pay IT specialists, they should instead temporarily hire a consultant who should train and give them advice, after which they should be able to do those operations on their own.
- More seminars, conferences, workshops should also be done so that SMEs managers can exchange ideas with regard to ICT adoption and its benefits.
- The government should simultaneously improve electricity distribution and network in rural areas because these are necessary to aid ICT adoption and usage. These developments will enable SMEs to have more access to ICT tools because lack of grid electricity and poor networks have been reasons why there has been poor accessibility of ICT tools in rural areas.
- The government should subsidise the costs of ICT tools, especially to SMEs because they are way too expensive for SMEs. And the funding and training support provided by the government should also be intensified.
- The government should reduce electricity connection fee to firms because it is too expensive for SMEs to afford.

- The government should also reduce the paper work that is done when registering SMEs because it is complicated for most SMEs to complete.

9. CONCLUSIONS

The overall aim of this research was to investigate the effects of ICT adoption by SMEs owners on production in the Borolong area of Botswana. The results showed that, even though there are barriers that hinder SMEs from adopting ICT, there are many positives that come with ICT adoption in to the SME. Most of the SMEs in the Borolong area of Botswana have realized that, for them to achieve their business objectives they have to adopt ICT into their business.

The concept of ICT adoption is still new in Africa and as such continues to face an array of challenges. Most of the respondents in this study indicated that ICT adoption has given their firm a competitive advantage over their rivals and these has resulted in the business attaining a bigger market share. This has resulted in increased sales and revenue.

In light of the government's role, the study has revealed that the government's assistance comes in two folds namely funding and providing training to SMEs. These activities are done by the government to facilitate the ICT adoption process. The government through its programmes has assisted many SMEs with funds and training programmes in the Borolong area of Botswana. Based on the results, this study concludes that all sectors which deals with ICT adoption should work together in a networked and a coordinated manner in order to bring ICT diffusion to the required level.

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**ENTERPRISE PROPELLERS (EP) AND IDENTITY OF SMMEs, INFORMAL BUSINESS
AND COOPERATIVES IN GAUTENG PROVINCE OF SOUTH AFRICA**

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**ENTERPRISE PROPELLERS (EP) AND IDENTITY OF SMMEs, INFORMAL BUSINESS
AND COOPERATIVES IN GAUTENG PROVINCE OF SOUTH AFRICA.**

Abstract

In South Africa, SMMEs, informal sector and cooperatives, remain the cornerstone for the survival of thousands of South Africans, both in rural and urban areas. Generally, the classification of those businesses into the correct categories in order to qualify for subsidy or sponsorship poses a lot of challenges, especially in the big conglomerations (Johannesburg

and Pretoria) of the Gauteng province. In South Africa as well as in many other parts of the world, the classification of the SMMEs remains incongruent due to a number of factors including the size of the countries' economies, the differences in business environment as well as their changing conditions. However, it appears that most countries consider the categorisation of the SMMEs in the context of industry rather than being the same across the board, and this is the case in South Africa.

For the enterprise development policies to be applied, there is a need to understand the real factors that can propel it. Entrepreneurial thriving among SMMEs, informal sector as well as cooperatives in South Africa, need support in order to grow, create employment and meaningfully contribute to the development of the country. This article reports on the findings from a baseline study conducted in the Gauteng Province on the general state of SMMEs, informal sector and cooperatives. Specifically, the article aims to profile those SMMEs, informal sector and cooperatives, as well as to identify their basic needs that should be addressed by relevant stakeholders for their survival and growth.

A research team met to discuss the design of the study, and descriptive data was collected in order to provide a good understanding of the sampling units. A sample of 1000 SMMEs, informal sector and cooperatives, from both formal and informal sector was used to carry out the study. Purposeful and convenience sampling methods were used to interview the owners of SMMEs, informal sector businesses and cooperatives. To be able to collect data, a questionnaire was designed and then checked by the members of the research cluster for their inputs. The questionnaire was further sent to the GDED to ensure that all the necessary profiling data was captured before its usage. Data were collected using face-to-face interviews with SMMEs, informal sector and cooperatives owners. A company called STRATKON was used to handle the data inputting and the SPSSX 21 version was used to analyse it. Recommendations to various and relevant stakeholders will be formulated.

**AN EXPLORATION OF THE ENTREPRENEURIAL INTENTIONS OF CHINESE
IMMIGRANTS IN THE RETAIL SECTOR IN MAPUTO, MOZAMBIQUE**

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*Key words: Immigrant entrepreneurship; push and pull factors; entrepreneurial intentions;
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**AN EXPLORATION OF THE ENTREPRENEURIAL INTENTIONS OF CHINESE
IMMIGRANTS IN THE RETAIL SECTOR IN MAPUTO, MOZAMBIQUE**

ABSTRACT

China's motivation to expand into Africa is largely based on resource exploitation, creating political alliances, trade, and investment. Africa, a land rich in natural resources, has become a destination for China to establish entrepreneurial endeavours. Chinese immigrants have become particularly attracted to Mozambique's healthy business environment and growing economy.

There is, in particular, an opportunity for Chinese immigrants to engage in entrepreneurial activities in the retail sectors that fall into the classification of the Mozambican "small, medium and micro-sized enterprises" (SMMEs). To realise their entrepreneurial intentions, Chinese immigrants must have access to business opportunities in the market and to resources. The aim of this study is to explore the entrepreneurial intentions of Chinese immigrants in the SMME retail sector in Maputo, Mozambique. This study will contribute to a better understanding of how Chinese entrepreneurial immigrants use their resources to start and operate their enterprises in Maputo. This study is further motivated by the limited research available on Chinese immigrant entrepreneurship in Mozambique.

In this study, entrepreneurial intentions are identified through push factors (emigration motives in home country) and pull factors (opportunities in host country) using Tenengeh's (2011) framework on effective start-up and operation of businesses.

This study falls within the interpretive paradigm, owing to the qualitative nature of the study. The unit of analysis is Chinese entrepreneur immigrants who own and operate enterprises in the SMME retail sector in Maputo. Non-probability purposive sampling and the snowball technique were used to gather data. Semi-structured interviews were conducted with 12 Chinese entrepreneurs in the SMME retail sector with the assistance of a translator who is proficient in Portuguese, English and Mandarin. Content analysis will be used in analysing the data.

To conclude, in this abstract the context of this study was set, the purpose was stated and an overview of the research methodology was given. The analysis of the data is a work in progress. It is anticipated that the preliminary findings could be presented at the SAIMS conference in September.

AN EXPLORATORY STUDY OF THE BUSINESS INCUBATION PROCESS IN SOUTH AFRICAN PUBLIC BUSINESS INCUBATORS: AN INTERNAL PERSPECTIVE

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AN EXPLORATORY STUDY OF THE BUSINESS INCUBATION PROCESS IN SOUTH AFRICAN PUBLIC BUSINESS INCUBATORS: AN INTERNAL PERSPECTIVE

ABSTRACT

Globally the importance of the small business sector is recognised for its potential social and economic contributions, and South Africa is no exception. Subsequent to the democratic political dispensation in South Africa in 1994, the focus on developing the small business sector by the new government increased. The government intended to use the small business sector to address historical socio-economic imbalances. Small business development frameworks were instituted, which evolved over time. In 2000, the Department of Trade and Industry and the Department of Science and Technology in conjunction with the European Union laid the foundation for business incubation in South Africa, as an additional small business development mechanism. Business incubation is a business support process that facilitates accelerated business development of fledgling business start-ups into successful businesses. Research on business incubation in South Africa is sparse since it is a relatively new phenomenon. Business incubation has proven to be useful in small business development. Business incubation was found to: be a high value-added job creator, reduce cost of producing jobs, provide 5:1 return on investment from taxation perspective, and effective in addressing social issues.

South African public business incubators experience challenges that include underperformance, low performing incubatees, unstable funding and lack of incubation

experience. Increased understanding of business incubation is necessary to develop solutions for dealing with these challenges. This paper aims to contribute to the increased understanding of business incubation, in the South African context by investigating the interaction between the incubator management and the incubatees. The study takes an internal (micro) perspective and uses the resource-based view as its theoretical frame of reference to interpret the dialogue between incubator management and the incubatees.

The context and objectives of this interpretivist study called for phenomenological research with a pragmatic approach. Since the incubation process was the unit of analysis, the primary sources of data were the actors - incubator management and the incubatees. Data was collected using semi-structured interviews from the incubator managers as well as selected incubatees from 24 publicly funded incubators. The incubators were located in the following provinces: Western Cape, Eastern Cape, Kwa-Zulu Natal, Gauteng, Limpopo, North-West and Mpumalanga.

The symptoms are synonymous with incubators in their growing stage. There are opportunities for improving the efficacy of business incubation. Three aspects were identified for improving the efficacy of business incubation: strategic aspects, human resource aspects and performance aspects. Key factors concerning strategic aspects include alignment of stakeholder objectives, funding, resource transfer processes, as well as technology strategies. The factors concerning human resource aspects refers to nature of competencies of the incubator managers and competencies of incubatees. The factors pertaining to performance aspects include awareness of growth, productivity, competitiveness, and relevant performance indicators.

Business incubation in South Africa is in its early stage and seeks to legitimise itself as a high quality small business development mechanism. The focus of support is on tangible and explicit resources rather than abstract and tacit resources. The role of the business incubation process as a small business development mechanism must be reviewed; it should also target capability for competitiveness and competitive advantage. Future research should also compare incubated and non-incubated enterprises to understand the effect of business incubation.

**CONNECTING CORPORATE SOCIAL RESPONSIBILITY TO SUPPLIER EVALUATION
AND COMPETITIVE ADVANTAGE IN THE STEEL INDUSTRY**

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**Connecting corporate social responsibility to supplier evaluation and competitive
advantage in the steel industry**

ABSTRACT

Today's global business environment is characterised by fierce competition across different markets as firms compete for market share. The steel industry in South Africa is not immune to such pressures and has to continuously generate or embrace superior business practices in order to succeed. Amongst these business practices are corporate social responsibility (CSR) and supplier evaluation, which enable firms to obtain competitive advantages and excel in their environments. This study investigated the relationship between CSR, supplier evaluation and firm competitive advantage in the steel industry. A quantitative approach using the cross sectional survey design was adopted in which a questionnaire was distributed to 219

employees drawn from 21 firms operating in the steel industry in Gauteng Province, South Africa. Psychometric properties of the measurement scales were tested using a confirmatory factor analysis. Hypotheses were tested using the path analysis technique. The results of the study show that two dimensions of CSR, namely CSR to the environment and CSR to employees are positively related to supplier evaluation. In turn, supplier evaluation is positively related to competitive advantage. The study provides information which can be used by supply chain practitioners and academics to further comprehend the strategic role and importance of CSR in shaping supplier evaluation and in generating competitive advantages necessary for success in the challenging business environment of today.

1. INTRODUCTION

Corporate social responsibility (CSR) has emerged as an important business strategy which firms have to embrace as an integral part of their strategic drive (Esen, 2013; Agan, Kuzey, Acar & Açıkoğuz, 2016). Due to its acknowledged significance, numerous research studies have investigated its importance to business performance (Margolis & Walsh, 2003; Vogel 2005; Misha & Suar, 2010; Taneja, Taneja & Gupta, 2011; Jha & Singh, 2013; Rahman, 2011). These studies have brought to the fore the core value that CSR contributes to business performance objectives. By definition, CSR refers to initiatives undertaken by a business organisation to evaluate its practices and assume responsibility of the effects of its activities on social well-being and the environment (Bhattacharya, Sen & Korschun, 2011). To achieve and maintain the CSR imperatives, business organisations typically regulate themselves by monitoring and ensuring active compliance to the laws, national and international values, and ethical standards in all of their operations (Galbreath, 2010). As mentioned by Shamir (2011), the benefits of CSR include *inter alia* customer retention, improved reputation and publicity, enhanced innovativeness, a motivated workforce, improved differentiation from competitors, and the ability to attract investors. It has also been observed that the majority of consumers tend to prefer buying from socially responsible firms and can even transfer their loyalty to them (Lee & Kotler, 2013). Sun (2013) further underscores that implementation of CSR by a business leads to behaviours that benefit the workplace, employees, the organisation, and the community at large. This importance makes CSR a potential area of focus in present and future research, based on the need to extend these benefits to other sectors of the economy where the benefits are yet to be realised (Adhikari, 2016; Ster & Jakob, 2014). This may include, amongst other things, assessing the role of CSR practices on several other business outcomes, such as the ability of firms to evaluate the performance of their suppliers as well as on competitive advantage.

In South Africa, the steel industry and its associated sectors are key contributors to the South African economy, directly employing approximately 1 779 000 employees nationwide (Trading Economics, 2017). The impact of the industry is even felt regionally, where the industry accounts for over 50% of crude metal production (Edwards & Jenkins, 2014). At global level, South Africa is the third largest exporter of steel relative to its production after the Ukraine and Russia (Langenhoven, 2014). Some of the largest players in this industry in South Africa include Arcelor Mital, Scaw Metals, DAV Steel, CISCO, and Vanadium (Antony, Tembe & Gull, 2016). Challenges facing this industry include but are not limited to the global oversupply of steel products, stiff competition from Chinese steel products, the need to upgrade occupational health and safety standards in the steel industry, sustainability, and a generally underperforming economic climate both in South Africa and globally (Thulare, 2015). Due to these challenges, the steel industry faces the challenge of upgrading and updating its business practices in order to maintain viability and succeed. The presence of these challenges present an opportunity to conduct research on the business practices such as CSR and supplier evaluation that could be adopted by the steel industry if it is to achieve its objectives and goals.

2. LITERATURE REVIEW AND HYPOTHESES FORMULATION

2.1. Corporate social responsibility

The concept of CSR has been an important and ever growing issue which dates back to the original work of Merrick Dodd in 1930 (Turner, 2006). The rationale behind CSR is that firms should consider their responsibility towards environmental and societal aspects as part of their strategic business objectives (Dodd, 1932). A study conducted by Taneja *et al.* (2011) has echoed Dodd's pioneer work by further advocating that CSR has become a worthwhile requirement that organisations should implement, in an effort to direct value added activities to the society at large. According to some scholars (Egri & Ralston, 2008; Tai & Chuang, 2014) the corporate social concept encompasses three broad social categories, which are CSR to the environment, CSR to the employees, and CSR to the customer. These three concepts relate to how the firm conducts itself towards the environment, employees and customers, respectively (Bhattacharya *et al.*, 2011). CSR to the environment refers to all environmentally related activities that an organisation undertakes to limit the negative effects of business' operations and practices (Babiak & Trendafilova, 2011). It involves businesses' engagement towards sustaining the environment (Indumathi & Raja, 2017). CSR to employees is defined as corporative action taken by organisations to ensure sound and conducive working environment for employees. This is characterised by empowerment practices such as adequate training, promotion initiatives as well as healthy welfare strategies (Indumathi &

Raja, 2017). CSR to customers is viewed as an organisation's responsibility towards ensuring that its customers receive the best services such as value added services and best value for money (Berland, 2010). The concept of CSR therefore involves a variety of corporate themes that businesses need to conform to as part of their strategic drive.

2.2. Corporate social responsibility and supplier evaluation

According to Babiak and Trendafilova (2011), engaging in CSR to the environment has become a strategic norm from organisations in order to meet their environmental obligations. These authors further stress that initiatives centered on protecting the environment play a major part in the abilities and capabilities of business organisations to optimise their operations. This is achieved through a reduction of wastage and better management of contractual obligations (Montiel, 2008). Hillestad, Xie and Haugland (2010) suggest that stakeholders in any business organisation have to satisfy contractual requirements related to environment issues. By so doing, they demonstrate plain conformity to the mutual understanding of core operational strategies towards environment awareness. A study by Agan *et al.* (2016) established that sound adoption of environmental responsibility is only achievable when all supply chain parties share the same values and vision to the devotion towards societal concerns.

Ali, Rehman, Ali, Yousaf and Zia (2010) suggest that CSR is an effective tool implemented by firms to strengthen their essential relations with their internal (employees) and external customers. These authors further emphasised that such bonds enable business partners to satisfy the requirements of firms and customers. Moreover, empowerment initiatives targeted at both employees and customers tend to contribute significantly in assisting business organisations to better assess the performance of their suppliers (Stawiski, Deal & Gentry, 2010). This contribution is in terms of both decision-making processes, new product development and production (Ali *et al.*, 2010). By emphasising their responsibility to both employees and customers, firms are able to monitor effectively the readiness of their suppliers to meet the expectations of the market (Hillestad *et al.*, 2010). In light of these insights, the following hypotheses are put forward:

H₁: In the steel industry, CSR to the environment has a positive and significant influence on supplier evaluation

H₂: In the steel industry, CSR to employees has a positive and significant influence on supplier evaluation

H₃: In the steel industry, CSR to customers has a positive and significant influence on supplier evaluation

2.3. Supplier evaluation and competitive advantage

Evaluation of suppliers is viewed as an important process which calls for a number of qualitative and quantitative factors intended to assess the abilities and relevance of a firm's supplying partner (Ho, Xu & Dey, 2010). It is critical for a firm to be able evaluate the readiness of their suppliers to consistently meet their environmental and social performance objectives (Govindan, Rajendran, Sarkis & Murugesan, 2015). Besides, evaluating the readiness of suppliers has been found to be a major strategic drive to ensure compliance to social and environmental issues (Yeh & Chuang, 2011). Supplier evaluation is also implemented to achieve competitive advantage, which is important for the survival of a business entity (Barney, 2012). Competitive advantage refers to conditions that enable a firm to provide products in a more desirable manner, such as offering lower prices, a convenient location or more friendly staff, to customers (Kumar, Jones, Venkatesan & Leon, 2011). Competitive advantage is important since it enables a firm to outperform its competitors in the market by being the preferred provider of a certain product (Lim, Schultmann & Ofori, 2010). As suggested by Feng, Sun and Zhang (2010), the understanding of supplier capabilities is said to be critical in adding core operational value to production processes, which leads to competitive advantage. This leads to the following hypothesis;

H₄: In the steel industry, supplier evaluation has a positive and significant influence on competitive advantage

2.4. Conceptual Framework

In view of the above insights, the present study focuses its attention on three CSR themes, namely CSR to the environment, CSR to employees and CSR to customers; and their role on supplier evaluation and competitive advantage. Supplier evaluation is the assessment method employed by organisations to ascertain the performance level of suppliers in terms of quality, prompt delivery and price (Chen, 2011). Competitive advantage is the degree to which a company acquires and develops its internal or external resources to produce performance that cannot be imitated by its competitors (Wang, 2014). The conceptual framework provided in Figure 1 is put forward to illustrate the proposed relationships.

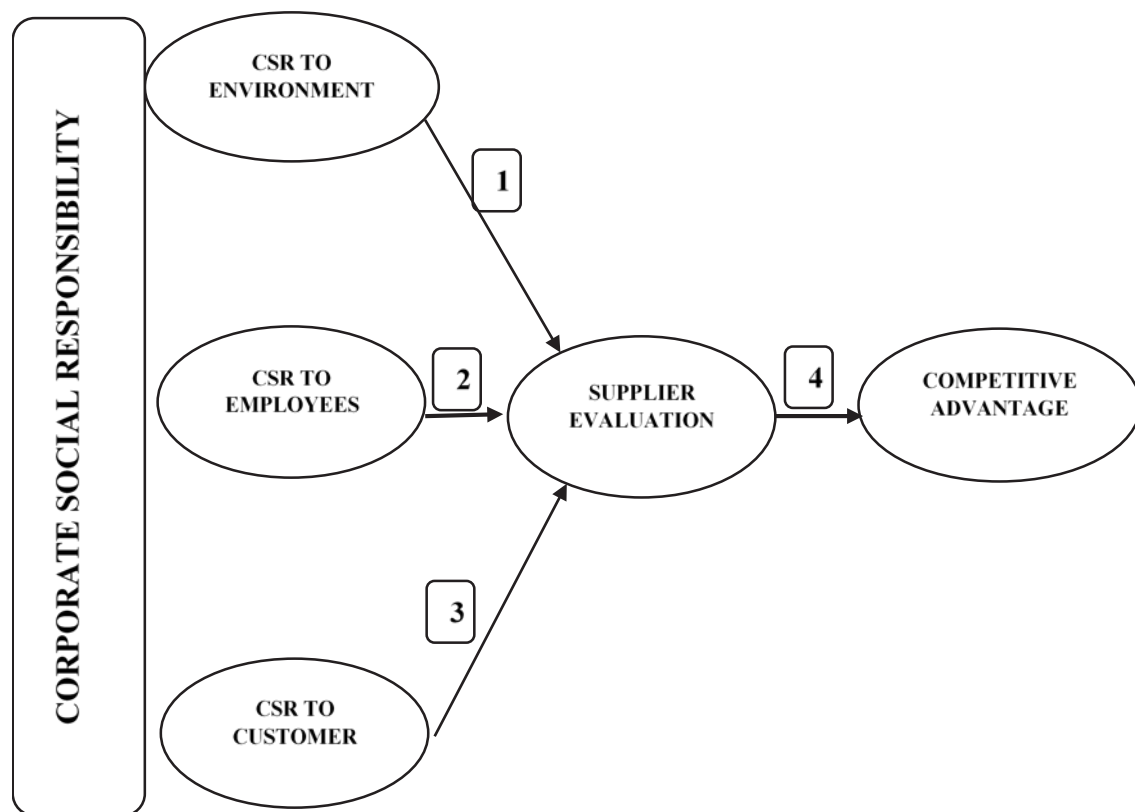


Figure 1. Conceptual Framework for Corporate Social Responsibility, Supplier evaluation and Competitive Advantage

The conceptual framework in Figure 1 demonstrates that three CSR dimensions, namely CSR to the environment, CSR to employees and CSR to customers are linked to supplier evaluation, which in turn, is linked to competitive advantage.

3. PROBLEM INVESTIGATED

The aim of this study is to investigate the relationship between CSR, supplier relationship and competitive advantage. This relationship was examined within the context of the South African steel industry. Previous studies focusing on CSR in South Africa, (e.g. Dawkins & Ngunjiri, 2008; Wolmarans & Sartorius, 2009; Mossmann, 2010; Ramlall, 2012) have disregarded this connection. This study intends to occupy this gap of knowledge by testing a conceptual framework (Figure 1) linking CSR to supplier evaluation and competitive advantage. Notably, this conceptual framework is yet to be tested in the South African steel industry. The study is important to theory in that it adds to the literature on CSR, supplier evaluation and competitive advantage in the steel industry in developing countries such as South Africa. Practically, the study is significant as it provides a framework that could be used

in decision-making and problem solving directed at enhancing supplier evaluation and competitive advantage in the steel industry.

4. RESEARCH OBJECTIVES

The study was intended to test the following empirical objectives;

- To determine the relationship between CSR on the environment and supplier evaluation in the steel industry in Gauteng Province
- To determine the relationship between CSR on employees and supplier evaluation in the steel industry in Gauteng Province
- To determine the relationship between CSR on customers and supplier evaluation in the steel industry in Gauteng Province
- To determine the relationship between supplier evaluation and competitive advantage in the steel industry in Gauteng Province

5. RESEARCH METHOD

5.1. Research design and measurement scales

In this study, a quantitative approach using the cross-sectional survey design was implemented to achieve the objectives of the study. A quantitative approach was selected to enable the results of the study to be generalised to the steel industry in other regions of South Africa. A survey questionnaire was constructed, using measurement scales adapted from previous studies to capture the constructs under consideration in this study. All CSR scales were adapted from work of Agan *et al.* (2016), using a four-item scale for CSR to the environment; three-item scales for both CSR to employees and CSR to customers. Supplier evaluation was measured using a 10-item scale adapted from Agan *et al.* (2016) while competitive advantage was measured using a four-item scale adapted from Feng, Sun and Zhang (2010). Response options for CSR dimensions and supplier evaluation were measured on five-point Likert-type scales ranging from 1=strongly disagree to 5=strongly agree. However, five-point Likert-type scales used for competitive advantage were anchored by 1= much less than industry average and 5= well above the industry average. The list of measurement scale items is provided in Appendix 1.

5.2. Sample and data collection procedure

The target population consisted of all supply chain practitioners in firms operating in the steel industry in Gauteng Province. Firms included in the study were those involved in

either the processing of steel or in the manufacturing of steel related products. In order to be included in the study, individuals had to be holders of a qualification in a logistics/supply chain management related area, or had received professional training in the same area. In addition, the respondent must have been employed in a supply chain related position for at least two years. Trained research assistants and contacts from participating firms were requested to ensure that this requirement was met. Only those firms based in Gauteng Province were included in the study, since a large number of firms operating within the steel industry are based in this province.

Both the participating firms and respondents were selected using the non-probability convenience sampling technique. In nonprobability sampling, all individuals in the population do not have equal chances of being included in the sample (Cresswell & Plano Clark, 2011). A convenience sampling technique is one in which sampling elements are selected based on their availability and willingness to participate in the research (Ozdemir, Louis & Topbas, 2011). The use of a non-probability convenience sampling technique was necessitated by the absence of a single sample frame from which the list of firms and respondents could be obtained. Data were collected between March and June 2016, using a combination of the email as well as the drop and collect methods after permission to collect data had been obtained from each identified firm. A pre-test of the questionnaire was conducted using 20 conveniently selected respondents. Respondents that participated in the pre-test were not included in the final survey. Feedback from the pre-test sample was used to modify the questionnaire to improve its content validity. Respondents participated in the study voluntarily and their anonymity was maintained throughout the study. A total of 21 firms operating in the steel industry participated in the study. From the original 300 questionnaires that were issued, 265 were returned. However, 46 questionnaires were discarded because they had errors, culminating in a remainder of 219 questionnaires which were deemed to be suitable for the final data analysis. This gave an acceptable response rate of 73%, which was considered to be acceptable.

5.3. Data analysis

After screening of the questionnaires, the collected data were captured into a Microsoft Excel document where it was coded in preparation for data analysis. Thereafter, the excel spreadsheet document was exported into the Statistical Packages for the Social Sciences (SPSS version 23.0). SPSS was then used in the analysis of the demographic details of respondents and to calculate Cronbach Alpha values. The saved SPSS document was then exported into the Analysis of Moment Structures (AMOS version 23.0), which was used for the confirmatory factor analysis (CFA) and the testing of hypotheses.

6. RESULTS AND FINDINGS

The results of the study discuss the demographic details of respondents, the psychometric properties of measurement scales, and the results of the hypotheses tests

6.1. Demographic Details of Respondents

The demographic details of respondents are presented in Table 1.

Table 1: Demographic Details of Respondents

Variables	Categories	N	Percentage (%)
Gender	Male	112	51.1
	Female	107	48.9
Totals		219	100
Race	Black	134	61.2
	White	68	31.1
	Indian	13	5.9
	Mixed race	4	1.8
Total		219	100
Age Group	18-30 years	73	33.3
	31-40 years	86	39.2
	41-50 years	33	15.2
	51+	27	12.3
Total		219	100
Occupational Area	Procurement(buying)	11	5.0
	Transportation (Distribution)	26	11.9
	Customer (Client) services	119	54.3
	Warehousing (Storage)	22	10.1
	Other	41	18.7
Total		219	100
Size of Firm	Small Scale	7	33.3
	Medium Scale	9	42.9
	Large Scale	5	23.8
Total		21	100

Source: Own compilation

An analysis of the demographic details of respondents (Table 1) indicates that the majority of respondents were male (51%; n=112). The racial profile shows that black people

had the largest representation in the study (61%; n=134), followed by whites (31%; n=68). With respect to the age groups, most of the respondents were aged between 31 and 40 years (39%; n=86) followed by those who were aged between 18 and 30 years (33%; n=73). With regard to their occupational areas a majority of the respondents were employed in customer/client services (54%; n=119). In terms of the size of the firms that participated in the study, seven were small scale firms (33%), nine were medium scale firms (43%) and five were large scale firms (24%).

6.2. Psychometric properties of measurement scales

A CFA was used to test the psychometric properties of the measurement scales in terms of reliability and validity of the measurement scales. The results are presented in Table 2.

Table 2: Psychometric Properties of Measurement Scales

Research constructs	Item Code	Factor loadings	Cronbach alpha	Composite Reliability	Average Variance Extracted
CSR to environment	CRSE ₁	0.754	0.721	0.715	0.437
	CRSE ₂	0.732			
	CRSE ₃	0.723			
	CRSE ₄	0.717			
CSR to employees	CRSE ₁	0.754	0.763	0.732	0.476
	CRSE ₂	0.763			
	CRSE ₃	0.758			
CSR to customers	CRSC ₁	0.562	0.784	0.713	0.432
	CRSC ₂	0.579			
	CRSC ₃	0.608			
Supplier evaluation	SEVA ₁	0.801	0.827	0.800	0.712
	SEVA ₂	0.782			
	SEVA ₃	0.792			
	SEVA ₄	0.802			
	SEVA ₅	0.816			
	SEVA ₆	0.764			
	SEVA ₇	0.787			
	SEVA ₈	0.809			
	SEVA ₉	0.791			

	SEVA ₁₀	0.783			
Competitive advantage	CA ₁	0.687	0.790	0.711	0.465
	CA ₂	0.674			
	CA ₃	0.683			
	CA ₄	0.691			

Source: Own compilation

The reliability of the constructs was tested through the use of Cronbach Alpha and Composite Reliability (CR). As shown in Table 2, Cronbach alpha values and CR values for all measurement scales were above the suggested 0.7 threshold (Nunnally & Bernstein, 1994). These results support that all measurement scales were reliable or internally consistent. According to Hair, Anderson, Tatham and Black (2006), validity of research constructs is assessed through convergent and discriminant validities. Convergent validity was used to assess the relationship between each scale item and the connected construct. To measure, convergent validity, factor loadings were considered and they exceeded the suggested minimum value of 0.5 (Hair *et al.*, 2006). To measure discriminant validity, Average Variance Extracted (AVE) values were assessed and proved to be beyond the minimum threshold of 0.4 (Anderson & Gerbing, 1988). Therefore, all measurement scales were deemed to be valid.

6.3. Testing of hypotheses

The testing of all four hypotheses was conducted using Structural Equation Modelling (SEM). Model fit was assessed using of the following indices: CMIN/DF; GFI; AGFI; IFI; TLI; CFI and RMSEA. According to Blunch (2008), model fit requirements are met when the aforementioned indices meet their suggested thresholds (CMIN/DF <3; GFI and AGFI ≥ 0.80; IFI, TLI, CFI ≥ 0.90 and RMSEA ≤ 0.080). The results of the analysis revealed the following: CMIN/DF= 2.75; GFI= 0.84 and AGFI= 0.85; IFI= 0.91, TLI= 0.93, CFI= 0.92; and RMSEA= 0.076. These results imply that all seven indices met the suggested thresholds, hence, the collected data did fit the proposed model structure. The results of the hypotheses tests are reported in Table 3.

Table 3. Hypotheses tests results

Relationships	Hypotheses	Path Coefficient	Decision
CSR to the environment → Supplier evaluation	H ₁	0.624***	Accepted
CSR to employees → Supplier evaluation	H ₂	0.697***	Accepted

CSR to customers → Supplier evaluation	H ₃	0.012	Rejected
Supplier evaluation → Competitive advantage	H ₄	0.551***	Accepted
Significance level <0.05; * significance level <0.01;*** significance level <0.001**			

Source: Own Compilation

Table 3 provides the overall results of hypotheses tests. It shows that three hypotheses, namely H₁, H₂ and H₄ were statistically significant and were accepted, while H₃ was rejected.

The first objective of the study sought to establish the influence of SCR to the environment on supplier evaluation. The results of the study show that there was a strong positive association ($r= 0.624$; $p < 0.01$) between CSR to the environment and supplier evaluation. This result demonstrates that firms that emphasise their responsibility towards the environment tend to evaluate their suppliers more, and that the extent to which suppliers are evaluated increases as the firm becomes more environmentally conscious. This result is supported by Mishra and Suar (2010) who established that the implementation of environmental and societal programs by firms tend to influence supplier evaluation. This entails that supplying partners, as part of their contractual obligations, have to adhere to the core strategies of their business associates. This is in terms of providing products and services that meet the concerns of the environment. Likewise, Freeman and Hasnaoui (2011) highlighted that a commitment by firms to environmental and social responsibilities significantly influences suppliers' core business functions. This means that supply chain partners have to reshuffle their operation capabilities to meet and suit the expectations of their counterparts. It is an important view then that the social and environment concerns of firms in the steel industry in South Africa positively impact on their expectations as well as the assessment process of their suppliers.

The second objective sought to determine the influence of CSR to employees on supplier evaluation. The results of the study indicate a strong positive association between the two constructs ($r= 0.697$; $p < 0.01$). This result depicts that firms that emphasise their responsibility towards their employees are likely to direct particular attention to how suppliers take care of the needs of their own employees as well. This result finds support from Stawiski *et al.* (2010) who advanced that CSR to employees in the form of employee empowerment contributes to the need by buying firms to assess the employment practices of their suppliers. The basis for this view is that suppliers that exercise responsibility towards their employees are likely to be capable suppliers, given that the ability of human resources determines the capabilities of the firm (Amin, 2011). As mentioned by Ali *et al.* (2010), CSR toward the firm's

internal customer is fundamental in achieving smooth operation performance since it yields a sense of commitment in ensuring that supplier performance is well-monitored to achieve performance outcomes. It has further been echoed by Gallego (2011), that suppliers' level of engagement in empowering, uplifting and motivating their employees has a positive influence in their ability to commit to the success of their customers. Bai and Sarkis, (2010) further stress that supplier capabilities are important since they ensure that all supply chain members perform optimally. Accordingly, by directing attention to CSR to employees, firms in the steel industry in South Africa tend to become more particular of their suppliers' employee relations practices. This facilitates that capable and dependable suppliers who are able to deliver on daily operational outcomes are secured.

The third objective sought to assess the influence of CSR to customers on supplier evaluation. The results of the study show an insignificant association ($r= 0.012$; $p < 0.01$) between CSR to customers and supplier evaluation. This result demonstrates that a firm may be effective at considering the needs of its customers but at the same time be ineffective at supplier evaluation. This result contradicts previous research by Lee and Shin (2011) which linked CSR to customers to supplier evaluation. Perhaps, the unusual result realised in this study may be attributed to the view that many firms tend to concentrate more on their customers than on their suppliers, depending on context. Traditionally, supplier dynamics were not prioritised as firms concentrated on meeting the needs of customers (Hsu & Hu, 2009; Ho, Xu & Dey, 2010). Firms would then become complacent once the needs of the customers were satisfied. However, this has begun to change progressively, with the emergence and dominance of supply chain management, which encourages firms to focus on developments on both upstream (supplier-side) and downstream (customer-side) ends of a supply chain for competitive advantages (Büyüközkan & Çifçi, 2011). Mafini, Pooe and Loury-Okoumba (2016) add that firms in developing countries tend to be the last to adopt new trends in business practice. It could be then that firms in the steel industry in South Africa tend to be fixated in the traditional practices that concentrate on satisfying the needs of customer needs while paying less attention to the needs of suppliers. Hence there was no connection between CSR to customers and supplier evaluation in this study.

The fourth objective of this study sought to examine the influence of supplier evaluation on competitive advantage. The study showed a strong positive and significant association ($r= 0.551$; $p < 0.01$) between these two constructs. This result illustrates that firms are likely to realise competitive advantages whenever they implement supplier evaluation. In parallel, Reuter, Foerstl, Hartmann and Blome (2010) found that effective supplier evaluation contributes to positive competitive advantage. Govindan, Rajendran, Sarkis and Murugesan (2015) further state that the effective assessment of suppliers is important in securing competitive edge for firms. This is because supplier evaluation enables firms to ascertain that

their suppliers are well-equipped to meet their expectations and obligations. Buyer supplier relationship challenges such as delayed deliveries, unsatisfactory product/service quality, non-completion of orders, delayed payments and court cases could be averted through supplier evaluations (Jens &, 2014). Kitheka (2013) points out that competitive advantages in areas such as human resources, internal culture, knowledge systems, technology and capital could be gained through sustained supplier evaluations. Accordingly, firms in the steel industry in South Africa stand to produce these sustainable competitive advantages and more, through involvement in supplier evaluations.

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The study has managerial implications. Theoretically, the study provides further evidence of the relationship between CSR, supplier evaluation and competitive advantage in the steel industry in Gauteng Province, South Africa. The information generated by this study can be used as a reference point in future studies on similar issues. Practically, firms operating in the steel industry may be able to improve their supplier evaluation practices by increasing the amount of resources that are channelled towards taking care of the environment (CSR to the environment) and meeting the needs of the employees (CSR to employees). However, in doing so, more attention should be directed to meeting the needs of employees than to the environment, since the former exerts a greater impact on supplier evaluation than the latter. This aligns with the conventional, *albeit* controversial view that human resources are the most important resource in an organisation (Givan, Avgar & Liu, 2010; Guest, 2011; Paauwe, Guest & Wright, 2013). Training and development, human resource planning systems, employee motivation mechanisms, adoption of lean manufacturing practices to reduce wastage, and pollution control initiatives may be implemented to improve both CSR to the environment and CSR to employees. Supplier evaluation may be improved through the use of properly qualified and skilled people to perform tasks, considering quality commitment as a critical factor in supplier evaluation and the development of objective criteria for measuring the performance of suppliers. As the results of the study proved, competitive advantages will be generated as supplier evaluation improves.

8. CONCLUSIONS

The aim of this study was to investigate the relationship between CSR, supplier evaluation and firm competitive advantage in the steel industry. The first conclusion to be drawn is that CSR to the environment has a significant effect on supplier evaluation in firms in the steel industry in Gauteng Province, South Africa. In the steel industry, a firm that pays attention to

environmental issues is likely to assess whether its suppliers are also conscious of their environmental responsibilities. The second conclusion is that SCR to employees has a significant effect on supplier evaluation in firms in the steel industry. In the steel industry, a firm with healthy human resource practices is likely to evaluate its suppliers' human resource practices as well. Thirdly, it is concluded that CSR to customers has no effect on supplier evaluation in the steel industry. In the steel industry, the view that a firm strives to satisfy the needs of its customers does not imply that the same firm will devote its resources to supplier evaluation. The fourth conclusion to be drawn is that supplier evaluation has a significant effect on competitive advantage in the steel industry. Firms in the steel industry are likely to generate significant competitive advantages as a result of their commitment to supplier evaluation.

9. LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The study is limited in that its results are based on a small sample which was based in one South African province. This makes it necessary to exercise caution when generalising these results to other environments. Future studies on the same issue may be conducted using either amplified sample sizes or using a broader geographic scope, which provides room to compare the results. The study is further limited in its dependence on a convenience sample, which may have resulted in sampling bias. Future studies could be conducted using probability samples, provided that sample frames are accessible to the researchers. In addition, future studies could also be conducted using the mixed method, which ensures that results have greater accuracy. The results of the study showed that there was no relationship between CSR to customers and supplier evaluation. This provides room to investigate this relationship further and to determine the actual reasons behind the unorthodox result obtained in this study.

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APPENDIX 1 Measurement Scale Items

Corporate social responsibility to the environment

Indicate the extent to which you perceive that your firm has implemented corporate social responsibility directed at the environment during the past year.

(Five-point scale: 1= strongly disagree; 2= disagree; 3= neither agree nor disagree; 4= agree; and 5= strongly agree)

CRSE₁= Our firm adopts programmes to minimise its negative impact on the natural environment.

CRSE₂= Our firm participates in activities which aim to protect and improve the quality of the natural environment.

CRSE₃= Our firm participates in activities to increase and improve environmental consciousness.

CRSE₄= Our firm pays attention to the negative impacts of the products on the natural environment during production and product development processes.

Corporate social responsibility to employee

Indicate the extent to which you perceive that your firm has implemented corporate social responsibility directed at its employees during the past year.

(Five-point scale: 1= strongly disagree; 2= disagree; 3= neither agree nor disagree; 4= agree; and 5= strongly agree)

CRSE₁= Our firm's internal policies encourage employees to develop their skills and careers.

CRSE₂ = Our firm implements flexible policies to provide a good and conducive working environment for its employees.

CRSE₃= Management at our firm is primarily concerned with satisfying the needs and wants of employees.

Corporate social responsibility to customers

Indicate the extent to which you perceive that your firm has implemented corporate social responsibility directed at its customers during the past year.

(Five-point scale: 1= strongly disagree; 2= disagree; 3= neither agree nor disagree; 4= agree; and 5= strongly agree)

CRSC₁= Our firm provides accurate information about its products and services to its customers.

CRSC₂= Our firm respects consumer rights in accordance to legal requirements.

CRSC₃= Our customers' satisfaction is of primary importance for our firm.

Supplier evaluation

Indicate the extent to which you perceive that your firm has implemented supplier evaluation practices during the past year.

(Five-point scale: 1= strongly disagree; 2= disagree; 3= neither agree nor disagree; 4= agree; and 5= strongly agree)

SEVA₁= Our firm sets environmental performance objectives to its suppliers.

SEVA₂= Our firm assesses its suppliers' environmental performance.

SEVA₃= Our firm provides feedback regarding suppliers' environmental performance.

SEVA₄= Our firm has an environment-oriented supplier evaluation programme

SEVA₅= Our firm audits suppliers' environmental activities.

SEVA₆= Our firm requires an ISO 14000 certification from suppliers.

SEVA₇= Our firm provides training to suppliers on environmental capabilities.

SEVA₈= Our firm collaborates with suppliers to solve environmental problems.

SEVA₉= Our firm shares knowledge and expertise with suppliers regarding environmental issues.

SEVA₁₀= Our firm is in constantly in touch with our suppliers regarding environmental issues.

Competitive advantage

Indicate the extent to which you perceive that your firm has achieved each of the following during the past year.

(Five-point scale: 1= much less than industry average; 2= less than industry average; 3= neither agree nor disagree; 4= above industry average; and 5= well above industry average).

CA₁= Market share

CA₂= Value of the firm

CA₃= Image of the firm

CA₄= Reputation of the firm

**THE INFLUENCE OF SUPPLIER SELECTION, SUPPLIER TRUST AND SUPPLIER
COMMUNICATION ON FIRM PERFORMANCE IN THE SOUTHERN GAUTENG
PROVINCE**

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Topic: (Supply chain management and logistics)

**THE INFLUENCE OF SUPPLIER SELECTION, SUPPLIER TRUST AND SUPPLIER
COMMUNICATION ON FIRM PERFORMANCE IN THE SOUTHERN GAUTENG
PROVINCE**

ABSTRACT

This study examines the influence of supplier selection, supplier trust and supplier communication on firm performance in a South African context. Three hypotheses are posited and in order to test them empirically, a sample data set of 305 individual companies was collected from southern Gauteng province, South Africa. The results indicated that supplier selection, supplier trust and supplier communication positively influence firm performance in a significant way. Drawing from the study's results, managerial implications are discussed and limitations and future research directions suggested. By and large, this study greatly adds new

knowledge to the existing body of supplier chain management literature in South Africa – a context that often is ignored by some researchers in both developed and developing countries.

1. INTRODUCTION

With the increasing level of competition among organisations, high technology advancement, changing customer demands as well as the need to reduce supply chain cost, improve responsiveness and the greening of supply chain, organisations now have embraced buyer/supplier collaboration as the key to competitive performance and to overcome external competitive pressures (Scheer, Miao & Garrett, 2010; Ylimaki, 2014; Backmann, Hoelgl & Partboteeah, 2016; Schmitz, Schweiger & Daft, 2016). As such, achieving high levels of performance and competitive advantages is now regarded as top priority among competing organisations (Gunasekaran, Subramanian & Papadopoulos, 2017). Supply chain management is regarded as a strategic source of becoming more customer conscious in delivering innovative products and meeting customers' specific needs at lower costs than competitors do (Jacobs, Yu & Chavez, 2016). Examples of trends driving supply chain relationships among organisations are globalisation, shortened product life cycles and the need for cost reduction as well as the need to improve responsiveness, visibility and collaboration (Elg, Deligonul, Ghauri, Danis & Tarnovskaya, 2012; Gunasekaran, Subramanian & Rahman, 2015; Um, Lyons, Lam, Cheng & Dominguez-Pery, 2017; Laari, Toyli & Ojala, 2017).

The supplier/buyer relationship has been recognised among academics and practitioners alike as a factor influencing business performance and a major key player in supply chain management (Gorton, Angell, Dries, Urutyan, Jackson & White, 2015). However, the buying organisation should possess the capabilities to efficiently and effectively select and manage appropriate suppliers that have the necessary capacity, technical capabilities, skills and information technology to deliver as promised (trust) (Vanpoucke, Vereecke & Wetzels, 2014; Huq, Chowdhury & Klassen, 2016; Hemmert, Kim, Kim & Cho, 2016; Kumar & Rahman, 2016). Although the issue of supplier selection, supplier trust and supplier communication for achieving competitive advantage has received great attention from international scholars, the extent to which supplier selection, trust and supplier communication influence an organisation's performance within supply chains in Vanderbijlpark has not been researched.

2. LITERATURE REVIEW

2.1 supplier selection

Outsourcing in supply chain and business management literature is a growing trend for organisations to cope with markets' changing needs and demands, focus on core competencies and develop competitive advantage and performance (Verma & Pullman, 1998; De Boer, Labro & Morlacchi, 2001; Chen, Lin & Huang, 2006; Dabhikar, Bengtsson, Von Haartman & Ahlstrom, 2009; Chen, 2011; Jain, Khalil, Johnston & Cheng, 2014). Outsourcing is the transfer of business functions to an external supplier based on specifications (Hugo & Badenhorst-Weiss, 2011:62). They go further to state that outsourcing is an organisation's partial process of transferring business activities or functions that were performed in-house, including both people and physical assets, to a supplier in order to focus on core competencies. However, due to the strategic, tactical and economic advantage of outsourcing for an organisation, it is necessary that appropriate steps be taken into consideration in selecting and managing relationships with a supplier (Chen, Lin & Huang, 2006). Supplier selection is a process whereby a firm identifies, evaluates and contracts with

few suppliers or a specific supplier to carry out a function with an organisation and, in turn, the organisation expects significantly high value offerings with benefits from the contracted supplier(s) (Xie, Peng & Zhao, 2012). Just as there are many buyers, there are also many suppliers and only a few of these suppliers actually possess the right capacity and capabilities to deliver as promised (Chen, 2011). Therefore, the selection and evaluation of a specific supplier to deliver according to organisations' specifications is an essential performance strategy and regarded as important in supply chain management (Gorton *et al.*, 2015). According to Rao, Xiao, Goh, Zheng and Wen (2017), suppliers have several roles under supply chain management, which include, but are not limited to "manufacturing parts and components for their customers, ensuring product quality and assurance, indirectly help manage the cost over-runs of their downstream partners in the supply chain". Considering the important role of a supplier, it is necessary that the focal organisation consider a number of factors such as price, financial condition, capacity, quality, support service, labour relations, flexibility, general reputation and on-time delivery performance when selecting and evaluating a potential supplier (Verma & Pullman, 1998; De Boer *et al.*, 2001; Gencer & Gurpinar, 2007; Forsa, Harraz & Abouali, 2011; Mbanje & Lunga, 2015:17). This is to ensure that the selected supplier can perform successfully based on the supplier's strategic goals and objectives. Rao *et al.* (2007), go further to emphasise more reasons supplier selection and evaluation should be done appropriately and strategically to significantly influence overall firm performance and competitive advantage. For example, "

a supplier's production capacity can limit the output level of the entire supply chain; a supplier's quality level determines the quality assurance of the final product; the supplier's cost control affects the cost control capacity of the entire supply chain, and the supplier's new product development capacity influences the quality and cycle of the new product development.

Therefore, the successful selection and management of the right suppliers is a key to firm competitive performance and supply chain success. Hence, the hypothesis:

H1: Supplier selection has a significant positive influence on firm performance

2.2 supplier trust

At the early stage of the supplier/buyer relationship, an organisation may choose to have more than three different types of supplier relationships to support its operations. The term for this supplier/buyer relationship was regarded as arm's length relationship, where time and effort of both parties involved resulted in win-lose situations (Wang & Jap, 2017; Su & Yang, 2016; Wang, Wang, Jiang, Yang & Cui, 2016). However, the need to focus on co-competencies among organisations for effective materials management and inventory management, as well as the need to overcome market uncertainty in supply chain, resulted in a paradigm shift of organisation's focus away from purchasing price and continuity of supply as the only reason for supplier/buyer relationships (Narayanan, Narasimhan & Schoenherr, 2015; Heirati, O'Cass, Schoefer & Siahtiri, 2016; Schmitz, Schweiger & Daft, 2016).

Presently, organisations expect their suppliers to focus on quality, cost reduction, time to market, technology as well as continuity of supply (Zhang, Viswanathan & Henke Jr, 2011; Yang, Zhang & Xie, 2016). As such, supply chain collaboration was formed with the aim of developing supplier alliance based on win-win situations (Gorton *et al.*, 2015). Supplier alliance is a mutually beneficial and open relationship of trust, wherein

the needs of both buyer and supplier are met and satisfied (Jain, Khalil, Johnston & Cheng, 2014). According to Burt, Dobler and Starling (2003:105), “the failure to develop and manage institutional trust and commitment is the reason that so many supplier relationships fail”. In other words, trust is an important strategic direction developed over time to deal with the shared vulnerabilities in supplier/buyer relationships and to enhance firm competitive performance (Day, Fawcett, Fawcett & Magnan, 2013; Narayanan *et al.*, 2015). The presence of trust in the supplier/buyer relationship may lead to lower operating costs, reduced time to market, improved quality, improved technology flow from suppliers, enhanced access to accurate information and improved continuity of supply (Bonte, 2008; Yeung, Selen, Zhang & Huo, 2009; Zhang *et al.*, 2011; Shi & Liao, 2015).

Tomkins (2001:165) defines trust as “a belief by one party in a relationship that the other party will not act against his or her interests, where this belief is held without undue doubt or suspicion and in the absence of detailed information about the actions of the other party”. Trust, as an elementary quality in supplier relationships, is the confidence that the other party will do as promised and in so doing, create value added benefits as well as reducing operating costs (Laaksonen, Pajunen, & Kulmala, 2008; De Ruyter, Moorman & Lemmink, 2001). This confidence is expected and much appreciated when both the supplier and buyer in a relationship are “known to reliably make good faith efforts to behave in accordance with prior commitment; makes adjustments as market conditions change but in ways perceived as reasonable to the exchange partner; and does not take excessive advantage of an exchange partner even when the opportunity is available” (Dyer & Chu, 2000:260). According to Gorton *et al.* (2015), trust in supplier/buyer collaborations that is built on win-win situations influences business performance. In this case, each organisation in the supply chain can enhance sustained competitiveness by offering unique and quality products/services that satisfy customer’s needs. Day *et al.* (2013:152) emphasise that the higher the level of trust in a supplier/buyer relationship, the higher the resulting benefits such as “increased relationship satisfaction, enhanced firm performance, increased inter-firm learning, lower governance costs, reduced relational conflicts and an overall improvement in cooperation”. Therefore, trust is a necessary condition in a networked organisation and hence the hypothesis:

H2: supplier trust has a significant positive influence on firm performance

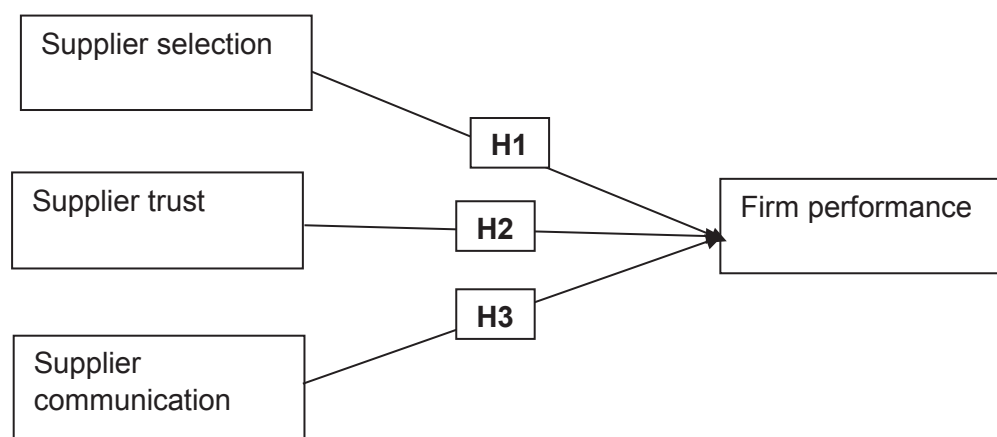
2.3 Supplier communication

Many practitioners and researchers of the supplier/buyer relationship, marketing relationship and collaboration consider strategic communication to impact significantly on supplier’s smooth operation’s process success and performance (Mathuramaytha, 2011; Kohtamaki & Partanen, 2016; Yeh, Ku & Ho, 2016; Qia, Huob, Wangc & Yeung, 2017). Due to the increased importance of intensive communication among supply chain partners, the use of information technology for communication advantages has received much attention in the 21st century with a positive impact (Yan & Dooley, 2013; Chinomona, 2013; Colina, Galindob & Hernandezc, 2015; Gunasekaran *et al.*, 2017). The growth of information technology includes the need for organisations to communicate meaningful and accurate information to decision-makers across the various organisational levels to enhance effective implementation of relationship goals and objectives (Trana & Zikosb, 2017; Chi, Zhao, George, Li & Zhai, 2017). On-time and relevant communication reduces assets in inventories and equipment and further helps to efficiently manage information flow, product flow and cash flow among supply chain partners (Jacobs, Yu & Chavez, 2016). The ability of the supplier to communicate developmental trends with its buyers and vice versa aids performance. Paulraj, Lado

and Chen (2008) regard supplier communication as a critical factor for collaboration performance and as a relational competency that can yield strategic advantages for supplier/buyer relationships. According to Coyle, Novack, Gibson and Bardi (2011:399), communication of all relevant information is critical in managing the relationship, helps coordinate buyer-supplier interdependent tasks and makes inventory visible, which allow the organisations in collaborative relationships to reduce or gradually eliminate the cost of holding safety stock inventories (Chinomona, 2013; Colina *et al.*, 2015). Open communication aids institutional trust, information and knowledge sharing, reduces dysfunctional conflict and fosters greater confidence and collaborative learning throughout the supply chain (Burt, Dobler & Starling, 2003:84). According to Yan and Dooley (2013) and Huang, Hung and Ho (2017) uncoordinated and uncooperative behaviour as well as lack of shared information and inaccurate knowledge about decision rules may arise without effective communication among supplier/buyer relationships. To achieve success and higher levels of supply chain coordination performance, Huang *et al.* (2017) state, “members have to not only be willing to coordinate their activities and agree on a proper way of redistributing their profits but also communicate their information to reduce uncertainty and smooth operations in the supply chain”. This study, therefore, hypothesise:

H3: supplier communication has a significant positive influence on firm performance

Figure 1: Research Conceptual Framework



3. METHODOLOGY

The research design for the study is a quantitative approach because it is aimed at scrutinising the relationships between supplier selection, supplier trust and supplier communication on firm performance. The survey method was used. The study gathered data using a structured questionnaire. The instrument was adapted from instruments developed by previous researchers.

3.1 Sample and data collection

The target population for the study were registered South African companies in the southern Gauteng province. The reason for this region is that it has five main town centres, among others, namely Walkerville, Heidelberg, Meyerton, Vereeniging and Vanderbijlpark within the area and Sasolburg is only 10 kilometres to the south across the provincial boundary. The sampling unit was the individual companies. Self-administered questionnaires were used. This method has the advantage of speed, is less costly and the researcher has control over respondent type. Students from the

Vaal University of Technology were recruited as research assistants to distribute and collect the questionnaires in area. Of the 400 questionnaires distributed, 305 usable questionnaires were retrieved for the final data analysis, representing a response rate of 76 percent.

3.2 Measurement instrument and questionnaire

Research scales were operationalised on the basis of previous work. Proper modifications were made in order to fit the current research context and purpose. Supplier selection measure used a four-item scale adapted from Chen, Lee and Paulraj (2014), while supplier trust used a four-item scale adapted from Chen, Wang and Yen (2014). Supplier communication used a four-item scale measure adapted from Hassan, Habid and Khalid (2014). Finally, firm performance was measured using a six-item scale adapted from Mathuramaytha (2011). All the measurement items were measured on a five-point Likert-type scale that was anchored by 1=strongly disagree to 5=strongly agree, to express the degree of agreement.

3.3 Statistical analysis/psychometric properties of the measurement scale

Polit and Hungler (1999:699) describe data analysis as “the systematic organization and synthesis of research data, and the testing of research hypothesis using those data”. The Statistical Package for Social Sciences (SPSS), version 24.0, was used to analyse the data. Descriptive analysis was used to analyse the composition of the sample.

Table 1: Sample Demographic Characteristics

Type of business	Frequency	Percentage
Cooperatives	66	22 %
Sole proprietor	58	19 %
Close corporations	100	33%
Private companies	81	26%
Total	305	100%
Nature of business	Frequency	Percentage
Transport	60	20 %
Manufacturing	75	25 %
Retail	120	39 %
Others	50	16 %
Total	305	100%
People employed by the firm	Frequency	Percentage
1-50	173	56 %
51-100	60	20 %
101-150	58	19 %
151 and above	14	5%
Total	305	100%

Table 1 contains the general demographic information of companies in the southern Gauteng province, which includes information on the type of business, nature of business and people employed in the company. From Table 1 it is evident that the proportion of close corporations is greater than cooperatives, sole proprietors, private companies and partnerships (n= 100; 33%; n=66; 22%, n=58; 19%, n=81; 26%). The nature of business reported in Table 1 shows retail contributed a lot to the study (n=120; 39%), followed by manufacturing sector (n=75; 25%) and transport sector (n=60; 20%), with other companies constituting the remainder (n=50; 16%) of the sample. On the number of employees in the company, the majority of companies employ between 1 to 50 employees, (n=173; 56%), followed by companies that employ 51 to 100 (n=60; 20%), those that employ 101 to 150 (n=58; 19%) and those that employ above 151 employees (n=14; 5%).

4. DATA ANALYSIS AND RESULTS

In accordance with the two-step procedure suggested by Anderson and Gerbing (1988), prior to testing the hypotheses, confirmatory factor analysis (CFA) was performed to examine reliability, convergent and discriminant validity of the multi-item construct measures using AMOS 24.0. Overall, acceptable model fit is indicated by goodness-of-fit index (GFI) ≥ 0.80 ; root mean square error of approximation (RMSEA) values ≤ 0.08 ; incremental index of fit (IFI); Tucker Lewis Index (TLI) and comparative fit index (CFI) values ≥ 0.90 . Recommended statistics for the final overall model assessment show acceptable fit of the measurement model to the data: $\chi^2/(df)=2.503$, GFI=0.861; IFI=0.870; TLI=0.90; CFI=0.898; RMSEA=0.078. Loadings of individual items on their respective constructs are shown in Table 2, while the scale construct correlations are presented in Table 3.

Table 2: Measurement Accuracy Assessment And Descriptive Statistics

Research constructs	Descriptive statistics*		Cronbach's test		C.R.	AVE	Item loadings
	Mean	SD	Item-total	α Value			
Supplier selection (SS)							
SS 1			0.789				0.793
SS 2	2.05	1.069	0.842	0.680	0.680	0.601	0.888
SS 3			0.705				0.734
SS 4			0.621				0.669
Supplier trust (ST)							
ST 1			0.833				0.864
ST 2	3.06	1.355	0.807	0.799	0.799	0.643	0.845
ST 3			0.719				0.828
ST 4			0.708				0.813

Supplier communication (SC)							
SC 1			0.756				0.799
SC 2	3.15	1.003	0.631	0.702	0.701	0.665	0.732
SC 3			0.722				0.822
SC 4			0.758				0.877
Firm performance (FP)							
FP 1			0.656				0.779
FP 2			0.702				0.801
FP 3			0.929				0.950
FP 4	3.03	1.400	0.855	0.780	0.779	0.722	0.863
FP 5			0.691				0.694
FP 6			0.759				0.823
<i>SS= Supplier selection; ST= Supplier trust; SC= Supplier communication; FP= Firm performance</i>							

As recommended by Anderson and Gerbing (1988) and Hair, Babin, Anderson and Tatham (2010), individual item loadings should be above 0.5. From the results presented in Table 2, all acceptable individual item reliabilities are more than 50 percent for each item's variance. Using a formula proposed by Fornell and Lacker (1981), the composite reliabilities (CR) and average variance extracted (AVE) for each variable were computed. The composite reliabilities (CR) are all above the recommended value of 0.7 suggested by Hulland (1999); thus, indicating satisfactory internal uniformity and dependability of the respective measures. All average variance explained (AVE) values are above 0.5, thus tolerable according to the literature (Fraering & Minor, 2006). These results provided evidence for acceptable levels of research scale reliability. Discriminant validity was proven by checking if the AVE for each multi-item construct was greater than the shared variance between constructs (Fornell & Larcker, 1981; Anderson & Gerbing, 1988; Nunnally & Bernstein, 1994; Hair *et al.*, 2010) and if the inter-construct correlations were less than a unit. Furthermore, the inter-construct correlation values are less than the recommended value of 0.6, revealing an adequate level of discriminant validity (see Table 3).

Table 3: Sample Data Statistics and Correlations between Constructs

Variables	EC	EI	GE	AE
EC	1.000			
EI	.508***	1.000		
GE	.540***	.588***	1.000	
AE	.356***	.481***	.533***	1.00

Note: *SS= Supplier selection; ST= Supplier trust; SC= Supplier communication; FP= Firm performance*

4.1 Structural equation modelling

This study used structural equation modelling (SEM) to approximate the causal relationship among the constructs based on the conceptual model in Figure 1. The maximum likelihood estimation (MLE) method was used because it has desirable properties (e.g., minimum variance and unbiasedness) and is scale-free. The results are reported in Table 4. The model is acceptable in terms of overall goodness of fit. Acceptable model fit are indicated by χ^2 (df) values <3 ; GFI and AGFI values ≥ 0.80 ; RMSEA values ≤ 0.080 ; IFI and CFI values ≥ 0.90 . Results of this study indicate χ^2 (df)=2.578; GFI (0.855); IFI (0.865), TLI (0.891), CFI (0.856) and RMSEA (0.071), therefore, achieved the suggested thresholds (Hair *et al.*, 2010). This suggests that the model converged well and could be a plausible representation of underlying empirical data structures collected in South Africa.

Table 4: Results of structural equation model analysis

Hypothesis statement	Hypothesis	Path co-efficient
SS \rightarrow FP	H1	.505***
ST \rightarrow FP	H2	.695***
SC \rightarrow FP	H3	.592***

Note: SS= Supplier selection; ST= Supplier trust; SC= Supplier communication; FP= Firm performance

5. DISCUSSION OF RESULTS

The results in Table 4 offer support for three proposed hypotheses. According to the objectives of the study, it can be deduced that the study postulated that there is a positive relationship between all three hypotheses. The first research objective was to examine the relationship between supplier selection and firm performance. Consistent with hypothesis one (H^1), results indicate higher levels of supplier selection and firm performance. The path co-efficient is 0.505, which shows a significant strong relationship. This result is consistent with Rao *et al.* (2007), Forsa, Harraz and Abouali (2011), Mbanje and Lunga (2015:17), stating that the ability of the focal organisation to identify, evaluate and appropriately select a supplier with the right capacity and capability to efficiently and effectively deliver as promised and in accordance to set objectives is a key to firm competitive performance. Therefore, there is a significant positive relationship between supplier selection and firm performance.

The second research objective was to investigate the relationship between supplier trust and firm performance. Trust is an important strategic direction developed over time to deal with the shared vulnerabilities in supplier/buyer relationships and to enhance firm competitive performance (Day *et al.*, 2013; Narayanan *et al.*, 2015). Hypothesis two (H^2) is supported as it indicates higher levels of supplier trust and firm performance with path co-efficient (0.695), which ultimately proves that there is a strong significant positive relationship between supplier trust and firm performance. In other words, higher level of supplier trust is associated with higher level of firm performance.

Hypothesis three (H^3) proposed that there is a positive and significant relationship between supplier communication and firm performance. The path co-efficient for hypothesis three is 0.592, which shows a significant relationship between the two variables. Of all the three hypotheses, the strongest relationship was that of supplier trust and firm performance, which has a standardised coefficient of 0.695, followed by supplier communication and firm performance with a standardised coefficient of 0.592

and finally the relationship between supplier selection and firm performance has the lowest coefficient of 0.505. This is consistent with the findings of Huang *et al.* (2017) that the willingness of organisations' in a collaborative relationship to coordinate their activities, agree on a proper way of redistributing their profits and communicate quality information reduces uncertainty for smooth operations and enhances performance.

6. CONCLUSIONS AND MANAGERIAL IMPLICATIONS

Supplier selection, supplier trust and supplier communication are critical in ensuring firm performance and competitive advantage. Supplier selection should be done appropriately, which may also require bearing in mind the rules and regulations of the South African economy as well as following correct codes of conduct. It means the managers have much to do to ensure that they select the right suppliers, which will lead to boosting of production. Supplier/buyer relationship in terms of selection, trust and communication has been recognised among academics and practitioners alike as a factor influencing business performance and a major key player in supply chain management (Gorton *et al.*, 2015). However, the buying organisation should possess the capabilities to efficiently and effectively select and manage appropriate suppliers that have the necessary capacity, technical capabilities, skills and information technology to deliver as promised (trust) (Vanpoucke, Vereecke & Wetzels. 2014; Huq, Chowdhury & Klassen, 2016; Hemmert, Kim, Kim & Cho, 2016; Kumar & Rahman, 2016).

On the other hand, the presence of trust in supplier/buyer relationship may lead to lower operating costs, reduce time to market, improved quality, improved technology flow from suppliers, enhance access to accurate information and improved continuity of supply. Trust can be enhanced through dealing repeatedly with the supplier and delivering the services when they are needed. This ultimately will lead to commitment and loyalty. Higher levels of trust in a ultimately relationship may further result in benefits such as increased relationship satisfaction, enhanced firm performance, increased inter-firm learning, lower governance costs, reduced relational conflicts and an overall improvement in cooperation. In addition, on-time and relevant communication reduces assets in inventories and equipment and further helps to manage information flow, product flow and cash flow efficiently among supply chain partners. Communication in the firms can be improved by reducing the red tape in hierarchies of authoritative power, transparent channels of communication and democracy at work places.

7. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The study used a quantitative research approach. Future researchers may consider adopting a mixed method approach to get more results that are meaningful. A larger sample can be considered in order to generalise findings. Katono (2013:203) indicates that "there is need for larger sample to make the results more generalizable". However, the present research can be seen as a preliminary investigation of the opportunity to increase value in designing the better ways to improve supplier selection, supplier trust and supplier communication. Future research might also try to do research in other provinces like Limpopo, Mpumalanga and Eastern Cape then a comparison study. This might yield insightful and different results.

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**EXPLORING THE DISADVANTAGES OF SUPPLY CHAIN RESILIENCE: A STUDY IN
THE SOUTH AFRICAN TELECOMMUNICATIONS INDUSTRY**

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**EXPLORING THE DISADVANTAGES OF SUPPLY CHAIN RESILIENCE: A STUDY IN
THE SOUTH AFRICAN TELECOMMUNICATIONS INDUSTRY**

ABSTRACT

Supply chain disruptions are imminent and vast in the modern business sphere, hence, the dire need for the development of a resilient supply chain. Supply chain resilience (SCRES) minimizes the effect of an adverse event through the implementation of a set of predetermined action plans for such disruptive events. SCRES can only be achieved by means of committing organisational resources to an unforeseen future event, rendering these resources unavailable to achieve other organisational objectives.

Paradoxes in literature regarding how to approach SCRES are evident. On the one hand, an overestimation of potential risks and a substantial financial investment in terms of inventory or capacity will yield superior profits and improve decision making in a disruptive event. On the other hand, it is clear that SCRES realises additional indirect costs in the form of redundant and over utilised resources for a particular need.

The aim of this study is to consider the associated disadvantages of SCRES with regards to resources committed and forgone in the process to achieve resilience. It is understood and accepted that organisations have limited resources available to their disposal to achieve predetermined objectives. The argumentative basis of this study is twofold. Firstly, organisations with a strong focus on resilience will be at a competitive disadvantage, if the disruptive event does not occur, as resources are committed to a particular purpose. Secondly, the over commitment of resources, to enhance resilience, may only yield a marginal benefit in terms of resilience where that particular resource could have been applied elsewhere in the organisation and resulted in a more superior benefit.

The proposed study aims to answer the following research questions:

- How are potential supply chain disruptions identified in the South African telecommunications industry?
- What are the disadvantages associated with a resilient supply chain?
- What measures are used to prevent the over-utilisation of resources when developing a resilient supply chain in the South African telecommunications industry?
- Which criteria are considered to commit a particular resource, over another, in an attempt to mitigate the adverse effect of a potential disruptive event?

Existing SCRES literature clearly identifies the importance and benefits of maintaining resilience. Understanding the importance and limitations of allocating scarce resources to improve resilience, even marginally, is extremely limited and must be considered with due diligence.

This study will use a generic qualitative research design and data will be collected through semi-structured interviews with senior supply chain practitioners in the telecommunications industry. The target population will be large telecommunications organisations as defined by ICASA and SARS, which will result in criterion sampling. The proposed study will conform to confirmability, credibility, dependability, transferability and authenticity to ensure the trustworthiness and objectivity of the study.

Proposing a concept as “resilient enough”, the authors of this study provide a conceptual link of effective resource allocation and the required level of supply chain resilience of a particular organisation. The study will also add to supply chain resilience literature by being one of the first empirical studies conducted on the disadvantages of supply chain resilience.

THE ROLE OF INFORMATION EXCHANGE AND COLLABORATION IN SHAPING THE PERFORMANCE OF MANUFACTURING SUPPLY CHAINS

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THE ROLE OF INFORMATION EXCHANGE AND COLLABORATION IN SHAPING THE PERFORMANCE OF MANUFACTURING SUPPLY CHAINS

ABSTRACT

In today's hyper-competitive global environment, firms have begun to recognise that delivering the best customer value at the lowest cost is not only related to the activities, functions and processes within the firm itself, but to the entire supply chain. As a result, effective supply chain management has become a valuable approach to securing competitive advantages and improving firm performance. This paper investigated the connection between information exchange, supply chain collaboration and supply chain performance in manufacturing firms. Using the convenience sampling technique, 342 managers and employees of 31 manufacturing firms in Gauteng Province, South Africa were recruited as participants. Proposed hypotheses were tested using the structural equation modelling procedure. The results indicate that information exchange leads to higher supply chain collaboration and improved supply chain performance. Likewise, supply chain collaboration leads to increased supply chain performance. These results imply that information exchanges between manufacturing supply chain partners may be an important tool for the improvement of collaborative relationships between them. Furthermore, the performance of a supply chain may be improved through both information exchanges and supply chain collaboration, which culminates in sustainable competitive advantages for manufacturing firms operating in that supply chain. These results validate the widely held view that the performance of a supply chain is dependent on, among other things, information exchanges and collaborative efforts between supply chain partners.

1. INTRODUCTION

Manufacturing industries are important pillars for any national economy. This importance stems from their capacity to employ an enormous portion of the labour force and produce materials required by sectors of strategic importance (Dou & Sarkis, 2010). In South Africa, manufacturing has evolved to become one of the most productive sectors, surpassing agriculture and mining, which have traditionally dominated the economy (Zalk, 2014). The sector's contribution to South Africa's Gross Domestic Product (GDP) has persisted at an average of about 15% over the last two decades, which makes it the second highest contributor to the national economy after the finance, real estate and business services sector (Rodseth, 2016). By December 2016, approximately 1 191 000 people were employed in the South African manufacturing sector (Statistics South Africa, 2017). This serves as evidence of the eminence of the manufacturing industry to the South African economy.

The manufacturing industry refers to those industries which are involved in the manufacturing and processing of materials and indulge in either creation of new commodities or in value addition (Chou & Shao, 2014). The final products can either serve as finished goods for sale to customers or as intermediate goods used in the production process (Chen, Olhager & Tang, 2014). Manufacturing in South Africa is dominated by industries such as agro-processing, automotive, chemicals, information and communication technology, electronics, metals, textiles, clothing and footwear. However, in spite of its notable contributions to the South African economy, the sector faces challenges that threaten its viability and growth. For instance, a report by the Small Enterprise Development (2012) noted that the manufacturing sector in South Africa is growing slower when compared to other sectors and that its outputs have been decreasing. This trajectory has been maintained, way into 2017 as shown by recent statistics (Statistics South Africa, 2017). This decline may be attributed to, amongst other things, a weakening global economy, high labour and production costs in South Africa, intense competition, exchange rate fluctuations, dwindling investor confidence and political instability (Statistics South Africa, 2016). These challenges increase the pressure on manufacturing firms to adopt strategies that strengthen their competitive position, given their potential to create employment and to contribute to the growth of the national economy.

The aim of this paper is to investigate the connection between information exchange, supply chain collaboration and supply chain performance in manufacturing firms. The area of supply chain management offers various industries, including manufacturing, with opportunities to strengthen their business practices, remain profitable and succeed in the long term (Ali & Boylan, 2012). To realise sustainable competitive advantages, most firms have shifted their focus to their supply chains and hence, have thought of ways to improve their supply chain management practices (Barney, 2012; Lotfi, Mukhtar, Sahran & Zadeh, 2013). A supply chain itself is considered as a system of firms, people, technology, activities, information and resources involved in moving a product or service from supplier to customer (Weber, Hiete, Lauer & Rentz, 2010). Supply chain activities transform natural resources, raw materials and components into finished products that are delivered to the end customer (Agrell & Hatami-Marbini, 2013; Tako & Robinson, 2012). Supply chain management itself is the coordination of activities, within and between vertically linked firms, for the purpose of serving end customers at a profit (Stadtler, 2015). Supply chain activities transform natural resources, raw materials and components into a finished product that is delivered to the end customer (Agrell & Hatami-Marbini, 2013). To achieve an efficient and effective supply chain, information needs to be exchanged (Du, Lai, Cheung & Cui, 2012). In addition, players within the supply chain have to interact with each other through partnerships or collaborations (Cao & Zhang, 2011). Through information exchanges and collaborative activities, firms can be able to improve the performance of the entire supply chain and ensure that the benefits of supply chain management are realised throughout the network (Wu, Chuang & Hsu, 2014).

2. LITERATURE REVIEW

This section briefly discusses the three constructs under consideration in this paper, which are information exchange, supply chain collaboration and supply chain performance.

2.1 Information exchange

Information exchange may be defined as the degree to which partners in the supply chain communicate vital and proprietary information to each other (Ramanathan & Gunasekaran, 2014). Information is one of the most critical resources possessed by any firm (Qrunfleh & Tarafdar, 2014). According to Ross (2013), information is strategic and central to the firm, and its exchange is one of the basic fundamentals for the effective management and coordination of supply chains. The supply chain can become more responsive and smoother when players have access to important information (Monczka, Handfield, Giunipero & Patterson, 2015). Prajogo and Olhager (2012) argue that supply chain partners who interchange information regularly are able to work as a singular unit. Together, partners in a supply chain can recognise better the needs of the end consumer and hence can respond to market fluctuations more rapidly (Li, Hou, Liu & Liu, 2012). Information exchange further facilitates early responses by suppliers to the demands of customers through appropriate inventory scheduling (Francis, Hasan & Sun, 2014; Wiczorek, 2012). It also improves the accuracy of demand forecasting, which allows improved price structures, improved scheduling of production, and the superior management of customer demand (Ganesh, Raghunathan & Rajendran, 2014). Higher levels of information exchange are linked to lower total costs, shorter cycle time and better customer satisfaction (Li *et al.*, 2012). It further improves coordination between supply chain processes to enable material flows, which reduces inventory costs (Schloetzer, 2012). Scholl, Kubicek, Cimander and Klischewski (2012) maintain that information exchange leads to better supply chain integration by empowering firms to make dependable deliveries of goods and introducing products to the market more rapidly. Zhang and Chen (2013) advise firms to manage information just as they would any other important asset of the firm. Schloetzer (2012) add that information exchange is a key element for the improvement of both profitable linkages with supply chain partners as well as supply chain performance. Based on these theoretical insights, the following hypotheses are put forward;

H1: In manufacturing environments, information exchange leads to increased supply chain collaboration

H2: In manufacturing environments, information exchange leads to enhanced supply chain performance.

2.2 Supply chain collaboration

Collaboration is a relationship between two or more independent supply chain partners that develops over a period of time (Mangan, Lalwani, Butcher & Javadpour, 2012). Cao and Zhang (2011) suggest that in supply collaboration, participating parties agree to invest resources, exchange information, mutually realise goals, rewards, resources and responsibilities and to make joint decisions as well as solve problems together. It encourages all players within supply chains to engage in planning, forecasting, replenishment, information exchange and incentive sharing (Ramanathan & Muijldermans, 2010). Furthermore, effective collaboration between supply chain partners necessitates the real-time exchange of valued information by firms (Sridharan & Simatupang, 2013). Coyle, Langley, Novack and Gibson (2016) mention that various firms throughout the world have been actively collaborating with other partners for many years as they seek to improve supply chain performance. Cao and Zhang (2011) acknowledge that substantial benefits and advantages such as reducing costs and increasing profits can be realised by collaborating with supply chain partners. Ramanathan and Muijldermans (2010) add that transparent supply chain collaborations enable firms to improve forecasting accuracy. This leads to the following hypothesis

H3: In manufacturing environments, supply chain collaboration leads to enhanced supply chain performance

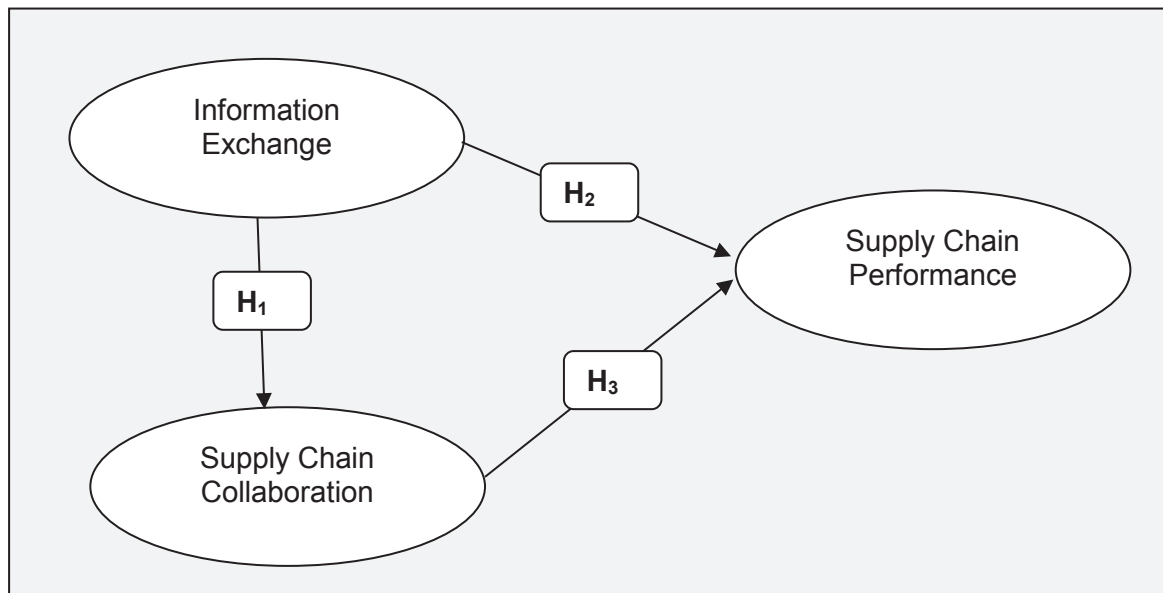
2.3 Supply chain performance

Green, Inman, Brown and Willis (2005) have defined supply chain performance as the ability of the supply chain to deliver quality products and services in precise quantities and at precise times; and to minimise total cost of the products and services to the ultimate customers of the supply chain. One of the most noteworthy views in management of business today is that individual firms no longer compete as exclusively independent units, but rather as supply chains (Prajogo, Chowdhury, Yeung & Cheng, 2012). This denotes that firms compete and win depending on the competences they can bring together across their supply chains or networks (Prajogo & Olhager, 2012). This, to some extent, further signifies that the performance of a supply chain is the end result of the integration of individual performances of all members of that supply chain (Estampe, Lamouri, Paris & Brahim-Djelloul, 2013). Moreover, appraisal of supply chain performance can lead to improvements in the overall performance of firms operating in that supply chain (Seuring, 2013). Ye and Wang (2013) suggest that the performance of firms can be improved significantly by understanding the information provided by the entire supply chain. Huang *et al.* (2014) further state that an efficient supply chain can lead to a variety of attractive returns that include reduced costs, increased sales and market share, and sustainable customer relationships. Accordingly, it may be stated that the better the supply chain performance, the higher the firm performance.

CONCEPTUAL FRAMEWORK

Based on the above theoretical insights, the conceptual framework presented in Figure 1 is put forward.

Figure 1: Conceptual Framework for the Connection between Information Exchange, Supply Chain Collaboration and Supply Chain Performance in Manufacturing Firms



Source: Own compilation

As indicated in Figure 1, information exchange is positively associated with both supply chain collaboration and supply chain performance. In turn, supply chain collaboration is positively related with supply chain performance.

3. PROBLEM STATEMENT

In manufacturing supply chains, continuous improvement of performance has emerged as a serious challenge as suppliers, manufacturers, wholesalers and retailers seek to gain and sustain competitive advantages (Coombs, Bierly & Gallagher, 2012). In South Africa, manufacturing firms face stiff competition from imported substitute products which tend to be cheaper and are sometimes of a better quality (Pillay, 2015). Challenges stemming from the declining exchange value of the local currency, deteriorating investor confidence and the unstable political climate only serve to worsen the pressure on manufacturing firms in the country (Statistics South Africa, 2016). Still, the dynamic needs, tastes and choices of consumers increase the need for manufacturing firms to understand consumer needs (Van der Merwe, 2011). All these pressures necessitate the constant monitoring and improvement of performance in manufacturing supply chains to ensure both the survival and long term success of firms (Schaltegger & Burritt, 2014). The current paper is intended to generate information that may be used by manufacturing firms in South Africa to address the difficulties they face within their supply chains, which facilitates the satisfaction of their business goals.

While a great deal is known about the general impact of information exchange, less attention has been paid to its influence on supply chain collaboration and supply chain performance. Even though some previous studies (Pooe, Mafini & Loury- Okoumba, 2015; Mafini, Pooe & Loury- Okoumba, 2016) have addressed the importance of information exchange in supply chain management in South Africa, few studies have considered in the same environment the roles of both information exchange and supply chain collaboration on the performance of manufacturing supply chains. Previous research (e.g. Green, Whitten & Inman, 2012) mainly focused on supply chain management, marketing strategy alignment, supply chain performance, and organisational performance. Beske, Land and Seuring (2014) focused on supply chain management practices, organisational performance and competitive advantage. However, research that investigates the influence of information exchange and supply chain collaboration on supply chain performance remains inadequate, hence the need to conduct the current study as a way of addressing these existing research gaps.

The remainder of this paper is structured as follows; the next section reviews the literature on the research constructs and states the hypotheses. Thereafter, the conceptual framework is provided. The research methodology is then outlined, followed by the results of the study. This is succeeded by the discussion, practical managerial implications and recommendations. The final section of the paper provides the conclusion.

4. RESEARCH OBJECTIVES

The primary objective of this paper is to investigate the influence of information exchange and supply chain collaboration on supply chain performance in manufacturing firms in the Gauteng Province of South Africa. To achieve this primary objective, three secondary objectives were formulated. These are (1) to ascertain the influence of information exchange on supply chain collaboration in manufacturing mining firms in Gauteng Province; (2) to establish the influence of supply chain collaboration on supply chain performance in manufacturing, service and mining firms in Gauteng Province and (3) to determine the influence of information exchange on supply chain performance in manufacturing firms in Gauteng Province.

5. RESEARCH METHODOLOGY

5.1 Research design and participants

A quantitative approach was followed, to ensure that that the results can be generalised to other manufacturing contexts in South Africa, apart from Gauteng Province.

Gauteng Province was selected because it is the single largest contributor to South Africa's economy in terms of GDP and is the manufacturing powerhouse in the country (Gauteng Provincial Government, 2016). A cross-sectional survey design was adopted, since it was necessary to collect data during the same period of time (January to March 2016) from the selected pool of respondents (Yin, 2013). The final sample for this study consisted of 342 managers and employees of 31 manufacturing firms located in Gauteng Province, South Africa. In order to be selected, the individual had to be working in either a supply chain management or logistics related division/department of the participating firm. Since there was no single sampling frame from which a list of respondents could be obtained, a non-probability convenience sampling approach was used to recruit respondents (Cresswell, 2013). Upon analysis the demographic details of respondents, it emerged that the majority of the respondents (62%) were male. In terms their ages, the largest number of respondents (37%) were aged between 18 and 35 years. With regard to educational level, the largest group of respondents (41%) were holders of a diploma. With respect to years of experience, the majority of respondents (52%) had at least 10 years work experience. With reference to their respective industries, 38% of the respondents were drawn from the metal and steel industry, 27% were from the agri-processing industry, 13% were in the textile, clothing and footwear industry, 13% were in the chemical industry, 7% were in the automotive industry and 2 % were drawn from the ICT and electronics industry.

5.2 Instrumentation and data collection method

Measurement scales were adapted from previous studies. Information exchange was measured using six questions adapted from Li Ragu-Nathan, Ragu-Nathan and Rao (2006). Supply chain collaboration was measured using five questions adapted from Li and Lin (2006) while supply chain performance was measured using five questions adapted from Green, Whitten and Inman (2012). Response options were configured using 5-point Likert type scales anchored by 1 representing strongly disagree and 5 representing strongly agree. The questionnaires were physically distributed to participating firms and respondents were given no incentive for participating. In order to maximise return rates, questionnaires were designed to be as simple and clear as possible, with targeted sections and questions. Out of the 550 survey questionnaires which were distributed initially, 379 were returned. However, 37 questionnaires contained errors and were discarded, resulting in 342 questionnaires that were used in the final data analysis. Thus, the response rate was 62%, which, according to Fincham (2008) is acceptable in quantitative studies.

5.3 Data analysis

Descriptive statistics were analysed using the Statistical Packages for the Social Sciences (SPSS version 23.0). Analysis of Moments (AMOS 23) software were used in the analyses of psychometric properties of the measurement scales and the testing of hypotheses.

6. RESULTS AND FINDINGS

The results section discusses the results pertaining to measurement scale accuracy, model fit and hypotheses tests.

6.1. Measurement Scale Accuracy

A confirmatory factor analysis (CFA) was conducted to check the accuracy of measurement scales. The results of the CFA are presented in Table 1.

Table 1: Results of the Confirmatory Factor Analysis

Research Construct		Item-total correlation	Cronbach Alpha value	CR Value	AVE	Highest SV	Factor Loadings
Information Exchange (IE)	IE 1	0.764	0.794	0.703	0.781	0.51	0.702
	IE 2	0.694					0.688
	IE 3	0.703					0.718
	IE 4	0.716					0.515
	IE 6	0.744					0.533
Supply Chain Collaboration (SCC)	SCC1	0.641	0.873	0.824	0.760	0.50	0.526
	SCC2	0.743					0.624
	SCC3	0.824					0.682
	SCC4	0.712					0.541
	SCC5	0.814					0.637
Supply Chain Performance (SCP)	SCP1	0.761	0.782	0.833	0.823	0.57	0.608
	SCP2	0.723					0.517
	SCP3	0.790					0.617
	SCP4	0.632					0.523
	SCP5	0.822					0.711
	SCP6	0.773					0.524

Note: CR= Composite Reliability; AVE= Average Variance Extracted; SV= Shared variance

Source: Own compilation

As shown in Table 1, item to total correlations ranged between 0.63 to 0.824, which are beyond the recommended minimum threshold value of 0.3 (Zikmund, Babin, Carr & Griffin, 2013). Cronbach's alpha values ranged between 0.703 and 0.833, which exceed the recommended minimum value of 0.7 (Gliem & Gliem, 2003; Tavakol & Dennick, 2011). Likewise, composite reliability values surpassed the 0.7 minimum acceptable thresholds. Therefore, all three measurement scales were reliable. Convergent validity was deemed as satisfactory, given that Average Variance Extracted (AVE) values for all measurement scales ranged between 0.50 and 0.57, which is above the acceptable minimum value of 0.5 (Hair, Black, Babin & Anderson, 2010). Furthermore, factor loadings for the three constructs ranged between 0.515 and 0.718, which are above the recommended minimum value of 0.5 (DiStefano, Zhu & Mindrila, 2009), which supports that convergent validity was satisfactory. To measure discriminant validity, correlation analysis was used. The results are presented in Table 2.

Table 2: Correlations between Constructs

Construct	IE	SCC	SCP
IE	1.00		
SCC	0.638**	1.00	
SCP	0.669	0.622	1.00

Note: IE= Information exchange, SCC= Supply chain collaboration & SCP= Supply chain performance.

Source: Own compilation

Correlations between the three constructs ranged between 0.622 and 0.669 (Table 2), which were below the acceptable maximum threshold of 1.0 (Henseler, Ringle & Sarstedt, 2015). This indicates that discriminant validity was acceptable among the three constructs under consideration in this study.

6.2. Model fit

In addition to measuring scale accuracy in terms of validity and reliability, model fit was also measured, to check if the data blended well with the conceptualised framework. This analysis was conducted for both the CFA and the structural model (SEM), which is the second part of the analysis which tested the hypotheses. The results of the model fit analysis for both CFA and SEM are reported in Table 3.

Table 3: Model Fit Analysis

FIT INDEX	Thresholds	Results for CFA	Results for SEM
Chi-Square/ d. f.	≤3	2.083	1.179
CFI (Comparative Fit Index)	≥ 0.9	0.975	0.980
RMSEA (Root Mean Square Error of Approximation)	≤0.08	0.053	0.042
NFI (Normed Fit Index)	≥ 0.9	0.995	0.951
TLI (Tucker Lewis Index)	≥ 0.9	0.949	0.944
IFI (Incremental Fit index)	≥0.9	0.978	0.962
GFI (Goodness of Fit)	≥0.9	0.906	0.942
AGFI (Adjusted Goodness of Fit)	≥0.9	0.924	0.916

Source: Own compilation

Table 3 indicates that the measurement model generated a ratio of chi-square value to degree-of-freedom of 2.083, as well as CFI, RMSEA, NFI, TLI, IFI, GFI and AGFI of 0.975, 0.053, 0.995, 0.949, 0.978, 0.906 and 0.924 respectively for the CFA. These statistics all satisfied the recommended thresholds, which depict an acceptable fit of the CFA measurement model to the specified sample data. Model fit analysis for the SEM phase of the study was conducted before testing the hypotheses. The resulting statistics showed a ratio of chi-square over degree-of-freedom was 1.179. This value is less than the recommended threshold of less than 3.0 and, so confirms the model fit. In addition, CFI, RMSEA, NFI, TLI, IFI, GFI and AGFI values were 0.980, 0.042, 0.951, 0.944, 0.962, 0.942 and 0.916, which satisfied the recommended thresholds. This indicates that the proposed conceptual framework converged well and could be a plausible representation of the underlying empirical data structure collected.

6.3. Hypotheses tests

Since the model fit for was acceptable (Table 3), the study proceeded to test the research hypotheses using the SEM technique. The results are presented in Table 4.

Table 4: Results of Structural Equation Model Analysis

Hypothesis	Relationships	Path Coefficient	Decision
H1	IE → SCC	0.177***	Accept hypothesis
H2	IE → SCP	0.772***	Accept hypothesis

H3	SCC → SCP	0.868***	Accept hypothesis
*** $p < 0.01$.			

Source: Own compilation

Table 4 shows that all three hypotheses were accepted, indicating that the proposed relationships between constructs were valid. The positive path coefficients imply that the independent construct predicts the dependent variable, and that the relationship is positive.

6.4 DISCUSSION

The first secondary objective of the study was to ascertain the influence of information exchange on supply chain collaboration. Hypotheses tests revealed a significant positive relationship ($r=0.177$; $p < 0.01$) between the two constructs, which demonstrates that information exchange between supply chain partners leads to increased supply chain collaboration. Similar results are reported in previous studies (Lofti *et al.*, 2013) which concluded that effective information exchanges of critical and proprietary information leads to improved collaborative relationships between supply chain partners. Conversely, collaborative relationships may be inhibited whenever important information is either withheld or falsified within the supply chain, which adversely affects partnerships (Pandey, Garg & Shankar, 2010). It has also been suggested by Hu and Xiao (2010) that the paybacks associated with information exchange within a supply chain outstrip the costs by a wide margin. The costs may include charges by both suppliers and customers for providing the information, the capital directed towards creating and maintaining information systems, administration, and communication costs (Flynn, Huo & Zhao, 2010). However, when compared to the wide array of benefits realised through information exchanges, these costs are minimum. The benefits include but are not limited to firm efficiency, improved services, the creation and consolidation of social bonds, increased productivity, increased organisational agility as well as earlier time to market, all of which can be linked to significant improvements in supply chain collaboration (Li & Gao, 2011). Therefore, in order to realise these benefits and hence survive and compete in the integrated global economy of today, manufacturing firms must realise the need to create and exchange appropriate information with their supply chain partners.

The second secondary objective of this study was to determine the influence of information exchange and supply chain performance. The testing of hypotheses revealed a positive and significant relationship ($r=0.772$; $p < 0.01$) between the two constructs. This result demonstrates that information exchanges between supply chain partners lead to enhanced supply chain performance. These results are parallel to those in a previous study by Ramayah and Omar (2010), which concluded that information exchange impacts on the performance of a supply chain in terms of both total cost and service level. Schloetzer (2012) further highlight that higher levels of information exchange are associated with lower total costs between order fulfillment rates and shorter order cycle times. Timely exchanges of information can also be useful in preventing possible risks during times of instability. For example, a simple word of caution from an offshore supplier of an important raw material to a local manufacturer on the possibility of a decline the value of the local currency can empower that manufacturer to proactively prepare for this development and hence circumvent the possibility of losses should the predicted crisis occur. Moreover, when accurate information is exchanged, each supply chain partner is given the impetus to develop more appropriate decisions in all areas of the business, based on the available information (Wu *et al.*, 2014). Zhao, Huo, Selen and Yeung (2011) add that whenever information is exchanged successfully, inventory costs may be significantly reduced, typically by between 10 percent and to 35 percent in the firm. It has further been observed by Mourtzis (2011) that information exchange within a supply chain is a source of numerous improvements in business connections, such as rapid response, cross-docking and supplier relationship management. This validates the importance of information exchange as a tool for enhancing the performance of manufacturing supply chains.

The final secondary objective of this study sought to establish the influence of supply chain collaboration on supply chain performance. Hypotheses tests indicate a strong positive and significant association ($r=0.868$; $p < 0.01$) between supply chain collaboration and supply chain performance. This result illustrates that the performance of a supply chain improves as collaboration between supply chain partners improves. A previous study by Schilke and Cook, (2013) likewise concluded that the ability of firms to link and work together by sharing information, resources and risks stimulates supply chain performance. Arranz and Fdez de Arroyabe, (2012) recognises that active engagement in meaningful relationships with supply chain partners leads to higher returns on investment, higher returns on equity and higher success rates for firms. Another study by Lee (2013) concluded that supply chain partners who trust each other will take care of each other during times of instability. For example, where meaningful relationships exist, supplier development is always considered an appropriate alternative whenever a supplier fails to satisfy the expectations of customer. This thus serves as evidence that supply chain collaboration promotes the optimal performance of both the supplying and buying firms in manufacturing supply chains.

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The results of the study have important managerial implications. The study is useful in the diagnoses of performance challenges in manufacturing supply chains. It places both information exchange and supply chain collaboration on the matrix of important factors determining the effectiveness of manufacturing supply chains. The performance of manufacturing supply chains can be improved by increasing the extent to which information is exchanged by supply chain partners and the level/quality of collaboration between them. However, in doing so, more emphases should be placed on supply chain collaboration, which exerts a greater impact on supply chain performance than information exchange. Information exchange may be used to integrate the dynamics in the information generated in the supply chain and to use that information to direct the use of supply chain processes. Collaborations between supply chain partners may be useful for enhancing the level of inter-organisational trust and ensuring that relationships between supply chain partners last longer for mutual gain. Also, enhancement of information exchanges in supply chains is the key to the development of positive and effective supply chain collaborations.

To improve both information exchange and supply chain collaboration, it is recommended that manufacturing firms invest in information and communication technologies to enhance their ability to manage information and knowledge across the supply chain to gain better competitive advantages. Supply chain partners should maintain close, trusting and long-term relationships as this enables them to share risks and rewards, which in turn, results in improved supply chain performance. Increasing of the awareness of the importance of both information exchange and supply chain collaboration amongst employees in manufacturing firms could assist in facilitating better attitudes and hence practices in this regard. Management in manufacturing firms should be willing to integrate and coordinate the intricate network of business relationships among supply chain members. This stems from the realisation that the firm will only be successful to the extent that the supply chain performs optimally. Paradigm shifts can thus be adopted in these areas.

8. CONCLUSIONS

The aim of this paper was to investigate the connection between information exchange, supply chain collaboration on supply chain performance in manufacturing firms. The paper emphasised the significance of information exchange and supply chain collaboration and their influence on supply chain performance. This paper also highlighted that information exchange and supply chain collaboration may generate a significant amount of advantages to the manufacturing sector. These include inventory reduction and efficient inventory management,

increasing visibility, cost reductions, improved services, quick response, reduced cycle time from order to delivery, time to market, expanded network, better tracing and tracking, and optimised capacity utilisation. The paper concludes that the exchange of information in manufacturing supply chains is important for increasing the performance of the supply chain. The paper also concludes that collaborations between partners in manufacturing supply chains are important for enhancing supply chain performance. When the performance of a supply chain is optimum, performance of each individual entity within that supply chain is likewise likely to be satisfactory.

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**INDUSTRY EXPECTATIONS OF SUPPLY CHAIN MANAGEMENT GRADUATES: A
QUALITATIVE STUDY OF THIRD PARTY LOGISTICS PROVIDERS IN SOUTH AFRICA**

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**INDUSTRY EXPECTATIONS OF SUPPLY CHAIN MANAGEMENT GRADUATES: A
QUALITATIVE STUDY OF THIRD PARTY LOGISTICS PROVIDERS IN SOUTH AFRICA**

ABSTRACT

Conflict emerges as graduates' expectations meet the reality of what the industry expects from them. The mismatch between what graduates and the industry expects has been placed under a microscope, especially within South Africa. This is also true for the third party logistics provider (3PL) industry within South Africa. However, despite the significance of this problem

as well as the importance of 3PL's providing supply chain services, limited efforts have been made to address this issue. Research concerning the industry's expectations of experienced supply chain managers is clear, often encompassing elements such as skills, knowledge and competencies. However the same clarity does not exist for new graduates with a bachelor's degree in supply chain management, logistics, operations management, procurement or supply chain related degrees.

The purpose of this qualitative study is thus to determine South African 3PL's expectations of graduates with a bachelor's degree in supply chain management or related fields. More specifically, the study aims to determine the necessary skills, personal attributes and specific knowledge that these new graduates need to possess to excel in the workplace.

The following research questions will guide the study:

- What are the necessary skills that employers expect graduates of a supply chain management qualification to possess?
- What are the personal attributes that employers expect from graduates of a supply chain management qualification?
- What specific knowledge do employers expect graduates of a supply chain management qualification to possess?

Studies done in the USA and Australia respectively show graduates must possess skills such as the ability to work in teams, solving problems and communication skills. Personal attributes that are important include being creative, possessing interpersonal skills and time management, while the knowledge expected from graduates include logistics and transportation management, supply chain industry knowledge and supply chain sustainability knowledge. Thus, to determine what is expected of new supply chain graduates in South Africa, the focus will also be placed on the same aforementioned expectation categories.

This study will use a descriptive qualitative research design to explore what exactly is expected from supply chain graduates within the South African 3PL industry. The target population is 3PL's who employ graduates with a bachelor's degree in supply chain management or related fields. Semi-structured interviews will be performed with participants who are directly involved in selecting and managing these graduates. This includes human resource, graduate development, training and direct line managers. Participating organisations will be chosen through homogeneous sampling whereas participating individuals will be selected using

criterion and snowball sampling. A minimum of 12 interviews will be conducted. The data obtained will be analysed through thematic analysis, which includes identifying codes and grouping these codes into themes.

This study will contribute to the current body of knowledge on employers' expectations of supply chain graduates by determining what skills, personal attributes, knowledge and technical competencies South African graduates need. This will allow South African academic institutions to adapt and improve their current supply chain management curriculums to educate graduates with a better focus on the key requirements in practice. Ultimately, graduates will be able to better prepare themselves for working in the industry by knowing what skills, personal attributes and knowledge is required.

**THE ROLE OF PERSONAL RELATIONSHIPS IN SUPPLY CHAIN DISRUPTIONS:
PERSPECTIVES FROM BUYERS AND SUPPLIERS OF LOGISTICS SERVICES**

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**THE ROLE OF PERSONAL RELATIONSHIPS IN SUPPLY CHAIN DISRUPTIONS:
PERSPECTIVES FROM BUYERS AND SUPPLIERS OF LOGISTICS SERVICES**

ABSTRACT

Globalisation, logistics outsourcing and lean supply chain management leave supply chains vulnerable to risks such as longer lead times, loss of control over resources and greater uncertainty. These often result in supply chain disruptions. Disruptions intimidate supply chain members, bringing about new realities, changes and challenges in the supply chain. Logistics are crucial to the success of any organisation, and is an important function in the supply chain. The relationship between buyers and suppliers of logistics services determines whether an organisation will reap the full advantage of logistics outsourcing or not.

Previous studies have researched the role of relationships in supply chain disruptions from a business-to-business perspective. The existing literature lacks research on the role of personal relationships in a supply chain disruption context and how the well-being of the personal relationships are affected accordingly. The purpose of this qualitative study is to explore the underlying role of personal relationships between buyers and suppliers of logistics services in a supply chain disruption context.

This study will be guided by the following questions:

- What is the role of personal relationships between buyers and suppliers of logistics services in a supply chain disruption context?
- What personal relationship attributes must be existent to ensure personal relationship sustainability between buyers and suppliers of logistics services in a supply chain disruption context?
- What are the advantages of personal relationships between buyers and suppliers of logistics services in a supply chain disruption context?
- What are the disadvantages of personal relationships between buyers and suppliers of logistics services in a supply chain disruption context?

Personal relationships form between members who have a mutual connection with each other. They are involved in the daily supply chain activities and contribute to reaching supply chain integration. The main attributes of establishing personal relationships are trust, continuous communication and information sharing, and lastly the commitment and mutual understanding embedded within personal relationships. The advantages of personal relationships include inimitable gained knowledge, improved communication supply-chain-wide, increased problem solving and well-established relationship trust.

Supply chain members should however not underestimate the disadvantages of personal relationships. The diverse mix of disadvantages include amongst other the loss of time, increased costs, confidentiality challenges and the stagnation with existing members which results in decreased exploration initiatives.

This study will use a generic qualitative research design. A four criteria framework will address the credibility, transferability, dependability and confirmability to ensure rigour in this study. Semi-structured interviews with buyers and suppliers of logistics services will be conducted in Gauteng, South Africa. Purposive sampling will be used to identify a target

population of a minimum of 12 participants consisting of buyers and suppliers of logistics services who have experienced a supply chain disruption in the previous two years. A thematic data analysis will take place after transcription to identify themes and codes to assist in answering the research questions of this study.

The study contributes to the body of knowledge by being one of the first empirical studies conducted on the role of personal relationships in supply chain disruptions. It will also inform and enable buyers and suppliers of logistics services to take into consideration the attributes, advantages and disadvantages of personal relationships in the supply chain disruption context in order to mitigate potential supply chain risks associated with personal relationships.

TOTAL QUALITY MANAGEMENT IN THE SUPPLY CHAIN OF A PETROCHEMICAL ORGANISATION

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Please indicate topic (i.e. General Management)

TOTAL QUALITY MANAGEMENT IN THE SUPPLY CHAIN OF A PETROCHEMICAL ORGANISATION

ABSTRACT

The objective was to investigate the extent of the use of total quality management (TQM) practices in a supply chain of a petrochemical organisation. TQM is a method by which management and employees can become involved in the continuous improvement of the production of goods and services. It is a combination of quality and management tools aimed at increasing business and reducing losses due to wasteful practices. The study was carried out in the petrochemical industry, which is of economic significance to the country. An existing TQM questionnaire was used and a total of 200 employees were targeted. The questionnaire had a seven-factor structure with acceptable Cronbach Alpha co-efficients. Overall, there was a significant number of employees who agree that total quality management is not practiced within their work areas and leading to a high number of quality related customer complaints. Management and employees are encouraged to be visibly involved in the development of a TQM transformation. TQM requires support from management, long-term strategic decision-making and motivated personnel.

1. INTRODUCTION

Total Quality Management is a management approach that originated in the 1950s and has steadily become more popular since the early 1980s. According to Murray (2016), Total Quality Management (TQM) is an approach that seeks to improve quality and performance which will meet or exceed customer expectations. This can be achieved by integrating all quality-related functions and processes throughout the company. TQM looks at the overall quality measures used by the organisation including managing quality design and development, quality control and maintenance, quality improvement, and quality assurance (Murray, 2016). The costs of poor quality are the costs that result from products not meeting customer specifications, or which do not meet the designer's design intent. These costs are categorized into internal failure costs, including scrap and rework. It also includes appraisal costs (inspection) and prevention costs (systems and procedures). External costs include the cost of rework, inspection, and warranty investigations, which result after the product has left the manufacturing facility (Jacobs & Chase, 2006).

This study was limited to the use of TQM practices in the supply chain function. Over the past decade, there has been an increasing emphasis on supply chain management as a vehicle through which firms can achieve competitive advantage in markets (Kearney, 2013). As stated in literature, it is not actually individual companies that compete with each other nowadays; the competition is between rival supply chains. Therefore, management of supply chains in a business environment has a major financial impact on all the parties involved in the value chain (Kearney, 2013). The study was carried out in a petrochemical organisation that operates production facilities in South Africa and supplies a range of chemicals to local and international markets. Its competitive advantage lies in its people and its unique technology and products. The manufacturing of good quality products is not only dependent on the technology and operating equipment used, it is also dependent on the operators and effective management of the whole supply chain.

The following section establishes the theoretical base for the constructs of total quality management and supply chain performance measures.

2. LITERATURE REVIEW

2.1 Supply chain performance

Business organisations need to capitalize on Supply Chain (SC) capabilities and resources to bring products and services to the market faster, at the lowest possible cost, with the appropriate product and service features and the best overall value (Gunasekaran *et al.*, 2001:71). Performance measures are important to the effectiveness of SC. Supply Chain Performance Measures (SCPM) serve as an indicator of how well the SC system is functioning. Measuring SC performance can facilitate a greater understanding of the SC and improve its overall performance (Charan *et al.*, 2008:512).

2.1.1 Supply chain management

The broader definition of supply chain management (SCM) determined by the Global Supply Chain Forum is generally accepted as a norm (Cooper *et al.*, 1997:2, Lambert *et al.*, 1998:2):

“Supply Chain Management (SCM) is the integration of key business processes from end user through original suppliers that provides products, services, and information that adds value for customers and other stakeholders”

Supply Chain Management (SCM) is the design of the firm's customer relationship, order fulfillment and supplier relationship processes and the synchronization of these processes of its suppliers and customers in order to match the flow of services, materials and information with customer demand. The purpose of SCM is to design the Supply Chain (SC) and to synchronize the key processes of the firm's suppliers and customers, so as to match the flow of services, materials and information with customer demand (Krajewski *et al.*, 2007).

The term SC is used to describe the flow of goods from the very first process encountered in the production of a product right through to the final sale to the end consumer. SCM can be used to describe a number of concepts in the processes inside a manufacturing organisation; purchasing and supply management occurring within dyadic relationships; the total chain; and finally, a total firm network. (Bruce *et al.*, 2004:151)

A good working definition of an SC is that described by Stevens (Stevens, 1989:3):

"A system whose constituent parts include material suppliers, production facilities, distribution services and customers linked together via the feed forward flow of materials and the feedback flow of information".

Supply Chain Operations Reference model (SCOR) which was defined in the Supply Chain Council (2005), defined an SC as follows (Supply Chain Council, 2005):

"The supply chain encompasses every effort involved in producing and delivering a final product, from the supplier's supplier to the customer's customer. Five basic processes—plan, source, make, deliver and return – broadly define these efforts, which include managing supply and demand, sourcing raw materials and parts, manufacturing and assembly, warehousing and inventory tracking, order entry and order management, distribution across all channels, and delivery to the customer."

Supply Chain Council (2005) defined that there are four basic processes in the SC: plan, source, delivery and return. Plan refers to processes that balance aggregate demand and delivery requirements. Sources are processes that transform a product to a finished state to meet planned or actual demand. Delivery is a process in which the finished goods are delivered to a customer. Return is defined as processes associated with returning or receiving returned products. (Iskanius, 2006; Supply Chain Council, 2005)

Management of supply chains is called Supply Chain Management. SCM is a substantially more extensive concept than logistics. SCM is defined as management of upstream and downstream business relationships together with suppliers and customers. SCM aims at producing large customer value with smaller total costs for the whole SC. (Christopher, 1998) SCM encompasses co-operation of various functions between suppliers and customers. Most essential divisions of SCM are those of managing business relations and managing customers.

2.1.2 Supply chain performance measurement

Sambasivan (2009:347) defines measure as a more objective or concrete attribute that is observed and measured and metric as an abstract, higher-level latent attribute that can have many measures. Because SC is a network of firms that includes material suppliers, production facilities, distribution services and customers linked together via the flow of materials, information and funds (Gunasekaran *et al.*, 2001:71), the measures have been classified as follows: funds flow (cost and profitability), internal process flow (production level flexibility, order fulfilment and quality), material flow (inventory and internal time performance), sales and services flow (delivery performance, customer responsiveness and customer satisfaction), information flow and partner relationship process flow (supplier evaluation and sharing of information with suppliers and customers).

According to Beamon (1999:275), a supply chain measurement system must place emphasis on three separate types of performance measures: Resource measures (generally costs); Output measures (generally customer responsiveness); and Flexibility measures (Ability to respond to a changing environment). Each of these three types of performance measures has different goals and purpose. Resource measures include: inventory levels, personnel requirements, equipment utilization, energy usage, and cost. Output measures include: customer responsiveness, quality, and the quantity of final product produced. Flexibility measures are a system's ability to accommodate volume and schedule fluctuations from suppliers, manufacturers, and customers (Beamon, 1999).

Many authors have classified performance measuring system (PMS) in different ways. A basic classification offered by Cagnazzo *et al.* (2010:164) consists of grouping PMS models into: Balanced models; Quality models; Questionnaire-based models; Hierarchical models; and Support models.

Balanced Model: Balanced models consider the presence of both financial and non-financial indicators. In these models several separate performance measures which correspond to diverse perspectives (financial, customer, etc.) are considered independently. Some of the important existing models are Performance Measurement Matrix; Balanced Scorecard (BSC); and Performance Prism.

Quality Models: These are frameworks in which a great deal of importance is attributed to Quality. An example of quality model is the Business Excellence Model (EFQM-Model) (EFQM, 1999).

Questionnaire-based Models: These are frameworks based on questionnaires. The Performance Measurement Questionnaire (PMQ) and TOPP System (a research program studying productivity issues in Norwegian manufacturing industry) (Rolstadås, 1998:991) are examples.

Hierarchical Models: SCPM models that are strictly hierarchical (or strictly vertical), characterised by cost and non-cost performance on different levels of aggregation are classified as hierarchical models. Frameworks where there is a clear hierarchy of indicators are: Performance Pyramid; Advanced Manufacturing Business Implementation Tool for Europe (AMBITE); The European Network for Advanced Performance Study (ENAPS) approach; and Integrated Dynamic Performance Measurement System (IDPMS).

Support Models: Frameworks that do not build a performance measurement system but help in the identification of the factors that influence performance indicators are classified as support models. These models are: Quantitative Model for Performance Measurement System (QMPMS); and Model for Predictive Performance Measurement System (MPPMS) (Cagnazzo *et al.*, 2010:164).

The focus of this study was on quality management which is discussed below..

2.1.3 Quality

There is much published work on quality as a performance measure in supply chains Beamon (1999:275). Quality is most often defined as the ability of a product or service to consistently meet or exceed customer expectations. Lillrank (2002:691) classifies quality definitions found in the literature to be divided into four categories: excellence, value for money, conformity to requirements and meeting or exceeding customer requirements.

Lillrank (2002) further emphasises that excellence-based definitions include the idea that products or services may include elements that are perceived as superior, which are often very subjective, hard to measure and confuse quality with product segments or grades. The most widely used definitions from the American Society for Quality and more recently ISO 9000 - 2000, are based on customer satisfaction, which may be achieved not only through conformance to requirements but through some inherent characteristics of the product or service, and the way it is presented and delivered to the customers (Barnes, 2009).

Bendell *et al.* (1995:44) argue that the importance of quality as an objective is now widely recognised throughout the world. As a result of increasing customer demands and the removal of barriers of trade, inefficient suppliers or suppliers of low quality goods or services will find it difficult to survive. According to Stevenson (2002:403), the degree to which a product or service successfully satisfies its intended purpose has four determinants, which are listed below:

- design;
- how well it conforms to the design;
- ease of use; and
- service after delivery

According to Peters (1999:6), quality management originated from two ideas about how to run organisations better. The first idea revolved around customers. If companies could determine what its customers like, they could deliver it the same way every time. Customers will come back to purchase such products and services, and will also tell others about these products and services. The second idea that companies need to explore is efficiency. If companies can figure out the most efficient way to produce a product or service and stop wasting time, materials, replacing poor quality goods or delivering unsatisfactory service, that company will be more successful. Quality falls under the umbrella of total quality management which is discussed below.

2.1.4 Total quality management

Total quality management (TQM) as defined by Mohrman *et al.* (1995:26) as an approach to managing organisations, which emphasises the continuous improvement of quality and customer satisfaction. It entails the application of systematic tools and approaches for managing organisational processes with these ends in mind (continuous improvement of quality and customer satisfaction), and involves the establishment of structures such as quality improvement teams for maintaining focus and enacting organisational improvement processes.

Lau and Tang (2009:410) define TQM as the management philosophy and company practices that aim to harness the human and material resources of an organisation in the most effective way to achieve the objectives of the organisation. TQM is further explained as a management-led process to obtain the involvement of all employees, in the continuous improvement of the performance of all activities, as part of the normal business to meet the needs and satisfaction of both the internal and external customers. Anjard (1998:238) further explains TQM as a visionary, cultural movement which represents recognition of a management philosophy that encourages employees to share responsibility for delivering quality services and products. Lau and Anderson (1997:85) explain what each abbreviated letter in TQM means as follows:

- The T-component of TQM: TQM implies a total, company-wide commitment to quality and calls for everyone, including suppliers, to be responsible for quality and involved in all the efforts to maintain or upgrade their work.
- The Q-component of TQM: The major goal of quality management is to meet and exceed customer expectations. Internal customers are as important as external customers. Continuous improvement should be integrated into the management of all systems and processes. Effective training should also teach and empower all employees to understand and solve quality related problems.
- The M-component of TQM: The broad nature of TQM efforts requires commitment of top management to the process. Top management is responsible for creating clear and visible values and to integrate these values into strategic business plans. TQM requires that all employees are to be involved and as a result it is important to re-shape the organisational culture that supports it.

Karia and Asaari (2006:30) define TQM practices (what an organisation does to demonstrate its commitment to TQM) as a set of practical measures such as:

- continuous improvement;
- meeting customer requirements;
- reducing re-work;
- long-range thinking;
- increased employee involvement and teamwork;
- process re-design , competitive benchmarking;
- team-based problem solving;
- continuous monitoring of results; and
- close relationship with suppliers.

The above involves the combined efforts of all members of the organisation – from senior management to shop-floor employees. Mohrman *et al.* (1995:26) emphasise that the key to TQM is the definition of quality as meeting customer requirements, and a belief that the organisational capability to deliver quality is enhanced by continuously improving the capacity of the work processes of the organisation to deliver value to customers.

TQM has been widely implemented throughout the world. Many firms have arrived at the conclusion that effective TQM implementation can improve their competitive abilities and provide strategic advantages in the marketplace (Gharakhani *et al.*, 2013:46). Several studies have shown that the adoption of TQM practices enable firms to compete globally (Talib, Rahman & Qureshi, 2010; Nayab, 2011). Total quality has developed to what it is today along with other business management philosophies. It is a diversified way to see the growth of the whole business. TQM posits certain numerical and non-numerical goals for a company. Reaching these goals is typically not easy. It requires support from management, long-term strategic decision-making and motivated personnel (Talib, Rahman & Qureshi, 2010). In general, product or service quality measures are essential to find out information that is really important to customers about each product or service. This information can help to drive the new product design process, which fit the customers' requirements (Cameran, Moizer & Pettinicchio, 2010:421). Moreover, measuring product and service quality is identifying information on what customers want as well as what dimensions of products or services need to be measured and controlled.

3. PROBLEM INVESTIGATED

Supply chain managers face issues on a daily basis which require direct attention and quick response. With the supply chain being at the core of business operations, these

issues can directly affect the company in substantial ways. There is a high cost due to inconsistencies in quality of the intermediate and final products and this affects the whole supply chain, including the relationship with the customers. The pressure on manufacturers to produce high-quality products that are safe is therefore an increasing challenge. The number of product recall cases is growing each day. Poor quality products cause business disruption, financial loss, costly lawsuits, and long-lasting damage to the brand and corporate image of organisation that is dependent upon supply chain performance. A brand or even the organisation's reputation can be damaged irreparably. There was a concern in the organisation about the inconsistency of the quality of the final products, which did not only lead to an increasing number of customer complaints, but also a high amount of off-spec products that had to be re-worked.

Utilizing total quality management practices in a petrochemical organisation is important as this sector forms a significant part of a country's economic system especially in the supply of fuels and chemicals. Implementing TQM practices can assist the organisation by improving business as a whole. Some of the benefits can lie in the continuous improvement of processes and products, and enhanced efficiency of people and machines leading to improved quality (Nayab, 2011). Nayab (2011) goes further to emphasize that the major thrust of TQM would be to achieve productivity and process efficiency by identifying and eliminating problems in work processes and systems. TQM would address key problem areas such as mistakes in work processes, redundant processes, unnecessary tasks, and duplicate efforts. TQM interventions would therefore also help with predicting and pre-empting such mistakes and unproductive activities. Improving process efficiency would bring about many benefits to the organisation in terms of costs and time. Current research appears to fail in measuring the extent of the use TQM practices to reduce cost of poor quality in this particular industry. Below is the discussion of the objectives of the study.

4. RESEARCH OBJECTIVES

The research objectives are divided into primary and secondary objectives.

4.1 Primary objective

The primary objective of this study is to investigate the extent of the use of total quality management practices in a supply chain of a petrochemical organisation.

4.2 Secondary Objectives

To achieve the primary objective, the following secondary objectives include a need:

- to conceptualize quality and TQM;
- to empirically assess the use of TQM practices using a standard TQM questionnaire;
- to determine the factor structures and internal consistencies TQM questionnaires within the petrochemical organization; and
- to make managerial recommendations.

5. RESEARCH METHOD

The empirical research used to achieve the objectives of this study is based on a descriptive research approach. This type of research is used when there is a clear statement of the research problem and detailed information needs (Barbie & Mouton, 2015). Bhattacharjee (2012) indicates that such formalized studies are used to achieve research objectives that involve characteristics associated with a subject population, estimates of the proportions of a population that have these characteristics, and the discovery of associations amongst different variables. A positivist or quantitative research

design was therefore identified as relevant to study the use of TQM practices in a petrochemical industry.

Saunders *et al.*, (2012) indicate that the research methods used in this type of research design are structured and quantitative in nature. Quantitative research seeks to quantify data as compared to qualitative research that is unstructured, exploratory in nature and based on small samples from the population (Barbie & Mouton, 2015). Thus, the quantitative research paradigm is based on positivism, therefore measuring social constructs objectively, with the aim of testing certain research objectives based on the statistical analyses of a set of theoretical variables. Cameron and Price (2009:213) emphasize that quantitative data present significant practical advantages as it allows one to draw conclusions related to a wider group and data, in addition, it can be statistically analyzed. In view of the above considerations, the quantitative approach was selected as the most suitable for the purposes of this research.

5.1 Participants

The participants could be defined as an available sample of employees working in the supply chain departments of a petrochemical organisation. A random sample of 200 employees were targeted from a population of 583 employees. Workers from all levels; ranging from professional to skilled, were included in the study population.

Permission was given by the managing director of the organisation to use the employees for the study. An e-mail was sent out to all line managers requesting their co-operation in the completion of the questionnaires.

All the participants were briefed about the purpose of the study and why they are requested to participate. They were also assured that their identities would remain confidential. They were also informed that their participation was voluntary and that they were free to withdraw from the study if they so desire at any time. Thus, the participants were free from any stress on account of their participation in the study.

5.2 Measuring Instrument

A biographical questionnaire regarding participants' age, gender, race, education and years employed was included in the measuring battery. The questionnaire was based on Total Quality Management (TQM). It was adopted unchanged from Zhang, Waszink & Wijngaard, (2000) based on variables which include top management support, customer focus, supplier focus, employee empowerment, training and development, teamwork, process improvement, communication and strategy.. Employee involvement and empowerment were analyzed to determine if the concept of TQM was embraced. In order for the organisation to meet customers' changing needs, it is important to have continuous improvement, which is a pivotal aspect of TQM. Because there is no business without customers, customer focus and satisfaction were also measured. A five-point Likert-scale was used as a measuring system throughout, with the following scores: not satisfactory (1), somewhat satisfactory (2), unsure (3), satisfactory (4) and very satisfactory (5).

The use of the interval scaling method enables the use of traditional statistical analyses methods, which are discussed below.

5.3 Statistical Analysis

In this study the data were captured and analyzed using the SPSS and STATISTICA statistical programs. The instrument was previously tested and validated on 212 Chinese manufacturing companies (Zhang *et al.*, 2000). The results yielded nine factors and the reliability co-efficients were all above 0.838, indicating that the constructs were reliable. Exploratory factor analysis was used in this study to examine constructed equivalence

and to enhance the reliability results of the questionnaire. The number of factors was determined by the principal component analysis. Subsequently components extraction was used to estimate the number of factors followed by principal axis factoring extraction using a rotation method of direct Oblimin with Kaiser normalization and/or Varimax. Descriptive statistics (e.g. means and standard deviations) were used to analyze data. Cronbach alpha co-efficients were used to determine the internal consistency of the instrument.

Pearson product-moment correlation co-efficients were used to specify the relationship between the variables. T-tests and ANOVA were employed to determine differences between the groups in the sample. Effect size (Cohen, 1988:15; Steyn, 1999:12) was used in addition to statistical significance to determine the significance of relationships. Effect sizes served to indicate whether the results obtained were practically significant.

6. RESULTS AND FINDINGS

A total of 166 usable questionnaires were received. Table 1 represents a numeric dispersion of the sample.

Table 1: Biographical profile of the respondents

Item	Category	Frequency	Percentage
Gender	Male	126	75.9
	Female	40	24.1
Age Group (years)	≤20	1	0.6
	21 – 30	37	22.3
	31 – 40	85	51.2
	41 – 59	42	25.3
	≥60	1	0.6
Race	Black	88	53.0
	White	64	38.6
	Coloured	6	3.6
	Indian	7	4.2
	Other	1	0.6
Level of Employment	Junior	59	35.5
	Middle	83	50.0
	Senior	23	13.9
	Top	1	0.6
Duration of Employment (years)	0 – 2	12	7.2
	3 - 5	33	19.9
	6 - 10	33	19.9
	>10	88	53.0
Qualification	Below Matric	5	3.0
	Matric	59	35.5
	Diploma / Degree	84	50.6
	Post-graduate	18	10.8

Source: Compiled by the author from survey results

The sample consisted of 166 subjects with 126 males (75.9%) representing the majority of the sample and 40 (24.1%) females comprising the minority of the sample. Regarding age, the table depicts that the largest group was 85 (51.2%) of the sample that indicated that they were between 31 and 40 years of age. The second largest group was 42 (25.3%) of the subjects that indicated that they were between the ages of 41 and 59 years. The 37 (22.3%) subjects in the 3rd largest group were between the ages of 21 and 30 years. There was only one person below 20 years and only one person above 60 years.

Regarding their race, the largest group was those 88 (53%) subjects of the sample who indicated that they were Blacks. The second largest group (38.6%) was Whites whilst the Indians and Coloureds were 4.2% and 3.6% respectively. The majority of respondents were middle managers (50.0%) followed by junior employees (37.7%) and senior management (13.9%). Regarding qualification, majority (50.6%) of the respondents had either a diploma or a degree followed by those who only had matric. About 10.8% of the respondents had a post-graduate qualification while the minority (3%) did not have matric.

One of the main objectives of this study was to measure the extent of the use of TQM practices. The results are shown in Table 2 below.

About 27% of the respondents stated that there were no clear quality goals identified by top management whilst some (20%) disagree with the statement that top level managers view quality as more important than cost. Almost 58% of the participants agreed that the organisation receives a lot of customer complaints related to quality. About a third of the employees mentioned that they were not empowered to take corrective decisions on the spot without looking up to managers for their approval. Another third stated that they were not provided with training in quality principles.

About half (46%) of the respondents said that there were no rewards or incentives for quality improvements. Some employees stated that meeting and exceeding customer expectation were not accorded a higher strategic priority than short-term production target. About a third disagreed that there was emphasis on team based problem solving approach rather than individual/department based approach. Overall there was a significant number of employees who agree that total quality management is not practiced within their work areas and that leads to a high number of quality- related customer complaints.

Table 2: Results of the Total Quality Management questionnaire

		% of all who disagree	% neutral	% of all who agree
TOP MANAGEMENT SUPPORT				
C1	There are clear quality goals identified by top management	27%	11%	63%
C2	Top management often discusses the importance of quality	14%	16%	70%
C3	Top level managers view quality as more important than cost	20%	22%	58%
CUSTOMER FOCUS				
C4	Customers feedback is used to determine customer requirements	7%	15%	78%
C5	Customer feedback is used as the basis for measuring quality	9%	18%	73%
C6	We have a lot of customer complaints related to quality	25%	16%	58%
SUPPLIER FOCUS				
C7	Quality and not price is the prime criteria in supplier selection	21%	36%	43%
C8	Suppliers are treated as customers whose feedback is important in the quest for improvement	15%	27%	57%
C9	Long term relationship is encouraged with suppliers	9%	23%	68%
EMPLOYEE EMPOWERMENT				
C10	My manager trust me in carrying out my actions	16%	15%	69%
C11	Employees are empowered to take corrective decisions on the spot without looking up to managers for their approval	32%	22%	46%
C12	I can decide the best way to do my wok	23%	15%	62%
C13	I have all the required resources to execute my job properly	23%	20%	57%
TRAINING AND DEVELOPMENT				
C14	Employees are encouraged to participate in education and training within the organisation	32%	15%	53%
C15	Employee training is provided in quality principles	33%	24%	43%
C16	Senior managers allocate adequate resources towards effort to improve quality	30%	30%	40%
C17	There are rewards for quality improvements	46%	20%	34%
C18	Financial incentives are used to reward quality improvements	45%	22%	34%
C19	Non-financial incentives are used to reward quality improvements	32%	36%	33%

Table 2 continued

TEAMWORK				
C20	There is emphasis on team based problem solving approach rather than individual/department based approach	34%	21%	45%
C21	People in the work unit share responsibility for the success and failure of their work	41%	16%	43%
C22	Work decisions are made through consensus	35%	24%	41%
PROCESS IMPROVEMENT				
C23	We use statistical control charts to control processes	20%	20%	60%
C24	We use inspection for quality control	13%	19%	69%
C25	We have a program to find wasted time and costs in all internal processes	28%	32%	40%
COMMUNICATION				
C26	Management provide regular customer/ supplier feedback	27%	28%	45%
C27	The quality management system contributes to collection and integration of information used for decision making	21%	27%	52%
C28	The organisation practices continuous improvement in communication between employees and managers	26%	19%	55%
STRATEGY				
C29	Meeting and exceeding customer expectation is accorded a higher strategic priority than short-term production target	22%	27%	51%
C30	Leaders in the organisation try to plan ahead for technological and organisational changes that might affect the future performance	22%	18%	60%

Source: Compiled by the author from survey results

Further analysis of the data could only be done once the proposed dimensions of total quality management had been confirmed. Factor analysis was used to investigate the construct validity of the scales in the questionnaire. The Kaiser-Maier-Olkin test as well as Bartlett's test of sphericity were obtained in order to evaluate sampling adequacy. KMO takes values between 0 and 1, with small values meaning that overall the variables have too little in common to warrant factor analysis. Values above 0.70 are usually considered to be acceptable.

The KMO value for the TQM questionnaire was 0.858. Bartlett's sphericity was significant. A number of factor solutions were again investigated considering guidelines such as the Kaizer criterion (Eigen values larger than unity), the scree plot, the amount of variance explained by the factors, as well as the clarity and size of the factor loadings.

For the TQM questionnaire, seven factors were identified, explaining 68.3% of variance. The factors were named as follows:

- Factor 1: Reward and Training
- Factor 2: Supplier Focus
- Factor 3: Empowerment
- Factor 4: Top Management Support
- Factor 5: Process Improvement
- Factor 6: Customer Focus
- Factor 7: Teamwork

Following the identification and labelling of the factors, the internal consistency (reliability) of the sub-scale scores were calculated and evaluated by means of Cronbach's Alpha. The value of Alpha, the item-total correlations as well as the average inter-item correlation were taken into account. Factor reliability of the identified dimensions of TQM is presented in Table 3.

Table 3: Results of the factor reliability for the dimensions of TQM

Factor	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Reward and Training	.88	.882	9
Supplier Focus	.79	.79	3
Empowerment	.75	.75	3
Top Management Support	.79	.80	3
Process Improvement	.80	.81	4
Customer Focus	.84	.84	2
Teamwork	.65	.66	5

Source: Compiled by the author from survey results

The reliability of six of the factors was well above 0.7 indicating strong reliability but the teamwork dimension gave a factor reliability of only 0.648. The factor with a value of 0.65 was also retained as it is also deemed acceptable in social sciences (Field, 2009:675). It can therefore be concluded that the TQM questionnaire as utilized in this research is a valid and reliable measuring instrument. Lastly, the subscale scores were calculated, using the mean score on the items per factor. Results are presented in Table 4. Subsequent analyses were performed using these factor scores.

Table 4: Descriptive statistics of the dimensions of TQM

Factor	Mean	Minimum	Maximum	Range	Variance
Reward and Training	3.13	2.77	3.48	.70	.06
Supplier Focus	3.62	3.32	3.92	.59	.09
Empowerment	3.40	3.17	3.51	.34	.04
Top Management Support	3.69	3.57	3.84	.27	.02
Process Improvement	3.48	3.10	3.86	.76	.09
Customer Focus	4.01	3.98	4.04	.06	.00
Teamwork	3.22	2.97	3.56	.59	.06

Source: Compiled by the author from survey results

The results of the product-moment correlation co-efficients between the dimensions are reported in Table 5.

Table 5: Correlation co-efficients for TQM dimensions

	Reward and training	Supplier focus	Empowerment	Top management support	Process improvement	Customer focus	Teamwork
Reward and training	1.00	.38 ^{**}	.52 ^{**}	.56 ^{**}	.56 ^{**}	.35 ^{**}	.68 ^{**}
Supplier focus	.38 ^{**}	1.00	.32 ^{**}	.30 ^{**}	.39 ^{**}	.46 ^{**}	.28 ^{**}
Empowerment	.52 ^{**}	.31 ^{**}	1.00	.42 ^{**}	.38 ^{**}	.35 ^{**}	.50 ^{**}
Top management support	.56 ^{**}	.30 ^{**}	.42 ^{**}	1.00	.48 ^{**}	.42 ^{**}	.53 ^{**}
Process improvement	.56 ^{**}	.39 ^{**}	.38 ^{**}	.48 ^{**}	1.00	.39 ^{**}	.53 ^{**}
Customer focus	.35 ^{**}	.46 ^{**}	.35 ^{**}	.42 ^{**}	.39 ^{**}	1.00	.39 ^{**}
Teamwork	.68 ^{**}	.28 ^{**}	.50 ^{**}	.53 ^{**}	.53 ^{**}	.39 ^{**}	1.00

Source: Compiled by the author from survey results

The other objective of this study was to compare the findings based on the demographic differences. This was achieved by using the T-test and ANOVA tools to establish if there were any significant differences in the responses based on the biographical information of the participants. The results are discussed below.

- **T-test and ANOVA**

The results of the t-test and ANOVA is summarised as follows:

- Gender: The questionnaire was completed by 126 males and 40 females. The p-values were greater than 0.05 indicating the participants answered the questions in a significantly similar manner statistically.
- Age group: The p-value for Teamwork was below 0.05 indicating that there was a statistically significant difference in the way the different age groups responded to the questions. This is confirmed by the ANOVA results. A medium practically visible difference was seen between the 31 – 40 and 41 – 59 age groups. For all the other dimensions with p-values above 0.05; there were no significant differences in the responses by different age groups
- Race: The p-values were greater than 0.05 indicating the participants answered the questions in a significantly similar manner statistically.
- Level of employment: The p-value for top management support was below 0.05 indicating a significant difference in the way different levels of employment responded. The effect sizes indicated that there was some medium-practically visible difference in the way the various levels responded to this dimension.
- Duration of employment: According to the p-Value of 0.03 and the ANOVA results, a significant difference was only observed for the dimension of teamwork.
- Qualification: The p-Values and ANOVA results indicated that significant differences were only observed for the responses to reward and training; supplier focus and customer focus dimensions.

7. CONCLUSIONS AND RECOMMENDATIONS

The study indicated that most respondents in the organisation understand the concept of quality and embraces it. The impact of quality on customer satisfaction was clearly understood by the majority. However a lot of quality-related customer complaints were received and that showed that continuous improvement within the organisation should be a priority.

It was evident that TQM practices have been implemented to a large extent in the organisation, but there were also areas where they were not. A few responses indicated that in some areas, top management does not view quality as more important than cost.

Quality is defined as how well a product does what it is supposed to do – how closely and reliably it satisfies the specifications to which it is built. Managers must be quality conscious and understand the link between high-quality goods and/or services, and competitive advantage. Thus, the focus of the quality viewpoint is the customer, who ultimately defines quality in the marketplace.

Providing high-quality products is not an end in itself. Successfully offering high-quality goods and services to the customer will typically result in important benefits to the organisation, namely a positive organisation image, lower costs and higher market share, and decreased product unsuitability.

Total quality has developed to what it is today along with other business management philosophies. It is a diversified way to see the growth of the whole business. TQM posits certain numerical and non-numerical goals for an organisation. Reaching these goals is

typically not easy. It requires support from management, long-term strategic decision-making and motivated personnel.

The operation process should identify the cost, quality and time that enable the organisation to deliver a superior product and service to its targeted current customers. To continue to be at the leading edge, the organisation must continually analyze and systematically improve their business processes measures. Therefore, attention must be given for continuous process improvement to meet the customers' requirements and increase their market share. Customer focus, as an element of TOM, refers to the degree to which a company continuously satisfies customer needs and meet expectations. Customer focus should be meticulously applied as a means of strengthening the relationship with customers and improving quality rather than just being reactive to customer complaints.

Training and development of the employees is required to ensure competent people in the long run. It is important to communicate with everyone in the organisation; empowerment and delegation are largely about giving each employee a sense of responsibility for manufacturing a product or for performing a service to satisfy customers.

8. RECOMMENDATIONS FOR FUTURE RESEARCH

The findings obtained in this study could be replicated with larger sample groups in order to draw conclusions about the factor-structure and TQM questionnaire in the South African context.

Participants in different demographic groups responded differently to certain dimensions.. Possible reasons for this could be established by further research.

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**THE IMPACT OF OUTSOURCING TECHNOLOGICAL SERVICES ON THE
OPERATIONAL PERFORMANCE OF TELECOMMUNICATION COMPANIES IN SOUTH
AFRICA**

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Key words: IT outsourcing, performance measurements, cost effectiveness, flexibility, service quality

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OPERATIONAL PERFORMANCE OF TELECOMMUNICATION COMPANIES IN SOUTH
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ABSTRACT

Outsourcing as a key business strategy has been used by companies in various industries. Competitive pressures have forced companies to look objectively and critically at business processes. Companies have been outsourcing manufacturing operations, business services and even entire business lines successfully for a long time. Despite increased research on outsourcing, the question on whether outsourcing really improves firm performance remains

unclear. This paper evaluates the impact of outsourcing technological services on the operational performance of telecommunication companies in South Africa using quality, flexibility and cost as business performance metrics. A structured questionnaire was administered to 103 senior and middle-level engineers, technicians and project managers of a telecommunications company in South Africa. Employing the SPSS version 22 for statistical analyses, the findings suggest a positive linkage between outsourcing and improved quality, enhanced flexibility and cost reduction. Overall, the relationship between the effectiveness of the outsourcing process and organisational performance is significant.

Key words: IT outsourcing, performance measurements, cost effectiveness, flexibility, service quality

Area of study: Supply chain management/Logistics/Management

1. INTRODUCTION

Faced with cost pressures and market competition in today's dynamic globalised business era, more and more businesses take recourse to outsourcing so as to sustain viability and ensure survival (Mukherjee, Gaur and Datta, 2013:389; Nieto and Rodríguez, 2011:345; Rilla and Squicciarini 2011:396). "From a business and competitive advantage standpoint, executives need to understand whether their strategy to engage in outsourcing has been beneficial" (Lahiri, 2016:464). The phenomenon of outsourcing has spawned a rich body of scholarly work over the last two decades and it is seen as an essential component of firms' competitiveness in the new millennium (Kroes and Ghosh, 2010:124). Yet, the answer to one important outsourcing question remains elusive: Does outsourcing really improve firm performance? Addressing this question is important as firms across nations continue to embark on the practice of outsourcing to save operating costs and remain competitive (Lahiri, 2016:464). Outsourcing as a field is professionalising in the new millennium (Gandhi, Gorod and Sauser, 2012:39), though in the early stages. Consequently, there is little agreement on the standard of outsourcing competencies and on what is needed to manage it successfully, especially in terms of the empirical testing of its impact on business performance (Wilcocks, 2011:5; Pratap, 2014:226).

Khaki and Rasidi's (2012:235) on outsourcing study considered operational objectives and performance of Iranian telecommunication firms focusing on cost reduction, and developing quality, flexibility and better service. Khaki and Rasidi (2012:235) also

considered organisations' performance measures as financial and non-financed factors and showed that outsourcing could lead to better financial and non-financial performance and services. Several scholars use a mix of direct and indirect measures such as organisational quality, employee welfare, return on investment and innovation performance (Arvantis and Loukis, 2012:771), and job security (Kamyabi and Devi, 2011:181) to measure the impact of outsourcing on organisational performance.

This paper focuses on quality, flexibility and cost reduction as performance metrics to measure the impact of outsourcing on telecommunication industries. The paper provides an objective evaluation of a telecommunications company's outsourcing strategy by evaluating its impact on the operational objectives through checking on cost, flexibility, service quality and financial performance. In the process, the paper contributes to both the practice and implications of outsourcing in the telecommunications company.

The paper is structured as follows. Section 2 focuses on the literature review, followed by problem investigated in Section 3. Section 4 and 5 respectively focus on objectives and research methods. Section 6 presents the results and findings while Section 7 covers the practical managerial implications and recommendations. Section 8 concludes the paper.

2. LITERATURE REVIEW

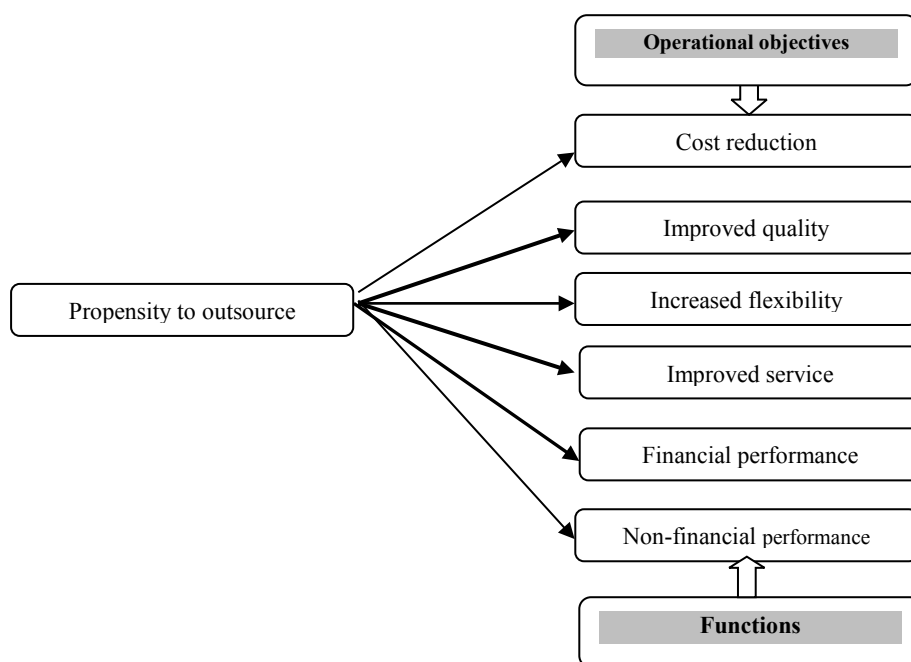
Outsourcing manifests when an organisation transfers some of its activities on a contractual basis to external providers who have the required and necessary knowhow, modern-day technologies and specialised resources to do such activities efficiently and timeously (Diaz-Mora and Triguero-Cano, 2012:1631). According to Kahai et al. (2011:178), outsourcing is a practice of one firm hiring another to perform tasks that were originally performed in-house. Outsourcing can also be defined as the contracting out of a business process, which an organisation may have previously performed internally (Ghodeswar and Vaidyanathan (2008:23; Kroes and Ghosh, 2010:178). The organisation may also have a new need for an independent organisation from which the process is purchased back as a service. This paper adopts Diaz-Mora's (2012:179) definition of outsourcing as the act of transferring some of the companies recurring internal activities to outside providers through a contractual arrangement.

Outsourcing can be sub-categorised into three distinct types, namely business process outsourcing (BPO), knowledge process outsourcing (KPO) and information technology outsourcing (ITO) (Naz, Ali, Naz and Sadiq 2013:683). BPO is when a firm outsources its

back office projects. This means that services are given to providers outside the host company. KPO covers the area of research, consultancy, and analysis. ITO is the outsourcing of technological services, a field with rapid advancement and development requiring firms to keep abreast of such developments by means of fast and reliable software and systems (Koh et al., 2007: 88).

Outsourcing business models include business process that outsource engagement models and out-tasking models. Engagement models are comprehensive or selective, more strategic to the business, complex, longer in duration and integrated across functional processes (Emmanuel, 2013:81). Out-tasking models normally focus on licensing and contracting, are less complex models involving fewer processes and hence limited to functional areas but more tactical and more labour oriented (Emmanuel 2013:81). Frayer, Scannell, and Thomas (2000:29) suggest that companies increasingly consider outsourcing strategies as a means of increasing quality, reducing costs, and enhancing overall performance and competitive position. Accordingly, Figure 1 presents an analytical model that shows the performance measurement variables of outsourcing. Essentially, the functional goal variables of this analytical model include cost reduction, flexibility, quality improvement and service. The dimensions of the organisational function include financial and non-financial functions.

Figure 1: Analytical model of the outsourcing impact



Source: Rashidi and Khaki (2012:235)

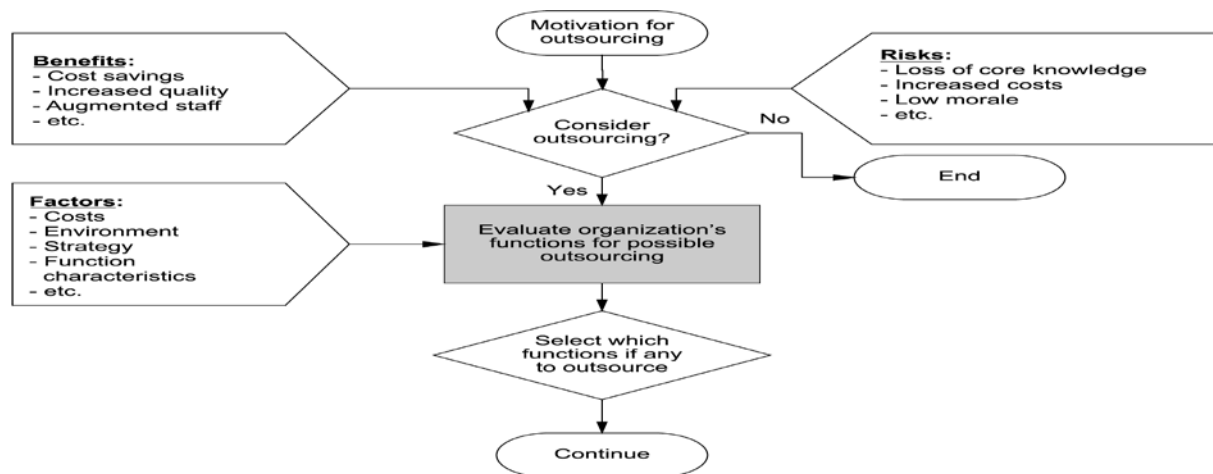
An outsourcing decision is more often based on its ability to reduce cost (Cho et al., 2008:344; Youngdahl and Ramaswamy, 2008:212). Transaction cost theory states that outsourcing can be profitable if the costs of outsourcing activities are less than the benefits, i.e. if the benefits of outsourcing outweigh the actual costs of internally performing the same service. In other words, with “extra overheads, operating profits, and costs of transaction, dealers would still be able to provide the same quality service at a much lower price” (Kakabadse and Kakabadse, 2000:113; Krishnaswamy et al., 2009:47; Williamson, 1991:269). Kotabe (1998:8) argues that, “while the reduction of costs is not entirely the sole reason to outsource, it is a major factor”. With outsourcing, fixed costs are translated into variable costs through outsourcing. This allows firms to invest saved capital elsewhere. Since the firm has extra capital saved through outsourcing, which can be injected into other activities, it becomes more attractive to external investors. The argument of cost saving due to outsourcing is further supported by a study conducted by Yu and Lindsay (2011:179); Liu and Tyagi, (2017:254); Bustinza et al, (2010:179) and Fawcett et al. (2007:283) who indicated that the primary motivation to outsource is related to cost savings in the form of reduced operating costs, creating a variable cost structure, and conserving capital. Outsourcing for cost reduction can also reduce fixed investment in internal process and allow for capital to be invested in higher productivity areas within the firm thus driving cost even lower (Brewer et al, 2013:176 ;Mohr ,Sengupta and Slater, 2011:42)

Yu and Lindsay (2011:317) alluded that “beyond merely finding a low cost supplier, products or services can be outsourced to a higher quality supplier with the intent of lowering the buying firm’s overall costs of quality”. Those responsible for seeking service providers always regard the highest quality available and the price of having the service outsourced. Clearly, service quality and price level are key aspects in gaining competitive advantage and that is the core concern of outsourcing vendors (Ghodeswar and Vaidyanathan, 2008:23). Wallenburg et al, (2010: 579); Bengtsson and Dabhilkar (2009:231) also alluded that firms often undergo outsourcing to seek quality improvements, a performance better tied to core competence strategies. When the firm provides excellent and world-class services, the firm builds, creates and establishes its reputation, thus increasing the demand for the services it provides.

Kotabe et al. (2012:37) explained that “flexibility is the ready capability to adapt to new, different, or changing requirements and requires investments in information, automated production and logistics technologies”. Flexibility appears to be an important driver of outsourcing, not just from a scale perspective, but also regarding the scope of product or

service. From a flexibility point of view, outsourcing permits organisations to create lean supply chains that can quickly change to address changing requirements, demands or technologies (Tsai et al., 2012:182). Flexibility, as discussed here, includes parameters such as “operational flexibility, demand flexibility, resource flexibility, or the flexibility of a number of other strategic components.” Just like quality, flexibility can be affected positively or negatively by outsourcing. Brewer et al., (2013:180) and Diaz-Mora and Triguero-Cano, (2012:180) support the assertion of positive flexibility.

Figure 2: Outsourcing decision framework



Kremic, Tukul and Rom (2006:467)

The risks and benefits scale developed by Kremic et al. (2006:467), has been used as a point of departure in numerous discussions. The strength of this framework relates to surveys on motivation (drivers, benefits) and risks of outsourcing but lacks the performance management of measuring the impact of outsourcing using cost, quality and flexibility as performance metrics (Lahiri, 2016:464; Kamyabi and Devi, 2011:181; Bolat and Yilmaz, 2009:10). The framework explains the motivation, benefits and risks involved in outsourcing but does not reflect the effects or impact of outsourcing on the organisational performance. Hence there is need to conduct research to assess the effect of outsourcing on organisational performance.

With reference to the transactional cost economies (TCE) theory, cost curtailing is done from assumed economies of scale. Economies of scale are advantageous to both the vendor and client in terms of money. The vendor has expertise and access to new technologies and equipment and so it is cheaper to buy the services rather than to develop it in-house. This would save infrastructure building cost (capital investment) and reduce opportunity cost. If the contract services were purchased at a fixed cost, then cost uncertainties may be avoided (Naz et al., 2013:687; Large et al., 2011:822).

A research conducted by Han and Mithas, (2013:315) suggested that IT outsourcing is negatively associated with non-IT operating cost. This is better achieved when firms invest in internal IT systems, and in particular, IT labour. Arvanitis and Loukis (2012:771) conducted research in Greece and Switzerland and concluded that outsourcing enhances innovation performance (particularly process innovation) but has a weak positive effect on labour productivity and quality. A study conducted by Agrawal and Haleem (2013:121) revealed that outsourcing IT improved performance in cost efficacy. A report on outsourcing by Deloitte and Touche (2014:253) identified fixed cost on information technology, human resources, finance and procurement as the four primary types of fixed cost being changed to variable cost by outsourcing. Naz et al. (2013: 687) studied outsourcing and organisational performance in the telecommunication sector and indicate that cost effectiveness, flexibility, access to skill and technology all have a positive impact on organisational performance.

For the purpose of the current research cost, flexibility and quality are used to measure the impact of outsourcing on the operational performance of the telecommunications industry.

3. PROBLEM INVESTIGATED

Scholars, practitioners and policy-makers need to understand whether and how outsourcing benefits an organisation. Despite the scholarly understanding that outsourcing can result in organisational gains if properly executed (Grimpe and Kaiser, 2010:1483) and organisational pains if inadequately formulated and implemented (Grimpe and Kaiser 2010:1483), empirical evidence on whether outsourcing really benefits or hurts the firm is lacking (Eikemann, Kemeter, Aichberger and Poetscher, 2013:2). Brewer, Ashenbaum and Ogden (2013:176) alluded that ambiguities concerning the connection between outsourcing implementation and the expected performance improvements.

Telecommunication companies currently outsource some of their technical services from external providers (Nieto and Rodr'iguez, 2011:345). However, the effects of outsourcing these services have not been evaluated to determine their impact on organisations' operational objectives. Such an evaluation would determine whether the organisation should continue or discontinue outsourcing services as such results have not been well confirmed by research, especially in the telecommunication companies (Jiang & Qureshi

2006:44; Mukherjee et al. 2013:377; Brewer, 2013:181; Rilla and Squicciarini 2011:393; Lahiri, 2016:393). The research is motivated by the idea of empirical testing of the effects of outsourcing on business performance in the South African context.

4. RESEARCH OBJECTIVES

The paper seeks to empirically examine the impact of outsourcing on organisation's operational performance by using quality, cost and flexibility as performance metrics and its specific objectives are:

- to determine whether outsourcing leads to cost reduction;
- to ascertain whether outsourcing improves service quality; and
- to determine whether outsourcing increased flexibility

5. RESEARCH METHOD

The paper applied positivistic philosophy, adopting scientific methods and systematising knowledge generation process with the help of quantification to enhance precision in the description of parameters (Lancaster, 2005:174). This philosophy allows testing of cause and effect relationships and describing a phenomenon that can be objectively measured through collecting and converting data into a numerical form that ease statistical calculations (Johnson and Christensen, 2010:76; Johnson and Onwuegbuzie, 2004:14)

As research design is "a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings" (Robson and McCartan, 2016:74) and allow for answering of the research questions (Hesse-Biber and Johnson, 2015:6), choice of appropriate research design is key. For the purpose of this paper a case study research design was adopted as the findings of one study can be guide to what occurs in another situation and it include a comparison of the two situation (Yin, 2014:40). Swanborn,(2010:66) further considers the case as an experiment and claims that case studies can lead to analytic generalisations. The rationale for adopting a case study is that it examine theory testing and it can be deductive relying on quantitative method (Lokke and Sorensen, 2014:66, Lokke and Sorensen, 2014:72).

The rationale for considering quantitative research for the purpose of this study is that it allows for testing objective theories by checking the link between variables through statistical calculations (Johnson and Christensen, 2010:76). This is supported by Johnson

and Christensen, (2010:76) who alluded that empirical research is also quantitative and “data collected is converted into numbers so as to test statistical calculations and hence certain conclusions drawn.”

In this study the probability sampling was used focusing on stratified random sampling (Sekaran and Bougie, 2010:248).). The stratified sampling was chosen as it is the most efficient among all probability design since all groups are adequately sampled and that you are assured that you will be able to represent not only the overall population but also key subgroups (Neelankavil, 2008:65). The overall target population consisted of managers of the telecommunication company in South Africa. Participants consisted of managers from engineering, human resources, procurement, finance, marketing and sales and operations department, each department representing a strata.

Hundred and fifty (150) questionnaires were distributed. A questionnaire drop off and collection method was employed. One hundred and three (103) managers responded which was equivalent to 67% responded. The questionnaire consisted of closed end questions for easy analysis and had four (4) sections. The first section “A” captured the demographic details on the respondents and organisation which helped to establish a contextual profile of the respondent. The questions on section “B to D” deals with the rating of the three (3) performance measures of the organisation i.e. cost, quality and flexibility. Questions in sections “B to D” were answered using the five point Likert scale which ranged from strongly agree 5 to strongly disagree as 1 as a way to establish the relationship between the performance measures and outsourcing. This study adopted the contribution by Espion-Rodriguez et al, (2017:13) with reference to questionnaire designing.

The questionnaires were handed to the sectional manager for distribution and respondents would complete at their own convenience but within the specified fourteen-day period. Those respondents who were out on fieldwork were e-mailed the questionnaires and also asked to proffer their responses within fourteen days. Forty percent (40) of the questionnaires were distributed to senior level managers 60% to middle level managers.

Cronbach’s alpha was applied to test the accuracy of responses and the internal consistency of the questionnaire constructs, that is, how closely related a set of items are as a group. A pilot study was conducted where ten (10) senior and middle level technicians, engineers and project managers at the company were asked to complete a sample questionnaire as a way of verifying the content validity. Various changes were made so as to ensure content validity.

Descriptive statistics (i.e. means and standard deviations) were calculated to investigate two important characteristics of score distribution amongst the scales: central tendency and variability. Reliability estimates were then calculated based on Cronbach's alpha. An explanatory factor analysis was employed to assess construct validity of the scales. As per the results of this survey, there was a response rate of 68.7% of the 150 distributed questionnaires.

Each questionnaire was accompanied by a consent form to be completed by the participant confirming that they were voluntarily participating in the study. In addition, the consent form was clear that participants could withdraw from participating any time and could choose not answer those questions that they are not comfortable. Lastly, data was going to be analysed in aggregate and anonymously. This was done for ethical reasons.

6. RESULTS AND FINDINGS

6.1 Descriptives

Males represented 95.2% (n=98) compared to 4.8% (n=5) females respectively. This means that females were underrepresented in the sample. The average age for respondents was 28 years. Internal consistency between variables was evaluated by making use of Cronbach's alpha coefficient (Field, 2013:873). The overall standardised Cronbach's alpha for the total score for the dimensions of analysis was 0.741, thus meeting the acceptable value of 0.6 (Sekarana, 2013:289). This therefore indicates that the questionnaire was consistently reliable.

Table 1: Reliability-overall: Cronbach's alpha

Cronbach's coefficient alpha	
Variables	Alpha
Raw	0.718672
Standardised	0.740535

Source: Author's own compilation

Table 2: Pearson correlation coefficients: outsourcing and service quality subscales

Pearson correlation coefficients, N = 103					
Prob > r under H0: Rho=0					
	3.1	3.2	3.3	3.4	3.5
3.1. The outsourcing partner has improved the application of quality and technological services.	1				
3.3 The quality of services system has increased since outsourcing.	0.62	1			
	<.00				
3.3 The quality of documentation and training has increased since outsourcing.	0.17	0.19	1		
	0.07	0.05			
3.4 In my line of work outsourcing has improved the quality of my technological knowledge or acumen.	0.43	0.38	0.20	1	
	<.00	<.00	0.03		
3.5 Technological services being outsourced are being used optimally.	0.23	0.21	0.15	0.20	1
	0.01	0.02	0.10	0.03	

Source: Author's own compilation

The above table represents the internal reliability of the survey questionnaire of both the main and sub constructs of the research topic. The internal reliability of the survey questionnaire was checked with Cronbach's alpha value. It is found that the recommended value of 0.7 for all the measuring items met the acceptable value.

Principal factor analysis was also employed and the results revealed eight factors that account for much variation among the 20 items. Before the validation of the subscales, a Kaiser-Meyer-Olkin (KMO) measure was calculated. It is argued that a KMO value close to one (1) indicates that patterns of correlations are relatively compact and that factor analysis should yield distinct and reliable factors. KMO recommends accepting values greater than 0.5 as "barely acceptable" (Field, 2013: 684). In this study, the KMO value was 0.59.

Table 3 depicts the statistical results of factors that impact on outsourcing. The results further indicate that respondents generally agreed that outsourcing had a positive impact, in particular on flexibility and service quality (in that order).

Table 3: Statistical analysis of factors that impact on outsourcing

Par t	Variable description	Mean	Std Dev	Min	Max
2.1	Before outsourcing, in-house IT support generated huge cost increases.	3.64	0.96	1	5
2.2	Additional costs outside of contracts are high.	3.56	0.92	1	5
2.3	Outsourcing partner(s) has reduced the total cost.	3.52	0.81	2	5
2.4	Services costs increased after outsourcing functions.	3.49	0.86	2	5
2.5	Changing outsourcing partners caused transition costs to be high (due to a lack of support from previous vendors).	3.78	0.65	2	5
3.1	The outsourcing partner has improved quality and technological services application.	3.75	0.77	1	5
3.2	The quality of services system has increased since outsourcing.	3.85	0.70	2	5
3.3	The quality of documentation and training has increased since outsourcing.	3.77	0.67	2	5
3.4	In my line of work, outsourcing has improved the quality of my technological knowledge or acumen.	3.77	0.79	1	5
3.5	Technological services being outsourced are being used optimally.	3.75	0.61	2	5
4.1	The provision of IT infrastructure and services has created institutional competitive advantage.	4.02	0.69	2	5
4.2	The use of constructors and consultants has an effect of flexibility.	3.89	0.44	3	5
4.3	Outsourcing a vendor or partner is able to provide flexibility with staffing.	3.75	0.83	1	5
4.4	Market demands force the outsourcing partner to improve its performance and to tailor-make it to suit their requirements.	3.89	0.58	2	5
4.5	Infrastructural flexibility has enabled the organisation to remain relevant in this technological age.	3.81	0.61	2	5

Scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

6.2 Findings

Findings related to the literature review and primary research are set out below. These findings fulfil the objectives of this paper which evaluate the impact of outsourcing on operational performance of the organisation using cost reduction, service quality, and flexibility as performance metrics.

In terms of cost reduction, 77% of the participants agreed that changing outsourcing partners escalated transaction costs due to lack of support from previous vendors. Sixty five percent (65%) of the participants noted that before outsourcing, in-house IT support generated huge costs. While sixty one percent (61%) of the participants agreed that outsourcing partners reduced total costs, sixty one percent (61%) also claimed that the cost of services had increased, following the outsourcing function.

The current study reveals that respondents marginally agreed that outsourcing technological services impacted on cost reduction. A noteworthy feature of the results is that lack of transition between vendors is one of attributes that potentially impacts on high outsourcing costs. The above findings this means that outsourcing will not lead to cost reduction. This contradicts the findings of Jiang et al. (2006:1280) on the effect of outsourcing on organisations' operational performance in the United States of America whose findings revealed that outsourcing can indeed improve organizational cost efficiency. This is also supported by Mohr et al. (2011:42) who indicated that 66% of the executives focus their outsourcing effort on cost reduction and this included reducing production cost, capital investment, fixed cost, overheads and downsizing (Brewer et al., 2013: 176).

When assessing the service quality component, the findings suggest that 75% of participants feel that the quality of the service system has increased since outsourcing; 75% of the participants suggested that technological services being outsourced were being used optimally, while 72% of the participants believed that the quality of documentation and training has increased since outsourcing. The results of the current study reveal that the outsourcing of IT services has a definite impact on service quality. This finding is consistent with other studies. This confirms the contribution by Wallenburg et al. (2010: 579); Bengtsson and Dabhilkar (2009:231) results which found that, "as companies seek to enhance their competitive positions in an increasingly global market place, they are discovering that they can maintain quality by relying increasingly on outside service providers."

Turning to flexibility, 84% of the participants felt that the use of constructors and consultants had an effect of on flexibility. Seventy nine percent (79%) of the participants believed that market demand forced the outsourcing partner to improve its performance and to tailor-make it to suit their requirements, while 78% were of the opinion that the provision of IT infrastructure and services had created an institutional competitive advantage. In addition, three quarters of the participants agreed to the fact that infrastructural flexibility enabled the organisation to remain relevant in this technological age. Flexibility has been reported as one of the important drivers for companies to achieve their strategic goals and also increase their competitive advantage. The findings of the current study reveal that respondents agreed that the use of contractors influenced flexibility. Based on the above findings, this means that outsourcing will lead to increased flexibility, which is consistent with the findings in the studies of Tsai, Lai, Lloyd and Lin, (2012:182), whose believed that outsourcing permitted organisations to create lean supply chains that could quickly change to address changing requirements, demands or technologies. .This is supported by research conducted by Naz and Sadiq (2013:687) whose findings indicated a strong relationship between flexibility and operational performance. . This is also aligned to the contribution of Fawcett et al. (2007:33) and Kotabe et al. (2013:37).

In light of the above observations, the discussion of the findings follows a thematic approach, as explained below:

6.2.1 Impact of outsourcing on cost reduction

The current study reveals that respondents marginally agreed on the impact of outsourcing technological services on cost reduction. It is noteworthy that the results reveal lack of transition between vendors as one of attributes that potentially impacts on high outsourcing costs. This indicates that the transition between different services provides is not monitored closely. A study conducted by Agrawal and Haleem (2013:121) revealed that outsourcing IT improved performance in terms of cost-efficacy. A report on outsourcing by Delloite and Touche, (2014:253) alluded that fixed cost on information technology, human resources, finance and procurement were the four primary types of fixed cost being changed to variable cost by outsourcing. Generally, “most firms realise the need to improve their overall performance and to reduce costs as the major impetus for outsourcing” (Williamson, 1991:269-296). Based on the above findings, this means that outsourcing will not lead to cost reduction. This contradicts the study of Jiang et al.

(2006:1280-1300) on the effect of outsourcing on organisational operational performance in the United States of America, where one of the performance metrics included cost efficiency. The results of that study revealed that while outsourcing can improve organisational cost efficiency, it does not necessarily improve organisational productivity and profitability (Youngdahl and Ramaswamy, 2008:212-221). Likewise, Gilley et al. (2004:232) also confirm that outsourcing decreases transaction cost.

6.2.2 Impact of outsourcing on service quality

The results of the current study reveal that outsourcing IT services impacts on service quality. This finding is consistent with other studies found in literature. Yu and Lindsay (2011:306) alluded that beyond “merely finding a low cost supplier, products or services can be outsourced to a higher quality supplier with the intent of lowering the buying firm’s overall costs of quality”. As the business climate continues to evolve, most organisations continuously want to improve the quality of their service. Nayak et al., (2007:277) discovered that outsourcing was successful in that it improved product quality, increased sales, and improved buyer-supplier relation. It has further been established that the successful implementation of an outsourcing strategy has been credited with helping to improve capacity and quality (Wallenburg et al, (2010: 579); Bengtsson and Dabhilkar (2009:231). Other studies reveal that outsourcing has been used as an alternative mainly in instances where there were insufficient personnel. This was confirmed by Elmuti (2003:171).) In turn, this strengthens Bolat and Yilmaz (2009:7) results, which found that as organisations sought to enhance their competitive positions in an increasingly global market place they are discovering that they can maintain quality by relying more on outside service providers.

6.2.3 Impact of outsourcing on flexibility

Flexibility has been reported as one of the important drivers for organisations to achieve their strategic goals and to increase their competitive advantage. The current study reveals that respondents agreed that the use of contractors had an effect on flexibility. Another finding is that infrastructural flexibility also had a positive impact on the organisation in that it enabled the organisation to remain relevant. Based on the above findings, and from a flexibility point of view, outsourcing permits organisations to create lean supply chains that can quickly change to address changing requirements, demands or technologies (Tsai, Lai, Lloyd and Lin, 2012:182). Burt, Petcavage and Pinkerton (2010:218) explained that “to meet competitive challenges, corporations are outsourcing to highly specialized firms that can use their expertise to increase efficiency of an outsourced function and the

increase in outsourcing has resulted in lower staffing levels, reduced costs, and more flexibility.” Fawcett et al., (2007:33) defined flexibility as “the ready capability to adapt to new, different, or changing requirements and requires investments in information, automated production and logistics technologies”. Flexibility appears to be an important driver, not just from a scale perspective but also from a scope of product or service perspective.

This means that outsourcing will lead to increased flexibility, which is consistent with the findings of research by Kotabe et al, (2013:37) who found that decisions to outsource can lead to increased productivity. It is also clear that outsourcing may result in high absenteeism, low morale and low productivity.

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Practical implications – This research makes the following contributions to both theory and practice. The study provides additional knowledge with regards to the impact of outsourcing on the telecommunication companies and has several implications in the areas of policy making, theory of outsourcing and its practice. For policy makers in government and in telecommunication companies in South Africa and other developing countries there is a need to entrench service level agreement into outsourcing contracts for effective performance management.

The empirical study examine the link between outsourcing implementation and firm-level performance metrics using quality, flexibility and cost so that in practice there is a need to employ competent vendors for future outsourcing jobs who would put in their best for the success of the entire outsourcing process. The research will provide an insight on the link between outsourcing and operational performance of the organisation as this is important to top management and this would give them an informed decision on whether to in-source or outsource. Lastly, the literature would also provide other companies in the same industry the information on the impact of outsourcing on the operational performance of the organisation for future decision.

RECOMMENDATIONS

The following is recommended for the benefit of the management of telecommunication companies:

- The outsourcing decision making process must be linked with the organisations overall business strategy
- Organisation must have robust performance measurement systems (quality, flexibility and cost reduction) in place to evaluate and manage outsourcing effectively
- Service quality and price level appear to be key aspects in gaining competitive advantage and this is the core concern of outsourcing vendors (meeting as high as possible standards with the lowest prices to achieve international competitiveness).
- Organisations should continue to monitor contractor activities and establish constant communication. Telecommunication management needs to step in and rebuild trust among the workers, and jobs may need to be re-evaluated and expanded or changed to fit the new organisation. Another important factor that management should consider is to acquire the right people with the right skills and to involve them in all phases of outsourcing activities so as to continuously improved quality services.
- Care should be taken when developing the service level agreement (SLA) so that it can be used as a practical tool to measure performance. The emphasis should be on meeting strategic objectives addressing quality issues, flexibility and cost reduction rather than imposing penalties on the supplier.
- There is a need telecommunication management to entrench service level agreements (SLAs) into outsourcing contract as a way of continuously monitoring service provider performance. The organisation can achieve its strategic goal and its competitive advantage through using contractors who are flexible in performing their work. It also necessary to put in place key performance indicators (KPI) for assessing performance, which should be continuously revisited to accommodate the flexibility of contractors.

8. CONCLUSIONS

The following conclusions are deduced from the findings:

Objective 1: To ascertain whether outsourcing lead to cost reduction.

While cost efficiency is not the sole aim of outsourcing, it is indeed the most important aspect or purpose for outsourcing. Other important purposes for outsourcing include improved quality; increased operational flexibility; accessible talent; and the creation of change catalysts. The research participants felt that changing outsourcing partners might cause high transition costs due to lack of support from previous vendors. In addition, the contractual costs were high, and service cost increased after a function was outsourced. There was thus a marginal relationship between outsourcing and cost reduction.

Objective 2: To determine whether outsourcing improves service quality.

Participants felt that the outsourcing decision process had a direct relationship on the increased service quality of technological services, and the quality of documentation and training. The successful implementation of an outsourcing strategy has been credited with quality improvement as organisations sought to enhance their competitive position in an increasing global market place by relying more on outside service providers.

Objective 3: To determine whether outsourcing results in increased flexibility.

The survey respondents perceived that outsourcing had a positive impact on organisations' flexibility through the use of constructors and consultants, and through the provision of IT infrastructure. These services created institutional competitive advantage. As a result, infrastructural flexibility enabled the organisation to remain relevant in the technological age.

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**TOURIST SATISFACTION AT NATIONAL PARKS: A CASE STUDY OF TSITSIKAMMA
NATIONAL PARK, SOUTH AFRICA**

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Please indicate topic (Tourism destination management)

**Tourist satisfaction at national parks: A case study of Tsitsikamma National Park,
South Africa**

ABSTRACT

Tourism worldwide is a competitive industry and as such, competitiveness has become a critical element for the success of tourism destinations. Given the above, tourist satisfaction with particular tourist destinations/attractions is critical for the success of such destination/attraction and it is manifested in various ways and at times, this is influenced by possible prior experience or lack of it. This study aims to examine the level of tourist satisfaction with their visit to Tsitsikamma National Park, South Africa based on three groups of factors, namely: physical attributes of the park, employee's knowledge and attitudes as well as conditions of facilities in the park. This paper focuses on the variables that are directly related to tourist satisfaction in Tsitsikamma National Park in order to

further enhance research on tourist satisfaction across geographical space. The study adopted a quantitative research methodology with the use questionnaires as a data collection instrument. The results of the study were presented using descriptive statistics by T-tests, Anovas and Box and Whisker Plot. In the main, the results of the study indicate that tourists visiting the national park at the time of the survey were mainly first-time visitors who are employed, majority of them coming from South Africa and mainly from the Western Cape Province. The results of the study further indicate that these tourists preferred the national park for its beautiful nature and they were visiting with the aim to relax. On average these tourists stayed in the national park between one and three days. Overall, the results of the study indicate that these tourists were satisfied with their experience in the national park.

1. INTRODUCTION

Tourism worldwide is becoming increasingly competitive. Competitiveness has been associated in the tourism literature as a critical element for the success of tourism destinations. Given such, developments in international tourism and travel have increased competitiveness among overseas tourist destinations. New destinations become established, some existing ones make further progress, and others decline. In his research about competitiveness of tourist destinations in long distance markets, Bordas (1994) stated that competitiveness is established between destinations and tourism businesses rather than countries because of the different aspects and features of the destinations within a country. He further argued that a strategic plan is required to gain competitive advantage, and he introduced three strategies – low cost, differentiation and specialization – for clusters to gain competitive advantage. A cluster is defined by Bordas as ‘a group of tourist attractions, infrastructure, equipment, services and organization concentrated in a delimited geographical area’. In their study about tourist satisfaction with Mallorca, Spain, as an off-season holiday destination, Kozak & Rimmington (2000) found that tourist satisfaction with a destination, rather than with a facility, might create repeat visits and that this therefore highlights the importance of destination management in directing tourism supply and ensuring that the needs of tourists are met. This research investigates the satisfaction levels of tourists at Tsitsikamma National Park. It probes factors directly or indirectly relating to their satisfaction level with their experience at the Park.

2. LITERATURE REVIEW

2.1 Tourist satisfaction

According to Cronin (2016) Satisfaction is an outcome of consumers’ perceptions of whether a product or service has met their expectations and, as a result, there is a strong relationship between perceptions of quality and satisfaction. Satisfaction has been conceptualised within the literature as encompassing tangible and intangible attributes where customers’ perceptions of the quality of service are an important intangible element that can influence overall satisfaction. This idea is further supported by Groonroos (2011) who stated that consumer perceived value in experiential consumption is about value-in-use because the consumer is personally present in the situation in which the experience value is co-created. This therefore means that despite the different definitions of satisfaction, there is general consensus today in considering satisfaction as a post-purchase judgement which incorporates cognitive and affective elements that consumers make regarding their experience (Devesa et al. 2012).

Travel and tourism is one of the largest service industries in the world. When tourism is well planned, it can generate benefits at the destination by increasing tourist receipts, government revenue, and employment. In their study about how destination image and evaluative factors affect behavioural intentions, Chen & Tsai (2007) discovered that for more successful tourism development, it is crucial to attract tourists and to recommend the destination for others to visit.

In their study about the contribution of socio-demographic and psychosocial factors to life satisfaction, Fernandez, Zamarron & Ruiz (2001), they studied several factors as predictors of life satisfaction, such as age, gender, marital status, income, education and health condition. Rather than age, gender, and marital status, health condition (self-perceived health and physical illness), education and income were revealed as influencing factors. These authors went on to say that life satisfaction is influenced by four main components of life: leisure, health, family, and work. Satisfaction with leisure, health, family, and work determines satisfaction with life; satisfaction with life directly leads to individual wellbeing. In their study about the contribution of emotional satisfaction to consumer loyalty, Yu & Dean (2001) found that tourism satisfaction is a key determinant of a person's quality of life through linkages between life satisfaction and individual wellbeing. In his study about Cognitive, Affective, and Attribute bases of the satisfaction response, Oliver (1993) found that tourism satisfaction is determined by both cognitive parameters (predetermined expectations and disconfirmation) and emotional experiences.

Research done by Beerli, & Martin (2004) about factors influencing destination image, found that tourism marketing researches focuses mainly on tourist satisfaction and perceived service quality in addition to other things such as competitiveness, attractiveness, tourist loyalty to a destination, and destination image. These views were further supported by Zabkar, Brenc, & Dmitrovic (2010) in their study of modelling perceived quality, visitor satisfaction and behavioural intentions at the destination level when they stated that different models have also considered satisfaction as the main determinant of revisit intention while some tourism researchers have recently focused on repeat visitation as a part of destination loyalty. The same authors further refer to a comparative study by Kozak (2001) studying Spain and Turkey. Results in these studies were described as different between a mature and a less-developed destination. The study used a model which proposed that the intention to revisit the same destination is linked to satisfaction level, number of past visits to the destination and number of past visits to the country. Findings equally indicated that the more mature a destination is, the more repeaters it receives. In addition to the mentioned factors in the study, maturity may include the way in which local people interact with tourists.

Research study done by Okello & Yerian (2009) about tourist satisfaction in relation to attractions and implications for conservation in the protected areas of the Northern Circuit, Tanzania, they found that 86% of tourists were willing to repeat their visit and were attracted mainly to wildlife viewing but 81% equally indicated that non-wildlife attractions enhanced their tourist experience. The findings of Huh (2002) in his study about tourist satisfaction with cultural/heritage site: The Virginia Triangle, revealed that there is a significant difference in the overall satisfaction of tourists by gender, past experience, and decision time to travel. The same study also revealed that past experience controlled the relationship between the overall satisfaction of tourists and derived factors (general tour attraction, heritage attraction, maintenance factors and cultural attraction).

According to Van Hyfte (2009) in the study done about tourists' perception in 23 Alabama state parks shed light on the factors that are encompassed in a typical camping tourists' satisfaction; including people, service, tangibles, and restrooms. It has demonstrated that the tangible factor (the physical facilities, equipment, and appearance of the location) plays the strongest role in both overall satisfaction and future behavioural intentions.

In their study about tourists' satisfaction and perception of crowding in a German National Park: a case study on the island of Kalisc & Klaphake (2007), the results show that nearly 20% of the tourists reported some degree of crowding. So the majority of those interviewed found the level of tourist activity to be acceptable. The most sensitive visitor group were the non-guided day tourists, whereas guided tourists were much more tolerant of crowding. Otherwise perceptions of crowding seem to have had just only a slight impact on visitor satisfaction.

The study done by Tian-Cole & Crompton (2003) about a conceptualization of the relationships between service quality and visitor satisfaction, and their links to destination selection, they found that at the transaction level, satisfaction is the affective psychological response to a destination, while service quality is cognitive belief about the destination's features or attributes. Both overall service quality and overall satisfaction are attitudes with cognitive and affective components. One of the primary goals of park management is to provide a range of opportunities in order to ensure tourists' preferences are met. In their study of a quantitative analysis of visitor satisfaction and its relation to tourism attributes on the Great Barrier Reef, Australia, Fletcher & Fletcher (2003) they identified a complex relationship between satisfaction and environmental, operational and customer service attributes. It also identified those attributes which have a strong satisfaction-generating potential when they perform well, such as the diversity of the marine life, interactions with other passengers, comfort of the boat, quality of the entertainment, knowledgeable crew, quality of the information provided and the destination of the trip, and attributes with a high dissatisfaction-generating potential when they perform poorly, e.g. customer service, comfort of the trip, weather, quality of the coral, and cost of the trip. The study also considers the use of attribute-based studies of satisfaction within protected area tourism and the management of visitor experiences.

Determining visitor preferences and catering to their diverse tastes requires a clear understanding of who the consumer is, what they want, and what they are prepared to pay. Identifying visitor preferences is, however, often lacking or only piecemeal and at times simply reflects what managers think about the current situation, rather than revealing insights into what aspects of visitation to an area combine to form a satisfying experience. The study done by Manning (2002) about social science in the national park system: An assessment of visitor information, the results indicated that although efforts have begun to accumulate important information regarding many of the variables that predict visitor satisfaction, much of the accumulated information lacks management implications. It is especially important to identify the specific predictors of visitor satisfaction over which park managers can exert some degree of control. However, collecting information on visitor preferences and the resultant satisfaction has been both complex and challenging (Fletcher & Fletcher, 2003). In addition, most of this research has been quantitative with few mixed-method studies (Davenport, Borrie, Freimund, & Manning, 2002). The implications from the research are that park managers should focus on factors they can control, such as staffing, facilities, policies, and maintenance to ensure satisfying experiences for tourists.

In a research done by Fletcher and Fletcher (2003) about manageable predictors of park visitor satisfaction: maintenance and personnel, which was done during four consecutive seasons of tourists to 25 of Florida's State Parks, they found that 34% of visitor satisfaction variance was predicted by ratings in park maintenance and park personnel. Park managers who concentrate their efforts on these two manageable and demonstrably important features of the park experience— by assuring maintenance and cleanliness of the park and by training employees and their behaviours; should produce measurable and documentable increases in park visitor satisfaction. These findings support previous research on park visitor satisfaction (Manning, 1999) and suggest that by focusing on these two areas, tourists to parks are likely to have a satisfying experience.

To satisfy the variety of visitor demands, park managers need to provide a range of opportunities. However, the provision of opportunities is not enough, they also need to be quality opportunities, if having satisfied tourists is the desired outcome for park managers (Tian-Cole & Crompton, 2003). It is important that park managers are clear on the distinction between visitor satisfaction and service quality. Satisfaction is considered as a psychological end state in which tourists consider whether their expectations were met or exceeded. Service quality relates to the management decisions made by the park to facilitate a range of opportunities for tourists, which affect visitor satisfaction.

Key factors of the model proposed by Tian-Cole and Crompton (2003) are the quality of experience and service performance, as well as overall service quality and satisfaction. A study done by Willson (2002) about holistic approach to tourist place image and spatial behaviour, found that managers can provide services and facilities, but how these are received depends on the tourists, not only at the site at that time, but also as influenced by their previous experiences and what may have happened on the way to the site. Of prime importance is the distinction between transaction (specific benefits received from a visit) and global (overall evaluation of a visit) levels, in terms of satisfaction and quality of service. For example, a visitor to Kruger National Park may comment specifically on the level of service at a particular camp (transaction level), as well as on his or her experience as a whole (global level). The implications for managers, from research on tourists to Aransas National Refuge Wildlife Refuge in Texas, are that improved service quality and visitor satisfaction effect repeat visitation and positive comments by word of mouth after the visit (Tian-Cole, Crompton, & Willson, 2002). There is a link between quality of service and satisfaction; therefore, managers should focus at the transaction level of service quality and satisfaction, because this influences the tourists' overall evaluation of the experience.

This paper focuses on the variables that are directly related to tourist satisfaction in Tsitsikamma National Park, South Africa in order to further enhance research on tourist satisfaction across geographical space.

3. PROBLEM INVESTIGATED

The problem investigated is whether tourists visiting the Tsitsikamma National Park are satisfied with their experience in the national park based of resources available in the national park in order to identify the specific predictors of visitor satisfaction over which park managers can exert some degree of control.

4. RESEARCH OBJECTIVES

- To investigate the visitor profile of the tourists
- To investigate visitor motivation
- To investigate visitor satisfaction through experience in the national park

5. RESEARCH METHOD

The study adopted a quantitative research methodology using convenience sampling technique with the use of questionnaires as a data collection instrument. The questionnaires had five sections which were: demographic profile, socio-economic profile, geographic profile, psychographic profile as well as a section where tourists were asked to indicate their satisfaction with the various elements of the national park which included amongst others, signage to the national park, welcoming on the national park, terrain of the national park, welcoming of reception area and availability of reception personnel, reservations and billing accuracy as well as overall satisfaction with the national park. To test the satisfaction levels of tourists in the national park, the questionnaire used a five Likert scale type of questions ranging from "very satisfied, satisfied, indifferent, unsatisfied and very unsatisfied". The questionnaires were distributed during the months of November to December 2015 only to the tourists who stayed overnight at the Storms River rest camp. The questionnaires were distributed to tourists as they checked inn for their stay in the national park. The tourists were informed of the study at reception and asked for their willingness to participate and only those who agreed to participate in the study were given the questionnaires. The tourists dropped of their completed questionnaires upon check-out from the national park.

6. RESULTS AND FINDINGS

This sections provides the findings and discussion of the research finding. The section starts with the profile of the tourists (demographic, socio-economic, geographic and psychographic) who participated in the survey. This is then followed by the assessment of their satisfaction levels based on their experience in the national park.

Table 1: Demographic profile

Gender	
Male	56.5%
Female	43.5%
Language	
English	40%
Afrikaans	30.8%
Other languages	29.2%
Marital status	
Married	52.1%
Not married	30.3%
Divorced	.8%
Living together	15.1%
Widowed	1.7%
Accompanied by children	
Yes	24.8%
No	75.2%
Age	
17 – 25 years	20%
26 – 35 years	25%
36 -45 years	12.5%
46 – 55 years	22.5%
56 – 65 years	14.2%
66 years and older	5.8%

From Table 1 above, it is evident that the respondents are mostly males, married, English speaking tourists who were not accompanied by children and they are mostly between the ages of 26 and 35 years. This finding may imply that these tourists are young married couples who still want to enjoy each other's company before they start to have children. Maybe it can be assumed that they take these trip as part of continuation of their honeymoon. The results also infer that national park is popular amongst tourists who are not married (30.3%) as well as tourists who are between the ages 46 to 55 years (22.5%).

Table 2: Socio-economic profile

Annual income	
R50 000 or less	5.7%
R50 001 - R100 000	16.1%
R100 001 – R200 000	20.7%
R200 001 - R300 000	17.2%
R300 001 – R400 000	16.1%
R400 001+	24.1%
Employment	
Employed	62.6%
Self-employed	13.9%
Retired	10.4%
Student	9.6%
Unemployed	1.7%
Other	1.7%
Education level	
Primary	.9%
Secondary	9.9%
Tertiary	89.2%

Table 2 shows that the respondents' annual income per month varies between R 50 001 and R 400 000 and above with the highest income recorded for those earning between R 400 000 and above at 24.1%. This was slightly followed by those earning between R100 001 and R 200 000 with recordings of 20.7%. The least recorded annual income was for those tourists who earn less than R 50 000 per annum with 5.7%. Most of the tourists are well-educated, supported by the findings of 89.2% who have a tertiary qualification and this supports the notion that they are in professional occupations. This results support the finding of most of these tourists earning an annual salary of R4 00 000 and above since these tourists are well educated and are employed.

Table 3: Geographic profile

Country of residence	
Republic of South Africa	52.5%
Germany	13.3%

Netherlands	6.7%
Holland	1.7%
United Kingdom	6.7%
Belgium	3.3%
Australia	4.2%
United States of America	5%
Spain	.8%
China	1.7%
Ireland	2.5%
Canada	1.7%
Province if from South Africa	
Gauteng	9.7%
Western Cape	50%
Eastern Cape	17.7%
Northern Cape	3.2%
Free State	1.6%
Kwazulu Natal	4.8%
North West	6.5%
Mpumalanga	1.6%
Limpopo	4.8%

Table 3 shows that tourists to this park are mainly South Africans (52.5%) who reside in the Western Cape Province (50%). These results maybe because Tsitsikamma National Park is located in the Eastern Cape Province on the border with the Western Cape Province and hence it is easier for tourists from the Western Cape Province to access the park as well as closer (distance reasons). The other notion could be that generally most people prefer to have their holidays outside of their own provinces and hence the tourists from the Eastern Cape Province where the park is located is less than those of the Western Cape Province. However, from an international perspective, the highest recorded number of international tourists (13.3%) were from Germany, followed by United Kingdom and Netherlands (6.7%) and they were slightly by United States of America with 5%.

Table 4: Psychographic profile

Frequency of visits	
First time	31%

Second time	17%
Third time	22%
Fourth time	13%
Fifth time	13%
More than five times	4%
Purpose of visit	
To relax	85.3%
To get away from my regular routine	9.2%
To learn about flora and fauna in general	5.5%
Preference of the park	
Beautiful nature	48%
Wilderness experience	30%
Variety of plant, bird and wildlife	22%
Length of stay	
1 - 3 days	42.5%
3 – 5 days	24.1%
5 – 8 days	17.2%
8 days and more	16.1%

Table 4 shows that during the time of the survey, the park was mostly visited by first time tourists (31%) with 13% of the tourists visiting the park the fourth and fifth time respectively. 22% of the tourists during the time of the survey were visiting the park for the third time whilst 4% of these tourists had visited the park for more than five times. This is an indication that most of the respondents are loyal to the park and are satisfied with both the quality of service and experience offered by the park. From a parks management perspective, it is necessary to maintain a high quality of service to persuade these tourists to return annually. The reasons for visiting this park were dominated by those who wanted to relax (85.3%); to break away from their normal routine (9.2%) and then followed by those who wanted to learn more about flora and fauna species in general (5.5%). The main reasons for the tourists to prefer visiting Tsitsikamma National Park rather than other national parks in South Africa were that the park has beautiful nature (48%) and this maybe because the park is located in the coastal area and tourists have access to ocean view, hiking trails along the coast together with black water tubing experiences. 30% of the tourists chose the park because of wilderness experiences offered in the park whilst 22% chose the park for reasons related to variety of plant, bird and animal species. On average, just less than half of the tourists (42.5%) were staying between a day and three days in the park, slightly followed by those staying between 3 and 5 days (24.1%).

Table 5: T-tests comparing factor means of the South African and other countries respondents.

T-tests comparing the factor means of the "South Africa" respondents and the "Other countries" respondents.									
T-tests; Grouping: Countries									
	Mean	Mean	t-value	df	p	Valid N	Valid N	Std.Dev.	Std.Dev.
	South Africa	Other countries				South Africa	Other	South Africa	Other
Overall satisfaction	4,54	4,40	1,05	116	0,2978	63	55	0,70	0,82
Future intent	4,68	4,45	1,73	116	0,0870	63	55	0,67	0,79
Physical attributes of the park	4,58	4,35	1,95	115	0,0530	63	54	0,65	0,62
Employees knowledge and attitudes	4,54	4,31	1,88	117	0,0631	63	56	0,69	0,66
Conditions of facilities	4,45	4,47	-0,13	114	0,8980	62	54	0,76	0,66

Results in table 5 above showed no statistically significant differences between respondents from South Africa and other countries since all p-values are greater than 0.05 for the three categories, namely: physical attributes of the park, employee's knowledge and attitudes as well as conditions of facilities in the park. Two further questions were asked regarding future intent (repeat visit) and overall satisfaction. There results of the study regarding these two factors infer that there was also no significant differences between South Africans and tourists from other countries. The p-values for both these two sets of questions were greater than 0.05.

Table 6: T-tests comparing the factor means of the male and female respondents.

T-tests comparing the factor means of the male and female respondents.									
T-tests; Grouping: Gender									
	Mean	Mean	t-value	df	p	Valid N	Valid N	Std.Dev.	Std.Dev.
	Female	Male				Female	Male	Female	Male
Overall satisfaction	4,57	4,40	1,16	111	0,2477	50	63	0,68	0,81
Future intent	4,62	4,55	0,52	111	0,6030	50	63	0,76	0,71
Physical attributes of the park	4,48	4,47	0,11	110	0,9121	48	64	0,68	0,60
Employees knowledge and attitudes	4,41	4,47	-0,44	112	0,6597	50	64	0,73	0,59
Conditions of facilities	4,50	4,41	0,63	109	0,5329	48	63	0,76	0,69

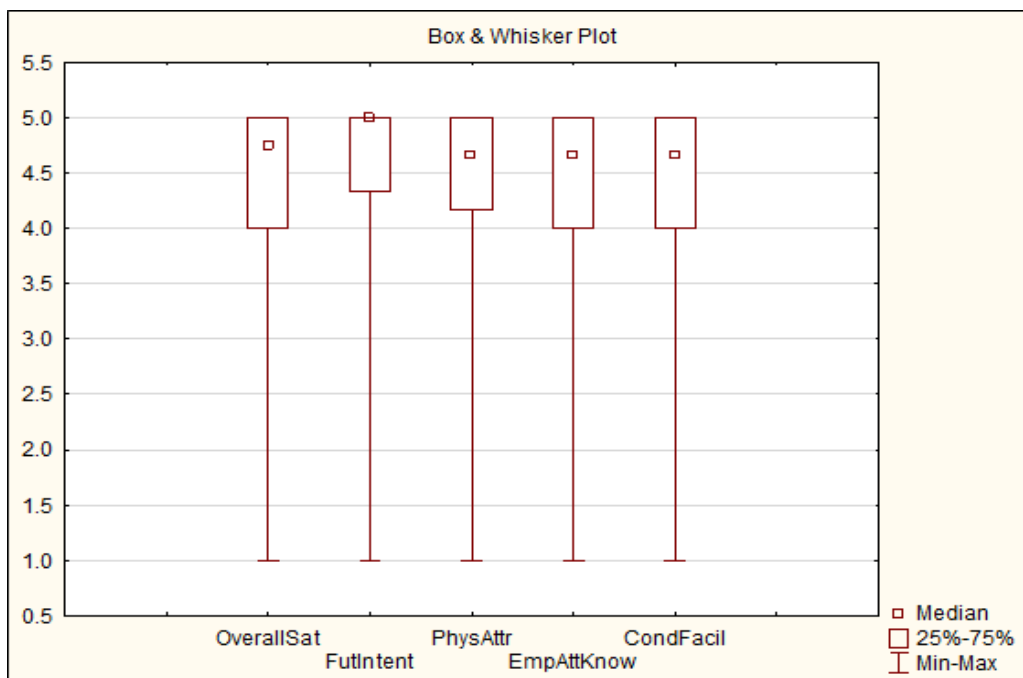
Results in table 6 above showed no statistically significant differences between female and male respondents since all p-values are greater than 0.05 for the three categories, namely: physical attributes of the park, employee's knowledge and attitudes as well as conditions of facilities in the park. Two further questions were asked regarding future intent (repeat visit) and overall satisfaction. There results of the study regarding these two factors infer that there was also no significant differences between South Africans and tourists from other countries. The p-values for both these two sets of questions were greater than 0.05.

Table 7: Anovas comparing the factor means of the age groups.

Age	Overall satisfaction	Overall satisfaction	Future intent	Future intent	Physical attributes	Physical attributes	Employee knowledge	Employee knowledge	Condition of facilities	Condition of facilities
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
17-25	4,41	0,51	4,62	0,46	4,49	0,36	4,41	0,48	4,47	0,62
26-35	4,59	0,78	4,66	0,62	4,56	0,43	4,54	0,48	4,49	0,60
35-46	4,70	0,38	4,84	0,31	4,65	0,43	4,61	0,51	4,63	0,46
47-56	4,29	1,05	4,21	1,12	4,23	1,02	4,25	1,00	4,17	0,99
57+	4,45	0,73	4,65	0,64	4,53	0,59	4,41	0,73	4,62	0,61
All group	4,48	0,76	4,57	0,73	4,47	0,64	4,43	0,68	4,46	0,71

The results of the study as shown in table 7 above infer that different age groups responded more or less similar to questions asked about their overall satisfaction, future intent, physical attributes of the national park, employee knowledge and attitudes as well as the conditions of the facilities in the national park. These results indicate that for both age groups, the mean scores ranged between 4.17 which was the lowest to 4.84 which was the highest. The similarity in responses is further supported by the total mean of all groups for all the factors concerned which ranged between 4.43 and 4.57, further supported by a standard deviation scores on 0.64 as the lowest and 0.76 as the highest. It is therefore safe to conclude that both respondents of different age groups responded more or less similarly to the questions raised for all factors above.

Table 8: Box and Whisker Plot for the variables under consideration



From table 8 above it is clear that the majority of respondents are satisfied with all aspects measured by the five factors. The mean scores of all factors fall in the "high satisfaction" category. The box and Whisker plots show that 50% or more of the responses are at a factor score of 4 or more on all factors. These results infer a high percentage of satisfaction levels by

the tourists and this may lead to respondents recommending Tsitsikamma National Park to family, friends and acquaintances. The results reported above infer that overall, tourists are satisfied with their experience and services in the national park. This therefore may imply that the tourists expectations were met, even exceeded and this may lead to positive word of mouth recommendations. This inference is in line with the findings of the study done by Reichel, Lowengart, & Milman (2000) which found that satisfaction leads to positive word of mouth recommendation, as well as loyalty that can lead to long-term profitability and park sustainability. These findings are also in line with the findings of Van Hyfte (2009) in the study done about tourists' perception in 23 Alabama state parks shed light on the factors that are encompassed in a typical camping tourists' satisfaction; including people, service, tangibles, and restrooms. It has demonstrated that the tangible factor (the physical facilities, equipment, and appearance of the location) plays the strongest role in both overall satisfaction and future behavioural intentions.

7. PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The results of the study showed that the tourists are generally satisfied by their experiences in the national park as well as the kind of amenities the national park has to offer. The tourists are satisfied by the services rendered in the national park in relation to their stay as well. The implication for the managers of the national park is to ensure consistency in service rendered and strive to improve on them. In this way, they will continuously ensure that the tourists are satisfied and this may lead to repeat visits as well as positive word of mouth recommendations. A further implication for the management of the park based on the results, is that they should appreciate the efforts of the employees in providing the quality service and reward them in this regard. This will serve as motivation for the employees to even strive to work harder in the future. The overall implication for the management of the national park is to ensure the future sustainability of the national park through enough tourist visit through the year. This can only be done by ensuring that tourist expectations and needs are met during their stay at the national park such that repeat visits are ensured.

8. CONCLUSIONS

It is evident from the findings of this research that tourists who visited the Tsitsikamma National Park during the time of the survey were generally very satisfied with their experiences in the park. Since tourists were generally satisfied with their experiences in the park, it is inferred that there would be need to sustain the current status quo of the park in order to achieve sustained satisfaction levels for the future tourists who will visit the park. This should be done also to ensure positive word of mouth recommendation of the park by those who visit to their family, friends and relatives.

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AN INVESTIGATION INTO THE EFFECT OF DEMOGRAPHIC VARIABLES ON THE CUSTOMER EXPERIENCE

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Keywords: Age, Customer experience, Demographics, Education, Guesthouses, Prior visits

An investigation into the effect of demographic variables on the customer experience

SUMMARY

In the past 20 years Ghana has been recognised as one of the most peaceful countries on the African continent. This positive image have resulted in the influx of tourists and growth in the country's tourism sector. These factors have raised the demand for accommodation especially for visitors to the country. The accommodation industry has also become one of the fastest growing sectors in Ghana, but is still confronted by numerous challenges. Many accommodation providers are accused of offering poor services and not having the capacity to deal with service failures. Service failure include negative staff attitudes and faulty or defective equipment (e.g. television, air-conditioning, credit card reader machines, safes in

guestrooms and water heaters).

Guesthouses were the focus of the study because they also continue to grow rapidly and are prone to similar challenges. In addition, many guestrooms are untidy, and employees are not properly trained in delivering effective services to customers. A large number of guesthouse providers are also inexperienced and unable to tailor offerings to customers' expectations and specifications. The outcome might be negative perceptions of the accommodation experience.

A reasonable positive accommodation experience will lead to customer satisfaction, and encourage visitors' return to the service provider and their spreading of positive word-of-mouth messages about the guesthouse. While previous studies into Ghana's hospitality sector have been undertaken, most of these focused on those factors under the control of marketers. Much less is known about the effect of those factors that generally cannot be controlled by the service provider, such as age, education, and prior visits. These variables are often used to construct customer profiles and segment markets. In addition, profile variables help marketers in the effective use and targeting of marketing communication, positioning of the organisation, and optimising the possibilities of influencing customer behaviour.

Our paper seeks to determine whether age, education level, and prior visits, affect perceptions of guesthouse visitors. Three experience dimensions namely Entertainment, Escape, and Atmospherics were used as a foundation of the study. These dimensions were chosen as they have been found to impact satisfaction and behavioural intentions.

The data analysis was based on a sample of 541 guests who stayed at 51 guesthouses in Ghana. The results indicate that visitors' perceptions differ significantly with respect to Atmospherics and Entertainment when compared across different age groups. Prior visits to the guesthouse resulted in significant differences in perceptions of Entertainment, Escape, and Atmospherics, while education resulted in different perceptions of the Entertainment experience realm. The results can assist guesthouse managers in Ghana in allocating resources to segments that would yield maximum returns.

**THE CONTRIBUTION OF PARTNERSHIP AND BRANDING TO DESTINATION
MANAGEMENT IN A GLOBALISED CONTEXT: THE CASE OF THE UNWTO SILK ROAD
PROGRAMME**

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Key words: Destination management, partnership, tourism experiences, branding, Silk Road

Please indicate topic: Management, Tourism Management

**THE CONTRIBUTION OF PARTNERSHIP AND BRANDING TO DESTINATION
MANAGEMENT IN A GLOBALISED CONTEXT: THE CASE OF THE UNWTO SILK ROAD
PROGRAMME**

ABSTRACT

The aim of this paper is twofold: (i) to present the challenges of destination management and governance in the globalised and digital environment; and (ii) to analyse the potential contribution of partnership and branding to advancing tourism development and promoting tourism experience opportunities. A case of public-private partnership (PPP) – the UNWTO Silk Road Programme (SRP) – is used to investigate how related issues and elements are implemented. The paper's focus is on the valuable role of PPPs in marketing, infrastructure

development and heritage management and the critical importance of stakeholder involvement in engaging in this trans-border scale project.

1. INTRODUCTION

The tourism industry is so wide and complex and the competition so fierce that every destination is struggling to improve its efficiency, effectiveness and competitiveness. The entities responsible for this, namely destination management organisations (DMOs), have a critical role to fulfil in promoting better organisational and destination performance in city, region or national scales. Destination management (DM) is a “collective effort that requires various organizations and businesses in a geographically limited area to harmoniously work together to achieve a common goal” (Vernon, Essex, Pinder, & Curry, 2005:326). DM is a concept that encompasses various roles – not only marketing and communications, but also leadership and coordination, planning and research, marketing, product development, partnerships and community relations (Morrison, 2013). DM is a collaborative process requiring DMOs to reconcile the diverging interests of various stakeholders and actively involve them in decision- and policy-making processes (Sigala & Marinidis, 2012).

Destination governance (DG) is the way in which a DMO is administered and who does the administering (Laws, Richins, Agrusa, & Scott, 2011). Governance relates to the policies, systems and processes to ensure that all stakeholders are involved and that the DMO is accountable for its resource usage and results and has a high level of transparency (Morrison, 2013). Academics and practitioners alike are focusing increasingly on the concepts of governance, collaboration and partnership. The literature postulates that (i) there is a strong relationship between DG and destination partnerships; and (ii) partnerships contribute to the accomplishment of the other roles of DM. Tourism stakeholders’ collaboration has also been found to be a critical necessity for achieving destination competitiveness (Sigala & Marinidis, 2012). Hence, in order to maintain a leading position for the destination, the development and maintenance of collaborative relationships between tourism stakeholders is a challenging necessity for DMOs, which are mainly responsible for DM (Wang, 2008). In order to be successful, DMOs should first identify and understand the various stakeholders, and their capacities and willingness to engage in collaborative DM practices, and then, identify methods and tools for enhancing and supporting stakeholders’ participation in collaborative actions (Laws et al., 2011). Partnerships are critical in tourism because it is such a fertile field for collaborations of all types resulting in a wide array of benefits (Gursoy, Saayman, & Sotiriadis, 2015). However, partnering is not for everyone, and there are issues and challenges in building collaborative forms (Gursoy et al., 2015).

As stated previously, the aim of this article is twofold: (i) to discuss the challenges of DM in the globalised and digital business environment, and (ii) to analyse the potential contribution of partnerships and branding to advancing tourism development and promoting tourism experience opportunities. The case of the UNWTO Silk Road Programme (SRP) is used to investigate the way in which related issues are implemented and monitored. The paper starts by presenting the issues and challenges faced by DMOs in the globalised and digital business environment. This is followed by an analysis of the SRP in order to investigate the contribution of partnership and branding to enhancing efficiency and effectiveness in DM.

2. LITERATURE REVIEW

2.1 Destination management and destination management organisations

DMOs are responsible for destination planning, management and marketing their tourism offerings by coordinating and collaborating with tourism stakeholders at all levels (Morrison, 2013). DMOs should develop and promote the destination by managing certain key activities, such as funding, strategic planning, marketing, decision making and product development. The primary reason for the critical role of DMOs in DM is the fragmented nature of tourism, which comprises many stakeholders with different and sometimes conflicting interests. DMOs play a vital role in fostering collaboration for successful DM, since they are entities that bring together government agencies, stakeholders and industry in an effort to facilitate partnerships working towards a collective destination vision (Sigala & Marinidis, 2012; Wang, 2008).

Furthermore, effective DG and competitiveness also dependent on the professional organisation and leadership role of DMOs (Morrison, 2013). DMOs should also serve as a principal meta-governance body (Beritelli, Bieger, & Laesser, 2007) because they form and organise governance structures to manage their destinations. What are the key dimensions of DG? A review of the literature on governance by Ruhanen, Scott, Tkaczynski (2010) revealed six most frequently identified dimensions of this concept, namely accountability, transparency, involvement, structure, effectiveness and power. Accountability and transparency were the most frequently identified dimensions, followed in order of importance, by involvement, structure, effectiveness and power.

DMOs need to encourage involvement in their affairs and are open to inputs, especially from tourism stakeholders (Sigala & Marinidis, 2012). Moreover, since tourism stakeholders influence the success or failure of tourism in a region, their participation and involvement in destination planning, development and management is a must (Tosun, 2006).

2.2. Destination management in the globalised and digital business environment

The destination environment is complex and dynamic, and fragmented by several companies and organizations. Despite their numerous linkages and interdependencies, none of these organizations can control the destination. The stakeholders' characteristics and rapid pace of change create a turbulent environment that makes DM a complex and uncertain process (Sigala & Marinidis, 2012). Globalization and the digital revolution have also posed new challenges. In the globalized and digital world business environment, DMOs must change to be more responsive to consumer and external environmental trends (Ford & Peeper, 2008; King, 2002). Nowadays, many issues are affecting DM and DMOs. These include the following: the availability of funding for operations; intense competition across the globe; the increasing importance of information and communication technologies (ICTs); the emergence of new competitors; global environmental problems; continual economic and other crises; growing concerns for personal safety and security; changing consumer expectations; requirements for more local community involvement; and tightening controls on DMO operations and accountability.

The broad scope of these issues and dealing with all their implications mean that DMOs need to become "strategic champions" for their destinations and involved in all aspects of planning, research, development and marketing. One of the main challenges for destinations and their governance is the consolidation of place marketing and branding entities (Morrison, 2013). Furthermore, the capabilities, expertise and characteristics that DMOs should possess include the following (Dwyer, Edwards, Mitsilis, Roman, & Scott, 2009; Ford & Peeper, 2008): (i) *Tourism network hubs*: DMOs should become a hub of many networked organizations; DMOs coach local tourism stakeholders on how to make their offerings and services more attractive; (ii) *Collaboration experts*: DMOs should become experts in collaborations and partnerships; (iii) *Experience facilitators and brokers*: DMOs arrange experiences for tourists at their destinations. They find out what experiences consumers want, and work with tourism stakeholders to design these experiences; and (iv) *Digital content masters and facilitators*: DMOs are also masters at managing digital content.

Regarding digital developments, it is clear that Web2.0 offers interactive communication and networking to participate in the decision making of governance. The ICT tools enable DMOs to change the governance models applied in DM. Web2.0 and participatory procedures also afford stakeholders numerous opportunities in destination decision-making and policy development processes. Research has been conducted on how DMOs can exploit Web2.0 for developing collaborative DM by enhancing tourism stakeholders' involvement in the decision-making processes of DM and making DG more participatory and collaborative (Sigala & Marinidis, 2012). Obviously, globalization and the digital business environment create new

challenges for DM and DMOs. All these developments and changes in the business environment have significant implications for a PPP with branding.

2.3. Public-private partnerships in destination management and governance

The literature highlights the importance of supporting stakeholders' collaboration in order to achieve effective DM. Recent studies have also advocated the adoption of more "bottom-up", decentralised and inclusive forms of DG in which local communities are encouraged to take on more responsibility for management (Vernon et al., 2005). Research (Beritelli et al., 2007; Nordin & Svensson, 2007) has also recognised that stakeholder relationship engagement is a major component of DG. There is a relationship between DG and destination partnerships. In fact, achieving effective DG is another major reason for partnerships. According to Laws et al. (2011), DG requires cooperation, collaboration and integration between the public organisations involved in the various aspects of tourism, and between public and private sector enterprises, as well as between tourism policies and community interests. These are major concerns for policy makers, managers and local populations.

Destination partnerships are extremely popular in tourism and fit in well with an economic activity that is so diverse. A destination partnership is defined as "a synergistic relationship between a DMO and other organizations or individuals within or outside of the destination" (Morrison, 2013, p. 191). Hence a synergistic relationship for a DMO is a deliberate cooperative arrangement that produces benefits for the DMO and its partners that would not be achieved without collaboration. This results from the pooling of effort and resources. DMOs cannot effectively perform all the roles of DM without the assistance of tourism stakeholders and partners outside of the organisation.

Participative forms of DG have been found to have several positive impacts for destination stakeholders. These include increased public participation and involvement in decision-making, openness, consensus orientation, strategic sustainable vision, responsiveness to stakeholders, effectiveness, efficiency, accountability to stakeholders and public, transparency, equity, rule of law and trust (Ruhanen et al., 2010; Tosun, 2006).

The literature also suggests that destination partnerships can make a valuable contribution to destination planning, research, product development, marketing and promotion, community relations, leadership and coordination. A wide assortment of benefits results from destination partnerships, including increasing budgets, sharing information, increasing the pool of expertise, increasing market appeal, better serving visitors' needs, accessing new markets, enhancing image and expanding social responsibility (Morrison, 2013). DMOs have many potential partners in government and the private sector and among non-profit organisations and individuals with an interest in tourism and sharing the same or similar goals. Destinations

and their DMOs can enjoy profound benefits from their involvement in partnerships. In fact, in some of the more advanced tourism destinations, including France, Italy and Spain, there is recognition that partnering is no longer “optional” or a “luxury” for DMOs (Gursoy et al., 2015). Involving all tourism stakeholders is imperative to enable destinations to improve their attractiveness, raise their international profile and increase their visitation.

PPPs in DM have become more widespread as more destinations realise the synergies of combining government with private enterprise. PPPs are becoming a popular way to structure DMOs and also to accomplish specific projects at destinations. Nowadays, there is an enormous variety of types of destination partnerships across the world. Some are short term, while others are long term (strategic), where cooperation spans several years. Collaborative marketing/promotions are definitely the most common type of partnership found in tourism and involve collaboration in destination marketing and promotion. Other types of destination partnership are “product clubs” and “themed routes, circuits or itineraries”, which provide the foundation for collaboration (Gursoy et al., 2015; Morrison, 2013).

2.4. Branding

Finding “common ground” is key in the task and process of identifying destination partners. This involves recognising shared resources, including geographic features, local produce, history and heritage, cultures and transportation linkages (Morrison, 2013).

The themed routes, circuits and itineraries provide a sound basis for destination partnership, and many DMOs have been extremely active in creating this kind of opportunity for tourists. The UNWTO SRP, the Wine Routes of Spain, and the Wine Routes of Northern Greece, are examples of touring routes linked by a common theme. They are examples of collaboration based upon the sharing of specific characteristics, such as a produce, history and heritage. Furthermore, a common theme, such as a trail or thematic cluster, offers opportunities for branding, which provides a sound basis for enhancing image, positioning and promotion (Sotiriadis, Tyrogala, & Varvaressos, 2009). Associating with other destinations and their DMOs can enhance customers’ perceptions and the positioning of destinations. The BestCities Global Alliance (<http://www.bestcities.net>) is an outstanding example of an application of partnering that gives all the partners an enhanced image in a particular market segment and business events. The ten city DMOs belonging to the alliance are Cape Town, Copenhagen, Dubai, Edinburgh, Melbourne, San Juan, Singapore, Vancouver, Berlin and Houston.

Branding is an identification process that is used to distinguish the products and services on offer from a seller, which helps to differentiate its particular business from its competitors in a crowded marketplace (Kotler, Bowen, & Makens, 2010). The branding process has

several distinct components. Each has its own role to play in helping to make a destination's offerings an instant reference point or benchmark when a consumer is considering the purchase of such a product. Because the brand name is the part of the branding process that has become vocalised and converted into a major marketing campaign, it becomes the reference point in consumers' minds. Branding is no longer only a marketing tool to help differentiate a tourism product or destination from another, but it should also be viewed as a management tool to help create a genuine competitive advantage. By encouraging a destination to focus on what it is offering to visitors and to gear the whole experience to fulfilling those objectives, a destination will create added value for visitors and a superior position with respect to its competitors (Morrison, 2013; Sotiriadis et al., 2009). Bringing image building and positioning to a successful commercial conclusion requires the development of packaging, particularly in the case of destinations where the experience opportunities are so varied and comprise several component parts and countries (Kotler et al., 2010).

DMOs often see the benefits of working closely with government agencies, whether or not they themselves are government agencies. Based on the above theoretical foundations, this paper investigated the case study of UNWTO SRP, which is considered an extremely challenging partnership, that is, a PPP based on a common theme providing branding.

2.5. Case study: The UNWTO Silk Programme

The Silk Road or Silk Route was an ancient network of trade routes that was central to cultural interaction through regions of the Asian continent connecting the West and East, from China to the Mediterranean Sea (Elisseeff, 2001). The Silk Road derives its name from the lucrative trade in Chinese silk carried out along its length, beginning during the Han dynasty (207 BCE to 220 CE). Chinese silk trade was a major reason for the connection of trade routes into an extensive transcontinental network (Xinru, 2010). Trade on the Silk Road was a significant factor in the development of the civilizations of China, the Indian subcontinent, Persia, Europe, the Horn of Africa and Arabia, opening long-distance, political and economic relations between civilizations.

Although silk was certainly the major trade item from China, many other goods were traded, and religions, syncretic philosophies and various technologies, as well as diseases, also travelled along the Silk Routes. In addition to economic trade, the Silk Road served as a means of conducting cultural trade among the civilizations along its network. In June 2014, UNESCO designated the Chang'an-Tianshan corridor of the Silk Road as a World Heritage Site.

Table 1: Objectives of the UNWTO SRP

Objectives	Its specific contribution and expected outputs
The SR will be an internationally renowned, seamless travel experience	The SR will be an established brand, supported by extensive cooperative marketing campaigns High quality infrastructure will facilitate smooth travel across international borders
The tourism sector will be prosperous across all SR destinations, stimulating ongoing investment	Governments will value and support tourism The SR will offer high quality tourism infrastructure Tourism will generate significant direct and indirect employment
SR stakeholders will work closely together for mutual benefits	Strong cooperation among Silk Road countries Profitable PPPs Increased visitor length of stay and yield across all regions

Source: UNWTO (2013).

The following are four key focus areas:

- *marketing and promotion*: establishing a consolidated SR brand (image and identity)
- *engagement*: engaging all SR destinations and rollout strategic global marketing campaigns and PR activities
- *capacity building and destination management*: establishing a framework for capacity building focused on destination management that can be implemented across all SR destinations, and enhancing destination management
- *travel facilitation*: increased cooperation between SR member states to allow smoother travel across international borders and to work towards developing a SR tourist visa

The UNWTO SRP is a collaborative initiative involving member states, UN agencies, civil society, educational institutions, NGOs and other entities. It is encouraging input and investment from stakeholders from all sectors, including tourism, finance, environment, infrastructure, transport and education. There are 33 member states that currently participate in the UNWTO SRP namely: Albania, Armenia, Azerbaijan, Bangladesh, Bulgaria, China, Croatia, DPR Korea, Republic of Korea, Egypt, Georgia, Greece, Indonesia, Iran, Iraq, Israel, Italy, Japan, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Romania, Russia, San Marino, Saudi Arabia, Spain, Syria, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan (as of July 2015). Regarding governing bodies, there are four key groups that are responsible for managing and implementing the major activity, as highlighted in figure 1 below.

Figure 1: Governing bodies for management and implementation: Groups and activities



Source: UNWTO (2013).

The Silk Road task force ensures that all member states are duly represented and have the opportunity to provide input into the SRP. The task force group is also responsible for providing timely feedback on the programme strategies and action plans; discussing and endorsing the Silk Road action plan; ensuring the coordinated implementation of the action plan, including strategies for immediate and longer-term action; promoting coherent and coordinated messaging and information sharing; and sharing and exchanging know-how and best practices. The member states have nominated a Silk Road task force representative (enlisted member states are grouped according to UNWTO's organisational structure). The Silk Road task force holds a meeting every year, in a different city and country. Other tourism stakeholders include the UNWTO Regional Support Office for Asia and the Pacific and Tour Operators' Initiative for Sustainable Tourism Development

2.6. Activities and achievements

UNWTO's role in promoting the growth of Silk Road tourism dates back to 1994, when 19 countries called for the "peaceful and fruitful re-birth of these legendary routes as one of the world's richest cultural tourism destinations" (UNWTO, 2016:12). Over the years, UNWTO has worked to advance sustainable development imperatives across the regions of the Silk Road. It was in 2010 that UNWTO developed a specialised programme dedicated to advancing tourism along the Silk Road. UNWTO's strategies and initiatives designed to help Silk Road tourism have become more robust, competitive and sustainable.

It is believed that SRP is at a crucial point because a growing number of countries are prioritising the Silk Road in their economic development strategies. There is also an increasing demand for transnational tourism routes and itineraries globally from the perspective of both public and private sectors, and this trend should be supported and maximised. While the Silk Road provides extensive opportunities for development, success will be determined by establishing strategies and objectives that are achievable for all destinations.

The key priorities set by the Silk Road task force are as follows: (i) to develop a jointly shared Silk Road mobile application with relevant travel information of all participating Silk Road countries, including maps and images; (ii) to enhance the joint management of Silk Road heritage corridors through the unification of heritage guide and heritage protection standards, and the development of sustainable tourism products. It will be extremely useful to establish a Silk Road Heritage Guide Training Centre aimed at improving and unifying heritage guide standards across the Silk Road; and (iii) to enhance the coordination between Silk Road countries to improve and facilitate travel across borders. Regarding ICTs and branding, the effectiveness of various projects in all three key areas (marketing, capacity building and destination management, and travel facilitation) has been significantly enhanced and improved by implementing the following actions (UNWTO, 2016): (i) achieving cohesive branding by increasing the online profile of Silk Road tourism through an established destination website and/or industry marketing portal; (ii) working together to deliver consistently high-quality products by enhancing industry training and development through online courses, manuals and workshops – developing the product delivers quality experiences; and (iii) facilitating travel to connect the Silk Road by overcoming the barriers to boost growth, promoting a common approach to visas and connectivity and enhancing connectivity between destinations and route development.

In doing so, the SRP simultaneously acts as a tourism network hub, collaboration expert and facilitator of experience opportunities. Furthermore, the technological developments help to provide opportunities for increased collaboration, involvement and participation. The different action plans help to foster collaboration between stakeholders in order to stimulate investment along the Silk Road, while safeguarding its cultural resources.

3. RESEARCH OBJECTIVES

The objective of this study was to gain an in-depth understanding of the contribution of partnership and branding in destination management. It was based primarily on documentary evidence derived from a number of sources, including soft and hard copies of informational reports and visual documents (websites) of the project/organisation under investigation.

Documentary data provides valuable material for analysis and such documents are a rich source of data and commonly used in case study research. This case study presents the main elements and components of SRP in order to investigate the potential contribution of PPP and branding to tourism management.

4. RESEARCH METHOD

The research employed a case study methodology. A case study is an empirical inquiry that “investigates a contemporary phenomenon within its real-life context” (Yin, 2003:23). It may concern a person, community, organisation or any other unit of social life. Relevant data is gathered through the use of multiple sources including observations, interviews and narrative reports. In the field of tourism, a case study has increasingly become an accepted research method for gaining a holistic understanding of the factors contributing to the success of a single tourism organisation, cluster or partnership (Sotiriadis et al. 2009).

5. RESULTS AND FINDINGS

Nowadays, the Silk Road is a crucial vehicle for promoting intercultural dialogue and strengthening regional cohesion, solidarity and peace. The Silk Road today affords visitors the opportunity to experience a unique network of destinations linked by a shared history. Nevertheless, there are limits and challenges that should be acknowledged. The countries participating in the SRP are an impressive 33 member states. The enormous scope, nature and large volume of partners pose a huge challenge. It is a pioneering project with really challenging managerial tasks (Mariani, 2016). The shared strategic vision for this programme – a collaborative platform for marketing and capacity building, raising the profile of Silk Road tourism while driving development that is sustainable, responsible and internationally competitive – is quite clear. However, it is not an easy task to implement, with shared strategies and action plans involving the active commitment, engagement and participation of public and private stakeholders from 33 countries.

There is a series of social, cultural/religious, economic, political and environmental factors, as well as global trends that impact on the whole programme, and its success relies on the ability of stakeholders to surmount challenges in a globalized business environment. Other challenges that need to be overcome include the following: (i) There is competition between regional and global powers such as Russia, China and India, and the intervention of USA, which is not located on the Silk Road; (ii) The fundamentalism and terrorism along the

road should never be overlooked; and (iii) There is also a lack of consistency between the SRP and other projects, programmes and actions on the Silk Road launched by various international organizations and the governments of member countries.

Successful management of the SRP will rely on the ability of involved stakeholders to maximize the opportunities. The success of the SRP is also dependent on dedicated input, engagement and support from all industry stakeholders. The whole programme requires the long-term commitment and hard work of all the partners and stakeholders involved. It is too early to assess the results of the UNWTO SRP because it is a long-term and large-scale project. Under the expertise, experience and coordination of the UNWTO, it has the potential to achieve the desirable outcomes that should be beneficial for all tourism stakeholders and partners involved. While significant progress has been made in all three key focus areas since the launch of the first action plan in 2010, much work remains to be done to achieve the ultimate vision for Silk Road tourism. It will probably take an extremely long time (15 to 20 years) to fully achieve any tangible outcomes.

6. CONCLUSIONS: PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATION

The globalised and digital business environment creates new issues, challenges and opportunities for DMOs. Their roles are evolving and their tasks must be performed efficiently and efficiently to address the challenges and seize the opportunities. They mainly have to become tourism network hubs, collaboration experts and experience facilitators. In this context, the paper presented and analysed the potential contribution of partnerships and branding to advancing the development and marketing of tourism. The case of PPP – the UNWTO SRP – was investigated to explore how the related plans and activities are implemented. The SRP is coordinated by UNWTO, which can be regarded as the DMO of this transborder and multistate tourist project. The main conclusions and implications that could be drawn on the basis of this case study on SRP are presented in this section.

The project is a collaborative platform and process requiring UNWTO to reconcile the diverging interests of various stakeholders and actively involve them in decision- and policy-making processes. UNWTO is doing its best to fulfil the various roles/functions of DM in the context of a highly ambitious project. This involves leadership and coordination, strategic planning and research, partnerships and community relations. It is evident that the UNWTO identified and understood the various stakeholders, and then found methods and tools for enhance and supporting stakeholders' participation. From the standpoint of DG, the administration of the SRP appears to be well structured and effectively conducted. UNWTO

has formed and organised a suitable governance structure to manage the whole partnership and programme, assuring the leadership role, which is dependent on effective DG and destination competitiveness.

In relation to governance, more specifically, UNWTO has made the following choices: (i) *Type of governance approach*: a network governance structure with a specific mode of PPP and local tourism stakeholders in DM, with network-based processes of exchange and negotiation. This choice was inevitable because of the scope of SRP; (ii) *Organisational structure*: a PPP, the adoption of a “bottom-up”, decentralised and inclusive form of DG in which 33 member states are encouraged to engage, participate and assume responsibility for the management of their tourism assets and resources; and (iii) *Stakeholders’ relationship engagement and involvement*: All key stakeholders are encouraged to become involved, participate in and provide their expertise, knowledge and inputs through open processes. The following four key stakeholder groups are responsible for managing and implementing the main activities outlined in the Silk Road action plans: UNWTO (leadership, collaboration, coordination and communication); UN agencies (provision of expertise); the SR task force (key strategies and actions, implementation, sharing and exchange of best practices); and SR member states (involvement in the SR task force, promotion, collaboration and cooperation).

These participative forms of DG appear to have positive results for stakeholders, for example, involvement in decision making, consensus orientation and effectiveness. The SRP is a long-term strategic destination partnership that is multifaceted and involves several different activities, based on a themed route. It is believed that this PPP makes a significant contribution in (i) creating public-private sector interactions for making stakeholders’ strategies converge towards the same goals (shared strategic vision); (ii) enhancing the synergies between partners; (iii) forming an effective organisational structure for DM; and (iv) in implementing and accomplishing specific projects in member states.

Based on the above analysis, it is suggested that the UNWTO has addressed the issues and challenges of DM and DG in a relatively efficient way. Furthermore, the SRP highlights the critical importance of the involvement and empowerment of stakeholders in engaging in this ambitious collaborative programme. However, the whole programme is still in the initial phase of introduction and launch – it has a long way to go to reach the stage of maturity.

What are the main implications for destination managers and planners? It is believed that a successful destination partnership, like a good marriage, is one that lasts. Successful destination partnerships tend to have certain common ingredients, as suggested by Morrison (2013). Firstly, they have unanimous or at least widespread support from all partners and the adjoining jurisdictions covered. Secondly, all partners share a desire to market and develop the destination as a whole. Thirdly the partners share a common interest, either in similar

markets or in a similar style of tourism development. Lastly, a common ground – theme, heritage or produce – offers significant potential for branding and positioning.

PPPs fulfil a valuable role in marketing and promotion, infrastructure development and heritage management. These partnerships can advance the issues of infrastructure, product development and marketing. It is believed that PPPs are the key to effective DM. In this framework, DMOs (public sector) must lead and direct tourism policies, but the engine behind tourism development is the private sector – the one cannot work without the other. There is a need to create mechanisms to promote the consultation of the private sector in decision making and legislation.

One could argue that the development and maintenance of collaborative relationships between tourism stakeholders is a challenging necessity and certainly not an easy managerial task. Cooperation and collaboration between the different stakeholders and actors should be planned and managed effectively and efficiently.

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THE SOUTH AFRICAN WAR: BATTLEFIELD ROUTE DEVELOPMENT IN THE CENTRAL KAROO

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THE SOUTH AFRICAN WAR: BATTLEFIELD ROUTE DEVELOPMENT IN THE CENTRAL KAROO

ABSTRACT

The National Department of Tourism is committed to the growth of the tourism market in South Africa and encourage the development of lesser-known regions within South Africa. One of these lesser-known regions is the Karoo. The Karoo spans over four provinces (Western Cape, Eastern Cape, Northern Cape and Free State). The expansion opportunities for tourism in the central Karoo region are endless and offer a plethora of undeveloped market segments such as the many battlefield sites dating from the South African War (also known as the Anglo-Boer War). As there is increased interest in the South African War, both nationally and internationally, it offers the opportunity for tourism development in the central Karoo. The South African War (1899-1902) had a devastating and long-lasting impact on South Africa. The South African War had severe impacts on cultural and social change and serves to be a catalyst for change in South Africa's history. It is estimated that 47 000 white and black woman and children died in British concentration camps and 30 000 homes and farms were burnt down. Worldwide there is increased interest in so-called 'dark tourism'. Dark tourism can be described as tourists visiting sites of death, disaster and depravity. Battlefield tourism is a component of dark tourism that involves tourists traveling to war sites, battlefields and cemeteries. Tourism is an important economic driver as it has the potential to not only create sustainable employment, but also to enhance the economic development of local areas. Route tourism is a successful way of attracting tourists to local areas and to ensure sustainable tourism development. Route tourism can thus be a valuable development tool for underdeveloped areas, like the central Karoo. The central Karoo contains many heritage and battlefield sites relating to the South African War. As battlefield tourism is gaining momentum

globally, there is an increased interest in visiting battlefield and heritage sites. The objective of this study is to develop a tourism route for the central Karoo with the heritage and battlefield sites of the South African War as the main theme. The route will contribute to the expansion of the tourism offering in the central Karoo. Previous tourism development plans will serve as guidelines in order to assist with the development of the South African War Battlefields Route in the central Karoo. The research approach will be qualitative and the population for this investigation will include all the tourism offices and relevant product owners whom are part of the proposed route in the central Karoo. Semi-structured interviews will be used to gather information from the population regarding the establishment of a battlefield route in the central Karoo. The anticipated results of the investigation is to develop a battlefield route for the central Karoo with the heritage and battlefield sites of the South African War as the main theme.