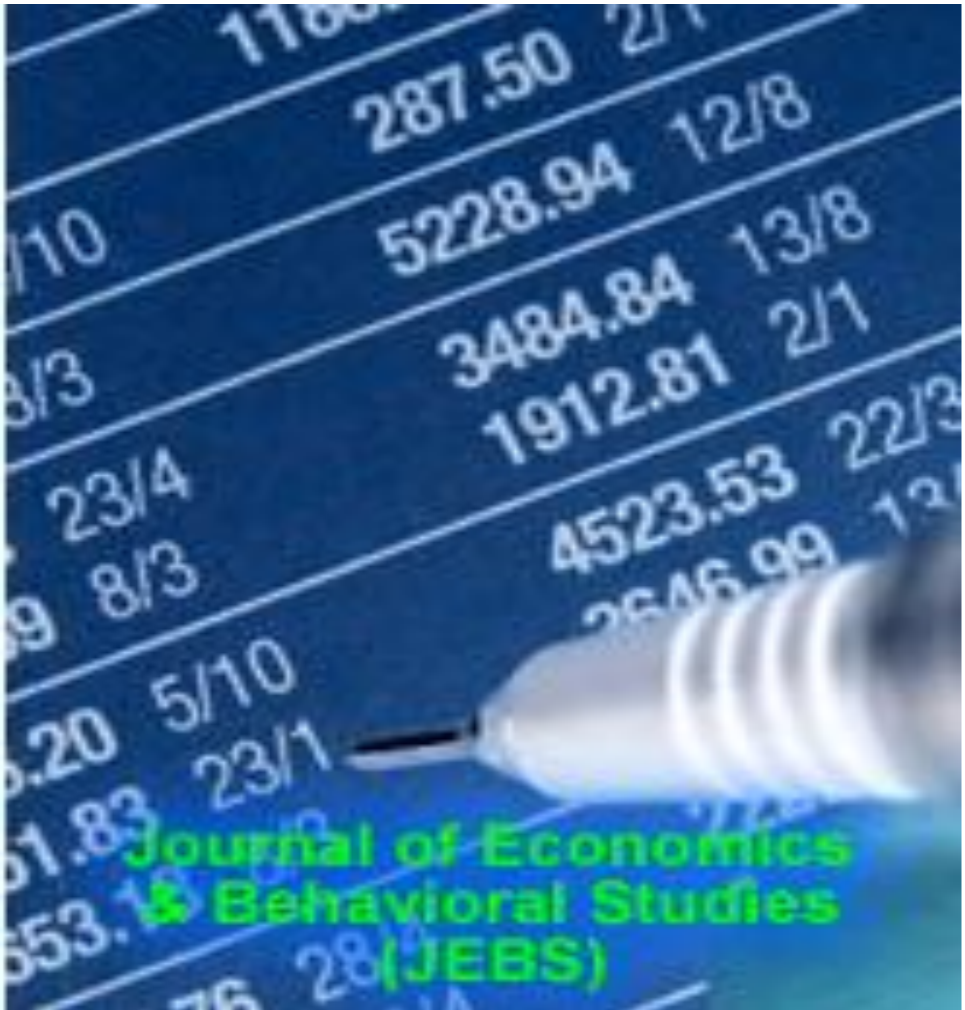

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Editorial

Journal of Econmics and Behavioral Studies (JEBS) provides distinct avenue for quality research in the ever-changing fields of economics & behavioral studies and related disciplines. Research work submitted for publication consideration should not merely limited to conceptualisation of economics and behavioral devlopments but comprise interdisciplinary and multi-facet approaches to economics and behavioral theories and practices as well as general transformations in the fileds. Scope of the JEBS includes: subjects of managerial economics, financial economics, development economics, finance, economics, financial psychology, strategic management, organizational behavior, human behavior, marketing, human resource management and behavioral finance. Author(s) should declare that work submitted to the journal is original, not under consideration for publication by another journal, and that all listed authors approve its submission to JEBS. Author (s) can submit: Research Paper, Conceptual Paper, Case Studies and Book Review. Journal received research submission related to all aspects of major themes and tracks. All submitted papers were first assessed by the editorial team for relevance and originality of the work and blindly peer reviewed by the external reviewers depending on the subject matter of the paper. After the rigorous peer-review process, the submitted papers were selected based on originality, significance, and clarity of the purpose. The current issue of JEBS comprises of papers of scholars from South Africa, Nigeria, Kenya, Zimbabwe, Hungary and USA. Critical assessment of banking institutions, the effects of stress on employee productivity, implications of consumer protection legislation for hotels, personality, attitude & behavioural components of financial literacy, customer perceptions of skills of agents, the influence of green marketing tools on green eating efficacy and behaviour, corporate governance & corporate failure, the shemita effect, leadership styles & the entrepreneurial orientation, re-thinking a structural model for m-phone, food poverty dynamics, private financing and human resource practices, e-communication & customer satisfaction, budget deficits and economic growth, government expenditure and sectoral employment, national development plan as an entrepreneurial mechanism for economic development, factors influencing competitiveness of SMEs, principles for responsible management, cross border migrants & the choice of remittance channels and household debt & consumption spending were some of the major practices and concepts examined in these studies. Current issue will therefore be a unique offer where scholars will be able to appreciate the latest results in their field of expertise, and to acquire additional knowledge in other relevant fields.

Prof. Sisira R N Colombage, Ph. D.
Editor In Chief

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PAPERS

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Critical Assessment of Banking Institutions in South Africa

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Abstract: Banks play an important role in a country's economy through investments, deposits and withdrawals. Many banking products are sold to clients to meet their financial needs and obligations. Their performances are therefore very critical in supporting socio economic development. Financial institutions still facing challenges linked to the lack of financial previsions through the use of financial tool that allows preventing financial distress. Banks are not always well-managed because managers lack capacity and the sound knowledge in dealing effectively with the analysis of risk and return and decision-making. The current study highlights and gives orientations on key performance indicators that bank can use to manage their financial conditions in advance in a sustainable manner. The major objective of this research is to critically assess the South African banks performance using Financial Ratio Analysis (FRA)and descriptive statistics through comparative financial statement analysis form 2010 to 2013 between" the big four" South African banks. In using correlational analysis, the study aim to establish the link between exogenous and endogenous variables of bank performance. The results showed that FirstRand bank was the best achiever with a higher level of performance following by Standard bank, then Absa and Nedbank. Furthermore, it appears that there is a strong relationship between bank performance and bank size because the volume of assets represents the bigger source of bank incomes. This study opens door to further study including both large and small banks and a comparative analysis between two research methods. The paper is divided into five major sections.

Keywords: *South Africa, Banks, performance, economic development, financial ratios, decision making*

1. Introduction

Banking institutions play a pivotal role on the overall growth of an economic system of each and every country around the world. Measuring and evaluating their performance is very important in determining the key performance indicators in advance. Such indicators allow adjusting financial variables and therefore preventing any sudden decline, failure or crisis that can impact the financial system. Understanding internal factors or conditions of financial institutions and the relationship with foreign economies enables to point out missing or shortcoming on inefficient approaches in order to perform better performances. South African banking institutions comprises monetary policy handled by the reserve bank, locally and foreign controlled banks and mutual banks (SARB, 2014). The advent of democracy in South Africa in 1994 through the government of national unity (GNU) changed the landscape of the South African economy. A number of laws were voted for commercial, investment and other banks types thereafter to improve the banking sector so that it becomes more productive and competitive in the global economy. The South African Reserve Bank (SARB) is the institution that is responsible for the financial system stability through regulations and supervision of banks' activities internally and externally (SARB, 2014). Currently, the South African banking sector includes 17 registered banks, 3 mutual banks, 2 co-operative banks, 14 local branches of foreign banks, 43 foreign banks with approved local representative offices as published by SARB (2014). But South Africa has an oligopolistic market competition as confirmed by Mlambo and Ncube (2011). Oligopoly can be defined as a competitive market where there are fewer sellers of the same product on the market. In South Africa only four large commercial banks that include First National Bank, Standard Bank, Nedbank and ABSA represent more than 86% of the total industry assets (SARB, 2014). Despite this low degree of competition, the overall banking industry growth continues to improve regarding the financial stabilization and the country's GDP growth per capita.

Observations showed that banks are not always aware on real time of the declining situation of their financial position for many reasons. However, it happens that bank managers miss focus on the key performance indicators and the efficient management of resources that lead to financial issues. This study is important in that, it contributes in advising on the improvement of the financial performance of the four large South African Commercial banks. Such improvements are done through financial analysis of significant ratios related to profitability, liquidity, credit and capital performance and through correlation between bank size and bank performances. The results will certainly assist bank managers in decision-making process to achieve greater results in a sustainable manner following a preventive approach.

2. Literature Review

Authors have different point of view in defining or explaining key performance indicator of banks. For some, it about internal indicator such as efficiency and ownership while for others it related to external impacts such as market conditions, belonging to economic group and supervisory system. Bank efficiency has been at the center of debates related to their performance for service delivery. Ncube (2009) and Baten and Begum (2012) inferred that bank efficiency depends mostly on products units resources through cost, profit and technical efficiency analysis. Kristo (2012) used the stochastic frontier analysis techniques to establish the relationship between bank efficiency and bank size. He found that the efficiency of banking system is related to the size of bank market share through economic group integration. Somehow, there are standalone bank that perform well and better than banks belonging to specific economic group. Adewoye and Omoregie (2013) demonstrated that increasing bank size through technological innovation contribute in improving their cost efficiency. According to Zago and Dongili (2011), credit quality management especially based on loans issues must first be considered to increase bank efficiency. Some researchers believed that the statistic method used to do the research tells more about the efficiency of the research findings.

Bodla and Bajaj (2010) who emphasized only on measuring bank efficiency using Data Envelopment Analysis known as DEA whereas Nguyen et al. (2013) went further with the measurement of bank super-efficiency using the Slacks Based Model (SBM) under the estimation of variable returns to scale (VRS). They concluded that the larger the bank, the less guarantee the super efficiency scores in comparison with small banks. In this regard Shamsuddin and Xiang (2012) also assumed that although big banks have mastered a certain level of cost efficiency, they are still facing a lower level of technical efficiency compared to small banks. Bank efficiency analysis uses many techniques and approaches that require certain operating business condition like producing in optimal scale to be appropriates highlighted by Oluitan (2014). He found that efficiency implies excessive low costs that finally lead to the inefficiency. Bank efficiency is related to cost cutting and economy of scale that challenge performance improvement in a competitive environment.

Bank productivity emphasizes on bank financial performance using the CAMEL rating (Capital Adequacy, Assets Quality, Management Efficiency, Earning Quality, Liquidity and Sensitivity to Market Risk) compared to the other financial ratios. The study conducted by Jamil and Sahar (2013) focused on evaluating banks performance through comparative analysis between Indian banks using CAMELS rating and sensitivity to Market Risk approach. They concluded that the easy integration of banks in the emerging and globalized market improved their performance. Among all financial ratios, Van der Westhuizen (2014) and Monea (2011) confirmed that Return on Equity (ROE) and Return on Assets (ROA) known as profitability ratios as well as operating ratios such as Net Interest Margin (NIM) and cost to income ratio (C/I) are the most important ratios that accurately tell about bank performances. But observations showed that all ratios have a significant scope in evaluating bank performances.

Moreover, for some reasons, one ratio can be accurate in explaining performances of certain banks but not in all banks. That is why performance analysis needs to take into account the industry and the macro environment impact. Al-Karim and Alam (2013) confirmed that bank performance evaluation have to be done according to the internal, market and economic environment. In another extent, Market Value Added (MVA) and Economic Value Added (EVA) helps in improving bank' share value hence their best internal and external performance (Oberholdzer and Van der Westhuisen, 2010). Kumbirai and Webb (2010) emphasized on profitability, liquidity and credit ratios to compare financial performance of South African banks before and after crisis.They found that South African banks remained in a sound position as they benefited from limited exposure to foreign currency debt. Bank management requires a certain amount of capital as another key determinant of bank performance. Huang et al. (2012) emphasized that leverage and Capital adequacy ratio both tell about capital performance of a bank. Based on the literature, studies around bank performance topic showed that financial ratios inform accurately about all aspects of bank performance. However, analysis needs to consider the use of different accounting practices in each bank. Many internal factors such as political, market and economic conditions influence the performance of banks as well as external factors like international standard regulations that have a profound impact on bank management. This study also talks about bank size, bank ownership and bank supervisory system that affect financial performance of South African Banks.

Many authors such as Kristo (2012), Al-Karim and Alam (2013) and Adewoye and Omoregie (2013) took into account the impact of bank size through economic group integration and technological innovation on bank performance. They also found that volume of assets, market shares; number of employees (Ncube, 2009) is the best proxies to estimate the size of the bank. In order to increase their size and further improving their cost efficiencies and therefore their performances, banks can look for interbank merging rather than be independent (Huang et al., 2012; Paradi et al., 2010) and product development through technological innovations through new branches, new products and services. Banks can be owned by private people and/or by the government. But usually, profitability efficiently increases with foreign ownership especially during post-privatization compared to nationalized banks (Narjess et al., 2005). However, Jagwani (2012) believed that public sector banks remain more efficient than private and foreign banks because of the continuous resources availability. Despite the difference in ownership structure, technical efficiency is relatively the same in private and public bank sector regarding the nonperforming loans (NPL) as confirmed by Chaffai and Lassoued (2013).

Bank supervisory framework improves the management of the banking performances through policies and regulations. However, Maimbo (2002) found that a lack of enforcement and supervisory forbearance undermine the key role played by those institutions and increase the risk of bank failure. In South Africa, the banking supervisory system protected banks against market change and negative impact of the crisis (Van der Westhuisen, 2013; Erasmus and Makina, 2014). Banks supervisory department of the South Africa Reserve Bank also defines bank legislation and international standards to be followed by all banks. Beyond those factors, observations showed that skilled personnel, technology innovation and other stakeholders are the building blocks of banking performances. Moreover, the sound regulation and supervision system comprise bank supervision (Basel capital accord), financial surveillance and exchange controls and national payment system (SARB, 2014). In developed countries, financial development is related to the powerful economic growth in all sectors. All factors influencing financial performance are known and efficiently managed than in the developing countries. The quality of the governance takes into account the need to outperform both in public and private management of banks. Banking sector is predominated by holding companies that perform well than independent banks (Huang et al., 2012). This is evident in countries such as United States of America, United Kingdomand China.

In developing countries, many bank managers don't know the key performance indicators to focus on in order to increase bank productivity. In Taiwan, financial institutions are dominated by subordinated banks under financial holding company than independent banks (Huang et al., 2012). The easy integration of banks in India emerging market (economic transitions) increased their bank performance as asserted by Jamil and Sahar (2013). In South Africa context, banks performance analysis is influenced by oligopolistic nature of market condition (Mlambo and Ncube, 2011) because only four banks are known as big banks out of 17 registered banks. Therefore, the low rate of competition undermines the efficiency of the banking industry. However, technological innovations related to the economic liberalization led to the improvement of internal and foreign banking transactions and their improvement (Van der Westhuisen, 2013). Based on the above-mentioned, many studies put forward that efficiency and/or productivity characterize and increase bank performances. This study focus on bank productivity using financial ratios analysis to explain financial performance of South African financial institutions. Many studies conducted around bank performances in South Africa, focused on the period around the financial crisis that occurred in 2007(Van Heerden and Heymans, 2013). However, the study conducted by Erasmus and Makina (2014) showed that the effect of financial crisis on the South African banking system was minimal because of the sound supervisory system (Van der Westhuisen, 2013) and the low exposure to foreign currency debt (Kumbirai and Webb, 2010). This implies that considering the financial crisis event on research related to South African bank performance is not significant. Compared to the previous studies, the present study period is going from 2010 to 2013 and focuses on endogenous factors because they are more accurate for measuring bank performances as asserted by Tesfaye (2014). This study also adds capital performance as another determinant because Bentum (2012) highlighted its influence on risks and leverage. Furthermore, trend analysis is done not only per sampling period but will integrate comparative analysis per bank over the sampling period.

3. Methodology

The selected banks namely Absa, FirstRand, Nedbank and Standard chartered Bank are all registered at Johannesburg Stock Exchange (JSE). The chosen sample is accurate and appropriate as it represents over 86% of the South African banks population as stipulated by Salkind (2012) and published by SARB (2014). The study has used data collected from the various annual reports of the selected commercial banks that include Absa, FirstRand, Nedbank and Standard chartered bank as published on the South African Reserve bank's website (www.sarb.co.za) as well as data published on each bank website from 2010 to 2013. This study follows a quantitative research approach because it uses "quantitative analysis techniques such as graphs, charts and statistics allow us to explore, present, describe and examine relationships and trends within our data" as stated by Saunders and Cornett (2011). The study uses descriptive statistics and correlational analysis in order to establish the relationship between bank performance variables (Salkind, 2012). Correlational research techniques is appropriate in this context because the study seeks to establish if there is a relationship between level of performance and other variables such as bank size quantifiable through the volume of assets. Hypothesis will be tested by means of variables from 2010 to 2013 that will allow to criteria as if P-value < B, reject the null hypothesis; if P-value > B, accept the null hypothesis. B defined as being level of significance.

Statistical analysis of data in this study will be done using Microsoft Excel software. It remains our best software for calculations, charts and different illustrations for all the above-mentioned. The Performance measurement tools used in this study is the Financial Ratios Analysis because it informs about bank' operations and financial condition over time, across banks and across the banking industry. Moreover, it reveals bank strengths and weaknesses as highlighted by Kumbirai and Webb (2010) and Brigham and Daves (2010). Financial Ratios Analysis uses standardized numbers to easily compare bank performance in the industry as well as around the world. Variables use in the study is displayed in the table below:

Table 1: Variables use in the study

Variables	Ratios	Description	Average Range
Profitability	ROA	Return on Assets	>1
Performance	ROE	Return on Equity	15-20%
	C/I	Cost to Income	<50%
Liquidity	NLTA	Net Loans to Total Assets	80%
Performance	NLDST	Net Loans to Deposit and Borrowing	70-80%
Credit quality	IL	Impairment Loss	<1
Performance	NPL	Non-Performing Loan over the total of loans	<5
Capital	LR	Leverage Ratio or total liabilities to total assets	<8%
Performance	CAD	Capital Adequacy Ratio or Capital to Risk weighted assets	>10%
Size		Volume of Assets	

Source: http://www.investopedia.com/ask/answers/

4. Results and discussions of key findings

Profitability Trend: Profit maximization is the main objective of any business to assure long-term viability. Profitability performance is the key measure of any business performance. In this study, profitability is measured in terms of Return on Assets (ROA), Return on Equity (ROE) and Cost-to-Income (C/I). Profitability performance is outlined for the sample period and per selected South African banks (FirstRand, Standard, Absa and Nedbank). The summary statistics of variables shows the mean and the standard deviation.

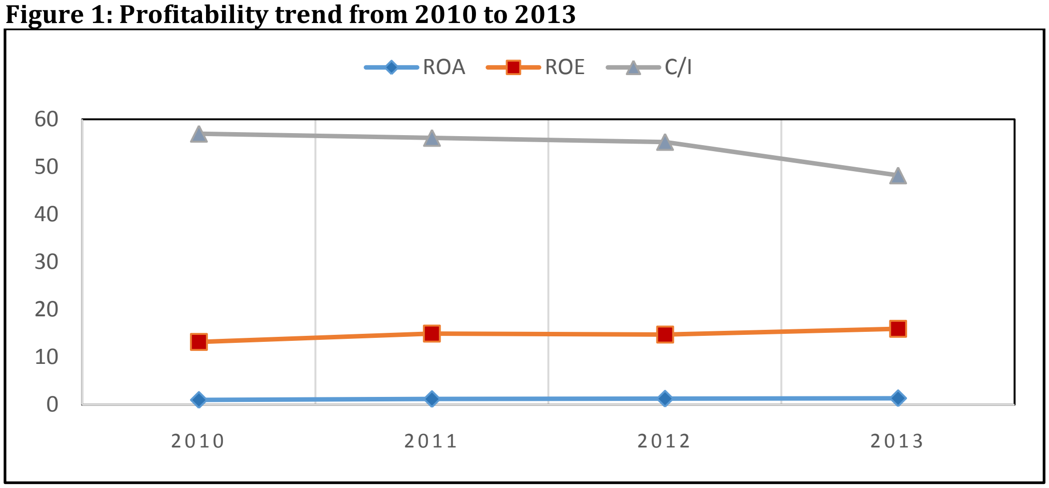
Profitability on the sample period: The summary statistics of profitability ratios is shown in the table 2 below. Figure 1 below shows an overall increasing profitability trend from 2010 to 2013 despite a slightly drop of efficiency ratio in 2013. ROA and ROE increased continuously during the sample period due to the profit earning increase. Net interest incomes on loans and advances to customers and non-interest revenue all increase income as well as the profit. This improvement shows the return on different bank' investment. Efficiency ratio decreased from 57% in 2010 to 48% in 2013 because of the increase of incomes. Therefore, South African banks showed better performance from 2010 to 2013.

Table 2: Summary statistics of variables from 2010 to 2013

Ratios	Years	ABSA	FIRSTRAND	NEDBANK	STANDARD	Mean	SD
ROA	2010	0.94	1.3	0.65	0.97	0.965	0.265895
	2011	1.13	1.5	0.87	1.12	1.155	0.259551
	2012	0.96	1.73	1	1.23	1.23	0.35393
	2013	1.08	1.87	1.06	1.3	1.3275	0.377657
ROE	2010	14.2	17.7	8.3	12.5	13.175	3.905018
	2011	15.8	18.7	10.9	14.3	14.925	3.245895
	2012	12.28	20.7	11.8	14.2	14.745	4.103182
	2013	15.25	22.2	12.2	14.1	15.9375	4.360309
C/I	2010	56.7	*53.3*	56.3	61.7	57	3.481379
	2011	55.6	53.3	56.8	58.8	56.125	2.299819
	2012	52.7	53.4	56.3	58.7	55.275	2.764507
	2013	55.9	51.9	56.6	28.5	48.225	13.31199

Source: ABSA, FirstRand Bank, Nedbank, Standard bank websites: various annual reports.

Figure 1: Profitability trend from 2010 to 2013



Profitability per South African Bank: The summary statistics of profitability ratios is shown in the table 3 below.

Table 3: Summary statistics of variables from 2010 to 2013 per Bank

Banks	Years	2010	2011	2012	2013	Mean	SD
ABSA	ROA	0.94	1.13	0.96	1.08	1.0275	0.09215
	ROE	14.2	15.8	12.28	15.25	14.3825	1.55087
	C/I	56.7	55.6	52.7	55.9	55.225	1.746186
FIRSTRAND	ROA	1.3	1.5	1.73	1.87	1.6	0.25152
	ROE	17.7	18.7	20.7	22.2	19.825	2.01556
	C/I	*53.3*	53.3	53.4	51.9	52.975	0.71821
NEDBANK	ROA	0.65	0.87	1	1.06	0.895	0.181567
	ROE	8.3	10.9	11.8	12.2	10.8	1.75309

	C/I	56.3	56.8	56.3	56.6	56.5	0.24494
	ROA	0.97	1.12	1.23	1.3	1.15	0.14387
STANDARD	ROE	12.5	14.3	14.2	14.1	13.78	0.8539
	C/I	61.7	58.8	58.7	28.5	51.93	15.6785

Source: ABSA, FirstRand Bank, Nedbank, Standard bank websites: various annual reports.

Figure 2: Profitability trend per bank from 2010 to 2013

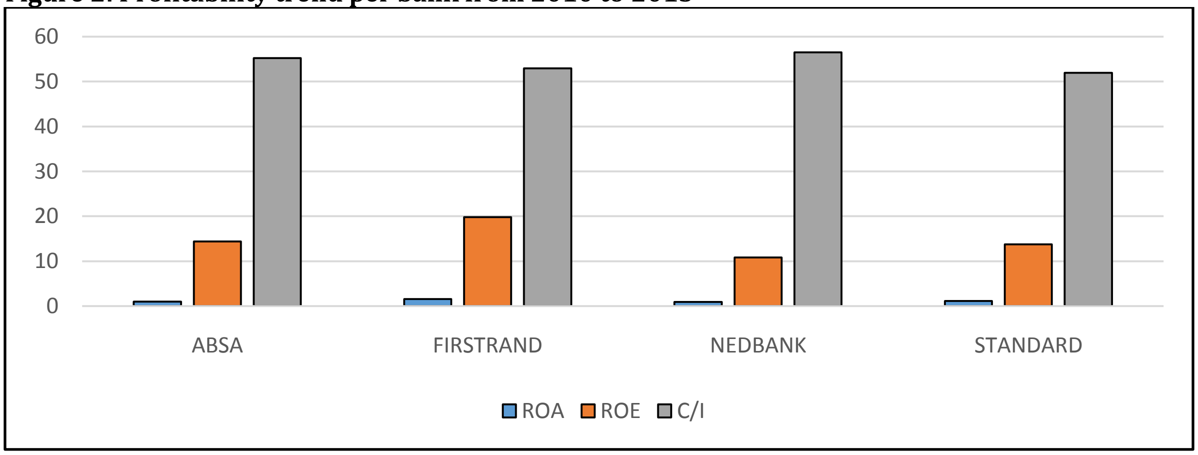


Figure 2 shows that during the sample period, FirstRand bank was the best achiever because it has the higher ROA about 1.6%, ROE of 19% and a lower cost to income ratio about 52%. The second achiever is Standard Bank with the lowest efficiency ratio about 51% and the better return on equity and assets. The third achiever is Absa and the fourth is Nedbank. Throughout the sample period all banks were efficiently using their assets to make a profit because the ROA mean was always above 1 except the case of Nedbank. Only First Rank and Absa could meet the standard average between 15-20% ranges which means that they had an attractive level on investment equity. Unlike the other banks, Nedbank realized the best efficiency ratio by meeting 56% when the average must be 50%. Although Nedbank has a lower level of ROA and ROE, it has a good control of the overall overhead on its revenue.

Liquidity Trend: The uncertainty and the risk of banking operations brought banks to control their liquidity level to prevent bankruptcy and failure. The present study emphasizes on net loans to total assets (NLTA) and net loans to deposits and short-term borrowing (NLDST) as liquidity ratios. These ratios don't assess liquidity itself in first place but they measure illiquidity that also informs about liquidity as pointed out by Kumbirai and Webb (2010).

Liquidity on the sample period: The summary statistics of liquidity ratios is shown in the table 4 below.

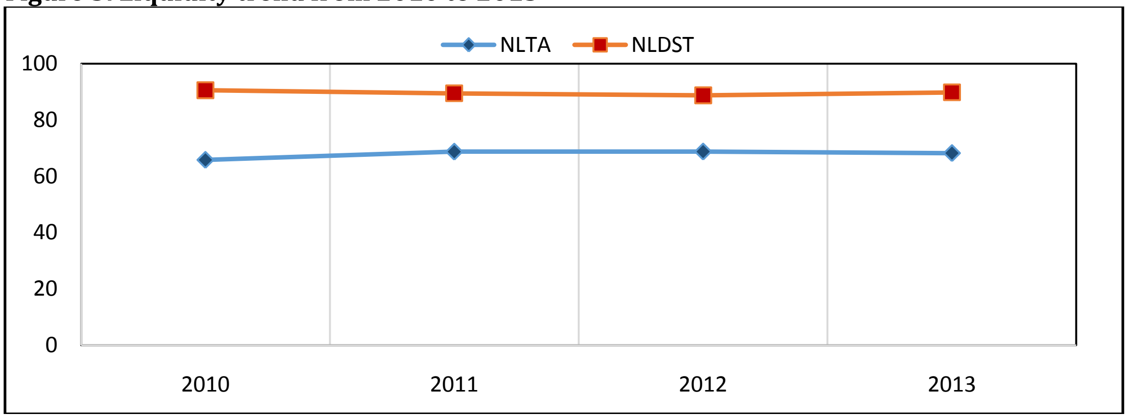
Table 4: Summary statistics of variables from 2010 to 2013

Ratios	Years	ABSA	FIRSTRAND	NEDBANK	STANDARD	Mean	SD
	2010	76.7	51.44	81.78	53.34	65.815	15.65919
NLTA	2011	74.3	66.56	80.37	53.67	68.725	11.51849
	2012	73.78	68.13	80.6	52.55	68.765	11.95194
	2013	74.89	63.93	81	53.08	68.225	12.32127
	2010	90.7	*85.67*	95.99	90	90.59	4.231887
NLDST	2011	87	84.03	95.43	91.39	89.4625	4.996741
	2012	85	86.51	95.84	87.5	88.7125	4.861587
	2013	86.7	85.93	96.67	89.95	89.8125	4.892364

Source: ABSA, FirstRand Bank, Nedbank, Standard bank websites: various annual reports

The above liquidity trend shows that net loans to total asset (NLTA) increased by 2.9% from 65.8 in 2010 to 68.7 in 2011 before decreasing in 2013 to68.2%. Such decrease is the fruit of the increase of net loans due to the increase of impairment loans loss and the increase of total assets from other banks' operations. The decrease trend of this NLTA ratio implies the increase of banks liquidity. The higher level of this ratio shows that assets are mostly formed by loans which are not secure for a bank. Net loans to total deposit and short-term borrowings (NLDST) decreased slightly from 2010 with 90% to about 89% in 2013. The low this ratio, the larger the amount of deposit from customers and short term funding. However, the lower rate is also related to the monetary policy on lending requirements. The decrease of the trend implies an increase of liquid assets. Banks must lend a reasonable percentage of its deposits or borrowed funds to be liquid all the time in case of sudden customers' withdrawals.

Figure 3: Liquidity trend from 2010 to 2013



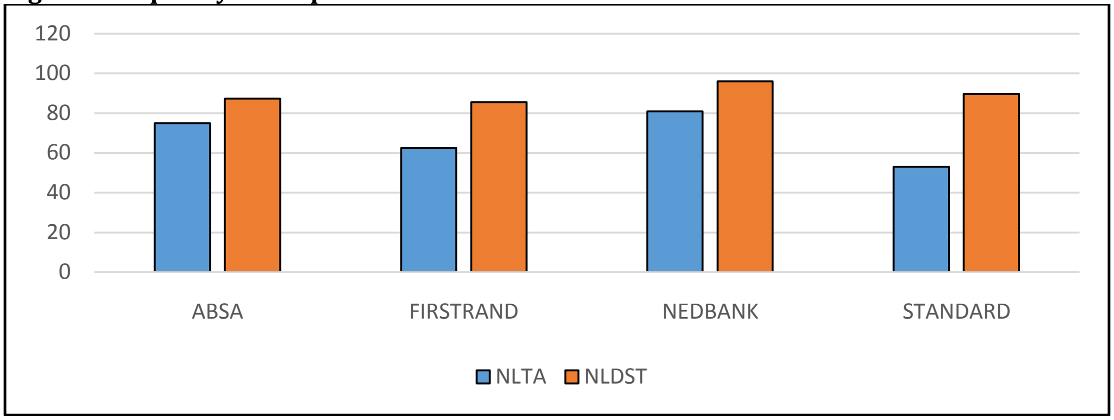
Liquidity per South African Bank: The summary statistics of liquidity ratios is shown in the table 5 below.

Table 5: Summary statistics of variables from 2010 to 2013 per Bank

Banks	Years	2010	2011	2012	2013	Mean	SD
ABSA	NLTA	76.7	74.3	73.78	74.89	74.9175	1.271911
	NLDST	90.7	87	85	86.7	87.35	2.400694
FIRSTRAND	NLTA	51.44	66.56	68.13	63.93	62.515	7.583933
	NLDST	*85.67*	84.03	86.51	85.93	85.535	1.062999
NEDBANK	NLTA	81.78	80.37	80.6	81	80.9375	0.619052
	NLDST	95.99	95.43	95.84	96.67	95.9825	0.515841
STANDARD	NLTA	53.34	53.67	52.55	53.08	53.16	0.472934
	NLDST	90	91.39	87.5	89.95	89.711	1.617426

Source: ABSA, FirstRand Bank, Nedbank, Standard bank websites: various annual reports.

Figure 4: Liquidity trend per bank from 2010 to 2013



The higher the NLTA, the less liquid the bank is. Nedbank is the less liquid after ABSA compare to Standard Bank and Fist Rank Bank. The higher NLTA ratio indicates that a higher volume of Nedbank's assets is tied up as loan. The average of NLDST ratio is more than 85% which is a little high. This is not safe for those banks because they can be vulnerable to any sudden adverse changes in the deposit base.

With regards to the above-mentioned analysis about liquidity ratios, the liquidity trend shows that the four South African commercial banks were performing well from 2010 to 2013. The comparative analysis shows that FirstRand had a first higher liquidity performance, Standard bank the second, Absa the third and Nedbank the fourth. Although banks' liquidity is an indicator of performance, there is a minimum requirement of liquid assets indicated by the South African Reserve Bank that all banks follow.

Credit Trend: The intermediation function of banks leads them to face risky operations related to their asset portfolio. Therefore, banks need to closely examine these risks by controlling credit performance ratios. The present study stands on impairment loss (IL) ratio and Non-performing ratio (NPL) as credit ratios.

Credit ratios on the sample period: The summary statistics of credit ratios is shown in the table 5 below.

Table 5: Summary statistics of variables from 2010 to 2013 per Bank

	Years	ABSA	FIRSTRAND	NEDBANK	STANDARD	Mean	SD
IL	2010	1.12	1.3	1.3	1.03	1.1875	0.135
	2011	1	0.82	1.1	0.87	0.9475	0.126853
	2012	1.6	1	1	1	1.15	0.3
	2013	1.14	0.96	0.97	0.96	1.0075	0.088459
NPL	2010	7.5	5	7.8	6.1	6.6	1.298717
	2011	6.9	4.19	7.3	4.1	5.6225	1.714261
	2012	6.5	3.5	7	3.8	5.2	1.805547
	2013	5.76	3.8	6.81	3.3	4.9175	1.648886

Source: ABSA, FirstRand Bank, Nedbank, Standard bank websites: various annual reports.

Figure 5: Credit trend from 2010 to 2013

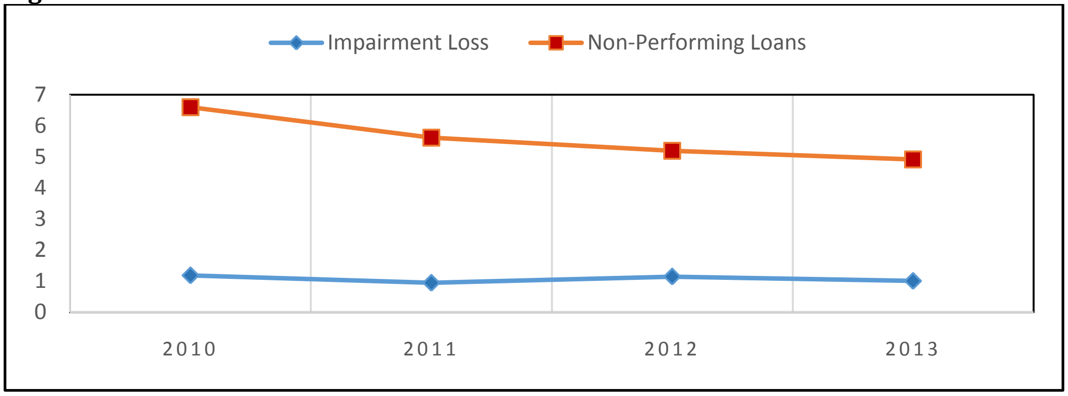


Figure 5 shows a downward trend of the Non-performing loans from 2010 to 2013. The decrease is due to the continued growth in loans and advances to customers and also the decrease of non-performing loans. This implies a good improvement of credit performance of these South African banks compared to the period from 2005 to 2007 as studied by Mabwe and Webb (2010). Impairment loss ratio is relatively weak because most customers are not defaulted and most assets portfolio (loans) is not too risky. But the slight increase in 2012 was largely due to the deterioration in business and unsecured portfolios. The lower amount of default loans explains the decrease of provision for loan loss during the same period. The higher the non-performing loan ratio and charge-off percentages, the higher the provision for loan losses should probably be. Consequently, net interest incomes will decrease as well as profit earnings.

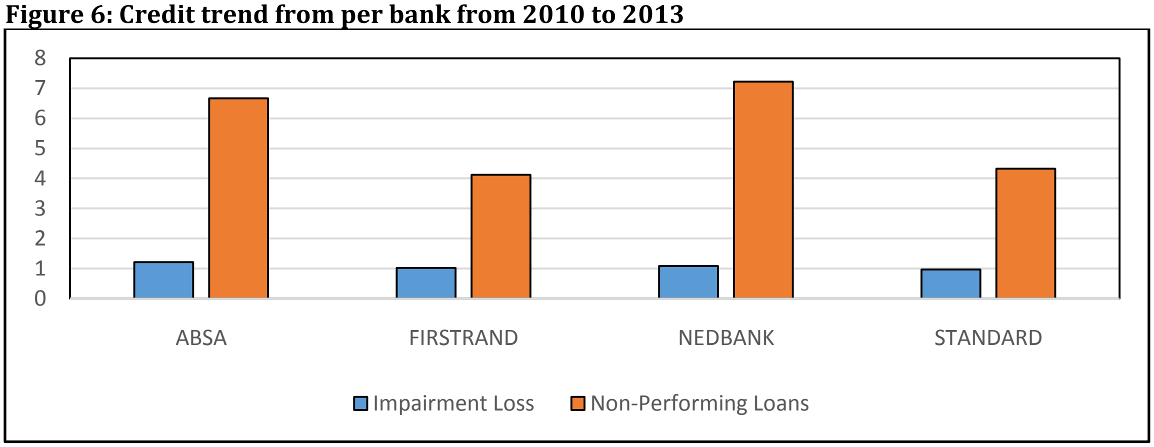
Credit ratios per South African Bank: The summary statistics of profitability ratios is shown in the table 7 below.

Table 7: Summary statistics of variables from 2010 to 2013 per Bank

Banks	Ratios	2010	2011	2012	2013	Mean	SD
ABSA	IL	1.12	1	1.6	1.14	1.215	0.264008
	NPL	7.5	6.9	6.5	5.76	6.665	0.73
FIRSTRAND	IL	1.3	0.82	1	0.96	1.02	0.20199
	NPL	5	4.19	3.5	3.8	4.1225	0.649635
NEDBANK	IL	1.3	1.1	1	0.97	1.09	0.149081
	NPL	7.8	7.3	7	6.81	7.225	0.431692
STANDARD	IL	1.03	0.87	1	0.96	0.965	0.069522
	NPL	6.1	4.1	3.8	3.3	4.325	1.228481

Source: ABSA, FirstRand Bank, Nedbank, Standard bank websites: various annual reports.

Figure 6: Credit trend from per bank from 2010 to 2013



The overall average of NPL is good and shows that the percentage of non-performing loan by the total of outstanding loans in the bank portfolio is very low. This means that borrowers make effort to pay back before 90 days. Regarding the above-mentioned comments, figure 6shows that FirstRand had the lowest impairment loss ratio, followed by Standard bank, Absa and then Nedbank. Nedbank and Absa had the highest level of non-performing loans compared to the other banks. Finally, FirstRand had a best credit performance, followed by Standard bank, Absa and then Nedbank.

Capital Trend: The present study focuses on leverage ratio (LR) and the Capital adequacy ratio (CAD) as capital ratios.

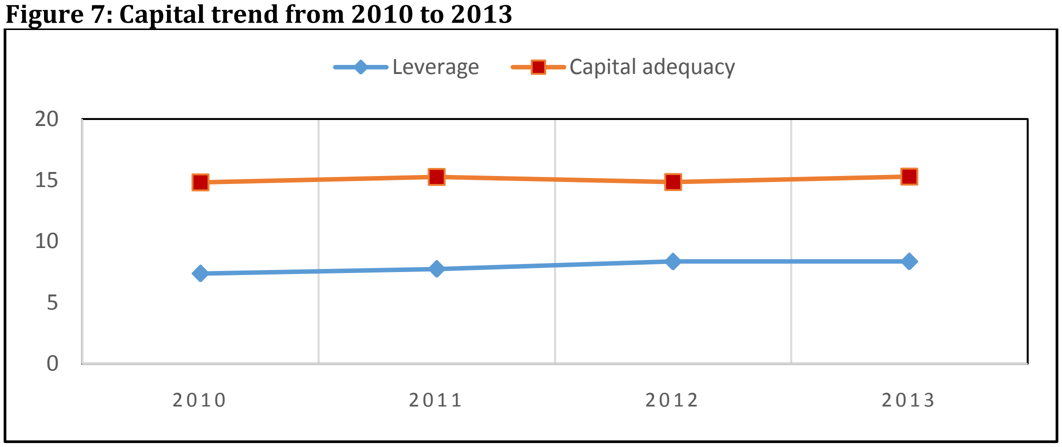
Capital ratios on the sample period: The summary statistics of profitability ratios is shown in the table 8 below.

Table 8: Summary statistics of variables from 2010 to 2013

Ratios	Years	ABSA	FIRSTRAND	NEDBANK	STANDARD	Mean	SD
	2010	6.6	7.34	7.83	7.75	7.38	0.562554
	2011	7.2	8.02	7.98	7.8	7.75	0.378946
LR	2012	7.8	8.36	8.5	8.7	8.34	0.386092
	2013	7.08	8.42	8.7	9.2	8.35	0.906054
	2010	14.8	14.3	14.9	15.3	14.825	0.411299
	2011	14.5	16.5	15.8	14.3	15.275	1.05317
CAD	2012	15.2	14.6	15.3	14.3	14.85	0.479583
	2013	15.5	15	14.5	16.2	15.3	0.725718

Source: ABSA, FirstRand Bank, Nedbank, Standard bank websites: various annual reports.

Figure 7: Capital trend from 2010 to 2013



The Capital trend presented in figure 6 shows an upward trend of leverage ratio from 2010 to 2013. As a percentage of total assets to equity, the increase of leverage ratio is mostly caused by the increase of Equity. Customers' ability to repay debt encourages shareholders to invest more equity in order to increase revenues. The slight decrease in 2012 is due to the decrease of loans reserves. The four banks kept a good capital amount since the overall mean is more than 14% above the minimum capital requirements.

Capital ratios per South African Bank: The summary statistics of capital ratios is shown in the table 9 below.

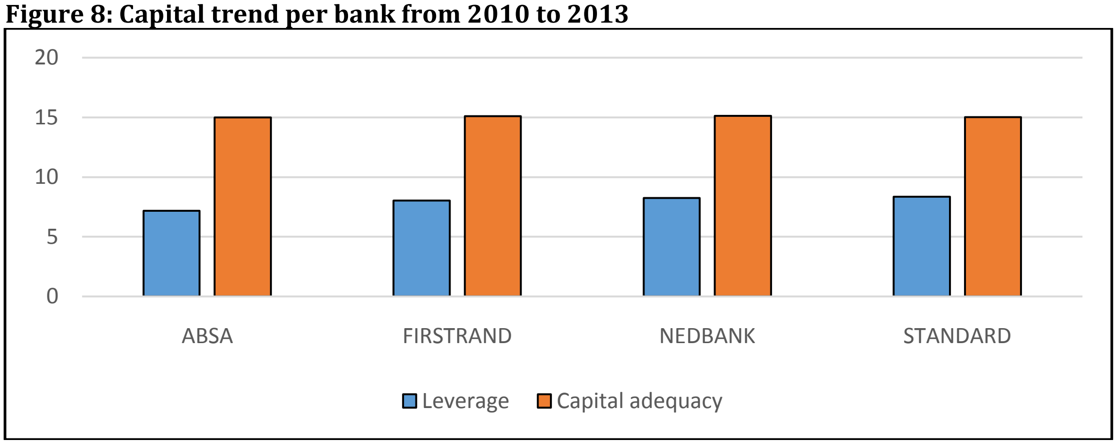
Table 9: Summary statistics of variables from 2010 to 2013 per Bank

Banks	Ratios	2010	2011	2012	2013	Mean	SD
ABSA	LR	6.6	7.2	7.8	7.08	7.17	0.493559
	CAD	14.8	14.5	15.2	15.5	15	0.439697
FIRSTRAND	LR	7.34	8.02	8.36	8.42	8.035	0.495681
	CAD	14.3	16.5	14.6	15	15.1	0.976388
NEDBANK	LR	7.83	7.98	8.5	8.7	8.2525	0.414035
	CAD	14.9	15.8	15.3	14.5	15.125	0.556028
STANDARD	LR	7.75	7.8	8.7	9.2	8.3625	0.708725
	CAD	15.3	14.3	14.3	16.2	15.025	0.914239

Source: ABSA, FirstRand Bank, Nedbank, Standard bank websites: various annual reports.

Figure 8 below shows that all four South African banks are well-capitalized because the Capital Adequacy Ratio (CAD) ratio is more than 10% and the leverage ratio less than 10%. They then have enough capital to sustain operating business like potential losses and withdrawals.

Figure 8: Capital trend per bank from 2010 to 2013



All the above banks show a good leverage situation because the mean of the ratio is 8%. This shows that the bank can pay their liabilities with their assets. The mean of the CAD ratio being more that 10% shows that South African banks ensure the efficiency and the stability of their system by lowering the risk of insolvency.

Hypothesis testing 1:

H01: Financial ratios measured by Profitability, liquidity, credit and capital ratios have no statistical significant impact on performances of South African Banks.

HA1: Financial ratios measured by Profitability, liquidity, credit and capital ratios have statistical significant impact on performances of South African Banks.

In this hypothesis, the dependent variable to assess bank performance is Return on Assets ratio. Table 10 shows the correlation matrix between the dependent (ROA) and the independent variables namely profitability, liquidity, credit and capital ratios.

Table 10: Correlation Matrix between variables

	ROA	ROE	C/I	NLTA	NLDST	IL	NPL	LR	CAD
ROA	1	0.96	-0.80	0.80	-0.61	-0.52	-0.99	0.94	0.59
ROE	0.96	1.00	-0.81	0.79	-0.49	-0.72	-0.95	0.82	0.78
C/I	-0.80	-0.81	1.00	-0.31	0.03	0.40	0.73	-0.69	-0.61
NLTA	0.80	0.79	-0.31	1.00	-0.88	-0.62	-0.85	0.75	0.52
NLDST	-0.61	-0.49	0.03	-0.88	1.00	0.18	0.70	-0.72	-0.04
IL	-0.52	-0.72	0.40	-0.62	0.18	1.00	0.50	-0.22	-0.96

NPL	-0.99	-0.95	0.73	-0.85	0.70	0.50	1.00	-0.96	-0.54
LR	0.94	0.82	-0.69	0.75	-0.72	-0.22	-0.96	1.00	0.20
CAD	0.59	0.78	-0.61	0.52	-0.04	-0.96	-0.54	0.28	1

Sources: Computed by the Author. Correlation is significant at 5% level

From the table 10, there is a strong correlation between Profitability, Liquidity, Credit and Capital ratios that form the overall performance of South African banks. It shows that there is a positive correlation between ROA and ROE, NLTA, LR and CAD while negative correlation with C/I, NLDST, IL and NPL. The result indicates that with the increase in ROE, NLTA, LR, there has been an increase in ROA. The decrease of C/I, NLDST, IL and NPL lead to the increase of ROA.

Table 11: Hypothesis summary

Ratios	Mean	P-Value	Decision on null hypothesis
ROE	14.696	0.036	Reject
C/I	54.156	0.199	Accept
NLTA	67.883	0.196	Accept
NLDST	89.644	0.385	Accept
IL	1.073	0.48	Accept
NPL	5.585	0.005	Reject
LR	7.955	0.057	Accept
CAD	15.063	0.41	Accept

Sources: Computed by the Author. Correlation is significant at 5% level

At a 5% significance level, the correlation between ROA and ROE is significant as well as with NPL because the p-values are less than 0.05 as presented in table 11. Therefore, null hypothesis is rejected. The correlation between bank profitability (ROA) and bank performance variables C/I, NLTA, NLDST, IL, NPL, and LR is insignificant because the p-values are more than 0.05 as presented in table 10. Therefore, null hypothesis is accepted.

Hypotheses 2:
HO2: Bank size has no statistical significant impact on performances of South African Banks.
HA2: Bank size has statistical significant impact on performances of South African Banks.
In this study, the volume of assets is used as a proxy of the dependent variables (bank size) and the bank performance variables (financial ratios) as the proxies of bank performance. Table 12 shows the summary statistics of those variables. The resulting correlation coefficient is given in the table 13.

Table 12: summary statistics of variables: Assets and financial ratios

		ABSA	FIRSTRAND	NEDBANK	STANDARD
	MEAN	745925.8	812431	633639	1517051
ASSETS	SD	42144.09	102426.6	51961.41	149548.27
	MEAN	1.0275	1.6	0.895	1.15
ROA	SD	0.09215	0.25152	0.181567	0.14387
	MEAN	14.3825	19.825	10.8	13.78
ROE	SD	1.55087	2.01556	1.75309	0.8539
	MEAN	55.225	52.975	56.5	51.93
C/I	SD	1.746186	0.71821	0.24494	15.6785
	MEAN	74.9175	62.515	80.9375	53.16
NLTA	SD	1.271911	7.583933	0.619052	0.472934

	MEAN	87.35	85.535	95.9825	89.711
NLDST	SD	2.400694	1.062999	0.515841	1.617426
	MEAN	1.215	1.02	1.09	0.965
IL	SD	0.264008	0.20199	0.149081	0.069522
	MEAN	6.665	4.1225	7.225	4.325
NPL	SD	0.73	0.649635	0.431692	1.228481
	MEAN	7.17	8.035	8.2525	8.3625
LR	SD	0.493559	0.495681	0.414035	0.708725
	MEAN	15	15.1	15.125	15.025
CAD	SD	0.439697	0.976388	0.556028	0.914239

Sources: Computed by the Author. Correlation is significant at 5% level

Pearson correlation is used to find the correlation coefficient relationship between variables at 5% level of confidence according to the excel software package and the outcomes are presented in Table 13 below.

Table 13: Correlation between bank size and bank performance variables

	Assets	*ROA*	*ROE*	*C/I*	*NLTA*	*NLDST*	*IL*	*NPL*	*LR*	*CAD*
Assets	1	0.12359	0.015862	-0.8247	-0.88133	-0.1707	-0.68229	-0.6565	0.440924	-0.4682
ROA	0.12359	1	0.966961	-0.65944	-0.5774	-0.76062	-0.45956	-0.8277	0.113355	0.157216
ROE	0.01586	0.966961	1	-0.57454	-0.47758	-0.87731	-0.23304	-0.729	-0.14359	0.004143
C/I	-0.8247	-0.65944	-0.57454	1	0.993332	0.601347	0.734474	0.96043	-0.33877	0.320017
NLTA	-0.88133	-0.5774	-0.47758	0.993332	1	0.51476	0.767709	0.93264	-0.39924	0.326929
NLDST	-0.1707	-0.76062	-0.87731	0.601347	0.51476	1	-0.00505	0.63676	0.457807	0.470562
IL	-0.68229	-0.45956	-0.23304	0.734474	0.767709	-0.00505	1	0.7673	-0.884	-0.298
NPL	-0.65647	-0.82765	-0.72901	0.960425	0.932642	0.636755	0.7673	1	-0.384	0.096556
LR	0.44092	0.113355	-0.14359	-0.33877	-0.39924	0.457807	-0.884	-0.384	1	0.573592
CAD	-0.4682	0.157216	0.004143	0.320017	0.326929	0.470562	-0.298	0.09656	0.573592	1

Sources: Computed by the Author. Correlation is significant at 5% level

Table 13 shows a positive and negative relationship between bank size and bank performance. The positive correlation between Assets and ROA with a weak coefficient of 0.12359 means that with a one percent increase of the bank size, there is 1.2359 percent increase in ROA of the bank. According to the above results, bank size is negatively related to C/I, NLTA, NLDST, IL, NPL, CAD ratios.

Table 14: Hypothesis summary

Ratios	**Mean**	**P-Value**	**Decision on null hypothesis**
ROA	1.169375	0.87641	Accept
ROE	14.696	0.984138	Accept
C/I	54.156	0.175299	Accept
NLTA	67.883	0.118665	Accept
NLDST	89.644	0.829302	Accept
IL	1.073	0.31771	Accept
NPL	5.585	0.343527	Accept
LR	7.955	0.559076	Accept
CAD	15.063	0.531795	Accept

Sources: Computed by the Author. Correlation is significant at 5% level

At a 5% significance level, the correlation between bank size and bank performance is insignificant because the p-values are more than 0.05 (P-Value > 0.05) as presented in table 14. Therefore, null hypothesis is accepted. Although there is an insignificant relationship between bank size and bank performance, the correlation coefficient can at least explain the link between those variables. The volume of assets represents bank's biggest source of incomes. Therefore, the increase of bank size systematically increases bank profit. South African banking industry is dominated by the four largest banks because of the volume of their assets compared to the other South African banks namely Capitec, Investec Bank, Teba Bank and African bank, all classified as small banks.

5. Conclusion and Recommendations

The present study uses Financial Ratios Analysis (FRA) to measure and evaluate South African Banks Performance over a four years period from 2010 to 2013. This report takes into consideration "the big four" South African banks namely Absa, FirstRand, Nedbank and Standard chartered to measure the performance at four performance levels namely Profitability, Liquidity, Credit and Capital performance. Trend analysis during the sample period showed that FirstRand bank was the best achiever, Standard Bank the second achiever followed by Absa and Nedbank. The trend also shows the overall increase in profitability, liquidity, and credit and capital performance during the study period for the all four banks. A correlation analysis between bank profitability and bank performance shows that Return On Assets (ROA) as a key measure of bank profitability had a strong positive and strong negative correlation with all other profitability, liquidity, credit and capital ratios as determinants of bank performance. However, only the relationship between Return on Assets (ROA) and Return on Equity (ROE) as well as Non-performing loans (NPL) appears significant. South African banks should then improve their asset portfolio according to the percentage of Non-performing loans in order to increase profit and so the overall financial ratios. The results also show insignificant relationship between bank size and bank performance at a degree of significance of 5% even though the coefficient of correlation shows moderate and strong relationship among them. Despite the statistical insignificant relationship between these variables, correlation coefficient can at least explain the link between them. The volume of assets represents bank's biggest source of incomes. Therefore, the higher the volume of bank' assets the higher the performance of the bank. Ultimately, the four largest South African Banks were profitable during the period from 2010 to 2013 with a good level of liquidity, credit and capital requirements.

Recommendations: Although the four studied South African banks outperformed during the sample period, they should not only rely on the viability of current resources but also rely on new business opportunities regarding the environment changes and the global competition. Banks need to introduce new banking technologies and look for new markets locally and externally. There is also a need to expand on branches and subsidiaries. Such innovations will assist banks to be more competitive and remain large in the South African banking industry and also around the world. Bank managers need to be well-skilled and trained on financial management institutions in order to master bank management in terms of risk and return. The South African Reserve Bank needs to keep sound regulations and supervisory system as during the crisis period to protect the banking industry against recession, failure and any eventual crisis. It is recommended that future research could address and further investigate the financial gap between South African large and small banks. Regarding the pivotal role of regulators in South African context, future researches need to compare the South African Banks' performance with those of other African banks. Future researches should consider both internal and exogenous variables in bank performance analysis. In addition, it is recommended to emphasize on a comparative analysis with other approaches such as Data Envelopment Analysis (DEA) and Regression analysis in order to add value to research findings.

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The Effects of Stress on Employee Productivity: A Perspective of Zimbabwe's Socio-Economic Dynamics of 2016

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Abstract: This study was motivated by Zimbabwe's deteriorating economic experience, which has resulted in high unemployment rates, low productivity, high cost of doing business, increased labour disputes, and stress manifestation amongst the working population. The results of the study showed that change factors, demands or pressure factors, lack of support and participation at work by supervisors and other staff members, and work role were to a greater extent the most stressful factors. The perennial economic crisis in the country, high degree of uncertainty due to restructurings and redundancies, and work changes without consultations, had a positive impact on employee's productivity. The regression results concluded that poor work relationships, lack of support at work, and poor planning had negatively affected productivity.

Keywords: *Work-related Stress, Productivity, Employee, Zimbabwe*

1. Introduction

The study seeks to analyse the effects of stress on employee productivity in Zimbabwe and strategies an organisation may take to strike a balance of the two. Stress at work affects workers and their communities in the negative way, with some resultant clear financial impact on businesses, the economy and beyond. Stress manifest itself in various ways, among others include absence from work due to sickness, the hidden cost of a sick employee, present at work but not fully productive, and unemployment. Despite the fact that stress is a condition, not a disease, it sends signals for some looming problems. If the human body is subjected under unrestrained stress levels, this can result in malfunctioning of the body system and organs within the body, through acute and chronic changes. Dean (2002) postulated that illnesses related to stress are the leading cause for low productivity levels in organisations. The changing world of work, coupled together with the recent global economic crisis and recession are making increased demands on workers at local, national, regional and global levels. The concept of Globalisation and other dynamics like technological innovations, virtual office and network concepts, disintegration of the labour market, downsizing and outsourcing, greater need for flexibility in terms of both function and skills, increasing use of temporary and/or casual contracts, increased job insecurity, higher workload and pressure of performance, as well as poor work-life balance, are factors that contribute to work-related stress and add to the burden of stress around the world (http://www.theindependent.co.zw/ 2015). In practice, improving the quality of work life remains a big bone to chew. Lowe (2006) noted that most managers appreciate the relationship between the quality of work life and organizational performance though they face barriers to progress. So it is necessary to update the case for taking action to improve the quality of jobs and work environments.

According to Michac (1997) stress is induced by the following factors: poor time management, unclear job descriptions, feelings of inadequacy and insecurity, inability to get things done, lack of communication, bad personal relationships, quality and complexity of tasks. Industrial Psychology Consultants (IPC, 2014) conducted a survey and came up with the following statistics on stress and depression: that 27.3% of the working population was experiencing depression symptoms, namely feeling that things are meaningless, and they can't see a way of escaping from their situation, life is not worthwhile, they would be better if they were dead, they can't enjoy anything anymore, wishing they were dead. That 18.3% experiences anxiety symptoms and these include vague feelings of fear, trembling when with others, panic attacks, feeling frightened and fear of going out of the house alone. 33.4% of the working population in Zimbabwe experience somatisation symptoms and these include headache, painful muscles, back pain, bloated feeling in the abdomen, neck pain, blurred vision, dizziness or feeling light-headed, nausea or an upset stomach, pressure or a tight feeling in the chest, pain in the chest, tingling in the fingers, excessive sweating, palpitations and fainting. The manufacturing sector was reported to have the highest prevalence of depression symptoms (27.4%) followed by the financial sector (26.2%) with IT and telecommunications (17.8%) in third position (IPC, 2014). It is against this background that the research formulated the problem statement and research objectives, to examine the effects of such statistics on employee productivity.

Statement of Research Problem: In spite of the fact that work-related stress is a cause for concern with an increasing importance and that a number of studies on work-related stress have been produced with statistics, there is still a lack of adequate information in the developing world on a national or regional level to assess the magnitude of the problem and how that can influence the commensurate public policy. According to IPC (2014), distress and mental illness in the workplace is significantly higher (30%) in Zimbabwe with the global average being around 15-25%. The following statistics were given for stress level in different parts of the world.

Table 1: Stress Statistics

Area and source	Statistics	Stress component
USA (Maxon, 1999)	75% of American workers	Describe work as stressful.
USA (Maxon, 1999)	26.2% of adults over 18 years	Suffer mental disorder
UK (NASUWT, 2012)	Nearly 50% of teachers have considered quitting jobs	Increased stress and cuts in pay and pensions have led to high levels of dissatisfaction in profession
Zimbabwe (IPC, 2014)	30% of employees	Experience depression symptoms
Zimbabwe (IPC, 2014)	43% of the working population	Show symptoms of stress, mental illness and distress at workplace
Global average (IPC, 2014)	15-25%	Mental illness and distress at work

Given that Zimbabwe already suffers from a high rate of unemployment, productivity and high cost of doing business, more labour disputes and job cuts, a deteriorating economy, stress can manifest itself in several forms to the working population. Hence the need to study the effects of stress on employee's productivity, and policies that employers and the government can device to address issues of stress a workplace.

Socio-economic dynamics: For the purpose of this paper, socio-economic dynamics would refer to the effects, changes and interaction in of social and economic factors on employee stress. The economic downturns have been linked so much to a lot of restructurings in the labour market, some of which include recruitment freezes, unpaid leaves and layoffs. Consequently these economic and social factors interact to pose more stress on an average employee in Zimbabwe.

Main Objective and significance of the study: The objective of the study is to evaluate stress and its effect on employees' productivity and managerial responsibility in companies in Zimbabwe. This was motivated by the state of the socio-economic and political affair of the country which seemed to be on a recessionary trend and hence bring in with it a lot of problems and stress to employees and employers. The contributions of this research are threefold. For managers, the model to be developed in the study is expected to give a practical tool for developing a holistic understanding of the underlying causal and latent causes of stress and the need to ensure the effective management of stress for their employees. For policymakers, it will also provide suggestions on how to reduce the effects of stress on output. Finally, it brings a methodological innovation to the study of organizational behaviour which may be of interest for academicians and practitioners. Knowing that one has made a contribution to a specific area is tremendously fulfilling. It also brings personal gains in the form of expertise in organisational behaviour as a subject and this is the start of a lifetime's special interest. The study was carried out through a survey on employees from various companies in Bulawayo, Zimbabwe.

2. Literature Review

The Wheel of Life of an employee is one important concept that can easily be put off balance by the quality of work and work related stress. The imbalance between work-life and work related stress had been a subject of study by many academics, practitioners and analysts and has received considerable attention across time, across geographical delineations and across social classes. This kind of an imbalance has an impact on the employees' well-being as well as to organizational performance. In order to come up with effective remedies, decision-makers need to understand the wheel of life for individual and solid evidence on the scope and nature of the problems they face. Equally helpful is a clear understanding of what employers and employees view as potential solutions (Lowe, 2006). According to Maxon (1999), the economic consequences of the physical effects of the stress epidemic are startling. They noted that US employers on average incur costs amounting to an estimated $200 billion per year in absenteeism, lower productivity, staff turnover, workers' compensation, medical insurance and other stress-related expenses. The following is a review of theoretical and empirical literature on the subjects of study.

Concept of Stress: Robbins (2004) defined stress as a dynamic condition in which an individual is confronted with opportunity, constraint or demand related to what he desires and for which the outcome is perceived to be both uncertain and important. Imtiaz and Ahmad (2009) described Stress as a mental sprain that is associated with the internal or external spur that renounces a person to respond towards its environment in a normal manner. According to Treven (2005), stress is a universal experience in the life of every organisation and every executive, manager, and individual employee. It is a naturally occurring experience which may have beneficial or destructive consequences. The destructive consequences of a stressful experience are not inevitable. They only result from ineffective management of stress and stressful events. Stress was also described by Aldwin (1994) as the interaction of the employee and the work environment and the experience that is gained thereof. This interaction may lead to psychological and physiological tension. The ordinary disintegration of the body and as the non-specific response of the body to any demand placed on it is the manifestation of stress (Selye, 1964). They recognised the meaning of positive stress, which not only does not cause degeneration and malfunctions, but can also act as a productive factor and as a factor of development and creation.

Naqvi et al. (2013) noted that stress is a condition of physical and psychological mental disorder which occurs in a situation of pressure, when resources are unable to fulfil the demand of an individual. The major drivers of stress at work comes in the form of social relationships, work relationships with mates and supervisors, style of management, work overload, and other external economic factors. Miller & Phipps (2011) carried a survey to measure the cost on absence due to stress both in the private and public sector and their results showed that stress resulted in a loss of 800 pounds in the public sector and 446 pounds per employee in the private sector.

Concept of Productivity: Meneze (2006) explained the concept of productivity as the employee's ability to produce work or goods and services according to the expected standards set by the employers, or beyond the expected standards. According to Bojke et al. (2012) one can calculate productivity by comparing total output to the total input used to produce this output. According to a Singapore guide to productivity measurement (2011), these productivity measures quantify and facilitate an objective assessment of employees' performance. They provide information on performance gaps and help to identify the training needs of employees. The guide defined Labour productivity, as ''value added per worker, is the most common measure of productivity. It reflects the effectiveness and efficiency of labour in the production and sale of the output.'' The following table shows the various measures of productivity as published in the Singapore spring guide.

Table 2: Measures of Productivity

	Indicator	Formula	What it measures	Significance of Lower indicator	Significance of Higher indicator
1	Labour Productivity	$\frac{Value\ Aded}{Number\ of\ Employees}$	Efficiency and effectiveness of Employees in the generation of value added	Poor Management of Labour and/or other factors which affect the efficiency and effectiveness of labour	Efficient and effective utilisation and management of labour and other factors to generate value added
2	Sales	$\frac{Sales}{Number\ of\ Employees}$	Efficiency and effectiveness of marketing strategy	Inefficient poor marking	Efficient or good marketing strategy
3	Sales per customer	$\frac{Sales}{Number\ of\ Customers}$	Efficiency and effectiveness of marketing strategy		
4	Waiting time per meal or customer served	Time taken from the point that customer enters to the point an order is filled	efficiency in service delivery and level of customer service		
5	compliment to complaint ratio	$\frac{No.Of\ Compliments}{No.Of\ Complaints}$	Level of customer service		

Source: SPRING Singapore (2011). A Guide to Productivity Measurement

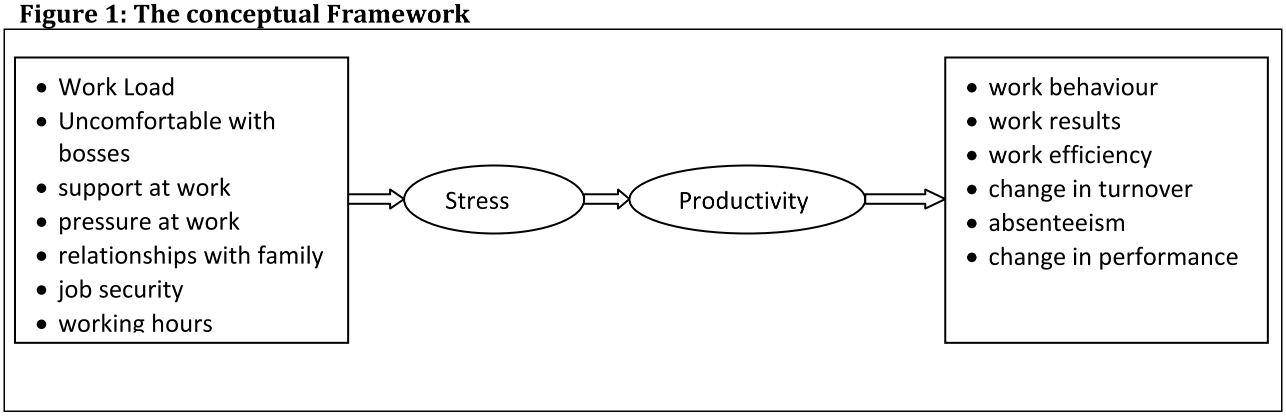
The Organisation for Economic Co-operation and Development (OECD) (2001) identified the different types of productivity measures. The decision as to which one to be used in particular case depends on the purpose of productivity measurement and, in many instances, on the availability of data. Broadly, productivity measures can be classified as single factor productivity measures (relating a measure of output to a single measure of input) or multifactor productivity measures (relating a measure of output to a bundle of inputs). Another distinction, of particular relevance at the industry or firm level is between productivity measures that relate some measure of gross output to one or several inputs and those which use a value-added concept to capture movements of output (OECD, 2001).

Empirical Literature on stress and productivity: Imtiaz & Ahmad (2009) carried out research on the impact of stress on employee productivity, performance and turnover in Twin Cities of Pakistan Rawalpindi/Islamabad, and identified the factors affecting stress as personal issues, lack of administrator support, lack of acceptance for work done, low span over work environment, unpredictability in work environment &inadequate monetary reward. Their analysis showed immense support for negative relationship between stress and job performance. The results showed that with every unit; increase in personal dilemmas, decrease in financial reward, decrease in influence over work environment, decrease in supervisor support there would be 0.513, 0.079, 0.266, 0.117 decreases in job performance respectively. It was noted that levels of stress would increase if no managerial concern for solution is given to the employee and this would result in poor performance by the employee performance; staking organizational reputation and loss of skilled employees. Halkos and Bousinakis (2010) did a study to investigate the effects of stress and job satisfaction on the functioning of a company and their results showed that as expected, increased stress leads to reduced productivity and increased satisfaction leads to increased productivity. The overlap of work issues with employees' personal life negatively affects productivity. Motivated and satisfied workers produce quality work and resultantly affect productivity positively.

Bewell et al. (2014) examined work induced stress and its relationship to organizational effectiveness and productivity and concluded that the concept of work-induced stress, and workers effectiveness and productivity are relatively inseparable; and challenged the various organizations in Nigeria to employ the services of Organizational and Clinical Psychologists to help in providing stress coping skills, coaching and counselling to employees as it will help to boost efficiency and high productivity in various organization in Nigeria. Manzoor et al. (2012) carried out a research investigating the impact of work stress on job performance through a case study on Textile Sector of Faisalabad and their results showed that the stress levels among employees in textile sector of Faisalabad is high in certain areas like work overload and long work hours, affect on family life, pressure at work, job insecurity, and physical agents, however, this kind of stress is not affecting the performance of the employees. They concluded that the there is no relationship between job stress and employee performance.

The conceptual Framework: Given the vast literature and previous research on stress and employee productivity, a generalised model or conceptual framework can be developed consistent with previous theory that estimates the affects of level of stress on employee productivity. Two main constructs are included in the proposed research model below encompassing stress and employee productivity. The framework is generated for the various definitions and explanation derived from the above literature. The diagram below is a schematic presentation of the conceptual framework.

Figure 1: The conceptual Framework



Source: [Blackwell (1998), Luthans (2002), Naqvi et al (2013), Manzoor et al (2012), Imtiaz & Ahmad (2009)]

The conceptual framework was built up from the various results of previous research and empirical literature discussed above, on the variables affecting the vice under study. Blackwell (1998) stated that stress shows itself in a number of ways. For instance an individual who is experiencing a high level of stress may develop high blood pressure, ulcers and others. These can be grouped under three general categories; Physiological, Psychological and Behavioural symptoms. According to Luthans (2002) besides the potential stressors that occurred outside the organization, there were also those that were associated with the organization. Despite the fact that an organization is made up of groups of individuals, there are also more external factors that are not organizational specific that contains potential stressors. Most of the studies done on this topic showed that stress may be largely responsible for organizational outcomes such as decline in performance, dissatisfaction, lack of motivation and commitment, and an increase in absenteeism and turnover.

3. Methodology

The research design for this study was a descriptive survey research aimed at assessing stress and its effects on employees' productivity. Through the use of the descriptive survey the researcher seeks to probe deeply and analyse the factors that explain or influence the variable understudy. Its main advantage is that it produces a reasonable amount of responses from a wide range of respondents whilst providing a more accurate picture of events at a point in time. A descriptive study identifies and defines the problem, selects tools for collecting data, describes, analyzes and interprets the data (Creswell, 2003). This definition goes along with the objectives of this study as it has the potential to provide with a lot of information obtained from quite a large sample of individuals. Leedy and Ormrod (2001) noted that survey is an economic way of collecting a certain amount of data from a sizable population. The research methodology stretched from both primary data sources through to the secondary sources of data so as to reach out to as many opinions as possible in as far as the issue of stress and employee productivity was concerned.

Data collection methods: This involves how data was gathered from various sources both secondary and primary. The survey instrument involved questionnaires with both closed-ended and open-ended questions. Two main factors were considered in designing the questionnaire so as guarantee accuracy. These were

- Academic literature, research articles and publications.
- Pre-testing to ensure that the respondent understand the questionnaire in right perspective.

These questions were used to collect information relating to stress and productivity faced by employee and how they were able to control the effects. The intended respondents were any employee from any company regardless of the sector or industry. The aim of the questionnaire was to establish two main things. Firstly, to determine the employee stress factors. Secondly, to assess the effects of stress on identified productivity measure.

To determine if the questionnaire would gather the appropriate data, the questionnaire was pre-tested. E-mail distribution was used in some cases when the researcher used the Internet and social media platforms to send and receive the questionnaires. The method was cost effective in terms of time and money. Email also best suit the research in terms of time management and travel costs minimization. Email was also advantageous since the researcher and the respondents were using the same domain. Physical Distribution was used in sending the questionnaires in the researcher's metropolitan. Questionnaires were dropped at respondents' workplaces and a date convenient to both the researcher and the respondent was agreed for collection of the questionnaire.

Questionnaire design: The population of this study was centred more on employees working in various companies in Zimbabwe regardless of the sector. Given the size of the target population, it was difficult to conduct a census due to both financial and non-financial constraints such as time. It is with this in mind that sampling was inevitable in such a situation. The survey was appropriate through convenience sampling as it was a cost-effective and efficient means of gathering data given that the population of the study was very large and dispersed across a large geographic area.

4. Data Analysis and Discussion of Results

Out of the 200 questionnaires sent out, 189 were received representing 95 percent response rate. The data obtained from respondents were entered into an SPSS database application and analysed through descriptive statistics. This study investigated the effects of stress related factors on employee productivity and how companies deal with vice. The researcher started by conducting exploratory factor analysis using the statistical package, SPSS version 21in order to ascertain the validity of the instruments and other analysis of the quantitative data. The analysis started by the background information of the respondents, to check how gender, and age affected stress levels of an employee and the data was presented in table 3 below.

From the table a total of 175 respondents (92%) concurred that they sometimes get stressed at work. Out of that figure, 67 were male respondents and 108 were female respondents. The statistics also showed that majority of the work force are in the age range of 30-39 years and 84 respondents indicated that they sometimes get stressed. This is indeed evidence that stress is common in Zimbabwe's work force though it varies in nature and factors causing it. A further investigation revealed that stress exist in all classes of the workforce no matter how longer they have served as an employee though it can be seen that stress increases with years of service. This is in line with Aftab and Javeed (2012) result, who also found out that that stress was significantly equal in all individuals having different professional experiences. Having analysed the background information and stress related experiences; the data was also tested to fulfil the requirements of the main objective of the study that is assessing the effects of stress on employee productivity.

Table 3: AGE * Stressed * GENDER Cross tabulation

			Do you sometimes get stressed out at work?		
GENDER			**Yes**	**No**	**Total**
Male	AGE	20-29 Years	25	5	30
		30-39 Years	25	0	25
		40-49Years	15	1	16
		50 Years and Above	2	0	2
	Total		67	6	73
Female	AGE	20-29 Years	34	2	36
		30-39 Years	59	2	61
		40-49Years	13	1	14
		50 Years and Above	2	0	2
	Total		108	5	113

The data collected was coded into the system using the Likert scale showing the severity of stress variables among each respondent. A four point Likert scale was used to measure the items where 1 represented "not stressful" and 4 "Very stressful". The objective was to measure the extent to which respondents were stressed by a certain variable. Productivity was treated as the dependent variable of the study and as was shown in the conceptual framework, it was broken down into further six items as on which a three point Likert scale was applied where 1 represented no change in that productivity measure, 2 representing a decrease in productivity and 3 being an increase in productivity. In order to perform some inferences and other quantitative analysis, the data was weighted into an index of each of the 6 stress elements.

Definitions of the indices are given below:

- **Change Index** = a measure of perennial economic crisis, uncertainty due to restructure and redundancies and change without consultations
- **Demands Index** = a measure of administration pressure or demands, workload, working hours, targets and deadlines, family and social demands
- **Planning Index =** unable to plan for the day due to competing demands
- **Relationships Index =** work relationships with peers and supervisors
- **Work role Index=** a measure of unclear job descriptions, roles, career path and promotion prospects
- **Support Index** = a measure of Lack of support/motivation and participation at work by supervisors and other staff

The channels of result performance were as follows

Change Index = a measure of perennial economic crisis, uncertainty due to restructure and, redundancies and change without consultations

X_1 = perennial economic crisis Likert scale (1 represented "not stressful" and 4 "Very stressful")
X_2 = high degree of uncertainty due to restructure and redundancies Likert scale (1 represented "not stressful" and 4 "Very stressful")
X_3 = change without consultations Likert scale (1 represented "not stressful" and 4 "Very stressful")

Change Index =$\frac{\sum_{i=1}^{4} X_i}{n}$
Where, 1 represents "not stressful" and 4 "Very stressful"

Demands Index = a measure of administration pressure or demands, workload, working hours, targets and deadlines, family and social demands

X_1 = administration Likert scale (1 represented "not stressful" and 4 "Very stressful")
X_2 = increased work load and long working hours Likert scale (1 represented "not stressful" and 4 "Very stressful")
X_3 = need to hit targets/deadlines Likert scale (1 represented "not stressful" and 4 "Very stressful")
X_4= family and social demands Likert scale (1 represented "not stressful" and 4 "Very stressful")

Demands Index = $\frac{\sum_{i=1}^{4} X_i}{n}$ Where, 1 represents "not stressful" and 4 "Very stressful"

Planning Index = unable to plan for the day due to competing demands. X_1 = Dealing with competing demands – unable to plan working day Likert scale (1 represented "not stressful" and 4 "Very stressful")

Planning Index = $X_{1,\text{ Where}}$, 1 represents "not stressful" and 4 "Very stressful"

Relationships Index = work relationships with peers and supervisors

X_1 = harassment by managers/staff Likert scale (1 represented "not stressful" and 4 "Very stressful")
X_2 = new lifestyles of institutional management Likert scale (1 represented "not stressful" and 4 "Very stressful")
Relationships Index = $\frac{\sum_{i=1}^{4} X_i}{n}$
Where 1 represents "not stressful" and 4 "Very stressful"

Work role Index = a measure of unclear job descriptions, roles, career path and promotion prospects

X_1 = unclear job description and job role scale (1 represented "not stressful" and 4 "Very stressful")
X_2 = lack of career development opportunities likert scale (1 represented "not stressful" and 4 "Very stressful")

Work role Index = = $\frac{\sum_{i=1}^{2} X_i}{n}$
Where 1 represents "not stressful" and 4 "Very stressful"

Support Index = a measure of Lack of support/motivation and participation at work by supervisors and other staff

X_1 = lack of support and participation at work by supervisors and other staff (1 represented "not stressful" and 4 "Very stressful")
Support Index = X_1

Where 1 represents "not stressful" and 4 "Very stressful"

A summary of the descriptive statistics for analysis of the extent to which respondents were stressed with work related factors is presented in table 4 below.

Table 4: Descriptive Statistics

	N	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error
Productivity Index	188	.2777	.42341	-.716	.177
Change_Index	188	2.8768	1.04874	-1.168	.177
Demands_Index	188	2.3891	.72019	-.940	.177
Planning_Index	188	2.02	1.013	.175	.177
Relationships_Index	188	2.1463	.94707	-.166	.177
Work_role_Index	188	2.4202	1.08786	-.429	.177
Support_Index	188	2.52	1.186	-.401	.177
Valid N (listwise)	188				

Results in table 4 shows that change factors (perennial economic crisis, high degree of uncertainty due to restructuring and redundancies, changes without consultation), Demands or pressure factors (administration, increased work load and long hours, need to hit targets/deadline and family/social demands), Lack of support and participation at work by supervisors and other staff, and Work role (unclear job description and job role, lack of career development opportunities and promotional prospects) are the most stressful factors to a greater extent. On average the general employee in Zimbabwe could be said to be occasionally stressed by the above mentioned factors. Their mean ranges from 2.02 to 2.877. From the skeweness statistic, all the factors are all negatively skewed. The results indicated that indeed all these factors occasionally stress employees in Zimbabwe. This result was consistent with empirical literature, i.e. Michac (1997), Imtiaz & Ahmad (2009) and Manzoor et al. (2012) who concluded that stress is induced by the following factors: poor time management, unclear job descriptions, feelings of inadequacy and insecurity, inability to get things done, lack of communication, bad personal relationships, quality and complexity of tasks, lack of administrator support, lack of acceptance for work done, low span over work environment, unpredictability in work environment &inadequate monetary reward, work overload and long work hours, affect on family life, pressure at work, job insecurity. The main objective of the study was to examine the impact of stress related factors on employee productivity. Therefore the weighted data was regressed in order to establish a model for the relationship between the variables. The table below shows the summary of regression output.

Table 5: Regression results

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	-.021	.112		-.185	.854	-.242	.200
Change_Index	.003	.041	.008	.081	.936	-.078	.085
Demands_Index	.074	.055	.126	1.358	.176	-.034	.182
Planning_Index	-.029	.036	-.068	-.786	.433	-.100	.043
Relationships_Index	-.059	.044	-.132	-1.331	.185	-.147	.029
Work_role_Index	.128	.041	.328	3.119	.002	.047	.208
Support_Index	-.005	.033	-.014	-.150	.881	-.070	.060

a. Dependent Variable: Productivity Index

The OLS regression results in Table 5 posits a weak but positive relationship between productivity and conflated work stresses that are related to perennial economic crisis, high degree of uncertainty due to restructure and redundancies, and work changes without consultations. As highlighted stress determinants heighten, productivity is expected to infirmly increase. Generally there is tendency that, if the job market is dry, those already employed strive to keep their jobs even if there are uncertainties. Poor work relationships, lack of support at work, and poor planning were found to be stress related factors that negatively affected productivity. Other identified productivity issues were an increase in workplace injuries and accidents, compromised relationships with other workers and failure to meet deadlines.

Stress Management: The study went on further to look at the ways and strategies of managing stress by employees and their responses varied from taking exercises, playing music, praying and reading the bible telling someone. Most of the respondents (22%) indicated that they talk to someone and share whenever they are stressed. In telling someone, 45% indicated they tell a close workmate and 31% said they share with their spouse or family. Though it is good to share, this can have some contagion effects to the family circle of an employee. On the part of the organisations, 29% of the employees indicated that their organisations are doing nothing as far as stress management is concerned, 17% indicated that their organisation provide counselling, peer education and stress management seminars. This was a positive to note that companies were also realising that indeed stress exists among employees. Some companies were reported to engage employees into social and other activities like staff wellness campaigns as ways of handling and reducing work related pressure among employees.

5. Conclusion and Recommendations

From the research results it was concluded that work related stress manifests itself in many forms amongst employees. Due to the fear of the unknown by employees, due to perennial economic crisis in the country, high degree of uncertainty due to restructurings and redundancies, and work changes without consultations, there was a positive impact of work related stress on employees' productivity. This can be explained by the fact that employees work hard in a bid to defend their jobs. The regression results also show that poor work relationships, lack of support at work, and poor planning were found to be stress related factors that negatively affected productivity. This was consistent with the results of Imtiaz & Ahmad (2009) who identified lack of administrator support, lack of acceptance for work done as stress factors and their results showed a negative relationship between stress and employee performance.

Recommendation for further research: Future research on this topic should focus on stress effects with respect to a particular industry (i.e. manufacturing, service or government department) and with respect to demographic features.

Policy Implications: It was worrisome to note that some companies are not giving attention to the existence of stress and its effects, and were doing nothing to the well-being of employees. It was therefore recommended that organisations consider the concept of "The Wheel of Life" of an employee is one important concept that can easily be put off balance by the quality of work and work related stress. This was also noted in Abe et al (2016) who noted that "understanding the effectiveness of wellness programmes as work-life balance strategies is necessary especially when the cost of implementing such strategies is considered exorbitant it is recommended that management should take the lead in championing the formulation, implementation (building WLBS portfolio) and promotion of WLBS at the municipality." This will enhance the formulation and implementation of the best strategies for employee's family and work demands and the strategies best suited to workplace stressors.

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The Implications of Consumer Protection Legislation for Hotels and Guests in South Africa

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Abstract: During the apartheid era, consumers in South Africa, based on their race and ethnicity, were restricted when concluding contracts, as there was no open market trade. As consumers, hotel guests could also be victims of unfair business practices. Hotels use standard form contracts that may include unfair terms that favour the business and which are over-protective of business interests. A significant percentage of the population have low literacy levels, which severely disadvantage them when it comes to understanding the content and consequence of contracts. The Consumer Protection Act (CPA) introduces wide-ranging legal measures to protect consumers, including hotel guests, from exploitation and abuse in the marketplace and sets out comprehensive obligations for hotels. This article provides a descriptive critique based on literature and describes the challenges faced by hotel guests and discusses the implications of the Act for hotels and guests. It concludes that not only does the CPA advocate ethical business practices that are mandatory for hotels, but it also introduces a range of rights and protection for guests as consumers. The CPA has introduced a shift in contract law from a standpoint which allowed the parties the freedom to choose the content of the contract to one where fairness and transparency is imperative, as protection in terms of legislation compensates for the weaker bargaining position of the consumer.

Keywords: *Consumer protection; consumer rights; hotels; guests; contract*

1. Introduction

In a free market economy, interference by the state should ideally be minimal as there is a risk that consumer protection measures may be over-protective and could restrict the consumer's right to choose (Woker, 2010: 218). Throughout the world, there are businesses that are intent on exploiting consumers in some way. Over the years, there have been calls for South Africa to follow in the footsteps of most first-world countries and introduce comprehensive legal measures to protect consumers from possible exploitation and abusive practices by suppliers (Sharrock, 2011:570). Hawthorne (2012: 345-6) maintains that contract law in South Africa oscillates between the freedom-oriented approach and the fairness-based approach. In terms of the freedom-oriented approach, party autonomy means that the parties to the contract are free to determine the content of the contract; there is minimal state supervision; and legislative measures may be limited to addressing the infringement of rights after the fact. The fairness-based approach represents "a progressive form of law" which affects procedural and substantive fairness. Hawthorne (2012: 346) further argues that the law of contract was very slow to transform to meet the new constitutional imperatives after the dawn of democracy in South Africa, and that the consumer protection legislation has brought a fairness-based approach to the law of contract. The analysis of the different provisions of the Consumer Protection Act 68 of 2008 (RSA, 2008) (referred to as "the Act" or CPA) bears in mind these different paradigms.

Woker (2010: 230-1) provides the following reasons why consumer protection legislation was needed in South Africa: (a) most of the consumer law prior to the CPA was fragmented and outdated; (b) consumers were not afforded the benefit of certain consumer protection principles which were recognised internationally, including the right to transparency and fair advertising practices; (c) unfair practices were rife and consumers found themselves in an "unequal bargaining position"; (d) consumers lacked the requisite knowledge of consumer rights and were convinced to conclude contracts with terms that protected the suppliers' interests; and (e) consumers lacked the resources to take a matter to court, considering that litigation is relatively expensive and consumer-related disputes usually pertain to claims that are relatively small. During the apartheid era, consumers from certain racial or ethnic groups were restricted or prevented from concluding contracts, as open market trade did not exist. These consumers did not have the freedom of contract because of discriminatory legislation that existed. Furthermore, consumers from historically disadvantaged groups experienced challenges with regard to access to goods and services (Reddy, 2012: 586). Before the CPA was introduced in South Africa, a national consumer survey showed that consumers, mainly those from underprivileged communities and rural areas, were ignorant about their rights. According to Booysen (2011), such a lack of knowledge has led to consumers suffering a host of abuses, including misleading advertising, bait advertising, suppliers failing to honour guarantees, non-disclosure, contract terms that were unfair and unsatisfactory product quality. Until recently, South Africa did not have a wide-ranging approach to consumer protection. Instead, a number of isolated provisions were present in various pieces of legislation that covered different aspects of consumer protection.

The CPA came into effect on 1 April 2011. In general terms, the Act proposes to bring about fairness and transparency in consumer-related transactions and encourage good business practices on the part of suppliers of goods or services (Gordon-Davis & Cumberlege, 2013: 115). Hawthorne (2012: 353-354) maintains that the CPA aims to "promote and advance the social and economic welfare of consumers in South Africa" and that the following means are proposed by the Act to achieve such purpose: (a) creating a legal framework that will ensure a fair, accessible and responsible consumer market; (b) assisting disadvantaged and vulnerable consumers; (c) promoting fair business practices and access to goods and services; (d) protecting consumers from unfair business practices; (e) providing for consumer education; and (f) providing an accessible and efficient system of dispute resolution and redress for consumers. In the services sector, the hospitality and tourism industry is often identified as a prominent industry worldwide "in terms of generation of income and employment" (Okumus, 2010: 56). The hospitality industry includes hotels, bed and breakfast establishments, lodges, resorts and backpacking. For the purpose of this article, the focus will be explicitly on the hotel sector.

Since low literacy levels are a challenge for a significant number of consumers in the country, such consumers are seriously disadvantaged as far as comprehending the content and effect of business contracts are concerned (Reddy, 2012: 584). Standard form contracts contain terms that are set by the supplier, including hotels, and which have not been negotiated with the consumer. Such terms generally favour business and are over-protective of business interests, and they are included mainly to minimize the risk of the organisation and to avoid liability as far as possible (Sharrock, 2010: 296; Reddy & Rampersad, 2012: 7407). It is common practice that when guests check into a hotel, they are presented with a pre-printed contract which they are required to sign before the room key is handed over. Negotiation on an equal footing does not take place. Sharrock (2010: 296) asserts that business organisations generally assume a "take-it-or-leave-it" stance if a customer asks for an amendment to the standard terms. Such standard form contracts may also contain terms that are unfair to the consumer (Reddy, 2012: 584). This article conveys a descriptive critique, based on bibliographic research, on the implications of the CPA for hotels and guests in South Africa. This article firstly explores the challenges faced by guests; the need for; and the application of, the CPA. Secondly, the respective provisions of the Act are explored and the broad implications of such wide-ranging provisions for hotels and guests are examined.

2. Challenges faced by guests

The challenges that guests face on a daily basis relate generally to terms and agreements by hotels; payment issues; refund and cancellations; and unfair practices by hotels. This section examines the challenges faced by hotel guests insofar as they may relate to consumer protection.

Terms and Agreements by Hotels: Emanuel (2010) defines a "contract" as an agreement, which is enforced by law (Emanuel, 2010: 1). As with every contract, the hotel-guest agreement also contains terms and conditions which a guest agrees to upon signing the contract. As mentioned earlier, the low literacy levels of consumers seriously hamper them when it comes to understanding contractual terms and the implications they have (Reddy &Rampersad, 2012:7407). This has serious consequences for the unsuspecting consumer. A contract is binding by law and if a guest does not read the terms and conditions, they could still be bound by such terms and incur liability. Guth (2011: 1) correctly points out that the fine print and legalese of a hotel contract is not nearly as interesting for the guest until challenges arise. Even if individuals do not read the terms and the agreement, they should at least be given the opportunity to do so (Ben-Shahar, 2009: 2). Often hotels have a set check-in time and a queue may form. Guests may therefore be under pressure to sign hastily, without properly reading the terms set out in the agreement. Guests would therefore need to be protected in such cases.

Growth in terms of the proportion of bookings that are made online through the internet, has had a significant impact on both "distribution channels and profitability" in the hotel industry (Carvell & Quan, 2008: 162). According to Wilson (2007: 361), when accommodation is reserved through the hotel website, the "browse wrap" approach is used (as opposed to the click wrap agreement), where the terms and conditions applicable are available on the website but the reservation for accommodation can be completed without the guest's express consent to such terms. The terms and conditions generally relate to jurisdiction or the authorization of arbitration in the event of disagreements. It is therefore in the hotel's interest to show that prospective guests have read and have agreed to such terms and conditions (Wilson, 2007: 361). Hence, hotels could face consumer protection issues where the hotel has not made the guest aware of such terms and conditions.

Payment, refunds and cancellations: One facet of performance in terms of the contract is payment (Jennings, 2012: 429). Although payments and terms for payment are generally relatively straightforward, in the hospitality industry, agreements regarding payment terms can sometimes be quite complex (Barth, 2006: 41). For instance, where the payment policy of the hotel imposes unnecessary liability on a guest and requires payment in excess of the charge for accommodation and other services utilized, such term will not be a fair term. According to Barth (2006: 42), the contract needs to be clear about the required deposit, interest rates on the outstanding balances, due dates for payment, and penalties applicable to late payments. Further, charges for late checkout, cancellations, no-shows and breakages must be clearly spelt out. If these terms have not been specified, or if the terms are ambiguous, this could present challenges. In addition, it should be clear whether the hotel or restaurant has included the service charge in the price of the meal, or if it is left to the discretion of the customer (Davis, Lockwood, Alcott & Pantelidis, 2012: 49). There is clearly a need for hotels to represent fair and ethical business practices.

A guest may claim for a refund of payment usually where the guest has not received the service (for instance, on collation) or when sub-standard service is rendered. Such refunds can take the form of money, credit or vouchers (Gough, Gough, &du Toit, 2008: 165). Like many hotels internationally, the reservations policies of large hotel chains in South Africa, may require a non-refundable pre-payment for certain rates, in order to confirm a reservation. Alternatively, confirmed reservations may be subject to a hundred percent cancellation fee, if they are modified or cancelled. Hence, in terms of such policies, monies paid for pre-booked hotel rooms are non-refundable. Hotels may adopt such a policy to protect themselves against the loss of business, particularly in the case of a no-show, cancellation or amendment, especially since the reservation of hotel rooms are an extremely perishable commodity and "unsold rooms" for the day are a loss incurred, as services cannot be stored. Hotels may promote discounted prices to prospective guests seeking "special deals" while simultaneously adding cancellation policies as hidden traps that increase the cost of accommodation for unsuspecting customers. Generally, the closer the cancellation is to the date of the intended stay, the more difficult it is for guests to receive a full refund (Chen, Shwartz & Vargas, 2011:129). Cancellation is generally permitted. However, the guest is liable for a higher penalty closer to the date of arrival (Zakhary, Atiya, El-Shishiny & Gayar, 2011: 349). Some hotels may impose a cancellation fee and rely on a "no full refund" policy for services booked in advance. This is similar to asking the buyer to pay for reserved goods that are not then required. The move towards more stringent cancellation policies (which are less protective of the consumers right to a refund) by hotels presents further challenges for the guest (Chen, Shwartz & Vargas, 2011:129).

Unfair Practices by Hotels: Hotels may be guilty of certain unfair practices, such as overbooking, where they confirm a greater number of rooms than the hotel's available capacity on the assumption that some customers will either not check-in, or that they may cancel or amend their bookings at the last minute, or even leave the hotel earlier than intended (Ivanov, 2014: 115). Although the intention on the part of hotels is not to overbook to the extent that customers are denied service, some customers may be denied accommodation if the number of guests who cancel or fail to check-in is lower than expected (Noone & Lee, 2011: 334). Although overbooking is a common practice amongst hotels, recent studies have shown that overbooking has a potentially negative impact on guests (Chen, Shwartz & Vargas, 2011: 130). In some cases, the guests may be referred to another hotel or they could be stranded due to overbooking.

Discrimination by Hotels: During the apartheid era, unfair discrimination was rife in almost every walk of life in South Africa. Not only was there discrimination imposed by the government, but apartheid supported, encouraged and even demanded unfair discrimination by individuals and businesses, mainly against Black people. There were glaring differences in the quality of goods and services that were offered to different groups of customers. In the retail sector, for instance, most chain stores did not even service most historically disadvantaged areas. In addition, suppliers did not consider people from such areas as customers. Generally, Black people were barred from shops and business, and instead, separate and inferior facilities were made available (Brink v Kitshoff, 1996: 768). Likewise, hotels refused admission to their facilities/services/accommodation on the basis of race or ethnicity, as in the case of the *Silver Club Case* (Lane, 2005: 22-23) or inferior accommodation and services were made available to Black customers although they were required to pay the same rates (Reddy, 2006: 785-786). However, discriminatory practices by hotels may not be just on grounds of race and could include:

- The problems faced by people with disabilities in finding accessible tourist accommodation (Darcy, 2010: 816). Marumoagae (2012: 345) maintains that not much has been done to address disability discrimination. Hotels do not recognise disability as a market and, hence do not promote the rooms in a way that could assist people with disabilities in making an informed choice regarding accommodation (Darcy, 2010: 816);
- Failing to provide for the needs of people from different cultural or religious backgrounds may amount to discrimination. Food and beverage consumption restrictions for different religious groups would be one example (Ruzevicius, 2012: 761). For instance, Hindus may not eat beef (Yu, 2012: 52), while Muslims want to be sure that their food conforms to Halaal requirements and Jewish guests will want to ensure that their food meets kosher standards (Ruzevicius, 2012: 761); and
- Price discrimination refers to the situation where a hotel charges its customer different prices for the same services (Ivanov, 2014: 101). Hotels implement price discrimination by using various rate restrictions to segment consumers into different groups, and different prices may be applicable to each group depending on the time or day of the week, refund-ability, and advanced purchase requirements (Guillet, Lui & Law, 2014: 952). Bearing in mind that it would cost the hotel the same amount to provide a meal to a pensioner as compared to a regular customer, guests who have to pay more may feel that they have been unfairly discriminated against by the differentiation in price (Layton, Robinson & Tucker, 2012:198).

Hence, there is clearly a need to protect guests from the various forms of unfair discrimination in the hotel industry.

Unwanted direct marketing by hotels: Direct marketing is where the marketer communicates directly with the consumer either by approaching him/her "in person, or by mail or electronic communication", for the purpose of promoting any goods or services (Section 1 of CPA). According to Hamann &Papadopoulos (2014: 45) electronic communication to consumers may take the form of mobile cellular text and video messaging (SMS or MMS); mobile device applications (Apps.); email marketing and search engine optimization. Further, it could also take the form of social media marketing; banner advertising using mobile or internet (which include a static banner advertising, pop-up adverts and interactive advertising that appears alongside or over the website material) and voicemail marketing. Direct marketing does have a role to play in the economy and helps to match the supply of a service or product with the requisite consumer, thereby facilitating the conclusion of the transaction, which may be beneficial to both supplier and consumer (Hamman and Papadopoulos, 2014: 47). These means of marketing are vital for hotels to communicate promotional material to potential guests. Yet, consumers may be flooded by direct marketing from suppliers of all types of goods and services. Hotels too may be guilty of sending a flood of promotional material to guests and potential guests, as in the case of Spam mail (unsolicited electronic messages) where mail or copies of the mail are sent to a large number of recipients (Geissler, 2004). Advances in technology allow hotels to contact potential guests at any time, day or night, via email, SMS and telephone calls (Gladwin & Civin, 2014: 13). Therefore, there is a need to protect such guests from unwanted direct marketing and marketing of such material by electronic means at all hours of the day or during weekends and holidays when the recipient may not want to receive such material.

3. The Consumer Protection Act 68 of 2008

According to Sharrock (2011: 571), the CPA prohibits or regulates marketing and business practices used by suppliers in transacting with consumers and it affords consumers certain rights, as well as remedies and options for legal redress, which did not exist under common law. In addition, the Act promotes fairness, openness and good business practices by suppliers of goods and services. This section sets out the purpose and application of the Act, as well as the provisions of the Act insofar as they may affect hotels.

The purpose of the Consumer Protection Act and its application to hotels: The scope of the CPA is wide as it applies to any goods or services promoted or supplied in South Africa (Marus, 2011: 36). The Act defines "service" to include the provision of accommodation (Section 1). Hence, the CPA would be applicable to business transactions in the hotel industry (Section 1). The Act also defines the term "supplier" to mean any person who markets goods and services, whether for profit or otherwise (Section 5 (8)(b)). Hotels would therefore qualify as suppliers in terms of the Act since they provide services. Such services consist of accommodation and the use of facilities (e.g. swimming pools, sporting and recreational facilities) as well as banqueting. However, a guest's hotel experience is not limited to the provision of services. Although a hotel guest is not viewed as the buyer of goods in the conventional sense, the definition of "goods" in the CPA is wide enough to apply to hotel and guest transactions. The definition of "goods" (Section1) includes"(a) anything marketed for human consumption" (which includes meals provided in a restaurant or ordered through room service, as well as drinks from the bar);"(b) any tangible object not otherwise contemplated in (a) above" (which may include hotel branded memorabilia available at the in-house curio shop);and "(c) data, software, code or other intangible product in written or encoded medium, or licence to use any such intangible product" (which may include digital information and computer access for guests at the business centre in a hotel, including internet access).

Hotel guests as customers/consumers: In the context of the hotel industry, the following persons would qualify as "consumers" in terms of the definition in Section 1 of the Act: (a) the person to whom the goods and services have been marketed (such as a prospective guest); (b) the person who concludes a transaction with a supplier (which may be a guest or third person concluding such a contract); and (c) a user of the particular goods or the person who receives the services, irrespective of whether they were a party to the transaction (such as a family member of the person concluding the transaction). When parties come to an agreement, it implies the existence of a contractual relationship creating rights and duties for them (Newman, 2010: 735). Consequently, the rights and duties of hotels and guests would be regulated by the contract governing such transaction and the CPA supplements the guest's rights in terms of such a contract. In addition, since even persons to whom services are marketed are included under the definition of the consumer, as mentioned above, potential guests would have rights under the CPA even before the hotel concludes a valid agreement with them. Hence, the rights provided for go beyond the contractual rights normally limited to the formal agreement concluded on check-in at the hotel. Based on the definitions outlined by the CPA, it is evident that a hotel guest is a consumer and the provisions of the CPA would definitely apply to a hotel-guest transaction, creating rights and duties for both parties.

4. The Implications of the Consumer Protection Act for Hotels

Chapter 2 of the CPA sets out nine fundamental consumer rights: the right to equality; the right to privacy; the right to choose; the right to disclosure and information; the right to fair and responsible marketing; the right to fair and honest dealing, the right to fair; just and reasonable terms and conditions; the right to fair value, good quality and safety; and the right to hold the supplier accountable. This section examines each of these rights insofar as they may affect the hotel industry. In an analysis of the fundamental consumer rights in the CPA, Hawthorne (2012: 356-68) distinguishes between those provisions that contribute to procedural fairness (which "sets the scene for the conclusion of the contract in circumstances that are fair") on the one hand, and substantive fairness (fairness or unfairness of the terms) on the other.

The right to equality in the consumer market: A serious problem which stemmed from apartheid and which existed prior to the implementation of the CPA was discrimination. Section 8 of the CPA relates to the duty of the supplier not to discriminate against any person. The South African Constitution (RSA, 1996) articulates that discrimination is unfair if it is on the grounds of race, sex, culture, religion, gender, social origin, age, disability, pregnancy, conscience, marital status, language and birth. Hotels may therefore not differentiate between guests in a manner that amounts to unfair discrimination. Hotels may not unfairly exclude any person from access to goods and services (such as the opportunity to take up accommodation at the hotel, or dining at the hotel's restaurant) or give any person/s exclusive access (Section 8(1) (a)). Section 8(2) of the CPA clearly states that a supplier must not unfairly discriminate against any person by treating such person differently from others. The Act explicitly mentions certain instances of discrimination that are prohibited. A supplier (i.e. the hotel) may not treat any person differently from any other when assessing the ability of a consumer to pay the cost of the agreement; deciding whether or not to enter into a transaction or agreement (for example if there is room availability in a hotel, the front desk personnel cannot just arbitrarily decide if a particular consumer should get it or not); or supplying different quality of goods or services to different groups of consumers. Where different terms and conditions are offered to different consumers (such as frequent guests are not required to pay deposits while regular guests must do so); and where certain communities and market segments are targeted, such conduct may also be regarded as discriminatory.

Differentiation is allowed as long as it amounts to fair discrimination, for instance, preferential treatment for loyalty programme guests as opposed to regular hotel guests may be permissible if it based on rational grounds. The CPA makes exceptions for reasonable grounds for differential treatment, which arises from the need to protect a particular group of consumers, such as not allowing the sale of alcohol or tobacco products to children under the age of eighteen, and instances where suppliers provide separate gender facilities (Gordon-Davis & Cumberlege, 2013: 120). If a guest feels that the hotel has unfairly discriminated against him/her, then such person may seek recourse with the Equality Court or file a complaint with the Commissioner (Section 10 (1)). According to Section 10(2), discrimination is unfair if the hotel has treated a guest in a manner that amounts to differential treatment based on a prohibited ground (such as race, gender or disability) and the hotel cannot provide a reasonable or justifiable explanation as to why such person was treated differently. The Act aims to protect the interests of *all* consumers, including foreign consumers, against unfair discrimination (Reddy, 2012: 592). According to Tait and Tait (2010: 444) where foreign tourists are required to pay a higher price for a hotel's service than South Africans, and the difference in price is based purely on the ground of citizenship, it would violate the CPA, the Promotion of Equality Act 4 of 2000, as well as the provisions of the South African Constitution relating to unfair discrimination.

The right to privacy and restrictions on direct marketing: The right to privacy in terms of the CPA arises from Section 14 of the South African Constitution (Jacobs, Stoop &van Niekerk, 2010: 320). This right makes provision for, amongst others, the right of the consumer to restrict unwanted direct marketing. Since hotels may engage in direct marketing in order to attract business, these provisions have implications for both hotels and guests. Sections 11 and 12 deal with the consumer's right to privacy and restricts unwanted direct marketing, i.e. either where the supplier approaches the consumer directly or by mail or electronic communication for the purpose of promoting any goods or services (Section 11; Hamaan and Papadopoules, 2014: 44). These provisions apply to marketing by hotels as well. The consumer has the right to restrict unwanted direct marketing and has the option to refuse such direct marketing or request that it be discontinued. The consumer may also pre-emptively block such marketing (Havenga, 2010: 488).

Advances in technology allow consumers to be contacted anytime, day or night, via email, SMS and telephone calls (Gladwin & Civin, 2014: 13). To protect the guest's right to privacy, Section12 prohibits direct marketing at specified times. A hotel may therefore not engage in any direct marketing to a consumer at home on Sundays or public holidays or on Saturdays before 09h00 and after 13h00. On other days, they may not engage in such marketing before 08h00 or after 20h00. The Act permits direct marketing during these times only if the consumer specifically agrees to it in writing. Hotels therefore have to be cautious not to infringe a guest's right to privacy by sending direct marketing where such person has explicitly restricted unwanted direct marketing. They should also avoid sending direct marketing at prohibited times.

The right to choose: This section focuses on the guest's right to choose, including the right to select suppliers; the right to cancel a contract; as well as the right to choose and examine goods. According to Section 13, a supplier may not coerce consumers into (a) buying additional products from the same supplier; (b) entering into additional contracts with the same supplier or a particular third party; and (c) agreeing to buy goods or receive services from a third party. An example of such conduct in the accommodation sector is offering guests a free weekend on condition that they purchase a timeshare unit (Gordon-Davis & Cumberlege, 2013: 121).

The consumer's right to cancel: Direct marketing by hotels can result in guests being bound by a contract that they have not carefully considered. Section16 of the CPA relates to the consumer's right to a "cooling-off" period where such person concludes a contract with a hotel arising from direct marketing. It is likely that in such instances, the guest may not have had sufficient time to consider the consequences of such a contract or its terms. Section 16 protects guests by providing that they will have 5 days to reconsider the agreement and cancel if they choose to. According to Gordon-Davis and Cumberlege (2013: 121), this provision will have an impact on sales agreements in respect of new or potential timeshare or sectional title sales that result from direct marketing in the hotel industry. The CPA obliges the supplier to refund payments received within 15 business days of receiving the notice of cancellation (Section 16(4) (a)). Section 17 entitles the consumer to cancel an advance booking, reservation or order. However, in such case, the supplier may levy a reasonable charge for the cancellation (Section 17(3)). Section 18 relates to the consumer's right to choose or examine goods. Where the guest purchases goods purely based on a description given by the hotel, the goods delivered to the guest must correspond to what any other guest would have been entitled to expect. Hotels may use brochures, websites or pictures of menu items as part of their marketing strategy and this may create an expectation on the part of guests (Gordon-Davis & Cumberlege, 2013: 121). Hotels must therefore ensure that the description provided in marketing material correlates with the product or service, which any other guest would expect.

The consumer's right in the event of overbooking: Overbooking is common practice in hotels and is generally followed to make up for last minute cancellations or no-shows. However, according to Section 19(6), if a hotel guest has pre-booked accommodation and upon checking-in finds out that there are no rooms available, the guest can accept an alternate location, date and time; or require the accommodation as agreed upon; or cancel the agreement without penalty. It is also imperative for hotels to ensure that guests receive the type of accommodation agreed to and in the case of overbooking the guest is not forced to accept accommodation which is inferior to/different from the one requested (Section 21(1)(e)). Section 47 deals with over-selling and over-booking and undoubtedly affects the hotel sector. If the hotel agrees to supply certain goods or services and fails to because it runs out of such stock (such as beverages or menu items) or is unable to supply such service (for instance, in the case of overbooking of rooms), it has to refund the guest with interest. There is also a duty on the hotel to compensate the guest for the costs incurred because of the hotel's breach of contract. The hotel will not be liable where the shortage was beyond its control and they had taken steps to inform the guest accordingly.

The right to disclosure and information: Newton (2010: 745) notes that there may be terms in a contract which are onerous and which are written in fine print in language that is incomprehensible, bearing in mind the low literacy levels of most South Africans. The CPA (Section 22) provides that the consumer has a right to information in language that is "plain and understandable". As a result, suppliers are compelled to use "plain language" when drafting contracts (Stoop, 2011; Reddy, 2012: 594). The right to disclosure and information is extremely important in the hotel sector as it deals with written agreements, disclosure of the price of services offered and any goods that are sold, as well as disclosure in respect of product labelling. According to Newman, the literacy levels in South Africa are so low that, in drafting contracts, the business sector has to accept the responsibility to make them more comprehensible for consumers. Section 22(2) describes "plain language" as language that enables an ordinary consumer with average literacy skills and little experience as a consumer of the relevant goods or services, to understand the content of such contract without much effort. In the hotel sector, this would apply not only to contracts but also to the contents of marketing material and websites; written reservation confirmations; deposit and cancellation policies; and any other notice by way of a sign or in writing (Gordon-Davis & Cumberlege, 2013: 122). Where an agreement, provision or term does not comply with the "plain language" requirement, it may be void and a court may make an order to sever any portion of the contract, or amend it so that it may be lawful (Sections 51(3) and 52(4); Gouws, 2010: 90).

Section 23 deals with the supplier's duty to disclose the price of goods and services and the consumer's right to know the price of goods and services before purchasing them. Knowler (2014) states that the practice by many restaurant owners which requires their waiters to inform guests of the list of daily specials without disclosing the prices or displaying them on a board or menu insert, may in fact violate the provisions of the CPA (Section 23). Section 24 of the Act contains provisions that apply to the labelling of products and trade descriptions. These provisions are directly relevant to hotels and guests, since hotels may use marketing materials or provide the guest with brochures, menus, wine lists and any other commercial communication. Hotels must therefore ensure that all product and service descriptions in such marketing material are factual and not in any way misleading. For instance, using the description of "Mountain View" or "Sea View" rooms may entitle the guest to expect such views (Gordon-Davis & Cumberlege, 2013: 125).

***The right to fair and responsible marketing**:* The provisions relating to the right of the consumer to fair and responsible marketing, aim to ensure that business practices in respect of advertising are fair and they set out general standards relevant to marketing (Reddy, 2012: 595). Section 29 prohibits service providers from marketing goods in a misleading, fraudulent or deceptive way, while Section 30 prohibits "bait marketing". This provision forbids the practice where suppliers advertise services as being available at a specific price but are deceptive or misleading as to the actual availability of those services (Havenga, 2010: 495). In the hotel sector, for instance, if the hotel plans to offer a limited number of rooms at a special rate to the public, they must disclose precisely the number of rooms to which this special rate applies (Gordon-Davis & Cumberlege, 2013: 126). Section 33 deals with catalogue marketing. Where the contract was not entered into in person and the consumer is not afforded the chance to inspect the goods (including contracts concluded telephonically, by postal order or over the internet), the consumer will have to be provided with certain information, including a copy of the policies relating to reservation, cancellation and pricing. This section protects the guest and prevents the hotel from introducing a condition that the guest was not aware of at the time of making the reservation. The right to fair and responsible marketing protects consumers against misleading marketing, especially with regard to bait marketing, catalogue marketing and loyalty programmes. It requires hotels to be truthful when they advertise or sell their products and services.

The right to fair and honest dealing: The right to fair and honest dealing protects the consumer against unconscionable conduct. There are several provisions in the Act that deal with honest dealings by hotels. These provisions cover statements that are false or misleading, as well as cases of overbooking. In the marketing, supply or negotiation of goods and services, a hotel "must not use physical force against a consumer, coercion, undue influence, pressure, duress or harassment" or unfair tactics (Section 40(1)). Hotels must not convey a false, misleading or deceptive representation concerning any material fact to a consumer (Section 41(3)). This would include all marketing and advertising material, brochures, menus and wine lists. Information on the hotel's websites would also be subject to this provision. In addition, it will also apply to agents that advertise on behalf of the hotel. Although "puffing" (an opinion or judgement not made as a representation) is allowed, an exaggeration could amount to false or misleading marketing. For instance, a description of the location of the hotel as "close to the airport", but which is actually a two-hour drive from the airport, may amount to misleading marketing.

The right to fair, just and reasonable terms and conditions: In terms of contract law, the parties have the freedom to decide on the content of the contract and whether they wish to be bound by the terms set out in such contract. However, prior to the CPA, contracts were one-sided in favour of suppliers, limiting their liability to consumers, and were often unfair, unjust or unreasonable to the consumer. The Act addresses these challenges under three broad categories.

Unfair, unjust or unreasonable terms: According to Section 48, where goods are supplied or services are rendered, the price and the terms must not be unfair, unreasonable or unjust. The marketing of goods and services in an unfair, unjust or unreasonable manner is also prohibited (Naude, 2009: 514-519). If a term, agreement or condition is excessively biased in favour of the supplier or adversely affects the consumer as to be inequitable, it will be regarded as unfair, unreasonable or unjust (Section 48(2)). Where guests are compelled to accept a "no-refunds under any circumstances" policy by the hotel, if they want to make a reservation, this would be unjust and prohibited, as it is excessively one-sided in favour of the hotel. In addition, Section 17, which deals with the guest's right to cancel an advance reservation, specifically provides for circumstances that would warrant a deposit refund.

Notice for disclaimers: Disclaimers generally exclude or limit one of the parties from liability in certain situations. Section 49 relates to disclaimers by hotels and requires them to give notice to the guest of certain terms and conditions and it covers all agreements and disclaimers, whether they are written or take the form of notices or signs. Although the use of disclaimers is not prohibited by the CPA, hotels have to spell out the effects of such disclaimers and terms in "plain and understandable" language as described in Section 22 (McGee, 2010: 20). Notice is required for exemption clauses (i.e. those that limit the liability or risk of the supplier); terms that result in the consumer assuming risk or liability; indemnity clauses; and where the consumer acknowledges any fact (Naude, 2009: 508). The consumer must be notified of these terms in a conspicuous way so that it is likely to attract the attention of the "ordinarily alert consumer" (Naude, 2010: 516). It is not sufficient for these exemption clauses to be printed on the reverse side of the contractual document (even if it is in a different font or colour), as most consumers do not even turn over the contract forms. In addition, given the time and effort it would take to read the terms and understand the implications or find someone to negotiate for them or shop around for better terms, such practice would not satisfy the requirement of adequate notice (Naude, 2009: 508). Hence, in pursuance of the "right to fair, just and reasonable terms", hotels have to re-examine their notices and disclaimers to determine if such disclaimers are protected, now that the CPA is in force.

Unfair prohibitions: The fact that a term and condition may be "one-sided" or favours the supplier does not in itself make it unfair. Sharrock (2010: 308) indicates that such term or condition has to be "excessively" in favour of the supplier to be viewed as unfair. Section 51 contains provisions for prohibited transactions, agreements, terms and conditions. Provisions in hotel-guest contracts would not be valid in terms of Section 51 in the following instances: if they defeat the purpose of the Act; if the hotel misleads or deceives the guest or is fraudulent; if they result in the guest waiving his/her rights; or if it exempts the hotel from liability for gross negligence. Other provisions that would be invalid include those that require the guest to forfeit any money which the hotel is not entitled to; or where the guest undertakes to sign in advance any documentation, regardless of whether such documentation is complete or not. Hence, hotels must ensure that such terms and conditions are not included in any agreement as they will be void where they violate these provisions (Section 51(3)).

The right to fair value, good quality and safety: Guests generally do not just look for accommodation and meals in a hotel stay, but rather an experience that encompasses quality and good value, as well as a safe and secure environment. A guest has a right to performance on time and the hotel must give adequate notice of any delays that are unavoidable. In addition, the hotel must render the services in a manner and quality that a guest is "generally entitled to expect" (Section 54(1)). This would be relevant to hotels in so far as it applies to the quality of accommodation, meals, service (which must be in keeping with the hotel star rating) and administrative and support services. If the hotel fails to provide the services as required, then the guest may demand that they "remedy the defect", or refund the price or a reasonable portion thereof (Section 54 (2)).

Section 55 of the Act affords consumers the right to safe, good quality goods, which are in "good working order" and "free of defects". In the hotel industry, this would imply that guests have the right to expect that goods marketed or sold for human consumption, such as food and beverages at a restaurant or any other goods, are safe and of good quality (Gordon-Davis & Cumberlege, 2013: 132). Hotel managers should also make sure that before a room key is given, everything in that room is in working order and does not pose any risk to the guest. As demonstrated by the judgment in the case of *Naidoo v Birchwood Hotel* (2012) where a gate on the hotel premises resulted in bodily injuries to the plaintiff, the hotel may incur liability arising from damages or injury to guests. The right to fair value, good quality and safety places a responsibility on hotels to provide quality service and safe goods and service. In addition, it provides for strict liability of suppliers where there is injury or death, or damage to property because of defects in the goods or access to such items (such as hotel rooms and facilities) and improper labelling (Section 62).

The right to hold the supplier accountable: Where the hotel is in possession of a prepaid deposit, membership fees or vouchers, the CPA makes provision for guests to hold the hotel accountable. Apart from walk-in guests, reservations at hotels are usually pre-booked or paid for in advance. According to Section 64 (1), if a consumer agrees or is required to pay a once off fee or a deposit made 25 days or more in advance for a service or access to a service, such amount "remains the property of the consumer until the supplier makes a charge". If the hotel intends to close but has prior committed reservations and has failed to provide a reasonable alternate facility, it has to give 40 business days' notice to the guest and refund the balance of money owing within five days after the closing of the hotel.

Consumer refunds: Where the goods supplied are unsafe or defective, the consumer has the right to return such goods and claim a refund within a reasonable time (Section 20). This right is applicable to the food and beverage departments of the hotel. Hence, where a guest feels that the meal ordered is unsafe or does not comply with what was ordered, the guest may request a full refund. Furthermore, in the event that the hotel is unable to provide accommodation as a result of overbooking, the guest is entitled to a full refund plus interest (Section 47).

Right of recourse for guests: One of the purposes of the Act is to ensure that consumers have access to an efficient system for redress as a result of disputes (Section 1; Mupangavanhu, 2012: 322). In terms of Section 4 (1), a guest may seek to enforce any provision of the Act or any agreement, or to resolve a dispute with a hotel or other supplier by referring the matter to a tribunal or ombud. Alternatively, if the dispute does not concern a supplier, the guest may lodge a complaint with the National Consumer Commission or resort to alternate dispute resolution. Guests have a further option to take their disputes and grievances to the National Consumer Tribunal. Consumer complaints relating to the CPA may be heard by the Consumer Tribunal, which may impose penalties (criminal sanctions) in respect of prohibited or required conduct. Such penalty may not exceed 10 percent of the respondent's annual turnover during the preceding financial year or R1 000 000, whichever is the greater (Section 112(2)). Where a guest wants to recover payment or claim delivery of goods, a separate civil action has to be instituted.

Duty to comply: Certain provisions in the CPA, including fair marketing; fair and honest dealing; and those protecting a consumer's health and safety, are ethical business practices which are also linked to social responsibility (Kloppers, 2013: 179). Although ethical business practices may suggest that a business organization may choose whether to abide by such practices or not, the CPA makes it clear that such business practices relating to the business-consumer relationship, are mandatory for all businesses providing goods and services (Reddy & Rampersad, 2012: 7412), including the hotel sector. Section 100 (1) of the CPA states that, where a particular business organisation engages in prohibited conduct, the Commission may issue a compliance notice and fines may be imposed for non-compliance.

Guest awareness of consumer rights: If consumers are unaware of their rights, they will be deprived of them (Knowler, 2013) and they can be exploited. One of the general purposes of the CPA is therefore to promote the social and economic welfare of consumers by "improving consumer awareness" and "encouraging responsible and informed consumer choice and behaviour" (Section 3 (1) (e)). It is the task of the National Consumer Commission to promote public awareness, including awareness amongst hotel guests, of consumer protection matters (Section 96).

5. Conclusion

As hotel guests internationally also face many of the challenges mentioned, the lessons from South Africa and the CPA could provide a basis for minimum standards for hotels in other countries, as well as a basis for consumer protection standards which offer the guest, and consumers generally, much wider protection than that offered by the law of contract to parties. An unrestricted marketplace would mean that dominant suppliers would have the upper hand over consumers. The market therefore requires rules which allow free access to consumers and which offers protection to consumers who may be vulnerable to unfair practices. The CPA therefore requires non-discrimination between consumers and the protection of vulnerable consumers. These responsibilities for the business sector can be achieved through procedural fairness primarily by ensuring transparency (Hawthorne, 2012: 369). The CPA has far-reaching consequences for businesses and consumers and stems from the need to protect consumers from previously disadvantaged backgrounds and prevent widespread unfair practices by business. Hawthorne (2012: 370) rightly points out that the CPA has introduced a shift from the freedom-oriented approach to the fairness-based approach. The freedom of parties to choose the terms and conditions applicable to a contract now appears to be a relic of the past since protection in terms of legislation compensates for the weaker negotiating position of the consumer.

Clearly, the CPA has wide-ranging consequences for hotels and guests as well. The Act applies to goods and services "promoted or supplied in South Africa", including the hotel sector. In terms of the definition set out in the Act, "consumers" would include those to whom the hotel has marketed; those who have concluded the transaction; and the recipients of goods and services. The CPA must be viewed as a means to develop historically disadvantaged individuals and assist them "to realize their full potential as consumers". The shift to the fairness-based approach is evident from several of the fundamental consumer rights. Firstly, the right to equality, which prohibits unfair discrimination against guests, furthers the purpose of ensuring that human rights are applicable in contractual relationships, particularly with regard to equality and non-discrimination, given the inequality that existed during the apartheid era. However, there are provisions for reasonable grounds for different treatment in certain circumstances. Secondly, the right to privacy makes provision for consumers to restrict unwanted direct marketing by hotels. Thirdly, the right to choose makes provision for the right to select a supplier, as well as a "cooling-off period" after direct marketing and the guest's right to cancel an advance reservation, booking or order. Fourthly, hotels' marketing practices must be "fair and honest". Fifthly, the right to "fair and responsible marketing" prohibits bait marketing and regulates catalogue marketing and direct marketing. Sixthly, the right to fair and honest dealing protects guests from unconscionable conduct and false and misleading representation of a material fact. With regard to common practices that could be detrimental to guests, such as overbooking and waiver of the right to refunds, the CPA clearly spells out the rights and protection of the guest. Lastly, the right to fair, just and reasonable terms and conditions protects guests form unfair and unreasonable terms and conditions.

As mentioned earlier, the extent to which the CPA can ensure substantive and procedural fairness through transparency is evident from several of its provisions. In view of the social inequality (particularly the high levels of poverty and illiteracy) that stemmed from apartheid and discriminatory laws of the past, the CPA insists on businesses ensuring that their contracts, terms and conditions, and promotional material, are in plain and understandable language. In the past, it was adequate if businesses merely complied with the law by getting the consumer to sign pre-printed forms without explaining their content. Now the emphasis is not merely on compliance but on communicating the essence of the content, i.e. whether the consumer is aware of his/her rights. Hotels must also disclose the prices of goods and services, and ensure that their product labelling and trade descriptions are true and not misleading. Furthermore, the right to "fair, just and reasonable terms" also imposes the duty of explicit notices to guests prior to the agreement, particularly to make them aware of cancellation policies; as well as exemption and indemnity clauses; and the assumption of risk. It further provides for strict liability of hotels in the event of injury, damage to property and death. One of the purposes of the Act is to "improve consumer awareness" (Section 3(1) (e)). It is the responsibility of the Consumer Commission to promote public awareness in consumer protection matters. In addition, the effective enforcement of consumer rights could contribute to forcing organisations into adopting "adequate standards" (Devenney & Kenny, 2012: 63). This means that if hotels implement the CPA as part of their standard operating procedures, they could ensure that they will not be infringing any consumer rights. The CPA promotes ethical business practices, and it is mandatory for hotels to abide by the CPA. Failure to comply will lead to stringent penalties. An increased awareness of consumer rights and procedures may assist in ensuring greater protection for hotel guests and in ensuring that they receive a better quality of service.

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Personality, Attitude and Behavioural Components of Financial Literacy: A Comparative Analysis

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Abstract: Since the financial crisis in 2008 the investigation of financial literacy–especially its components (personality, attitudes, behaviour etc.) - is in the limelight. Modern economics have recognized that in order to effectively forecast financial and economic processes it is primordial to understand the attitudes of the members of society toward finances, as well as the characteristics of various social group sharing the same views and behaviours. In 2015 two relevant pieces of research were conducted in this topic in Hungary. One focuses on the financial personality types, while the other investigates Hungarians' financial culture in general based on the research methodology of the OECD. Based on these two databases our comparative study highlights the main characteristics of financial personality types. The three clusters based on the OECD research cover the nine personality types from the results of the other Hungarian research. Our findings show that the cluster of "anxious unsatisfied" encapsulates the "economizers with little money", the "price sensitive" and the "collector" personality types. Furthermore, the "satisfied conscious" covers the "order creates value", the "diligent" and the "planner" personality types. Finally, the "moderately anxious unconsidered" involves the "ups and downs", the "money-devouring" and the "cannot control finances" personality types. The clusters identified during the research show idiosyncratic financial and psychological vulnerability and/or protection.

Keywords: *Personality, attitude, behaviour, financial literacy*

1. Introduction

The need for the development of financial literacy has been continually present in the past decades. However, it came to the centre of attention only in connection with the financial crisis unfolding in 2008 (Botos et al., 2012). The notion of financial literacy has been defined by many and in many ways. Related research in Hungary and abroad has often been initiated and financed by the largest financial services providers. In this context the view that the more familiar the population is with banking products and the more financial risks they are willing to take, the more advanced their financial literacy is has been widely accepted and held to be axiomatic by researchers. According to the most accepted definition in Hungary, "financial literacy is the level of financial knowledge and skills that enables individuals to identify and subsequently interpret basic financial information in order to be able to make conscious and prudent decisions and to be able to assess the potential future financial and other consequences of their decision" (Magyar Nemzeti Bank, 2014). The State Audit Office of Hungary's definition equally emphasizes the appropriate levels of financial knowledge, and the ability to manage money and states that financial literacy is above all about having a realistic self-image of one's own financial literacy and making adjusted decisions (Huzdik, Béres & Németh, 2014). The present research examines the personality, attitude, and behavioural components of financial literacy. It is based on the premise that financial literacy is not only determined by knowledge and skills but also by factors such as attitudes towards money, behavioural patterns, financial planning, an ability to prolong one's satisfaction of needs, and whether an individual is capable of "keeping their finances in order" (Zsótér et al., 2016).

The main aim of the present study is to compare the results of a study about financial personalities conducted in Hungary in 2015 on behalf of the Financial Compass Foundation (Pénziránytű Alapítvány) with those of a study about financial literacy conducted in 2015 by market research company GfK and the Financial Compass Foundation. A 36-item financial personality test was developed by Erzsébet Németh that was completed, during the summer of 2015, by 3088 individuals (Németh et al., 2016; Béres et al., 2015). The test examines the economic and psychological aspects of individuals' relationship with money. A factor analysis revealed 9 factors that cover financial personality types. A 12-item scale examining respondents' financial attitudes and behaviour was part of the study of financial literacy based on the OECD questionnaire. 1000 individuals were surveyed, representing the population of Hungary by age, gender and type of settlement. A factor analysis was performed on the financial attitude and behaviour scale, followed by a cluster analysis based on factor averages. The thus obtained three factors and three clusters were compared with the results of the financial personality study. Each cluster obtained in the OECD study covers three factors of the financial personality study. A review of the concepts of financial attitude, financial personality, financial decisions, and financial behaviour served as the theoretical foundations of the study.

2. Literature Review

Money does not only have intrinsic value but also outstanding features and strong motivating power (Opsahl and Dunnette, 1966). Furthermore it is a highly subjective concept, meaning something different for each person (Wernimont and Fitzpatrick, 1972). For these reasons, in the following, the most prominent research directions and results related to financial personality and financial attitudes are synthesized. The extensive research in the field goes back to the beginning of the 1970s; the following theoretical review gives an overview of the most prominent results since then. Yamauchi and Templer (1982) developed a standard measure of financial attitude called the Money Attitude Scale (MAS) and identified four dimensions of money attitude. The first dimension is power-prestige, in which money is the symbol of success and power in the individuals' attitudes the second dimension is retention-time. In the case of individuals in this group, the main focus is on preparation for the future and keeping the financial situation under continuous control. For them, saving and amassing are of primary importance, and they regularly record the situation of their finances. The third dimension is distrust. The common feature of individuals in this category is that they look at money with suspicion, almost with fear. Individuals that have no trust in money and finances, usually do not trust themselves enough either. The fourth and last dimension of the authors is anxiety, and includes individuals prone to worrying and distress over money matters. Chan (2003) compares financial approaches with the consumer types described by Sproles and Kendall (1986) applying Yamauchi and Templer's (1982) theory. People who regard money as a symbol of power are mainly quality-oriented and novelty seeking consumers. People who have a distrustful attitude to money tend to be uncertain about and frustrated with their consumer decisions. Consumers with an anxious attitude usually suffer from ambivalent feelings in their consumer decision-making as they are seeking both pleasure and price-quality balance concurrently.

Furnham (1984) developed a standard measure of money-related beliefs and behaviour patterns called the Money Beliefs and Behaviours Scale (MBBS). The 60-item scale is further reduced to six factors, namely: obsession, power/spending, retention, security/conservative, inadequacy, and effort/stability. In an investigation among teenagers, Furnham (1999) defined money attitudes as *attitudes to spending and saving,* and with respect to the age characteristics of the target group, applied a scale different from the MBBS scale (Furnham, 1984). In the end, the 20-statement-scale resulted in five factors, labelled as spending money, saving money, mechanics of banking, work ethic and indifference to money. Wilhelm Stern was the first psychologist to study personality. Since Stern, the recognition of "self" has been considered as the essential condition of a personality. This is the ability of the individual to distinguish themselves from their environment. Only humans possess a personality. According to Stern, personality is a manifold, dynamic unit. Personality psychology is a branch of psychology that studies how internal and external factors affect the development of personality. Personality is the ensemble of traits that distinguish an individual from other people and that an individual has by nature and gains later in their life. Several studies have shown the existence of a strong relationship between personality and making wrong financial decisions (see e.g. Jureviciene and Jermakova, 2012, Iqbal et al., 2012; Brozynski et al., 2004). The most common model of trait research is the five-factor personality model (McCrae, 2009). The five factors, referred to as the "Big Five" since Goldberg (1971), are Openness to Experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism or Emotional Stability (Borghans et al., 2008). According to the results by Kübilay and Bayrakdaroğlu (2016), each personality type faces different biases and each investor has different risk tolerance.

Mellan (1994) identifies nine personality types on the basis of their attitude to money: hoarder, spender, money monk, money avoider, money amasser, binger, money worrier, risk-taker, and risk-avoider. A hoarder is an individual who sticks to their money, finds it hard to buy things that would cause momentary pleasure to themselves or their beloved ones. Money represents a certain security to them, thereby being estranged from all kinds of hedonistic behaviour. Spenders find pleasure in spending their money when and on what they feel necessary – this status is usually related to an external stimulus. Saving money and making budgets are not characteristic features of this personality type. Money monks feel bad when in possession of a lot of money. Such situations bring about a certain sense of guilt in them, especially when they come into a large sum of money. They are convinced that money spoils everything. Money avoiders try to avoid daily tasks about money. Individuals belonging to this group do not like to deal with their finances, so they usually also do not produce budgets. Money amassers consider the amount of money available to them – or rather the increase of it – one of their main objectives, as they consider that ultimately this is the way they can also prove their power. Mellan (1994) refers to a combination of the hoarder and spender personality types as a binger. Bingers tend to economize for a while (e.g. for the achievement of a major objective), but if affected by an external stimulus (impulse), they are susceptible to shop without consideration. The common characteristic feature of money worriers is that they lack self-confidence, they are afraid to lose control and therefore they keep control over their finances. They tend to continuously monitor their financial situation. Risk-takers perceive money as a source of means adventure, excitement and freedom. They enjoy risking their money as they enjoy the shivering and adrenaline that come with it. Mellan's (1994) last category is the group of risk-avoiders. For them, money equals security; therefore, they prefer keeping their money at home, if they can. Table 1 provides a summary of the results of the studies presented beforehand.

Table 1: A summary on research on financial attitude and financial personality types

Author(s)	Dimensions of financial personality and attitude
Goldberg and Lewis (1978)	miser
Forman (1987)	autonomy worshipper
	power grabber
	gambler
Yamauchi and Templer (1982)	power-prestige
	retention-time
	distrust
	anxiety
Furnham (1984)	obsession
	power
	retention
	security
	inadequacy
	effort/ability
Tang (1992)	budget
	negative feelings about money
	money as a token of success
Mellan (1994)	hoarder
	spender
	money monk
	money avoider
	money amasser
	binger
	money worrier
	risk-taker
	risk-avoider

Based on the above, one can state that a considerable amount of research has been devoted to financial personalities, but, at the same time, one can equally note that certain personality types cannot be clearly distinguished from each other: there are some overlaps between them. It is important to note that all dimensions of financial personality or financial behaviour do not always appear in each related study. The dimensions of retention and time, as well as negative feelings about money are recurring elements of these studies. The widest profile range was offered by the works of Furnham (1984) and Mellan (1994). Similar personality types were found in the empirical part of the present research.

3. Methodology

To identify financial personalities, the authors of the present study used a personality test containing 36 statements (Németh et al., 2016; Béres et al., 2015). To test their financial personality and to study what behavioural patterns, habits and attitudes characterize them; respondents who visited the site http://penziranytu.hu/penzugyi-szemelyisegteszt were asked to complete an online questionnaire. Respondents had to decide the extent to which they were characterized by each statement of the questionnaire using a five-point Likert-scale where 1 indicated "strongly disagree", and 5 indicated "strongly agree". During the summer of 2015, 3,139 respondents filled in the questionnaire and following data cleaning the sample consisted of a total of 3,088 responses. The low dropout rate is the result of a number of preliminary methodological considerations. First, respondents typically did not interrupt the process of questionnaire response. Interruption usually happens when respondents fail to understand the statements and/or questions, or if they consider the questionnaire boring or too intrusive. Second, very few straight-line or pattern responses (i.e. responding without thought by answering the same for all statements or by recording a pattern [e.g. zigzag or Christmas-tree]) were recorded. None of the above issues occurred, thanks to the following considerations: 1. Phrasing: Statements were phrased in a way that ordinary people could understand them, without perceiving them as too scientific or the topic as remote. This allowed for minimizing the risk of misunderstanding. 2. Sensitive issues: Sensitive issues were completely omitted from the present questionnaire, i.e. beyond the test containing the 36 statements, respondents were not asked for any additional socio-demographic data (e.g. to state their income). The lack of these former can also be interpreted as a limitation of the research, however, the resulting increase in confidence allowed for a considerable increase in the willingness to reply. 3. Motivation: Following the completion of the personality test, respondents were immediately provided with the evaluation of their profile. The inclusion of feedback equally facilitated the willingness to participate.

The main aim of the financial culture research conducted by market research company GfK and the Financial Compass Foundation (Pénziránytű Alapítvány) was to assess the financial awareness and literacy of Hungarian adults. The OECD produced a unified international methodology that was joined by Hungary – along 13 other countries – in 2010. The Financial Compass Foundation once again participated in the study in 2015, with, this time, about 30 countries conducting the research at the same time. The methodology based on a standard questionnaire allows for comparable results among countries as well as for an examination of time series data. Data was collected with CAPI (Computer-Aided Personal Interviewing). As numerous demographic data were queried, one can state that respondents' age varied between 18 and 79 years. 1000 individuals were surveyed, representing the population of Hungary by age, gender and type of settlement. The advantage of personal interviews is that respondents are likely to complete the survey and without the possibility of "running through" the questionnaire (even without reading it) as the interviewer is in control of the pace by reading out loud the questions and statements of the questionnaire. Its disadvantage, however, is that respondents may be prone to provide answers that they assume are expected of them, thereby trying to meet social expectations, potentially reducing the proportion of honest answers (Malhotra & Simon, 2009; Atkinson & Messy, 2012).

Financial attitudes, time orientation, and money-related emotions are measured through a 12-item part of the questionnaire. Respondents had to decide the extent to which they agreed with each statement using a five-point Likert-scale where 1 indicated "strongly agree", and 5 indicated "strongly disagree". This direction of this scaling is the opposite of the one used for the financial personality test presented beforehand. Thus, in order to facilitate the analysis and provide comparability, responses gathered through the OECD questionnaire were reverse-coded in order for higher scores to represent higher respondent agreement. As these statements overlap with certain statements of the 36-item personality test in some respect, the present study examines and then compares the results of the two queries. The 12 relevant items of the OECD questionnaire were grouped into three factors as a result of a factor analysis (main component analysis with varimax rotation). K-means clustering was then used based on factor averages and resulted in the identification of 3 respondent segments. K-means clustering was chosen for its stability for a large sample size (Sajtos & Mitev, 2007).

4. Results

Results of the financial personality survey: Descriptive statistics of the 36-item scale developed by Erzsébet Németh are first examined. Table 2 gives an overview of the mean and standard deviation values for the 36 statements in an ascending order based on means. The lowest mean value (1.51) was obtained for the statement "I often have to borrow at the end the month", while the highest (4.27) for "I know exactly how much money I have in cash and on my bank account". This latter equally has the lowest standard deviation value (1.031), suggesting a convergence of respondents' answers in this regard. The highest standard deviation value (1.465) was observed for the "Bills are killing me" item. Approximately 45 percent of respondents indicated that economizing was totally true for them when they had little money, and also, that they did not like to throw out still usable things, which we also evaluated in a positive way, as the former reflects an economizing character, while the latter reflects the proper assessment of values. In addition, more than 30 percent of respondents thought it was completely true for them that they controlled their spending, always had enough savings, compared the prices in shops where they took shopping lists compiled with proper consideration.

Table 2: Questionnaire item scores (1 – strongly disagree, 5 – strongly agree)

Descriptive statistics	**Mean**	**St.dev.**
I often have to borrow at the end the month.	1.51	1.056
I enjoy going shopping with friends.	1.70	1.060
I am in a desperate fix with debts.	1.82	1.284
I am puzzled about where your money goes.	1.94	1.218
If I pay in cash I never ask for the change.	1.95	1.114
Only when I clean up I realize the amount of my unnecessary purchases.	1.99	1.100
I sometimes end up paying a few bills late.	2.03	1.368
I enjoy trying my luck.	2.08	1.141
I often surprise my loved ones with self-made gifts.	2.15	1.151
I don’t enjoy cooking, we rather eat ready meals.	2.16	1.268
Bills are killing me.	2.43	1.465
If I like something, I buy it.	2.53	1.109
When grocery shopping, I am often surprised how much I have to pay at the end.	2.56	1.202
I love trendy things.	2.58	1.250
I have a hard time resisting when I am offered something at a great price.	2.67	1.216
I have a few bad habits that cost me a lot of money.	2.69	1.279
I often reward myself.	2.69	1.083
I enjoy going out with my friends.	2.79	1.333
I spend a lot on healthy food and mineral water.	2.81	1.178
Sometimes, when shopping, I spend more than I previously expected.	3.03	1.114
I like it when it’s warm at the apartment.	3.10	1.156
When I need more money, I take up extra work.	3.13	1.417
I prefer preparing sandwiches rather than shopping at the cafeteria.	3.20	1.411
I always have enough savings for unexpected expenses.	3.39	1.461
I know exactly the price of everything.	3.44	1.140
I tend to browse a lot before purchasing a product.	3.52	1.243
I want to provide everything for my children.	3.60	1.271
I keep my household in order.	3.61	1.102

I am good at rationing my money.	3.61	1.131
I keep good track of my expenses.	3.64	1.263
I always make a shopping list.	3.65	1.360
Before going shopping, I always carefully think through of what I need.	3.83	1.088
I always compare prices before purchasing anything.	3.93	1.096
I only save on my expenses when I am short of money.	3.98	1.176
I don't like throwing out things that still can be used.	4.08	1.066
I know exactly how much money I have in cash and on my bank account.	4.27	1.031

A questionnaire item can be considered divisive when all possible answers (1, 2, 3, 4, or 5) are provided by at least 14% of respondents each. Among the 36 statements the three following turned out to be most divisive:

- When I need more money, I take up extra work.
- I prefer preparing sandwiches rather than shopping at the cafeteria.
- I always have enough savings for unexpected expenses.

Financial personality types: The factor analysis (main component analysis with varimax rotation) conducted on the 36 statements yielded 9 factors, namely:

- Economizer with little money
- Money-devourer (opposite of Moderate)
- Order creates value
- Price sensitive
- Collector
- Planner
- Ups and downs
- Diligent
- Cannot control finances

The dimension of *economizer with little money* includes people who have trouble managing their finances, most of them struggle with debts, but at the same time and as opposed to it, it may happen that they also have some savings. Among the characteristic features of *money-devourers*, it is primarily the short-term features that dominate – they love to have fun, they immediately buy what they like, they love shopping and often reward themselves. Moreover risk-taking is also present among them. Respondents performing well in the *order creates value* factor keeps track of his expenses, knows exactly when and how much money he has, and from this, it partly comes that he keeps his home and household tidy, and before shopping, always thinks over what he needs. The price-sensitive dimension contains people for whom it is most typical that they compare prices before shopping, and as a result, are able to take their time in selecting the articles. *Collectors* take advantage of sales and try to amass everything. They do not necessarily keep their environment tidy, but when they do, they realize how many unnecessary things they have. *Planners* make lists before going shopping, i.e. they tend to carefully plan their purchases. In the *ups and downs dimension*, savers and spenders appear alongside each other. The central organizing principle of the *diligent* dimension is work, in connection with which individuals assess the acquired income, and as a consequence, they are able to appreciate it. Individuals who *cannot control finances* are not able to appreciate the real value of the goods they wish to consume, and over the short term it means that they are surprised at the amount they have to pay at the cash-desk.

Results of the OECD financial literacy study: The 12 items of the OECD pertaining to personal finances were first examined in terms of the resulting mean values (Table 3).

Table 3: Questionnaire item scores (1 – strongly disagree, 5 – strongly agree)

Descriptive statistics	Mean	St.dev.
I am willing to risk some of my money when it comes to savings or investment	1.6653	1.01695
I currently have too many debts	1.9186	1.26650
I enjoy spending money more than saving it for later	2.1903	1.18502
I rather live a day at a time – I'll manage tomorrow somehow	2.2432	1.20116
I am satisfied with my current financial situation	2.4050	1.23633
I am often worried about my ordinary living expenses	3.0700	1.36050
Money is meant to be spent	3.1240	1.19501
I set up long-term financial goals and strive to achieve them	3.2265	1.31301
I am restricted by my financial situation in doing things I consider important	3.5180	1.29080
I personally and carefully monitor my finances	3.5681	1.31912
Before purchasing something I carefully consider whether I can afford it	4.1782	.99108
I pay my bills in time	4.2863	1.01776

A factor analysis (main component analysis with varimax rotation) was conducted for the 12 items. The analysis yielded the three factors presented in Table 4. The worries and dissatisfaction with regards to finances appear in the first factor, which thus regrouping variables in connection with negative feelings about finances. It is important to note that the item related to satisfaction loads negatively in the factor structure, hence indicating dissatisfaction. The second factor gathers statements that represent a certain present-hedonistic (Zimbardo & Boyd, 1999) attitude. A "carpe diem" attitude characterizes this factor, with recklessness, a certain negligence towards obligations (e.g. paying bills), and spending prevailing over building up reserves. The third factor includes items on consciousness, i.e. having goals and monitoring finances. The willingness to take risks equally appears here, only in connection with savings and investment. The three factors are suitable for a K-means cluster analysis to be performed on the averages on the related scale item scores in order to divide respondents into groups.

Table 4: The three factors and item factor scores as identified by the factor analysis

Results of the factor analysis	Component		
	1	2	3
I am often worried about my ordinary living expenses	.840	-.005	-.086
I am restricted by my financial situation in doing things I consider important	.810	.022	-.155
I am satisfied with my current financial situation (R)	.765	-.162	-.205
I currently have too many debts	.592	.309	.336
I enjoy spending money more than saving it for later	-.033	.774	-.062
I rather live a day at a time – I'll manage tomorrow somehow	.027	.725	-.168
Money is meant to be spent	.100	.567	-.112
Before purchasing something I carefully consider whether I can afford it (R)	-.379	.532	.026
I pay my bills in time etc. (R)	.462	.520	.060
I set up long-term financial goals and strive to achieve them	-.154	-.271	.739
I personally and carefully monitor my finances	.004	-.304	.635
I am willing to risk some of my money when it comes to savings or investment	-.138	.410	.597

R: reverse-coded

Cluster analysis: The clusters obtained by the K-means cluster analysis provide a deeper insight and a more detailed picture of the results by the help of the combination of factors. The cluster analysis was performed using the averages of the item scores of each factor. Sizes and centres of the three resulting clusters are shown in Table 5.

Table 5: Cluster centres in the three clusters based on factors

Final cluster centres			
	Cluster		
	1 (N=305)	**2 (N=359)**	**3 (N=300)**
Carpe Diem factor	8.74	9.47	15.17
Self-conscious factor	8.06	9.26	8.05
Worried, dissatisfied factor	15.52	8.21	13.28

The first cluster is least likely to reach a high score at the "carpe diem" factor, while at the same time they are most prone to providing high scores for the items of the worried-dissatisfied factor. As a consequence, this group of respondents can be characterized as being anxious about their finances, who dare not live for the day or spend money irresponsibly. This, however, does not entail a higher level of consciousness. The second cluster performs highest in consciousness, while in terms of negative feelings, they are the least anxious or dissatisfied about their finances. Compared to the other clusters, the third cluster performs remarkably high in the "carpe diem" factor. These respondents are thus most likely to live a day at a time, but also to worry about their finances, even though not as much as those respondents who belong in the first cluster. Next, the average scores in each factor of the focal 12 items were examined. Table 7 contains the item scores within the full sample and within each factor. Based on the mean values, Table 6 gives an overview of the main attributes of each cluster.

Table 6: Description of clusters

Cluster 1 **Anxious unsatisfied**	**Cluster 2** **Satisfied conscious**	**Cluster 3** **Moderately anxious unconsidered**
careful in their spending least likely to live a day at a time do not prefer spending over savings lowest risk-taking willingness most unsatisfied most anxious most perceiving their financial situation as prohibitive	most likely to pay their obligations in time most likely to set up financial goals and control their finances least anxious least likely to have debt and to perceive their financial situation as prohibitive most satisfied	live a day at a time least likely to formulate and set up financial goals least likely to monitor and control their finances prefer spending over savings least likely to pay their obligations (e.g. bills) in time highest risk-taking willingness feel crushed by their debts

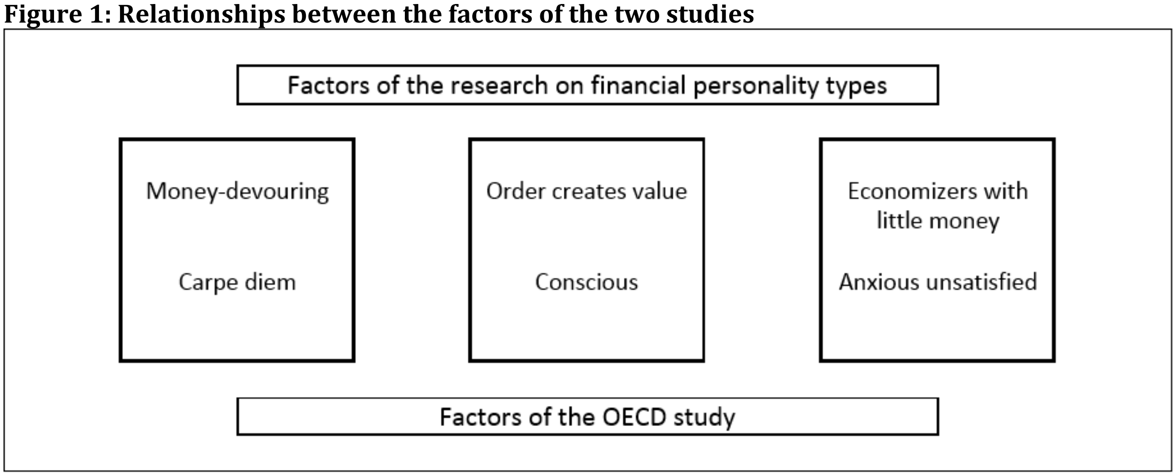
Table 7: Item scores within the full sample and within factors

Descriptives				
		N	**Mean**	**Std. Dev.**
Before purchasing something I carefully consider whether I can afford it	1	305	4.7574	.59062
	2	359	4.1253	.93856
	3	300	3.6567	1.05633
	Total	964	4.1795	.98796
I rather live a day at a time – I'll manage tomorrow somehow	1	305	1.6590	.92931
	2	359	1.8301	.92549
	3	300	3.2567	1.01697
	Total	964	2.2199	1.18461

I enjoy spending money more than saving it for later	1	305	1.5213	.76113
	2	359	1.8357	.92347
	3	300	3.2467	1.05334
	Total	964	2.1753	1.17493
I pay my bills in time, etc.	1	305	4.3902	.92582
	2	359	4.8106	.45193
	3	300	3.6033	1.14178
	Total	964	4.3019	1.00112
I am willing to risk some of my money when it comes to savings or investment	1	305	1.3246	.74088
	2	359	1.6880	1.02899
	3	300	2.0033	1.14061
	Total	964	1.6712	1.02145
I personally and carefully monitor my finances	1	305	3.6328	1.39651
	2	359	3.8942	1.10860
	3	300	3.1867	1.29773
	Total	964	3.5913	1.29660
I set up long-term financial goals and strive to achieve them	1	305	3.0984	1.34635
	2	359	3.6769	1.19182
	3	300	2.8600	1.22695
	Total	964	3.2396	1.30007
Money is meant to be spent	1	305	2.7115	1.24949
	2	359	2.7409	1.03420
	3	300	3.9233	.86407
	Total	964	3.0996	1.19554
I am restricted by my financial situation in doing things I consider important	1	305	4.4492	.81002
	2	359	2.3760	1.00312
	3	300	3.8867	.95754
	Total	964	3.5021	1.29180
I am often worried about my ordinary living expenses	1	305	4.1279	.99673
	2	359	1.9694	.91947
	3	300	3.3367	1.13178
	Total	964	3.0778	1.36153
I currently have too many debts	1	305	2.3574	1.44646
	2	359	1.2006	.54301
	3	300	2.3733	1.31137
	Total	964	1.9315	1.27337
I am satisfied with my current financial situation	1	305	1.4164	.71662
	2	359	3.3398	.87571
	3	300	2.3133	1.17747
	Total	964	2.4118	1.23109

Comparison of the results: The first factor based on the items of the OECD questionnaire (anxious unsatisfied) echoes with the *economizer with little money* factor yielded by the study on financial personalities. This is the dimension of money avoiders that points out that respondents performing highly here are likely to have problems related to the handling of their finances and also to struggle with debt. The second factor, "carpe diem" shows similarities with the *money-devouring* factor. Results of the research on financial personalities suggest a certain short-sightedness, as well as shopping and self-rewarding as core values for this factor. Thus, here, spending money dominates over saving it. The third factor regrouping the dimensions of objectives and control shows resemblance to the *order creates value* factor. This is a dimension with positive views and pertains to respondent's level of prudence by revealing how they keep track of their finances. The similarities between the two factor analyses are illustrated in Figure 1.

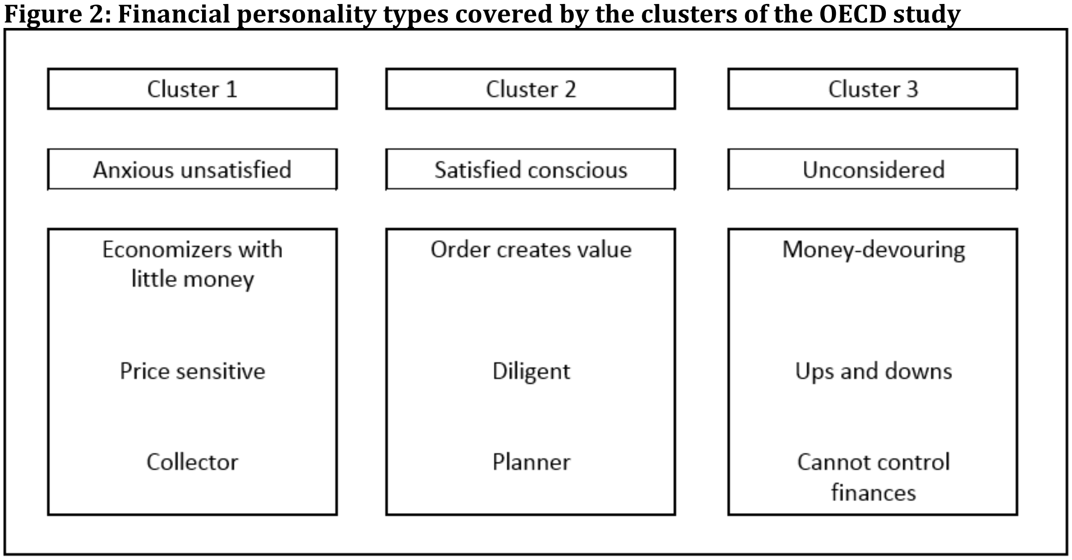
Figure 1: Relationships between the factors of the two studies



(source: own elaboration)

The three clusters identified based on the OECD database cover – both in contents and in their characteristics – all nine identified financial personality types. The first cluster, anxious unsatisfied, regroups the economizers with little money, price sensitive, and collector personality types. The second cluster, satisfied conscious, includes the order creates value, diligent and planner personalities. The third cluster, moderately anxious unconsidered, covers the money-devouring, ups and downs and cannot control finances personalities.

Figure 2: Financial personality types covered by the clusters of the OECD study



(source: own elaboration)

5. Conclusion

Modern economics have recognized that in order to effectively forecast financial and economic processes it is primordial to understand the attitudes of the members of society toward finances, as well as the characteristics of various social group sharing the same views and behaviours. The aim of the present study was to compare the relevant parts of two studies conducted in 2015 focusing on financial attitudes and behaviour, and therefore on financial personality types. The theoretical framework reviews various scales developed since as early as the 1970s. Both the study of financial personality types and the OECD study verify and overlap, to varying degrees, with the results of this framework. The nine financial personality profiles can be matched with the three clusters identified in the OECD study. The clusters identified during the research show idiosyncratic financial and psychological vulnerability and/or protection. The main conclusion is that self-consciousness in finances is associated with an emphasis on order, planning and diligence. Individuals in the group that does so are also most satisfied with their current financial situation. A combination of these attributes can, therefore, provide a protection of sorts both financially and mentally.

The literature review hints that concern and negative feelings are recurring dimensions of individual finances. The group of anxious identified during the cluster analysis covers individuals who are characterized by usually having little money, price sensitivity and a collecting behaviour. Moreover, they consider that they economize well; still they are dissatisfied with their financial situation. The source of their dissatisfaction can be traced to low income and to the feeling of vanity in trying to make do with their finances. Here, amassing and anxiety are a cause of financial and mental vulnerability, respectively. Individuals in the third group, unconsidered, cannot control their finances and have a lot of purposeless expenditures. This group is in fact the opposite of Yamauchi and Templer's (1982) retention-time dimension. In the financial personality study the "order creates value" factor was identified to be the best indicator of one's financial awareness. This analogy, emphasized in the study, equally supports our earlier finding, as this factor is precisely most in line with the self-conscious factor.

The second cluster, satisfied conscious, includes the order creates value, diligent and planner personalities. These dimensions were most highly regarded in the study in terms of financial personality. This is also the group with the highest levels of income. An interesting avenue for further research is the study of whether high levels of income necessarily lead to higher financial awareness and satisfaction, or, on the contrary, is it a positive and conscious attitude that leads to higher levels of income. Identifying the personality, attitude, and behavioural components of financial culture can help contribute to a better understanding of the causes and aspects of financial behaviours beyond rationality. The present study provides a synthesis of two studies performed in Hungary as well as of relevant parts of the literature. It contributes to the research on the broader concept of financial literacy and thereby can serve as an input for further studies as well as for the development of programs on improving financial literacy.

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Customer Perceptions of Skills of Agents in Effectively Managing Their Needs within a Call Center

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Abstract: The world's dynamics and demands of employment and production have evolved over the past decade. Human resources has today become the single largest unrestrained resource and many firms are striving to enhance competence and interaction between its customers and itself via the customer call center through enhanced skills, knowledge, ability and attitude by fostering better interpersonal skills and through the promotion of training and development of their call center agents. This study was undertaken in EThekwini (Durban), South Africa and was conducted within a Public Sector service environment comprising of four major call centers employing a total of 240 call center agents. Using simple random sampling, 220 customers were drawn from all consumers subscribing to e-billing in EThekwini (Durban). Data for the customer sample was collected using a precoded, self-developed questionnaire whose psychometric properties were statistically determined. Data was analyzed using descriptive and inferential statistics. The results specify that agents were unsuccessful in handling customers' needs timeously and efficiently and that most customers felt burdened by being transferred to other agents due to the incompetence of original agents in handling their queries/complaints. Furthermore it was found that there was an overall lack of empathy from agents in following-up after a customer communication to ensure that the customer was satisfied with their experience within the call center. Based on the results of the study recommendations have been made to manage the interaction between the customers and call center agents more competently and efficiently.

Keywords: *Call center agents, knowledge, ability, attitude, interpersonal skills, training and development*

1. Introduction

This study assesses customer perceptions of the skills required by call center agents in effectively managing their needs during their interaction with the call center. In particular, it critically evaluates the skills, knowledge, ability, and attitude of agents in executing their duties, their level of interpersonal skills when interacting with customers and finally their level of training and development acquired to perform these tasks. It was hypothesized that there exists significant intercorrelations amongst the sub-dimensions of human resources (skills, knowledge, ability, attitude, interpersonal skills and training & development) required by call center agents for effectively managing customers' needs. The influence of the biographical profiles on these perceptions was also appraised. It was hence hypothesized that customers varying in biographical profiles (gender, age, race, educational qualifications) significantly differ in their perceptions of the human resources skills required by call center agents to effectively manage their needs. Lucas (2005: p. 4) defines customer service as "the ability of knowledgeable, capable, and enthusiastic employees to deliver products and services to their internal and external customers in a manner that satisfies identified and unidentified needs and ultimately results in positive word-of-mouth publicity and return business".

A critical marketing activity is developing products and services that are able to satisfy consumers' needs and wants. Consumer research is able to provide answers to what a consumer is looking for in terms of the core product attributes, the advertising media that are likely to have the greatest impact, as well as prices of the product (Hoyer & McInnis, 2001). According to Lucas (2005), there has been a shift in the service economy and some of the factors contributing to this are the increased efficiency in technology where activities like telemarketing and internet shopping has evolved and continues to expand. Some of the societal factors include more women entering the workforce giving rise to changes in their traditional roles; hence, there is a need for the tasks provided by housewives to now be provided by service providers. In South Africa there is a more diverse population entering the workforce bringing with them new ideas, values, needs and expectations of the needs of the groups that they represent. Lucas (2005) also found that customers have a greater desire to use their leisure time more efficiently, and with dual income families there is a greater degree of disposable income available to demand services such as dog walker's, garden services and laundry services among others. Education also impacts hugely on customer service as customers are well informed on price, quality and value of products and services and therefore, have a high expectation of the quality of service received. The last decade has also seen a drastic growth in E-commerce and the way customers conduct business via the internet from shopping to surfing the net for information on goods and services. This trend has placed an increasing demand on the creators of these innovative sites to provide a greater degree of customer service to customers without physically coming into contact with a customer.

The Services Marketing Mix: The traditional marketing mix, made up of the 4 p's, constitutes the total offering to consumers. The 4 p's according to Lamb et al. (2000) are the *product* (the basic service or good, including packaging), its *price,* the *place* (where the product is made available to the consumer or the distribution channels) and *promotion* (marketing communication, advertising, public relations and personal selling). According to Rust et al. (1996), managers have found that the traditional 4 p's of marketing do not adequately describe the key aspects required to carry out the job of a service employee. Zeithaml et al. (2006) suggest that the unique requirements of selling services require the addition of 3 more p's:

- ***People:*** In administering a service, personal interaction between customers and employees is required as these interactions affect the customers' perception of service quality. Friendliness, knowledgeability and helpfulness can have a direct impact on the customers' perception of service quality (Rust et al. 1996). Therefore, human resource management policies and practices are considered to be of high importance when delivering quality services.
- ***Process:*** Zeithaml et al. (2006, p. 27) define process as "the actual procedures, mechanisms, and flow of activities by which the service is delivered – the service delivery and operating systems". The actual delivery of the service gives customers a framework on which to assess the service (Lovelock, 2001).
- ***Physical evidence:*** Zeithaml et al. (2006, p. 27) best describe physical evidence as "the environment in which the service is delivered and where the firm and customer interact, and any tangible components that facilitate performance or communication of the service". This can include tangible representations such as brochures, letterheads and business cards. It can also include the physical facilities where the service is executed namely, the services cape. In other cases like the call centre for example, the physical facility is irrelevant to the customer.

In addition to the seven P's of services marketing there is also a four R model in marketing comprising of research, recognition, reputation and relationship. Any marketing that a firm does should focus on at least one or more of these R's.

- ***Research***: Since research is often very expensive many firms fail to conduct any form of research activity. However, there are a number of cost and time effective research strategies that can be carried out such as customer surveys, interviews and secondary research.
- ***Recognition***: Awareness of a firm in the markets they serve is critical for success. Mechanisms to create recognition include company logo, brochures, web sites and branded merchandise.
- ***Reputation***: A good reputation is important and it is the lifeblood of a service firm. Reputation is a key indicator of quality and trustworthiness. Word-of-mouth communications, customer testimonials and stories help spread the word.
- ***Relationship***: Relationships between the firm and their customers, suppliers, employees and the community at large are important to its ability to succeed. Some examples that enhance relationships include an employee newsletter, sales training tools and materials for channel partners and social events for customers (4 – R Marketing LLC, 2009).

The Customer Service Environment: The components of the customer focused environment consist of organisational culture, human resources, product deliverables, delivery systems and finally service.

- ***The Customer:*** The key component in a customer-focused environment is the customer as all aspects of the service organisation tend to revolve around the customer. The customer is the heartbeat of the organisation and without him or her there is no reason for the business to operate. Listening to customers and observing their behaviour enables a firm to meet their customers' needs (Cant, Brink & Brijball, 2006). There are two types of customers, namely, internal and external customers. Internal customers can include co-workers, employees from other departments or branches and other people who work within the same organisation (Lucas, 2005). External customers may be current or potential customers or clients and they are the people who actively seek out the products or services offered by the organisation.

- ***Organisational Culture:*** Lucas (2005) defines the organisational culture as the experiences encountered by the customer. Organisational culture is made up of a collection of subcomponents, each of which contributes largely to the service environment. There must be cultural compatibility and firms should not impose their culture on customers or partner firms (Donaldson & O' Toole, 2002).
- ***Human resources:*** In order for firms to operate optimally they must take great care in recruiting, selecting and training qualified people; hence, their human resources function becomes critical. Without motivated, competent workers, planning policy and procedure change or systems adaptation will not make a difference in customer service. Employees who are skilled, motivated and enthusiastic about providing service excellence are hard to find and are appreciated by employers and customers (Lucas, 2005). Face-to-face encounters are central to service delivery (Gabbott & Hogg, 1998). One of the eight principles of "Batho Pele" stresses the need for courtesy by staff in interacting with customers. This principle goes beyond the need for a 'smile' or a 'thank you' and requires service providers to be courteous and respectable at all times (The Department of Public Service and Administration, 2001).
- ***Products / Deliverables:*** The product / deliverables may be a tangible item manufactured and distributed by the company (Lucas, 2005). However, there are two areas of customer satisfaction or dissatisfaction, namely, quality and quantity.

If customers receive what they perceive as a quality product or service to the level that they expected, and in the time frame promised they will likely be satisfied. But if the product sold was inferior or the service provided was perceived as being of an inferior quality then that customer will be dissatisfied (Zeithaml & Bitner, 2003). Government's principle of "Batho Pele" reiterates that setting service standard principles is very important and customers need to be included in this process in order to establish acceptable benchmarks against which service delivery will be measured (The Department of Public Service and Administration, 2001).

- ***Delivery Systems:*** In deciding on an appropriate method of delivery to adopt Lucas (2005) suggests that the following should be taken into consideration:
  - ***Industry standards*:** How are competitors currently delivering and are the firms' current delivery standards in line with those of our competitors?
  - ***Customer expectations*:** Do our customers expect delivery to occur in a certain manner within a specified time frame? Are alternatives available?
  - ***Capabilities:*** Do existing or available systems within the firm and industry allow for a variety of delivery methods?
  - ***Costs:*** Will providing a variety of techniques add real value or perceived value at an acceptable cost? If there are additional costs, will consumers be willing to absorb them?
  - ***Current and Projected requirements*:** Are existing methods of delivery, such as mail, phone and face-to-face services meeting the needs of the customers presently and will they continue to do so in the future?

An analysis of the delivery systems serves as an indicator of what standards the firm should be aspiring to attain. It also provides insight into what competitors are doing and provides a framework on what measures need to be put into place to improve the existing resources in order to provide a better level of service.

- ***Service:*** Service is the manner in which the employer and employees treat the customers and each other as they deliver their product(s) or other deliverables. Employees are thus, privileged as they mediate between the firm and its customers (Gabbott & Hogg, 1998). Many firms provide training for front-line staff to be able to service the customer such as telephone etiquette, complaint handling, coping skills when dealing with confrontational customers and comprehensive manuals equipping staff with sufficient information to be able to resolve queries or complaints on the first call. As a means of motivating staff to continually give off their best at all times firms provide incentive bonuses in recognition of outstanding work by their employees.

Strategies for Influencing Customer Perceptions: Outlined below are a few very critical components of service delivery that are needed to ensure that the organisation is in a better position to cater for the needs of the customer. It is important to measure and manage customer satisfaction and service quality in customer focused firms continually (Zeithaml & Bitner, 2003). Many firms have likened their customer satisfaction measurements to employer training, reward systems and leadership goals as all of these have direct spin-off effects for overall performance efficiency.

Furthermore, firms should aim for customer quality and satisfaction in every service encounter. Zeithaml et al. (2006) stress that in order to achieve this objective firms must have clear documentation of all points of contact between themselves and the customer. Once this is done they then need to develop an understanding of customer expectations for each of these encounters so that strategies can be built around meeting these expectations. Five themes have been identified to cope with satisfaction or dissatisfaction in service encounters:

- Plan for effective recovery: If a customer has experienced dissatisfaction on the first try then the firm has to aspire to do things correctly the second time to avoid the same situation from occurring. The service process has to be redesigned to identify the cause of the service failure. A recovery strategy must be put into place to create satisfaction for the customer (Zeithaml et al., 2006).
- Facilitate adaptability and flexibility: Agents need to know when and how a system can be flexed and why particular requests cannot be granted. Thorough knowledge of the service concept, service delivery systems and standards must be communicated to employees, to enable them to be flexible when dealing with customers without overstepping their levels of authority.
- Encourage spontaneity: Firms must encourage spontaneity and discourage negative behaviour amongst employees. Recruiting employees with strong service orientations is one way of doing this. Strong service culture, employee empowerment, effective supervision and monitoring and quick feedback to employees will also encourage spontaneity.
- Help employees cope with problem customers: Management and employees need to accept that the customer is not always right and will not always behave in an acceptable manner. Employees need appropriate coping and problem solving skills to handle difficult customers as well as their own feelings in difficult situations (Zeithaml et al., 2006).
- Manage the dimensions of quality and the encounter level: Although the five dimensions of service quality are generally applied to overall quality of the firm, it is possible to relate them to each individual encounter.

Oneayso (2007) conducted empirical testing to ascertain if there was a long run equilibrium relationship between customer dissatisfaction and complaints behaviour. Research shows that there has been an increasing interest in consumer dissatisfaction and complaint behaviour, with the main reason for this being attributed to the need for managers to maximise their customer retention by minimising customer dissatisfaction through better quality offerings (Lovelock, 2001; Rust et al., 1996; Zeithaml et al., 2006). Oneayso (2007) thus concluded that indeed there is an equilibrium relationship between customer dissatisfaction and complaints behaviour. Organisations, however, have to invest in a strong service recovery process in order to turn this dissatisfaction around. The service recovery process is now gaining momentum and is being used as a superior strategic asset to compete with competitors.

Listening to the Customer: It cannot be stressed enough that finding out what the customer expects is critical to providing quality services (Zeithaml et al., 2006). The quality of listening has a paramount impact on the quality of services (Lovelock, 2001). According to Peters & Waterman (1982), there are many examples of senior executives of companies like Hewlett-Packard, McDonalds and Disney spending significant time in the field, taking sales roles or those of cleaning and selling tickets to be more in touch with their customers and to actually listen closely to what their expectations of services are. Oakland & Beardmore (1995) have found that the most common technique for listening to customers is satisfaction surveys. Goodman, Broetzmann & Adamson (1992) identified three problems encountered when using such surveys:

- The interpretation of the meaning of dissatisfaction measures proves to be a difficult task.
- The lack of analysis of market actions which result from satisfaction levels.
- The inability to identify sources of satisfaction or dissatisfaction.

Oakland & Beardmore (1995) suggest that satisfaction cannot be measured in a vacuum; measurements of expectations have to be included in order to contextualise the result. For example, a firm's overall customer satisfaction rating of 8 out of 10 tells management nothing of what the customers' expectations were. If their expectations were high, than a score of 8 would indicate dissatisfaction. Surveys do not attempt to measure the market actions of customers' dissatisfaction and this can mislead management. For example, the majority of customers may be satisfied with a product or service but failure to ask about market intentions like 'would you buy this product again?' or 'would you recommend the product to a friend?' might convey a less accurate picture of satisfaction to management. Goodman et al. (1992) conducted research of a US retailer and found that forty six percent of the respondents found faults that potentially hampered the service experience at the store but nobody complained to anyone as they perceived that nothing would be done it they complained; hence, the inability to identify sources of satisfaction or dissatisfaction.

The Ten Commandments of Customer Service: According to BizAssist Technologies (PTY) Ltd (2009), the following ten principles or commandments should be strictly adhered to in order to avoid a situation of customer service failure or customer dissatisfaction from occurring. These Ten Commandments are as follows:

- Know who is boss: You are in the business to service customer needs and this can be done only through listening to them.
- Be a good listener: Stirtz (2010) reiterates the success of Magic Johnson when he opened up a theatre in partnership with T.G.I. Friday's. This theatre was situated in the city and Magic found that these customers did not go to the movies and then to dinner, as compared to those who lived in the suburban areas normally would, but preferred to have dinner at the movies. So he introduced the sale of hot dogs at the theatre which proved to be a huge success.
- Identify and anticipate needs: The more you know your customers, the better you are able to anticipate their needs. Bannatyne (2010) has found that customers are opting to interact with firms via social networking sites such as Twitter and Facebook.
- Make customers feel important and appreciated: Treat each customer as an individual. Always use their names and find ways to compliment them. Vodafone and Virgin Media are using social networking as a key part of their customer services.
- Help customers understand your system: If customers do not understand the firm's system for getting things done they become confused, impatient and angry. Take the time to explain the system to them.
- Appreciate the power of "yes": Always look for ways to help the customer. Assure them that you can accede to their requests. Always fulfil your promises to them.
- Know how to apologize: Apologize when something goes wrong. The customer may not always be right but the customer must win. Make customer complaints simple and always value complaints.
- Give more than expected: Think of ways to elevate the firm and stay ahead of the competition. For example, what can you give customers that they cannot get elsewhere? And what can you do to follow-up and thank people even when they do not buy? Miller (2010) stresses that firms spend millions of rands in expensive advertising campaigns but none of these firms actually take time out to thank patrons for their loyalty and support.
- Get regular feedback: Encourage and welcome suggestions about improving your service. For example, Pick n Pay always invites customers to participate in quick surveys prior to exiting the store to enquire about the customer's service experience with a view to improving service delivery.
- Treat employees well: Employees are your internal customers and need to be appreciated. Thank them and let them know how important they are. Treat them with respect.

Skills, Knowledge, Ability and Attitude of Call Centre Agents: Theron, Bothma & Du Toit (2003) highlight the following characteristics which they feel are critical skills that customer service employees should possess. These characteristics include:

- Coming to work regularly because if the customer service employee is away often and if interactions are handled by someone else, this may cause problems especially if the other person is inefficient.
- Be on time and never keep customers waiting.
- Take pride in work and display confidence. Professionals care about what they do and should strive to teach customers new things (Snow, 2007). Have a positive mental attitude as there is always a

negative environment created when customers lodge complaints but staff must maintain a positive mental attitude (Cavitt, 2010).

- Be affable and knowledgeable as this is the quickest way to diffuse a tense situation especially if the other person is being rude or is angry (Brown, 2007; Cavitt, 2010; Snow, 2007).
- Be interested and listen carefully to the problem and try to resolve it as these are the traits of a customer service superstar according to Cavitt (2010). Take responsibility by being responsive and always ensure a satisfactory end to the matter (Snow, 2007).
- Follow up with the customer to enquire if they were satisfied with the outcome. Be assertive as this is an unfortunate situation but sometimes although a solution is presented it may not be the solution that the customer wants. A good employee will have to know when to say "NO" and to stick by a particular outcome. Do not accept verbal abuse and inform a customer if his/her approach or tone is unacceptable, in a calm, firm and rational manner. Brown (2007) believes that it is not always possible to say "YES" to all customer requests but one should avoid saying "NO" and rather opt to say "I will see what I can do" instead.

Hoffman & Bateson (2006) have uncovered seven categories that they classify as unsavoury behaviour from front line staff, these include: apathy, brush-off, coldness, condescension, robotism, rulebook and the run-around approach. LeClaire (2000) & Vikesland (2002) found that in order to cope with negative employees management must offer to assist the employee either through training or by enquiring about the cause of the negativity but staff that already possesses a negative attitude should be motivated to change their behaviour. It is not always easy to find the right front line personnel. In many instances the wrong people are placed in the 'firing line' when they do not want to be there and are really not interested in customers, leaving the customer very disgruntled. Management has to take a fourfold approach to resolve the problem of finding the right person for the job. Firstly, considerable care must be taken in selecting the right type of person. This may include a strict selection process in which candidates with the appropriate qualities will be carefully considered. Candidates should be assessed on how they would handle a difficult customer. Overland (2005) and Twentyman (2008), view interview techniques as the best method of testing competency, where candidates are asked open ended questions to encourage them to talk about how they have coped with incidents in the past to obtain an inclination of how future situations will be handled.

Secondly, management has to train front line staff. Training should be done on an on-going basis, on various aspects of customer service and dealing with customers, like for instance how to be more friendly or attentive (Vikesland, 2002). Shelton (2003) undertook an audit of the service delivery levels at SABMiller, and found that Norman Adami the CEO's mission was to win the customers' favour and loyalty especially since Miller's market share was declining. Adami's turnaround strategy involved firing poorly performing executives and implementing a personnel rating system to ensure that all service staff worked to the best of their abilities, leaving no room for poor performers. SABMiller spent close to R154 million on training interventions to improve the level of service delivery and they enjoy a high staff retention rate as a result of their competitive salaries. As a general rule new staff has to undergo psychometric testing (Shelton, 2003). Thirdly, management has to monitor the progress of employees. This can be done by obtaining feedback from consumers about the level of service provided by a particular member of staff. Employees can also be observed by management on how they behaved in resolving a consumer query or complaint (Grote, 2005). Management needs to also include staff in the assessment by regularly asking them if they are coping. In the event of weaknesses, these can be resolved through training or other forms of support (Brown, 2007; Cavitt, 2010; Snow, 2007). SABMiller also has in place an Internal Management Process (IMP) which involves individuals meeting with managers on a monthly basis to discuss performance; in addition, annual performance reviews are held (Best Employer SA, 2008).

Finally, employees should feel comfortable enough to let management know if they are unhappy or uncomfortable in a front line position. If training has not proved to be a success then perhaps they can be moved to another position. Since much of the job of call centre agents involves liaising with customers via the telephone it is critical to understand what skills are needed to facilitate this form of communication as many agents do not undergo any form of formal training regarding proper telephone etiquette. In order to improve the level of service delivery many firms must introduce a service culture within the organisation. To achieve this, management has to select, motivate, reward, retain and unify good employees but in South Africa managers do not practice this (Blem, 1995). Service orientated companies have to perpetuate commitment and competence and this can be done by attracting, developing and keeping the right people, for example, at SABMiller every effort is made to maintain contact with past employees many of whom return to work at the firm. Incompetent people affect the culture of the firm negatively; therefore, extensive screening and interviewing should be undertaken to find the right fit.

Interpersonal skills, training and development: According to Blem (1995), in an attempt to increase productivity many firms have focused on two important questions being: How can we do it faster? How can we do it cheaper? But many fail to answer a third basic question of: How can we do it right the first time? The key to higher productivity lies in working better rather than faster. The payoffs for improving quality include:

- **Lower costs:** Doing things right the first time lowers the cost of materials, inspection and repairs.
- **Worker pride:** Doing things right the first time creates the positive feelings of confidence and success that come from mastering a job.
- **Customer loyalty:** Doing things right every time is the best way to ensure repeat business and attracting new customers. Research suggests that customers demand quality in future and not price in the purchase of goods and services, which they will be willing to pay for (Blem, 1995; Brown, 2007; Cavitt, 2010). In this regard, Blem (1995:51) believes that "The bitterness of poor quality lingers long after the sweetness of a cheap price is forgotten".
- **Improving quality:** How can quality be improved? The answer is simple: Ask the person who does the job how to improve it as he/she will have more insight into the job than anyone else. Worker participation should be encouraged at all stages.

In keeping with the theme of getting things done right the first time, International Business Machines (IBM) (2007) found that self-service portals can help build customer loyalty and improve satisfaction. If designed and deployed effectively, self-service portals can save a firm between fifteen to thirty percent by redirecting contacts, reducing call volumes and automating assistance. However, firms fear alienating customers and are unsure of how to create a positive experience; therefore, they are tentative about launching self-service portals. Overall, IBM (2007) found that if implemented correctly, self-service portals should provide users with quick and efficient information; portals must be interactive and should lower the costs of the firm. Dean (2008) offers a contrasting view to IBM's (2007) report. He found that although self-service systems experienced rapid growth, numerous customer complaints were lodged against the system. The basis of IVR is speech recognition accuracy and customers were experiencing recognition failures. In addition, there was a lack of choice to speak to a human consultant, background noise and static and the inability to understand customers who speak with an accent contributed to service failures. Dean (2008) concluded that the main driver behind IVR adoption was cost reduction rather than customer satisfaction.

Many business owners make and receive telephone calls on an ongoing basis but not many employees have professional telephone skills to make that first impression. Theron et al. (2003) and Ward (2010) identified the following collective weaknesses displayed by employees using a telephone:

- You cannot hear them
- You cannot understand them
- They cut you off when transferring you
- They speak down to you
- They use jargon when they talk to you
- They put you on indefinite hold
- They pass the buck to another person or department to solve the problem
- They provide misleading or erroneous information
- They may be rude

When the aforementioned telephone *faux pas* occurs, consumers will be left irate. Employees must realise that every time they receive a call they are the company to the other person on the line. Obviously a warm, friendly, sincere, courteous and tactful voice will make the customer's experience a positive one (Obarski, 2010). Since visual cues are not present in a telephone conversation, the employee has to harness their listening skills. Front line staff has to sound reassuring, interested and willing to help. It is essential for all telephonists or call centre agents to work out a telephone script which they can use to answer the phone. A script is a list of pre-prepared statements that a person can use when answering a call. For example, to welcome a caller, enquire what their problem is, direct the caller to a specific person, clarify a point or end the conversation.

Skills Required when Dealing with Telephone Calls: Theron et al. (2003) highlighted the following as key areas of focus in terms of how to improve an employee's professional telephone skill:

- **Get ready:** Sit up, take a deep breath as it relaxes and removes tension in your voice. Keep a paper and pencil at hand, together with forms that you may need. Be sure to record all necessary information legibly (Obarski, 2010).
- **Put on a telephone face:** Although nobody can see you smiling, there is a perception that smiling improves circulation and your emotional level; employees must be energetic.
- **Answer the phone quickly:** A general rule is that a phone must be answered on the third ring or in bigger environments within thirty seconds (Ward, 2010).
- **The three part greeting:** Always make sure that the first words that are spoken are your name, and the company or department you work for and an effective greeting. Identifying oneself enables the customer to reference his/her call with you later (Bailey & Leland, 2008; Obarski, 2010).
- **Speak clearly, naturally and distinctly:** This is so obvious but is always ignored and very often when you call a company you do not understand the first sentence that came across the telephone line. This is due to people answering the phone in a robotic manner. Enunciate words and speak into the telephone. Speak slowly, loudly and distinctly (Ward, 2010).
- **Listen:** This is the best way to understand the customer's needs. Listen for at least seventy percent of the time and speak for thirty percent of the time. Some call centre operators though, tend to dominate the conversation overwhelming the customer. Ask questions related to the query to find a solution (Obarski, 2010).
- Ask for the customer's name early in the conversation. This gesture usually pleases customers. In some instances if a query cannot be handled on the spot and a referral is needed, the agent needs to know to whom he/she is speaking (Ward, 2010).
- **Transferring calls:** Politely place the caller on hold and ensure that if a call is transferred to another agent, then that agent is available and brief the agent on the customer's query so that the customer does not have to repeat himself/herself again (Bailey & Leland, 2008).
- **Take responsibility for the problem:** As an agent take ownership of the matter. Respond appropriately to the consumer's needs immediately. Ask questions and if you need more time to resolve the query fully disclose this to the customer, taking down details and making sure to follow up.
- **Be polite:** Always be courteous and polite when dealing with frustrated consumers. Let them vent and then calmly restate the callers' issues in your own words. Irate people normally settle down fast and often thank employees for their understanding (Timm, 2008). Thoughtfulness and friendly interest is always needed to gain trust and goodwill of all people.
- **Your facts database:** A good call centre agent will try and have all facts at hand. He will also keep track of all enquiries. This personal 'facts database' helps deal with enquiries and keeps the agent on the ball. A database with frequently asked questions (FAQ's) is also recommended (Timm, 2008).

In the case of call centres, when a customer calls the company's care line or help desk the call is automatically logged on a computer as is the conversation. The operator records the customers' name, contact details and problem onto special software. According to Theron et al. (2003), the agent may be able to help the customer immediately or may refer the customer. When customers dial into a call centre their calls can also be answered by an automated service called an Interactive Voice Response facility (known as IVR), welcoming them to the company's call centre. This IVR will inform the customer that their call is important and to please be patient in waiting for the next available agent. In the meantime, the customer has the option to listen to promotional deals or other offerings made by the firm (IBM, 2007). Many consumers find the waiting tedious and frustrating and options that are offered do not cater for their specific needs. Another common frustration is that there is a lack of consistency when calling a call centre as you do not know which agent will receive your call and if this agent is efficient. Certain operators are trained to handle certain types of queries; this is the main purpose behind the menu options in an IVR system so that the customer is channelled to the right agents. Interestingly, Theron et al. (2003) have noted a marked increase in call centres in South Africa but emphasises that the country is falling short in terms of the people skills needed to implement and run such centres and the database technologies necessary to offer customer personalisation. This brings up a pivotal point in the discussion on striving for customer excellence which looks into how a service organisation can get its staff to give off their best at all times. In other words, understanding what characteristics staff perceive as appealing incentives to strive harder towards achieving the goals of the organisation.

Motivating Staff to Provide Excellent Service: According to Maslow's Hierarchy of Needs, all individuals have needs and motivation is the drive that compels individuals to take action to satisfy their needs. Indeed, different individuals are motivated by different things. In an article featured on Articlesbase (2006) managers are said to also be in need of motivation in order to inspire their staff. The article found that hiring motivated professionals is easier to manage than motivating professionals. For example, at Disney only people that love cleaning and sweeping are hired to clean the theme park which is immaculate. Implementation measures must be put into place to monitor and promote performance through appropriate remunerative rewards. Toolpack Consulting (2010) found that empowerment and job entitlement tend to increase motivation. Toolpack Consulting (2010) suggested that employees must be involved in decisions that affect them and that staff initiatives must be rewarded if they work in the firm's favour, as opposed to ordering staff to perform duties which creates social distance and should be avoided. According to Theron et al. (2003), some people may be easily motivated by financial gain and others by more time off. Motivation should be driven from the top down, but in the field of customer service, the individual service provider has to motivate itself to excel at the task of providing good service levels at all times, bearing in mind that customer service is often a thankless job. Theron et al. (2003:161) suggests that staff should try these 5 steps to start motivating themselves:

- Put up quotations that you find motivating around your workstation so that they are visible throughout the day.
- Develop a strong self-concept, because if you feel good about yourself this will impact on your performance.
- Set goals and do your best to achieve them.
- Read motivational books and messages that will make an impression on you.
- Have fun. The more fun you have, the more motivated you will be.

The need to acknowledge and appreciate the effort of staff by management can be highly motivating. Public commendation and praise can motivate even depressed customer service providers. Simple gestures like the ones listed below go a long way to creating happier staff:

- An extra 15 minutes given during break time by the boss to commend the effective handling of a customer.
- The entire group being rewarded with cakes because of excellent customer service.
- An agent receiving a personal note of thanks from the boss.
- An agent being given special mention in the firm's newsletter.
- An agent being allowed to leave early to avoid traffic.

These public 'rewards' appeal to one's need for recognition and motivates one to keep performing better each time.

Aim of the study: This study aims to assess customer perceptions of the impact of the sub-dimensions of human resources (skills, knowledge, ability, attitude; interpersonal skills and training and development) on call center agents in effectively managing their needs.

2. Methodology

Respondents: The e-billing population of customers for the study comprised of 1847 customers in the Durban area. Using the Sekaran (2003) population-to-sample size table, a corresponding minimum sample of 317 was needed; however, only 220 responses were received. Probability sampling technique was used and simple random sampling was implemented for customers. The adequacy of the sample was determined using the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (0.927) and the Bartlet's Test of Spherecity (1541.615, p = 0.000) which, respectively, indicated suitability and significance. The results indicate that the normality and homoscedasticity preconditions are satisfied. In terms of the composition of the customer sample the majority of the respondents were males (55%) compared to females (45%). The majority of the sample were between the ages of 40-49 years (30%) followed by 30-39 years (28.6%) and then 50-59 years (19.5%). Whites were the majority respondents of the customer questionnaire comprising 50.5% of the sample followed by Indians (32.7%) and then Blacks (13.2%). The majority of the respondents reported having a Diploma (34.1%) followed by those with a degree (26.4%) and a high school education (21.4%).

Measuring Instrument: Data for the customers' questionnaire was collected using a self-developed, pre-coded, self-administered questionnaires consisting of two sections. Section A dealt with the biographical details (gender, age, race, education) of consumers participating in the study and was nominally scaled with precoded option categories. Section B tapped into customers' perceptions of the impact of the sub-dimensions of Human Resources (skills, knowledge, ability, attitude; interpersonal skills and training and development) on call center agents' in order to perform more effectively within the call center. Section B required respondents to rate each item using the Likert Scale ranging from strongly disagree (1) to strongly agree (5). The questionnaire was formulated on the basis of identifying recurring themes that surfaced while conducting the literature review. These ensured face and content validity. Furthermore, in-house pretesting was adopted to assess the suitability of both the instruments. Pilot testing was executed on the customer questionnaire to test the understanding of questions. No inadequacies were reported and the final questionnaire was considered appropriate in terms of relevance and construction.

Research procedure: The research was only conducted after ethical clearance was obtained for the study and upon completion of the pilot study.

Measures/statistical analysis of the questionnaire: The validity of the customers' questionnaire was assessed using Factor Analysis. A principal component analysis was used to extract initial factors and an iterated principle factor analysis was performed using SPSS with an Orthogonal Varimax Rotation. In terms of validity 3 critical factors were identified in influencing call center agents' effectiveness with latent roots greater than unity were identified (4.474, 2.203 and 1.131). The items were also reflected as having a very high level of internal consistency and reliability, with the Cronbach's Coefficient Alpha being 0.927 with item reliabilities ranging from 0.913 to 0.933.

Administration of the measuring instrument: The customer questionnaire was restricted to only those customers that subscribed to e-billing and had an email account. The online survey was administered to a sample of customers within the Durban region, South Africa using QuestionPro. Customers were required to completely answer Sections A and B of the questionnaire and then submit their responses via QuestionPro return mail. Informed consent was obtained by an authorization letter that accompanied the questionnaire. All participation was voluntary.

Statistical analysis of the data: Descriptive statistics (mean, measures of central tendency and dispersion) and inferential statistics (correlation, t-test, ANOVA) were used to evaluate the objectives and hypotheses for both questionnaires.

3. Results

Descriptive Statistics: Customers' perceptions of call center agents in effectively managing their needs were evaluated using a 1-5 point Likert scale. The higher the mean score value, the more satisfied the customers are with the performance of the agents in dealing with their queries and problems via the call center (Table 1).

Table 1: Descriptive Statistics: Customers' perceptions of the sub-dimension of Human Resource of Call Center Agents

Sub-dimension	Mean	Std Deviation	Minimum	Maximum

Skills, knowledge, ability, attitude performance	2.683	0.9267	1.00	5.00
Interpersonal skills	2.636	0.8106	1.00	5.00
Training & development	2.411	0.8377	1.00	5.00
Overall score	2.577	0.7990	1.00	5.00

Table 1 indicates that customers' perceptions of the influence of the sub-dimensions of Human resource on call centre agents' effectiveness vary indicating that Skills, knowledge, ability, attitude (Mean = 2.683) is critically lacking which will impact on performance. Even more unacceptable were the Interpersonal skills (Mean = 2.636) which are deemed to be perilous to facilitate communication between customers and the organization and finally Training and development (Mean = 2.411) ranked the worst against a maximum attainable mean score of 5; the study showed that most agents lacked the necessary training and sufficient development to execute their duties assiduously. In order to assess the areas for improvement, frequency analyses were conducted on each of the sub-dimensions. In terms of skills, knowledge, ability and attitude, 38.2% of the customers disagreed and a further 13.6% strongly disagreed that agents are extremely efficient in handling their queries or complaints efficiently. Furthermore, 34.5% of the customers disagreed and a further 10.5% strongly disagreed that agents try hard to resolve their query/complaint on the first call. In terms of interpersonal skills, 38.2% of the customers disagreed and another 16.4% strongly disagreed that they find communicating with an agent always being simple and straight forward. Furthermore, 38.2% of the customers disagreed and 26.8% of the customers strongly disagreed that agent's welcome feedback on how to improve their level of service delivery. In terms of the final sub-dimension of training and development, 32.3% of the customers disagreed and a further 15.9% strongly disagreed that they are seldom transferred to different agents none of whom can assist with their query. The implication is that customers are burdened with being transferred to other agents who try to assist with their queries. Furthermore, 38.2% of the customers disagreed and 39.1% of the customers strongly disagreed that agents always follow up to check if the customer was satisfied with their service performance.

Inferential statistics

Hypothesis 1: There exists significant intercorrelations amongst the sub-dimensions of human resources (skills, knowledge, ability, attitude; interpersonal skills and training and development) respectively.

Table 2: Pearson Correlation *(r)*: intercorrelations of the influence of Human Resource (*N* = 220)

Sub-dimension	***r/p***	**Skills, knowledge, ability, attitude**	**Interpersonal skills**	**Training and Development**
Skills, knowledge, ability, attitude in terms of communication	r p	1		
Interpersonal skills in terms of communication	r p	0.844 0.000**	1	
Training and Development in terms of communication	r p	0.752 0.000**	0.804 0.000**	1

Note: **p <0.01

Table 2 indicates that the perilous constituents anticipated by customers in their interactions with call center agents significantly intercorrelate with each other at the 1% level of significance. Therefore, hypothesis 1 may be accepted. Table 2 indicates strong relationships between interpersonal skills in terms of communication and skills, knowledge, ability and attitude (*r* = 0.844) and training and development in terms of communication and interpersonal skills (*r* = 0.804), respectively. The significant intercorrelations between the perilous constituents of human resource indicates that if these abilities and attributes are enriched and developed it has the potential to have a positive spin off effect on the communication between the customer and the agents' thereby encouraging enhanced service delivery, greater customer satisfaction and enhanced overall efficiency.

Influence of Biographical data: The influence of the biographical variables (age, race, gender and education) on customers' perceptions of the sub-dimensions of ease of Human Resource was assessed using ANOVA and t-tests (Table 3).

Table 3: Biographical variables and the customers' perceptions of the sub-dimensions of Human Resource

ANOVA						
Sub-dimensions of human resource	**Biographical Variable**					
	Age		**Race**		**Educational Qualification**	
	F	**p**	**F**	**p**	**F**	**p**
Skills, knowledge, ability, attitude	1.634	0.167	1.167	0.323	0.240	0.868
Interpersonal skills	1.024	0.396	0.551	0.648	0.116	0.951
Training and development	1.116	0.350	0.699	0.554	1.539	0.205
t-TEST						
Sub-dimensions of human resource	Biographical Variable					
	Gender					
	T	p				
Skills, knowledge, ability, attitude	-1.374	0.171				
Interpersonal skills	-0.440	0.660				
Training and development	-0.824	0.411				

Hypothesis 2: Customers varying in biographical variables (age, race, gender and education) significantly differ in their perceptions of the sub-dimensions of human resource (skills, knowledge, ability, attitude; interpersonal skills and training and development) of call centre agents' respectively.

Table 3 indicates that customers varying in biographical profiles (age, race, gender and education) do not significantly differ in their perceptions of the sub-dimensions of human resource (skills, knowledge, ability, attitude; interpersonal skills and training and development). Hence hypothesis 2 may be rejected.

Hypothesis 3: The combined sub-dimensions (skills, knowledge, ability, attitude; interpersonal skills and training and development) significantly account for the variance in human resources when managing customers and their needs (Table 4).

Table 4: Multiple Regression: Customers' perceptions of the sub-dimensions of Human Resource

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	1.000[a]	1.000	1.000	0.00000

Model		**Unstandardized Coefficients**		**Standardized Coefficients**		
		B	Std. Error	Beta	**t**	**Sig.**
1	(Constant)	2.804E16	0.000		0.000	0.000
	Skills, knowledge, ability, attitude	0.333	0.000	0.387	0.000	0.000
	Interpersonal skills	0.333	0.000	0.338	0.000	0.000
	Training and development	0.333	0.000	0.350	0.000	0.000

Table 4 indicates that the combined sub-dimensions account for 100% (Adjusted $R^2 = 1.000$) of the variance in human resource when managing customers and their needs. Table 4 also specifies that these dimensions impact on customer perceptions of call centre agents' efficiency and performance when managing customers and their needs in varying degrees as indicated in the Beta values which are as follows:-

- Skills, knowledge, ability, attitude (Beta = 0.387)
- Training and Development (Beta = 0.350)
- Interpersonal Skills (Beta = 0.338)

Noticeably skills, knowledge, ability, attitude has the greatest impact whilst interpersonal skills has the slightest impact on human resources. The implication of this finding is that customers perceive the skills, knowledge, ability and attitude of call center agents to be of paramount importance in delivering a higher level of service delivery in satisfying their needs more efficiently but the interpersonal skills of agents' to enhance communication is deficient.

Discussion of Results: In terms of the sub-dimension of skills, knowledge, ability and attitude of agents and call centre effectiveness, the study reported that customers felt that the agents were not extremely effective in handling their needs and did not try hard to resolve their query/complaint. Eisengerich & Bell (2006) concluded that agent's response speed and recovery initiation, which communicate empathy, effort and respect to the customer is critical in problem management. Customers evaluate the service encounter on the basis of interaction and quality of interpersonal treatment and communication. The flexibility and speed with which concerns are handled is identified as a vital dimension of procedural justice. Furthermore, Heskett, Sasser & Schlesinger (1997) cautions that the longer the time taken to resolve customer concerns, the greater will be the customers' perception that procedural justice has been violated. Due to costs and time constraints and the effort involved with participation, customers will be less likely to make constructive suggestions and work with the firm if they perceive that the firm is not taking them seriously. Trends have displayed that while some customers prefer interactions through email, others still require the reassurance of speaking to a call center agent. Technology and media savvy consumers are further demanding communications through their mobile devices and social network accounts. Adhikari (2009) proposed that to enhance the communication between the organization and its consumers today, newer technology needed to be embraced such as Facebook, Twitter and Social blogging, as these are tools which are part of Customer Relationship Management strategies that assist in fostering better customer relationships going forward.

Despite the growing mix of customer engagement; many call centers are ill equipped to manage this myriad of interactions and most call center agents lack visibility into social media communications, as marketing has traditionally managed this medium. Thus it is essential to service customers on the channel of their choice and it is essential to equip agents with a multichannel desktop to enable them to service the customer efficiently and flexibly. In this way the organization is ensuring that customers are heard and responded to quickly and efficiently and improved call center agents' experience has an overall impact on improved customer experience (CRM Magazine, 2014). A unified, Omni-channel solution that empowers customers to transition from voice to mobile or text self-service or agent assisted service is the intelligent call center of the future. This will make the customer experience seamless on the backend and empowers the call centre agent with a powerful desktop, a cloud based system that serves the customer today (CRM Magazine, 2014).

In a study conducted by Mahesh and Kasturi (2006), key aspects of call center agents' job performance was explored and the key relationships between these aspects in relation to agents' effectiveness were tested. The results suggest that the key aspects of agents jobs were intrinsic motivation, reward/recognition/, customers stress and stress management. Their studies found a strong, positive and significant relationship between intrinsic motivation and effectiveness of agents especially for those agents who worked for a year or more on the job. In addition, customer stress was negatively correlated with intrinsic motivation while positively correlated with reward/recognition. Frontline employees represent the direct link between the organization and its customers in a service environment therefore a few researchers have sought to investigate these 'under- studied'; 'black-boxes' in this area of service management. One such researcher Singh (2000) remarked that frontline employees such as call center agents present interesting paradoxes, as these staff are usually underpaid, undertrained, overworked, highly stressed and under-studied. Another issue of innate concern in a call center was the call center agents' commitment and the high levels of withdrawal and turnover (Deery et al., 2002, Malhotra & Mukherjee, 2004). Employee commitment encapsulates both agents' feelings about the organization and the desire to remain with it. In a similar study related to call centers Ruyter et al. (2001) found an inverse relationship between job satisfaction and employee turnover. Griffeth et al. (2000) found that employee commitment is a valid and reliable predictor of employee turnover. Hence employee commitment is important in the call center context as it reflects turnover intentions.

Mulholland (2002) examined the effectiveness of teamwork in call centers and its impact on employee performance by examining factors such as technical control, emotional labour and gender politics. Halliden & Monks (2005) conducted a case study of a call center in Ireland and their findings suggest several ways to enhance employee performance. Varca (2006) researched how managerial observation of employees' performance impacted on employee stress. The findings support previous research emphasizing the importance of controlling tasks during service encounters in a call center and suggests that empowering call center agents' may help reduce job strain. In terms of the sub-dimension of interpersonal skills of agents and call center effectiveness, the study found that the customers reported that communicating with agents was not simple and that agents were not receptive to feedback on how they could improve their level of service delivery. Similarly, Davidow (2003) concluded that attentiveness comprising of four areas of respect, effort, empathy and willingness to listen impacts on customer satisfaction. Attitudes and behaviours of the service personnel stand out from the core service and have the potential to "make or break" the experience. Collie, Sparks & Bradley (2000) found that courtesy and respect by service providers has a positive effect on outcomes fairness and satisfaction. Furthermore, Cho, Im & Hiltz (2003) suggest that firms should place greater emphasis on rapid feedback on complaints. A synchronized feedback system is the quickest means of online communication. Online customer service centers and online chat services to their customers are more efficient and offer real time service that enables customers to solve problems/queries without delay. In another study conducted by Wallace, Eagleson & Waldersee (2000), which tested efficiency versus service of call centre agents' their study found that efficiency and service is more conspicuous than in most other service delivery channels. Their study found that call center agents were required to take high numbers of calls whilst contributing to a significant amount of emotional labour, being helpful, friendly and empathetic towards customers. Call center agents had specific targets for talk-time, wrap-up-time and abandonment rates and supervisors measured agents in relation to service standards. Wallace et al. (2000) noted that agents were monitored in terms of performance objectives and performance management largely through meeting their numerical quotas and targets for efficiency and speed and although customer satisfaction was measured to a degree the former was more intentionally weighted. Clearly customer satisfaction although measured was not a priority in terms of assessing call center agents' performance on the job.

According to their research findings call center agents' respected that surface acting is inevitable because of the unpredictable nature of inbound calls. Agents are under repeated stress to sound impressive to customers who obviously do not appreciate their attempts. Call center agents further explained that the routinized nature of the work, scripted dialogue, low job control and repetitive call handling leads to mental exhaustion and job burnout (Akanji, Mordi & Taylor, 2015). In terms of the final sub-dimension of training and development of agents and call center effectiveness, the findings of the study suggest that customers were burdened with being transferred to other agents to try and assist with their queries and that agents failed to always follow-up to check if the customers were satisfied with their service performance. Similarly, in their study Hoffman & Bateson (2006) uncovered seven unsavory behaviour categories of front line staff, namely, apathy, brush-off, coldness, condescension, robotism, rulebook and the run-around approach. In some cases the way people are placed in call centers to handle customer queries and a complaint when they are not really interested in customers further exacerbates the situation. Theron et al. (2003) highlighted that among some of the critical skills that the customer service employees should possess is the habit to follow up with customers to enquire if they were satisfied with the outcomes provided. It may not be the solution the customer wants but it's a solution nevertheless. The high staff turnover rate in call centers has a cost impact on business and its stakeholders. This cost can be measured in terms of recruiting, inducting and training staff as well as in the indirect costs associated with erosion of customer service (Wallace et al., 2000).

Kinnie, Hutchison & Purcell (2000) argue that it might be a challenge to attract highly committed and flexible staff and offer job security in an environment such as a call center where there is such high levels of surveillance and so little job discretion where customer service is expected and customer empowerment is increasingly sought. Emotional labour is the degree to which an individual expresses feelings or disguises feelings and behaviours in conformity for the firm's rules especially in treating customers (Walsh & Bartikowski, 2013). Continuous intensity of emotional regulation can be draining on employees' behavior, performance and well-being (Kasabov & Warlow, 2010). Two ways of performing emotional labour can be executed through surface acting and deep displays of feelings (Kinman, 2009, Wegge, Dick & Bernstorff, 2010, Grandey, Diefendorff & Rupp, 2013). Surface acting entails pretending to have the desired emotions to assist a customer. This can arise due to a lack of interest in the job or organization and high levels of burnout in call centre agents. Deep displays of feelings involves actual displays of sincere emotions in compliance with norms appropriate for executing the job (Akanji et al., 2015). In many instances surface acting is very common among call center agents.

4. Recommendations and Conclusion

Customers found agents to be extremely ineffective in handling their needs and agents did not try to resolve their query/complaint promptly. Part of the service delivery process within most global call centers is to try and resolves queries and complaints within the first-call. However this was clearly not achieved within this study and clearly presented a gap in terms of the service delivery process. Customers found communicating with agents difficult and agents were not receptive to feedback on how they could improve their performance delivery. There are no guidelines when it comes to dealing with a customer as each set of circumstances is unique and it depends on the agent's expertise and their ability to remain proficient under extreme pressure. Informal sessions where agents share their competencies with each other on how to manage challenging customers is very productive and helpful especially for new agents just commencing their careers within the call center. Whilst most call centers do have self-service technology for customers to download or access the information that they require themselves; most customers often opt to wait on the line to liaise with an agent but the communication process is often difficult due to poor interpersonal skills of agents. It is recommended that all call center agents undergo multilingual training and should be fully conversant in different languages. Agents should also be fully computer literate as World Class call centres adopt cutting edge technology to facilitate operational efficiency and these agents should be proficient in operating the technology efficiently. This has been further reinforced by research whereby the call center agent is technologically empowered with a multichannel desktop to be able to service the customer using the channel of the customer's choice allowing for switching between different channels of communication with ease and the least disruption to the call/query. Brands that are considering delivering an astonishing customer experience across multiple channels need to integrate both existing and past customer communications across all channels including voice, chat, email, and social networks, and package it all on a single screen.

Customers felt burdened by being transferred to other agents often and agents failed to follow up to check if they were satisfied with the service delivery. There is much debate surrounding the level of authorization afforded to call center agents in terms of the level of authority and responsibility delegated to them in order to effectively resolve a query themselves without having to attain permission from a superior or to transfer that call to a supervisor or line manager. This would certainly reduce the waiting times of customers for the resolution of queries as well as the continual transfer between agents before a resolution is reached. The nature of the work within a call center environment proves to be a challenging encounter to entice exceedingly dedicated and flexible staff and offer job security in an environment such as a call center where there are such great levels of surveillance and such diminutive job discretion, where customer service is expected and customer empowerment is increasingly sought. Research strongly supports the call for greater autonomy of call center agents in allowing them to perform their jobs more efficiently, less surveillance and monitoring by supervisors and measuring agents' performance management through more meaningful objectives such as customer satisfaction indicators and not so much on meeting the numerical and operational quotas within the center. In this way the agent strives to build a better relationship with the customer and can focus on the call and the customers' needs and is not under pressure to meet numerical quotas and targets imposed on them. Customer service delivery is certainly never a simple task to administer and customers need assurances that they are valued members of the organization. In the end, it all comes down to this: A Better Call Centre Agent Experience = A Better Customer Experience = Better Customer Lifetime Value. Businesses need to regularly ensure that customers are happy, agents must be courteous, receptive to comments and suggestions on how to improve performance and ensure that customers are satisfied at the end of the business transaction with the call center. The entire service delivery process must be executed efficiently and effectively with a guarantee to customers that the firm is committed to customer care in the long run.

Recommendations for Future Research: This study has been undertaken in one public service call center and hence, the results of the study have internal validity to this organization. In order to enhance generalizability, it would be useful to undertake a similar study in other call center environments in a variety of service environments in both the public and private sectors. This study also includes a call center environment where only in-bound calls are made and hence, it would be useful to assess similar dimensions in an out-bound call settings as speaking to someone who has chosen to interact with you is completely different from speaking to someone who was not expecting your interaction.

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The Influence of Green Marketing Tools on Green Eating Efficacy and Green Eating Behaviour

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Abstract: This study employs the Legitimacy Theory and Self-efficacy Theory to examine the potential role of green marketing tools in fostering green eating behaviour. Using the mall-intercept technique at major retailers, data were collected using a self-administered questionnaire survey on South African consumers who regularly buy green products. Data analysis was conducted with the aid of the Statistical Package for the Social Sciences (SPSS) 22.0.The results indicate that South African consumers are significantly influenced by eco-labels and eco-brands when buying green products. The study, however, shows a negative relationship between green advertising and green eating efficacy. It also reveals a positive relationship between green eating efficacy and green eating behaviour. The findings of the study highlighted important implications and policy directions that marketers and policy makers may implement in order to promote green eating behaviour.

Keywords: *Green marketing tools, green eating behaviour, green eating efficacy, Legitimacy Theory, Self-efficacy Theory*

1. Introduction

The growth in environmental concern continues to permeate contemporary consumer buyer behaviour (Mourad and Amed, 2012). This concern steers the adoption of a new consumption epoch known as sustainable consumption (Lee, 2014). The use of green marketing tools has emerged as the key driver of sustainable consumption (Rahbar and Wahid, 2011). Sustainable consumption, which is heralded as a potential solution to environmental sustainability (Kotler, 2011), involves purchase decisions that are favorably inclined towards environmentally friendly, fair-traded and organically produced products (Belz and Peattie, 2009). The use of green marketing tools such as eco-labels, eco-brands and green advertising are central to the green marketing strategy aimed at promoting sustainable consumption (Tzilivakis, Green, Warner, McGeevor and Lewis, 2012). The integration of green marketing tools into the conventional marketing mix is part of the 'going-green-trek' aimed at promoting sustainable consumption (Belz and Peattie, 2009; Rahbar and Wahid, 2011; Magali, Francis and Hulten, 2012). Consistent with global trends, South Africa's Fast Moving Consumers Goods (FMCG) Sector, the contextual setting for this study, has witnessed a phenomenal growth in environmentally friendly products (Woolworths Holdings Limited, 2012). In particular, Fairtrade Certification Mark and MSC branded products have a marked presence in South Africa's leading retail outlets. Despite the growth in green advertising, eco-labels and eco-brands, little is known about their effect on green eating efficacy and green eating behaviour.

Problem statement: Although companies are taking significant strides in promoting pro-environmental behaviour, translating environmental concern into green eating behaviour remains a challenge (Kotler and Keller, 2012). Skepticism is identified as the major barrier that limits the market appeal of green marketing tools (Borin, Cerf and Krishnan, 2011; Leonidou, Leonidou, Hajimarcou and Lytovchenko, 2014). In particular, most advertising claims, eco-brands and eco-labels are perceived as misleading and not comprehensive (Leonidou, Leonidou, Palihawadana and Hultman, 2011). For instance, a study conducted by the Environmental Research in South Africa revealed that about 46 percent of the participants perceived environmental labels as misleading (Environmental Research, 2013). Moreover, Rex and Baumann (2007) observed that eco-labelled products still fail to garner a significant market share. Another challenge faced by consumers is to comprehend a wide array of eco-labels that dominate today's markets (Belz and Peattie, 2009). This view resonates with the findings of The Nielsen Company (2014) report which revealed that South African consumers are failing to understand what eco-labels entail. In addition, the credibility deficit of green adverts triggers green washing concern among consumers (Tschupp, 2012). Green washing refers to the falsification, omission and presentation of unsubstantiated environmental benefits of green products in green marketing communications (Tinne, 2013; Tschupp, 2012), which has the potential to erode the trust bestowed on green marketing messages by consumers and inhibit the adoption of sustainable lifestyles (Bratt, Hallstedt, Robert, Broman and Oldmark, 2011).

It is important to note that past studies on the relationship between green marketing tools and green purchase behaviour have been largely confined to developed economies, and often yielded contradictory results (Brouhle and Khanna, 2012; Leonidou et al., 2014). The use of green marketing tools is still at a nascent stage in South Africa; there is no any known research that has examined the nexus between green advertising, eco-lables, eco-brands, green eating efficacy and green eating behaviour. Thus, the thrust of this study revolves around examining the effect of green marketing tools on green eating efficacy and green eating behaviour. The article is organised as follows: first the objectives are outlined, followed by the review of literature on green marketing tools and hypotheses development. The research methodology, that specifies the target population, sampling methods and data collection methods follows. Thereafter, the measures employed to enhance validity and reliability are discussed. The last section discusses data analysis, findings of the study, and implications on marketing practice and policy formulation, limitations, directions for further research and conclusion.

Objectives of the study: The main objective of the study was to examine the influence of green marketing tools on green eating efficacy and green eating behaviour among South African consumers. The primary objective was achieved through the following empirical objectives:

- to ascertain the relationship between environmental advertising and green eating efficacy among South African consumers;
- to determine the relationship between environmental labels and green eating efficacy among South African consumers;
- to ascertain the association between eco-brands and green eating efficacy among South African consumers; and
- to understand the relationship between green eating efficacy and green eating behaviour among South African consumers.

2. Theoretical underpinnings

The study extends the application of the Legitimacy Theory and Self-efficacy Theory to examine the influence of green marketing tools on green eating efficacy and green eating behaviour. The Legitimacy Theory postulates that the operations of the organization need to be consistent with the value system of the community in which it operates (Dowling and Pfeffer, 1975). Consistent with corporate governance principles, companies are required to engage in activities that enhance societal value (Woolverton and Dimitri, 2010). Towards this end, the Legitimacy Theory places a moral obligation on corporates to operate within the confines of societal norms, values and expectations (Farache and Perks, 2010). The Legitimacy Theory posits that a company is only regarded as a responsible corporate citizen if its operations are fair and socially acceptable (Lindblom, 1984).

Based on the Legitimacy Theory, marketers and manufacturers need to refrain from engaging in practices that have negative effects on the environment (Corner and Randall, 2011). The Legitimacy Theory is valid in explaining the role of green marketing tools such as eco-labels, green advertising and eco-brands. By rolling out these tools, the organization enhances its legitimacy by disseminating environmental messages that inform consumers about the benefits of sustainable consumption (Leonidou et al., 2014).Thus, communication of environmentally centred messages reflects positively on the company's legitimacy. The concept of self-efficacy is based on the premise that an individual's attitudes and responses to behaviour performance are a function of the belief that exerted efforts can result in favorable outcomes (Bandura, 1977). A study conducted by Pickett-Baker and Ozaki (2008) showed that a significant number of consumers experience challenges in identifying greener products, an indication of the inadequacy of green marketing tools in fostering green eating efficacy. Thus, the Self Efficacy Theory is employed to examine the extent to which green marketing tools enhance consumer efficacy when engaging in green eating behaviour.

Theoretical background and hypotheses: The surge in environmental concern that peaked in the early 1990s triggered the re-orientation of the marketing mix (Hartmann and Apaolaza-Ibanez, 2012; Kotler, 2011; Peattie and Crane, 2005).This resulted in the growth in the use of green marketing tools such as green advertising, environmental labels and eco-brands (Magali, Francis and Hulten, 2012; Rahbar and Wahid, 2011). The use of green marketing tools is aimed at enhancing green consumerism, communicating the environmental enhancement projects of the organization and persuading consumers to buy environmentally friendly products (Akenji, 2014). An environmental conscious ethos also boosts the legitimacy of an organization in its operating environment (Parguel, Benoit-Moreau and Larceneux, 2011).The main green marketing tools in extant literature are discussed as follows:

Green advertising: Green advertising is defined as promotional messages that appeal to the needs and desires of environmentally concerned consumers (Zinkhan and Carlson, 1995). Green advertising attempts to promote a pro-environmental image of an organization and adoption of sustainable consumption patterns (Ahmad, Shah and Ahmad, 2010). The objectives of green advertising are to create environmental awareness, enhance recognition of green brands, facilitate the formation of positive attitudes towards green products and influence green product purchase intention (Chang, 2011; Cherian and Jacob, 2012). The effectiveness of green advertising is contingent on its ability to generate awareness, interest, trust and stimulate green purchase intention (Chen and Chang, 2012). In order to frame an effective sustainability message, the green advertising strategy needs to be structured around consumer education and empowerment (Ottman, 2011; White, MacDonnel and Dahl, 2011). Based on the Classical Conditioning Theory, consumers are likely to learn if they are conditioned to environmental stimulus (Pavlov, 1927). To generate green product awareness, it is imperative to maintain genuine and transparent communication (Leonidou et al., 2011). This can be done by employing an information based consumer empowerment strategy whereby marketers position green products based on fact-based environmental claims (Chen and Chang, 2012). To date, skepticism and ambivalence are the key factors that constrain the effectiveness of green advertising in enhancing green eating behaviour (Bailey, Mishra and Tiamiyu, 2014). Based on the preceding discussion, it is hypothesized that:
H1: Green advertising has a positive significant influence on green eating efficacy.

Eco-label: Eco-labels play a strategic role of attracting consumers' attention and communicating the green product attributes to the prospective consumers (Bougherara and Combris, 2009). Eco-labels offer the advantage of enhancing consumer interaction with the product at the point of purchase (Atkinson and Rosenthal, 2014). The interaction with the product is facilitated by the provision of information related to the environmental qualities of products with the aim of bridging the information gap perceived by consumers (Amstel, Driessen and Glasbergen, 2008; Brouhle and Khanna, 2012). Based on the Legitimacy Theory, eco-labels 'legitimise' the potential of the product to satisfy consumer needs with minimum harm to the environment (Bougherara and Combris, 2009). It is worth noting that trust and credibility are central to the success of eco-labels, therefore marketers need to engender trust to promote the market appeal of eco-labels (Bostrom and Klintmann, 2008). Additionally, Rashid (2009) notes that messages communicated using eco-labels play a central role when consumers are assessing eco-label purchase decisions. To consumers, eco-labels offer a quality assurance signal that provides evidence of the environmental impact of products (Bratt et al., 2011). However, the quality assurance role of eco-labels is only guaranteed if a detailed product life cycle assessment is conducted with specific focus on production, distribution, usage and disposal (Rashid, 2009).

From a marketing perspective, the market penetration of eco-labels should be considered as a chance to enhance sales volumes by way of improved environmental responsiveness (Horne, 2009). The eco-label attests that the product is produced following environmentally friendly processes and offers benefits to consumers and the natural environment (Brouhle & Khanna, 2012). As Bostrom and Klintman (2008) noted, eco-labels offer competitive advantage through symbolic differentiation. Eco-labels also incentivizes producers to embrace sustainable practices and create competitive advantage by targeting the growing market of green consumers (Brouhle and Khanna, 2012). Although eco-labels are growing in popularity, there is increased concern about their credibility (Tzilivakis, Green, Warner, McGeevor and Lewis, 2012). Based on the foregoing discussion, it is hypothesized that:
H2: A positive significant relationship exists between eco-label and green eating efficacy.

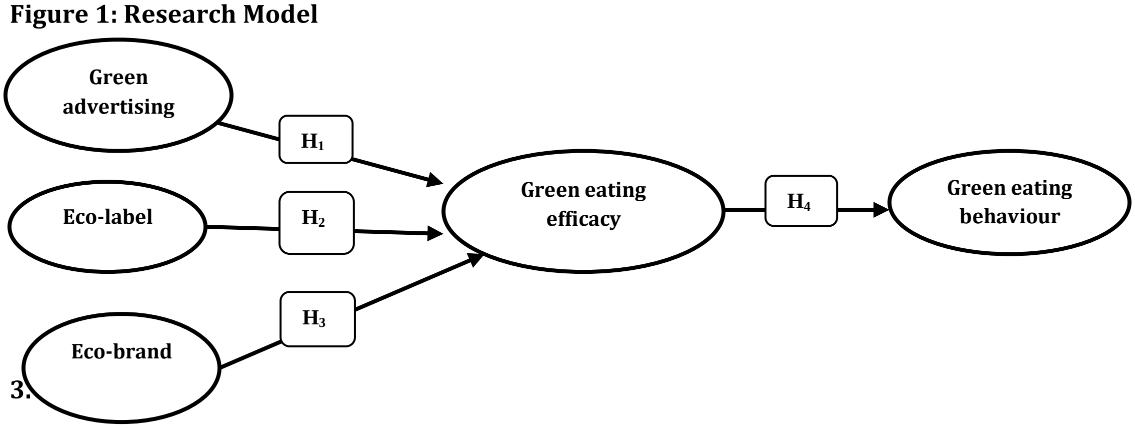
Eco-brand: An eco-brand or green brand refers to a symbol, design or name that is used to identify products that are not detrimental to the natural environment (Rahbar and Wahid, 2011). Eco-branding attempts to promote sustainable consumption patterns by utilizing environmental protection as a selling proposition (Chen and Chai, 2010). The ultimate objective of eco-brands is to create brand loyalty by positioning green products in line with the target market's environmental concerns and biospheric values (Belz and Peattie, 2009). The key success factors of an eco-branding strategy are differentiation and credibility (Mourad and

Ahmed, 2012). From a consumer perspective, the relevance of an eco-brand depends on its ability to accurately communicate environmental benefits that are important to consumers (Meffert, Rauch and Lepp, 2010). This explains why effective green brand positioning is contingent on robust communication about the environmental attributes of the product (Hartmann and Apaolaza-Ibanez, 2012). For this reason, Chen and Chang (2012) opine that to enhance green purchase intentions, marketers need to strive to increase green brand trust. According to Chen (2010), green brand trust depicts an individual's willingness to patronize a product based on its credibility, benevolence and ability to deliver consistently on environmental performance. The green brand trust is measured by environmental reputation, environmental performance and credibility of environmental claims (Chen and Chang, 2012). To cultivate green trust, marketers need to develop strategies that trigger positive green product perceptions and foster long-term relationships with the target market (Chen and Chang, 2012). Thus, to enhance the market appeal of eco-brands and close the credibility gap, there is need to manage the quality of eco-brands and justify the premium price. Thus, it is hypothesized that:
H3: There is a positive significant relationship between eco-brand and green eating efficacy.

Green eating behaviour and green eating efficacy: A mismatch between environment concern and sales of green products continue to be a recurring finding in most empirical studies (Atkinson and Kim, 2014). This mismatch is attributed in part to challenges associated with engaging in green eating behaviour (Weller et al., 2014). For instance, a study by Atkinson and Kim (2014) showed that consumers are doubtful whether their green eating behaviour can make a noticeable difference. In a related study, Perrini, Castaldo, Misani and Tencati (2010) noted that consumers feel less informationally empowered to evaluate green products in the marketplace. With regards to green eating behaviour, Ellen, Wiener and Cobb-Walgren (1991:103) employed the term "perceived effectiveness of environmental behaviour" to refer to "a domain-specific belief that the efforts of an individual can make a difference in the solution to a problem". An individual with high perceived consumer effectiveness has confidence in his or her ability to bring about favorable outcomes through the performance of certain behaviour (Kim and Choi, 2005). The concept of self-efficacy is similar to perceived behaviour control under the Theory of Planned Behaviour that reflects an individual's beliefs about the easiness or difficulties associated with engaging in the behaviour of interest (Ajzen, 1991). In the case of green eating behaviour, the cost and unavailability of green products are considered as inhibiting factors (Young, Hwang, McDonaldand Oates, 2010). In order to enhance consumers' self-efficacy perceptions, Roberts (1996) emphasized the importance of conveying environmental messages that reinforce the notion that individuals have the capacity to address environmental problems. Thus, it is hypothesized that:
H4: Green eating efficacy has a significant positive relationship on green eating behaviour.

Based on the literature reviewed and posited hypotheses, Figure 1 illustrates the theoretical relationship of the constructs in the study.

Figure 1: Research Model



3.

Target population and Sampling Method: The study is grounded in the quantitative research design with the aim of examining the hypothesized relationships between variables under investigation. Cross sectional data was collected with the aid of a structured self-administered questionnaire. The study was undertaken for two months from 1 July to 30 August 2015 using the mall intercept technique. Small convenience stores were not included as they seldom sell green products. Respondents were pre-screened based on their purchase experience of green products and participation was voluntary.

Instrumentation: A three section self-administered, structured questionnaire was utilized to collect data. Section A comprises questions on the demographic profile of respondents. Section B covers questions on green marketing tools. The study utilized a five-point Likert scale (1 strongly disagree, 5 strongly agree) for all the measurement items. Green advertising was operationalised using a 10 item-scale that was adapted from a validated scale developed by Bailey, Mishra and Tiamiyu (2014). The eco-label construct was measured using 6 Items adapted from a study conducted by Do Paco, Alves, Shiel and Filho (2014). Eco-brand was operationalised using 5 items derived from a study conducted by Rahbar and Wahid (2011). Section C covers questions on green eating efficacy. Green eating efficacy was measured using 5 item scale adapted from the work of Weller et al. (2014). The green eating behaviour scale consisted of 5 items that were adapted from a study conducted by Weller et al. (2014). The questionnaire was pretested with fifty marketing students drawn from a University of Technology in Gauteng Province and minor modifications were affected.

Data collection procedures: The hypothesized model was tested using data drawn from twelve hyper-markets and supermarkets that sell environmentally friendly products. The participating outlets were drawn from leading retailers which sell a wide array of organic foods, Fairtrade and MSC branded products. A total of 30 university students enrolled for a marketing research course were trained as field workers and collected data during weekends. Fieldworkers were positioned in different mall entry and exit points and they changed their positions after an hour. Special effort was made to ensure that sample selection was bias free. In total, 450 questionnaires were administered although 128 were discarded due to incompleteness leaving a total of 322 valid responses, resulting in a response rate of 71 percent.

Reliability and Validity Analysis: The internal consistency of measurement items was assessed by computing Cronbach's alpha coefficient and the item-to-total values. The study yielded Cronbach's alpha values that ranged from 0.775 to 0.891 well above the recommended threshold of 0.70 suggested by Hair, Black, Babin, Anderson, Tatham and Black (2010). The item-to-total values for all the measurement items were all above the baseline value of 0.5 demonstrating the cohesiveness of measurement items (Anderson and Gerbing, 1988).

The questionnaire was pilot-tested as suggested by Malhotra (2007), using 50 respondents to enhance content validity. Discriminant validity was also assessed by inspecting the inter-construct correlation matrix. As shown in Table 1, the inter-construct correlation values ranged from -0.122 to 0.426 below the rule of thumb of 0.8 (Fraering and Minor,2006), indicating the attainment of discriminant validity. Predictive validity was assessed by inspecting the Beta coefficients and t-values. The study shows significant relationships between the constructs under investigation indicating the prevalence of satisfactory levels of predictive validity.Table 1 summarizes the reliability and validity measures employed in the study.

4. Data analyses

The data was statistically analyzed using the statistical software SPSS, version 22.0. Exploratory factor analysis, descriptive analysis, correlation analysis and multiple regression were employed to process data.

Sample composition: A total of 322 questionnaires were deemed valid for empirical analysis. Within the final sample, almost 70 percent of the respondents were female (69.9 percent; n = 225) and 30.1 percent (n = 97) were males. In terms of age distribution, the majority were aged 20 to 40 years, accounting for 88 percent (n = 284) of the sample, followed by the 40-50 age category with 7.1 percent (n = 23) and finally, subjects aged 51 and above made up 5.9 percent of the sample (n = 19). In terms of educational level, approximately 63 percent (n = 203) of the respondents had a matriculation certificate, 31.4 percent (n = 101) were diploma holders and 5.6 percent (n = 18) had degrees. With regard to ethnicity, 71.4 percent of the respondents were black Africans (n = 230), 18.6 percent (n = 60) were white, 5.3 percent (n= 17) were Indians and 4.7 percent (n = 15) were Colored.

Table 1: Reliability and validity measures employed in the study

Research construct		Descriptive statistics Mean	SD	Cronbach's test Item-total	α Value
Eco-brand (ECB)	ECB1	3.9	.65	.755	.891
	ECB2			.727	
	ECB3			.677	
	ECB4			.750	
	ECB5			.765	
Eco-label (ECL)	ECL1	3.5	.58	.692	.775
	ECL2			.637	
	ECL3			.509	
Green advertising (GA)	GA1	2.7	.57	.785	.864
	GA2			.840	
	GA3			.616	
Green eating efficacy (GEE)	GEE1	3.9	.65	.705	.841
	GEE2			.644	
	GEE3			.770	
Green eating behaviour (GEB)	GEB1	3.9	.62	.724	.887
	GEB2			.721	
	GEB3			.665	
	GEB4			.773	
	GEB5			.753	

Exploratory factor analysis (EFA): The measurement items of all the constructs that constituted the research model were subjected to factor analysis. This was done to ascertain whether the 31items that measured the variables under investigation could be reduced into significant factors (Lee 2011). As recommended by Pallant (2011), the factorability of the data was assessed using Bartlett's test of sphericity and Keiser Meyer-Olkin's (KMO) measure of sampling adequacy. The Bartlett's test of sphericity yields a significance level of $p < 0.000$ and the KMO measure of sampling adequacy was 0.771, thereby indicating the suitability of the data for factor analsis (Pallant, 2011). Exploratory factor analysis (EFA) was then undertaken using varimax rotation and principal component analysis. The scree plot, percentage of variance explained, eigenvalues and factor loadings were used as a criterion to extract items. A total of 13 items were deleted for having cross loadings above 0.4. After accounting for factors with high cross loadings, five components were extracted accounting for approximately 73.387% cumulative variance. All the items report factor loadings ranging from 0.700 to 0.937 which are well above the minimum threshold of 0.50 (Malhotra, 2007). The eigenvalues for the extracted factors were all above 1 (5.311, 3.283, 2.320, 1.587 and 1.442). The extracted five factors were labelled Eco-brand (Factor 1), Green eating behaviour (Factor 2), Green advertising (Factor 3), Green eating efficacy (Factor 4) and Eco-label (Factor 5). The final expolatory factor structure is reported in Table 2.

Table 2: Factor loading Matrix

Variable description		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
ECB1	I am aware of eco-brands	.830				
ECB2	Eco-brand is symbol of product reliability	.823				
ECB3	I believe eco-brand is truthful	.813				
ECB4	I support brands that support the environment.	.809				
ECB5	Eco-brand is a symbol of product quality	.755				
GEB1	How often do you choose products labelled fair trade		.871			
GEB2	How often do you buy organically produced food		.843			
GEB3	How often do you buy meat labelled free range		.828			
GEB4	How often do you buy products that are labeled as fairly-traded?		.818			
GEB5	I check products for environmentally harmful		.757			

	ingredients?					
GA1	I am willing to purchase products marketed as being green.			.937		
GA2	Environmental advertisement guide me to make informed green purchase decisions			.798		
GA3	Environmental advertisement enhance my knowledge about green products			.794		
GEE1	Eating green is too expensive				.811	
GEE2	I can't find green products where I shop				.798	
GEE3	Sustainably produced goods aren't available to me				.794	
ELC1	I gain respect of friends when using e-cigarettes					.811
ELC2	I consider the Fairtrade as the best logo					.798
ECL3	The Fairtrade logo is easy to recognize					.794
% of variance		27.950	17.279	12.212	8.354	7.591
Eigenvalue values		5.311	3.283	2.320	1.587	1.447
Cronbach alpha coefficient		.891	.887	.864	.841	.775
Bartlett's Test of Sphericity		.000				
KMO Measure of Sampling Adequacy		.771				

Loadings above 0.50 were considered significant loadings with cross loadings less than 4.
Rotation method: Varimax. Rotation-Principal factor analysis.

Correlation Coefficients between Constructs: The Spearman's rhowas employed to examine the interrelationships between constructs.

Table 3: Spearman's rho correlations

Constructs	ECB	ECL	GA	GEE	GEB
ECB	1.00				
ECL	.375**	1.000			
GA	-.069	-.070	1.000		
GEE	.426**	.264**	-.122*	1.000	
GEB	.121*	.235**	-.054	.246**	1.000

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).
ECB = Eco-brand, ECL = Eco-label, GA = Green Advertising, GEE = Green eating efficacy, GEB = Green eating behaviour

Regression analysis: Multiple regression analysis was used to test the posited hypotheses. The first step involved the verification of whether the prerequisites for conducting regression analysis were met. The adequacy of the sample size was assessed since regression analysis is susceptible to sample size. Tabachnnik and Fiddel (2007) suggested a sample size of $N > 50 + 8m$ (where m = number of independent variables) as adequate to conduct multiple regression analysis. In this study, the sample size was 322 respondents, which surpasses a minimum of 82 respondents which is recommended when four independent variables are involved. Secondly, the tolerance value, variance inflation factor (VIF) and the inter-correlation matrix were inspected to check multicollinearity. Multi-collinearity is evident when constructs are highly corelated (Shen and Gao, 2008). As indicated in Table 4, correlations between constructs are all below +0.80 and -0.80.In addition, the highest tolerance value is 0.988 and the VIF is 1.171 signifying the absence of multicollinearity(Grewal, Cote and Baumgartner, 2004).

The standardized residual plot, Cook's Distance and scatter plot were used to assess the presence of outliers. The standardized residual plots were all below 3.3 and -3.3, The highest value of the Cook's Distance was 0.088 and all scores on the scatter plot were confined to the middle, tangential to the zero point. All these statistics indicate that outliers did not affect the model results (Tabachnick and Fidell, 2007). Model 1, which had eco-label, eco-brand and green advertising as predictor variables and green eating efficacy as a outcome variable showed an R^2 of .256 indicating that 25.6 per cent of the variance in green eating efficacy was accounted for by predictor variables. The F-statistic showed a significance value of 0.05 implying that the variance explained by the model was not based on chance. As for Model 2, that included green eating efficacy as a predictor variable and green eating behaviour as an predictor variable, the R^2 was .055, indicating that approximately 5.5 per cent of the variance in green eating behaviour could be explained by green eating efficacy. The results of regression analysis are indicated in Table 4.

Table 4: Results of regression analysis

Dependent variable: Green eating efficacy	**Beta**	**T**	**Sig**	**Collinearity Statistics**	
Model 1: Independent variables				**Tolerance**	**VIF**
Eco-brand	.363	6.939	.000	.854	1.171
Eco-label	.216	4.122	.000	.856	1.168
Green advertising	-.092	-1.884	.061	.988	1.012
R=0.506 R^2 = 0.256 Adjusted R^2 = 0.249					
Dependent variable: Green eating behaviour	Beta	T	Sig	Collinearity Statistics	
Model 2: Independent variable				Tolerance	VIF
Green eating efficacy	.235	4.318	.000	1.00	1.00
R=0.235 R^2 = 0.055 Adjusted R^2 = 0.052					

Discussion of results: The study examined the influence of green marketing tools on green eating efficacy and green eating behaviour. The empirical results are discussed as follows:

Hypothesis 1 predicted a positive relationship between green advertising and green eating efficacy.This hypothesis was rejected (β = -0.092, t-value = -1.884, $p < 0.061$). This result is also supported by the existence of a negative correlation ($r = -0.122$, $p < 0.05$). Moreover, green advertising construct scored the lowest summated mean of 2.7 out of 5, implying that most respondents doubt the effectiveness of green advertising in enhancing green eating efficacy. This result is supported by Chan's (2004) study, which revealed that low credibility of green adverts significantly reduces green purchase behaviour. The growth in scepticism associated with green adverts resulted in calls for a detailed assessment of environmental claims used by companies (Leonidou et al., 2014).This implies that unsubstantiated environmental claims translate into negative attitudes towards green products. For this reason, Atkinson and Rosenthal (2014) stressed the importance of trust and credibility when structuring green advertising messages.

Hypothesis 2predicted that there would be a positive relationship between eco-label and green eating efficacy. This hypothesis was confirmed (β = 0.216, t-value = 4.122, $p < 0.000$). The result was also supported by the existence of a strong positive correlation ($r = 0.264$, $p < 0.01$). The eco-label construct also scored a high summated mean of 3.5 out of 5, implying that most of the respondents perceive eco-label as instrumental in fostering green eating efficacy. This result is supported by research of Rahbar and Wahid (2011), which revealed that eco-labels enhance green purchase behaviour. Overall, this result suggests that respondents surveyed in this study have trust in eco-labels. This result also gains support from Brouhle and Khanna (2012) who argued that honesty in environmental claims is a key cornerstone for the success of eco-labels. Similarly, Leire and Thidell (2005) argue that an eco-label may only be considered as a strategic marketing tool if it aids consumers in decision making and act as a differentiating cue for competing products.

Hypothesis 3 proposed that eco-brand positively influences green eating efficacy. This hypothesis was validated (β = 0.363, t-value = 6.939, $p < 0.000$). The result is also supported by the existence of a significant positive correlation ($r = 0.426$, $p < 0.01$) between eco-brand and green eating efficacy. In addition, the eco-brand construct scored a mean of 3.9 of 5. This result implies that the majority of respondents perceived eco-brand as effective in enhancing their green eating efficacy through provision of information. This result is congruent with that of Rahbar and Wahid (2011) that revealed that eco-brands are instrumental in enhancing environmental knowledge and green purchase behaviour. As indicated in Table 4, eco-brand predicts green eating efficacy more than eco-label and green advertising. This implies that for marketers intending to promote green eating efficacy, ecobrands should be considered as the central component of the green marketing mix.

Hypothesis 4 posited a positive relationship between green eating efficacy and green purchase behaviour. Results confirm the hypothesized relationship (β = 0.235, t-value = 4.318, p <0.000). The result is also supported by the existence of a strong positive correlation (r = 0.246, p < 0.01). In addition, the eco-brand construct scored a mean of 3.9 of 5 implying that most respondents perceived eco-brand as effective in enhancing green eating efficacy. This result suggests that respondents perceive less barriers when engaging in the buying of green products. This result is congruent with that of Weller et al. (2014), which revealed that the higher the perceived self-efficacy, the higher the likelihood of an individual engaging in green purchase behaviour.

Marketing implications: The study offers three important marketing implications. Firstly, green marketing tools only manage to explain 25, 6 percent of green eating. This result implies that marketers need to explore other pertinent factors that account for almost 74.4 percent of green eating efficacy. Secondly, the results indicate the need to enhance credibility of green advertising messages. To solicit behavioral change, environmental messages need to be communicated using appropriate tone, analogy, complemented by accurate scientific information and delivered through credible media channels. This gains support from Chen and Chang (2012) who emphasized the need to engage in corrective advertising to rectify deceptive impressions that might have been created. Thirdly, the study identifies eco-label and eco-brand as the most effective tools in promoting green eating efficacy. Based on this result, marketers may need to reorient their marketing mix and give more prominence to eco-brands and eco-labels in order to encourage green purchase behaviour.

Policy implications: The study contributes to policy development in the promotion of green purchase behaviour. The acceptance of eco-labels by consumers compels policy makers to monitor the integrity of eco-labels in order to avoid the exploitation of consumers. This may be done through regular audits and by encouraging marketers to use quality assured third party certified eco-labels. The study further shows that green advertising messages are viewed with skepticism. These points to the need to improve enforcement of advertising laws by the South African government in order to stamp out misleading environmental claims. The positive association between green eating efficacy and green purchase behaviour suggests the need for interventions that make it easy for consumers to buy green products. To that end, government policy should be focused on making green products affordable and conveniently accessible.

Limitations and avenues for further research: This study is inherent to limitations that offer avenues for future research. It utilizes a non-probability sampling method to select respondents. Future research efforts may employ probability sampling methods to enhance the external validity of the findings. Secondly, the results of the study are limited to the consumers of green products in the Gauteng Province in South Africa. It would therefore be more useful to examine influence of green marketing tools on green eating efficacy and green eating behaviour using a broader population. Finally, the study was based on green products in the grocery retail sector. Future research should seek to examine the influence of green marketing tools on green eating efficacy and green eating behaviour in the context of high-involvement green products. The relatively small adjusted R^2 value of 0.249 infers that there are yet others factors that affect green eating behaviour that could be examined to improve the underlying determinants of green eating behaviour.

5. Conclusion

The greening of the marketing mix is at the crux of driving green consumerism. Eco-brands, eco-labels and green advertising are the major green marketing tools that are used to enhance green purchase behaviour. The growth in unsubstantiated green marketing claims represents a profound threat to the adoption of green consumerism. To enhance credibility and abate skepticism, marketers should develop environmental messages that are clear and understandable. To deliver a green marketing message effectively, it is also important to understand consumer needs and empower consumers to make informed purchase decisions.

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Can Sound Corporate Governance Alleviate Corporate Failure? A Study of the Zimbabwean Financial Services Sector

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Abstract: This study, using the Ordinary Least Squares (OLS) Regression Model, investigated the extent to which good corporate governance practices can minimise or alleviate corporate failure in the Zimbabwean Financial Services Sector. The results of the study reflected that sound corporate governance has a positive effect on corporate success and can alleviate corporate failure. It is thus recommended that financial institutions continuously adhere to sound corporate governance practices to guarantee corporate success and alleviate the collapse of financial institutions as has been witnessed in the past. The findings of the study will assist policy makers, regulators and players in the financial services sector to adhere to sound corporate governance practices, given its impact on corporate success. Further research could be carried out with regards the implementation of sound corporate governance in parastatals, quasi-government institutions and private sector companies in other sectors other that the financial services sector and how it can be monitored or enforced.

Keywords: *Corporate governance, financial services sector, capital structure, company size, corporate success*

1. Introduction

The Zimbabwean financial services sector was characterized by significant growth at the turn of the 21st century when the Zimbabwean government "liberalized" the sector, relatively relaxing the requirements to allow indigenous player to enter the industry. Hardly a decade into this boom of the financial services sector did we start witnessing a series of closure of institutions within the financial services industry, forced mergers, unbundling of merged institutions and numerous other reforms within the sector. In 2009 the country introduced the multi-currency system to resuscitate the economy which had suffocated and collapsed during the Zimbabwean dollar meltdown era. Even during the multi- currency regime, since 2012 to 2015 the financial services sector continued to suffer a decline with banks such as AfrAsia Bank Zimbabwe Limited, Renaissance Merchant Bank, Interfin Bank, Genesis Investment Bank, Capitol Bank and Royal Bank closing due to poor corporate governance inter alia (Munzwembiri, 2015), Bank failure is not solely a shift in the architecture of the financial service sector but represents lost savings, lost pension funds, causing company closures and job losses. The huge cost is the loss of confidence in the entire financial services system and it also negatively affect potential investment opportunities in the economy.

This paper investigates the extent to which good corporate governance practices can avert or alleviate corporate failure in the Zimbabwean Financial Services Sector.Unlike previous studies (Kumar & Sudesh, 2016; Chidoko and Mashavira, 2014) which focused on comparative analysis of domestic and multinational banks corporate governance practices, this study focuses on the link between corporate performance and sound corporate governance.The study will therefore inform policy and assist the Zimbabwean Financial Services Sector in the reduction of corporate failure in the industry since corporate governance is a critical aspect for the survival and growth of entities and it is also a pivotal factor in turning around Zimbabwe's economy(Mahmud, Ahmed, and Mahajan, 2008). Sustainability and success of the industry will be achieved when corporate governance practitioners uphold sound corporate governance principles and practices. The organization of this paper is as follows; it will give the objectives of the study and briefly explain the meaning and principle of corporate governance, reveal the relationship between sound corporate governance and company failure, and determine how bad corporate governance can lead to corporate failure. Conclusion will be made based on the findings of the study and recommendation to improve corporate governance in the Financial Services Sector in Zimbabwe.

Research Objectives

- To evaluate the impact of sound corporate governance practices on corporate performance in the Zimbabwean financial services sector,
- To identify other causes of corporate failure in the Zimbabwe's financial services sector

2. Literature Review

Corporate governance: Definition: Corporate governance definitions varies from a narrow scope of ownership structures to a wider scope which defines the other dimensions of corporate governance such as Board of Directors size and composition, risk management practices, executive compensation and rules and regulations of organizations (Changezi and Saeed, 2013). Corporate governance is a system by which companies are directed and controlled (Cadbury Committee, 1992). According to Khan (2011), corporate governance is the broad term that describes the processes, customs, policies, laws and institutions that directs the corporations in the way they administer and control their operations. Eroke (2007) stated corporate governance as a system by which creditors and investors get assurance about adequate and reasonable return rates on investment.

Sound corporate governance principles: According to Okeahalam and Akinboade (2003) sound corporate governance promotes efficiency, effectiveness and sustainable corporations in creation of wealth, employment, welfare of society, solutions to emerging challenges and managed with integrity, probity, transparency and protection of stakeholder rights. The RBZ (2004) report states that good corporate governance and integrity in business are the bedrock and foundation to sustainable economic and social prosperity. Poor corporate governance weakens company's potential and financial strength whilst opening ways for financial difficulties and frauds. Companies which follow the best corporate governance raise capital easier and in the long run are more financially stable and successful than companies that have poor corporate governance (Todorović, 2013). It is in light of the identified possible benefits of sound corporate governance that the study seeks to unearth the technical relationship between sound corporate governance and corporate performance. According to Chidoko and Mashavira (2014) there are several accepted basic elements of sound corporate governance that are applicable to both the private and public sector. These include discipline, fairness, independence, accountability, transparency responsibility and social responsibility.

Basel Committee (2010) identified the principles of sound corporate governance for optimum operation level as;

- It is the responsibility of the board to approve and oversee the implementation of the bank's strategic goals, corporate values and corporate governance. The board should also have an oversight of senior management activities.
- Board members should be qualified and trained for their positions and understand their roles in the affairs of the bank.
- Appropriate governance practices should be defined for the work of the board and means to ensure that such practices are adhered to with prescribed intervals for review and on-going improvements.
- The board of a parent entity in a group structure has the overall responsibility to ensure that adequate corporate governance policies, business and risks of the group across are followed.
- The board through its direction should ensure that senior management activities are consistent with the bank's strategy, risk management and policies approved by the board.
- The board should ensure that the banks have an effective risk management function and internal controls system with adequate authority, access to the board, independence and sufficient resources.
- Identification of risk and risk monitoring should be an on-going firm-wide process keeping pace with any internal and external changes to the bank's risk profile.
- Robust internal communication about bank risk is essential for effective risk management, across the entity and through reporting to the senior management and board.
- Internal audit functions and external auditors work should effectively utilise the work by senior management and the board.
- The senior management and board should understand the risk and bank's operational structure.
- The governance of the bank should be transparent to its depositors, market participants, shareholders, and all relevant stakeholders.

For the purposes of this study the researchers are going to concentrate on the following principles only; board structure and size, board qualifications, board composition and diversity, and board practices.

Board Structure and Size: According to Vaithilingam et al. (2006) board structure is how the organisation is organised in terms of the board of directors. Board size is the total number of directors that an organisation has in its board structure. This is calculated, as the total minimum number of directors (at least five) needed by the central bank over the total number of directors in the board of directors at the end of the annual financial year (Shungu et al., 2015). Studies by Larcker et al. (2010); Hallock (1997); Nguyen (2009) have shown that board size tends to be correlated with company revenue; large boards have greater costs and decision making is slow while there are more resources, greater specialization.

Board Qualifications: Board members should be and remain qualified through training for their positions and should have the ability to exercise sound judgment on the affairs of the bank (Basel committee, 2010). According to Mettler-Toledo (2015) the Board of Directors should be made up of successful members who demonstrate integrity, honesty, knowledge of the firm affairs, a general understanding of the company's business, and an ability to work well together. Diversification in business background, gender, ethnicity and area of expertise should be considered. The Board should be composed of individuals who are able to; demonstrate management ability at senior levels in successful organizations; be employed in positions of significant responsibility and possess experience related to areas of importance of the company. The relevant skills would enable the board to understand the affairs of the organisation which then improves the decision making process.

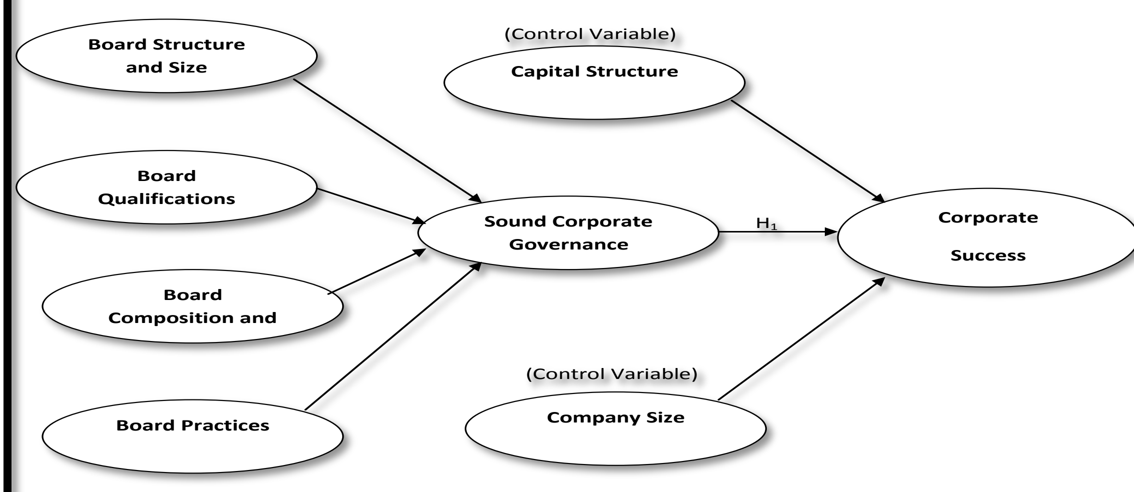
Board Composition and Diversity: Board composition is concerned with board independence, diversity and CEO duality. Corporate governance best practice recommends that organisations have high levels of board independence whereby there is a higher number of independent outside directors in comparison to both inside directors and related or affiliated outside directors. Proponents of this notion argue that a board with a higher level of independence is more vigilant in monitoring managerial behaviours and curb self-interest, and more objective in their decision making. Board diversity refers to the mix of men, women, younger members, long-term members, people from different age brackets, and people with different ethnic groups and racial backgrounds on a corporate board (Enobakhare, 2010; Björklund, 2010; Fairfax, 2011). Carter, Simpkins and Simpson (2003) evaluated the relationship that exist between company value and board diversity for Fortune 1000 firms and found a significant positive relationship between women or minorities on the board and firm value.

Another study by the Credit Suisse Research Institute revealed that companies with one or more women directors over a period of six years had higher net income growth than those that had no women on the board. A total of 2,400 companies were examined from across the globe and the result reflected that net income grew by 14% for companies that had women directors in comparison to 10%, for companies whose boards did not have women directors. Increasing board diversity is very important, but there is a catch on that; the more diverse a board becomes, the more difficult board communications become (Björklund, 2010). Various arguments have been advanced on the concept of CEO duality, some being for and others being against the concept. CEO duality refers to a situation where the CEO of an organization doubles up as the board chairperson. CEO duality has been criticised by some authors as lowering the level of supervision on the management team, which adversely affects company performance (Levy, 1982).

Board Practices: The board has overall responsibility including approving and overseeing the implementation of the overall strategy, corporate governance and company values. It is the responsibility of the board to have an oversight of senior management. The board should exemplify by strictly adhering to proper sound governance practices which it had defined for its own work in the organisation. The board should ensure that practices in place assist the board in carrying out its duties more effectively, are followed and periodically reviewed for on-going improvement and these send important signals both internally and externally about the nature of organisation the bank aims to be (Basel Committee, 2010). According to Larcker (2010) boards are often described in terms of their salient structural features: size, independence, committees, and diversity.

Corporate Failure: Jayaraman, Nanda and Ryan (2015) assert that, following the series of corporate failure in the early 2000s, there have been an increased number of calls, by governance activists and policy makers, for the separation of the roles of CEO and Board Chairman**.** These calls have been premised on the notion that there is very limited scope of objective supervision and monitoring of the CEO performance by an independent Board Chairman, which is one of the major agency problems. They however make it clear that while there have be such calls for separation of roles, earlier research and their own research have not been conclusive on causality of CEO duality to corporate failure. On one hand, findings from various researches supported CEO duality (Palmon and Wald, 2002; Faleye, 2007; Dey, Engel and Liu 2009; Yang and Zhao, 2012), while on the other hand other researches supported the separation of the roles of CEO and Board Chairman (Dahya, McConnell and Travlos, 2002; Dahya and McConnell, 2007). Earlier research by Brickley, Coles and Jarrel (1997) had also been inconclusive, with the researchers indicating that the separation of CEO and Board Chairman Roles has both potential benefits and potential costs. From this summary of research findings from different researches, corporate failure cannot be conclusively attributed to CEO duality.

Figure 2: Conceptual Model



Source: Own Formulation

Hypothesis

H_1 - There is a positive relationship between sound corporate governance and corporate success

Empirical Evidence: Bank governance addresses a range of issues, including who will run the bank, what will be the structure of the board of directors, how will the board carry out its duties, what financial incentives and other factors will be used in aligning all stakeholder interest (Benton, 2007). Companies that maintain the highest standards of governance reduce many risks that emanate from routine operations. Because of better performance and returns, such companies are able to attract investors who will help finance further development and growth. Bushee et al. (2007), as well as Leuz et al. (2007) support this claim that investors exhibit preference for well-governed firms. Research done by Todorović, (2013) indicates that there is correlation and impact of implementation of principles of corporate governance on performance of companies, it shows that investors have a tendency to inject more funding in companies which have sound governance systems. Studies by Gompers et al. (2003) and Black et al. (2003) revealed that organisations with sound corporate governance principles enjoy higher profits, higher valuations, and higher sales growth.

3. Methodology

This research depends mainly on secondary data, which was obtained from the annual reports of various institutions in the Zimbabwean Financial Services Sector for a six (6) year period, "2010-2015." This period was selected because it is the time during which the country was recovering from an economic recession that had started around 1999 and it is the multi-currency regime period. The content analysis was used in the evaluation of textual data so as to interpret contextual meaning of text data (Tesch, 1990; Hsieh and Shannon, 2005). It is recommended that when using contextual analysis technique, a set of categories should be established into which data is coded (Stray, 2008); Board practices, Board structure and size, Board Qualifications, Board composition and Diversity were used to establish Sound Corporate Governance (SCG) score on the elements reported by the banks on Corporate Governance. In measuring corporate success, financial accounting ratios, return on assets (ROA) and return on equity (ROE) were used. An Ordinary Least Squares (OLS) Regression Model was used to determine the relationship between corporate success and sound corporate governance and the model was tested.Company size and capital structure were used as control variables in the regression model.

Model:

$$\mathbf{Co.Suc = \beta 0 + \beta 1SCG + \beta 2Co.Siz + \beta 3Cap.Stru + \acute{\varepsilon}.}$$

Where:

$Co._{Suc}$: = Company Success

SCG: = Sound corporate governance

$Co._{siz}$: = Company size

$Cap._{Stru}$: = Capital structure

All banks operating in Zimbabwe since 2010 including those that have since closed were considered in this research. The inclusion of all banks assists in assessing the corporate governance practise; comparing practices of both the closed and the currently functional banks. The data was gathered through reviewing various reports by the regulatory authority, the Reserve Bank of Zimbabwe (RBZ), and industry surveys in order to analyse corporate governance developments within the sector.

4. Results and Discussion

Results summary: The results revealed an average Tobin's q ratio of 0.6 with the highest of 14.90 and the lowest of 0.05. This means that on average most financial institutions in Zimbabwe are performing well. Only 25% of the financial institutions that were reviewed have a Tobin's q ratio which is greater than 1. Theory argues that the lower Tobin's q ratio can be due to other factors such as diversification of the organization. This is not the case in Zimbabwe as none of the studied financial institutions is diversified. Thus the low Tobin's q is wholly due to poor performance. The poor performance of the financial institutions might be due to poor performance of the stock market. The Zimbabwe Stock Exchange (ZSE)'s general downward performance might be resulting in undervaluing of the financial institutions. Of the institutions studied, 45 % of the companies have a well constituted board structure with qualified members who also have the relevant experience. 30% had sound board practices, and with other boards having a problem of one centre of power which has an effect on strategic business decision making process. Conflict of interest was rampant as 40% of the companies had board members who are shareholders of the competitors company which presents a serious case of conflict of interest and this has negatively affected the performance of the financial institutions in Zimbabwe. The stock pledge ratio of 12.3 has a negative effect on firm performance. A high ratio has an effect on the stock exchange as there are problems of insider trading which might negatively impact on the share price, thus the market valuation of the company. The descriptive results are summarized below;

Table 6: Descriptive results

	Mean	Std Dev	Min	Max
SCG	0.562	0.268	0.02	9.051
CO size	9.34	1.11	4.33	18.23
Tobin's Q	0.6	0.35	0.05	14.96
Pledge	12.31	6.31	0	95

CapStructure	0.02	0.13	0.002	0.052

The coefficient analysis shown below indicates that the variables are related and thus affect the performance of the firm.

Table 7: Correlation coefficient analysis

	SCG	CO size	Cap Structure
SCG	1	0.34	-0.01
CO size	0.34	1	0.211
Cap Structure	-0.01	0.211	1

Table 8: Regression coefficient

	Coefficients	Standard Error	t Stat	P-value
Intercept	-0.20602	0.012168	-16.93087779	0.00347037
SCG	0.058049	0.002903	19.9956929	0.002491733
Co $_{Size}$	-0.00289	0.000599	-4.825699163	0.04035989
Cap $_{Struct}$ (adequacy ratio)	1.199521	0.050913	23.56005335	0.001796701

Number of observations 17
VIF = 1.23
Ad R^2= 0.93
Ramsey Reset test= 0.51

The results of the ordinary least square regression as shown in Table 3 above indicate the impact of the variables of interest on the success of a corporate. As shown by adjusted R^2, of 0.93, the model is the performance of a corporate is closely linked to sound corporate governance, company size and the capital structure among other factors, which are exogenous. The model was also subjected to Ramsey reset test the functionality of the model and it was found to be well specified. Muliticolinearity was conducted using the variance information factor (VIF) and it revealed the absence of multicolinearity as shown by the VIF of 1.23. At 5 % level of significance, the model was found to be significant. The model reveals that sound corporate governance has a positive significant relationship with corporate success 5% level of significance with a t - value of -16. 93 and a p- value of 0.003. This means that sound corporate governance increases the probability of corporate success. These results are consistent with the findings by Rogers, 2006; Chiang, 2005; VO, and Phan, 2013; who found that there is a direct positive relationship between corporate governance and corporate success.

The model also revealed that company size has a negative significant relationship with corporate success with a coefficient of -0.0029 and the p value 0.0404.Though theory indicates that company size is important, the model reveals that it has a negative effect on the success of the company which might be due to managerial diseconomies of scale which might be due to bureaucracy which come to play as the company sizes increase. Other than corporate governance as a factor that influences company success, the model also revealed capital structure as a key success factor with a positive significant effect as revealed by a coefficient of 1.199 and a p- value of 0.0403 and a t- value 23.56.The findings support the studies by Chiang, 2005 and Kumar & Sudesh, 2016 who also found a positive significant relationship between capital structure and corporate success.

5. Conclusion and Recommendations

From the research findings, it can be concluded that sound corporate governance is positively related to corporate success and as such, can minimize corporate failure. It is therefore important that companies in the Zimbabwean financial services sector give due attention to the various principles of sound corporate governance; board structure and size, board qualifications, board composition and diversity, and board practices. This justifies why the Reserve Bank of Zimbabwe (RBZ), like reserve banks in other countries, had to introduce through its Bank Licensing, Supervision and Surveillance Division, Guideline No. 01-2004/BSD on Corporate Governance for the financial services sector (Reserve Bank of Zimbabwe, 2004). The results also give basis for concluding that both capital structure and company size have a positive impact on corporate success. It is thus recommended that financial institutions continuously adherence to sound corporate governance practices to guarantee corporate success and alleviate the collapse of financial institutions as has been witnessed in the past. This is envisaged to restore confidence in the financial services sector, which is critical for its growth as more businesses and individuals transact through the formal banking system. Restoration of confidence in the sector will also attract foreign direct investment, not only to the financial services sector but other sectors of the economy as investors would derive comfort from a sound financial system in any economy. Further research could be carried out with regards the implementation of sound corporate governance in parastatals, quasi-government institutions and private sector companies in other sectors other that the financial services sector.

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The Shemita Effect, How a Jewish agricultural law prompted fear for Evangelical investors: Confirmation Bias and Bandwagoning in Action

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Abstract: This paper examines how Shemita, a Jewish agricultural law only applicable in Israel came to be viewed by Evangelical Christian Investors as a signal of a potential stock market crash in September, 2015 purportedly as a consequence of G-d's displeasure with the United States. In 2014 Johnathan Cahn, a popular Evangelical preacher, published "The Shemita Effect" which claimed that the seven year Shemita cycle mirrored stock market patterns over the last 50 years and suggested an impending crash. This theory was quickly taken up by conservative Christian Evangelical media and at least one man was convinced enough to start an entire investment company based on it despite the fact that it is easily disproven using basic statistical analysis of freely available data. This bizarre incident illustrates confirmation bias and bandwagoning effects in action, amplified with religious fervor.

Keywords: *Behavioral Finance, Religion, Confirmation Bias, Bandwagoning, Convergence*

1. Introduction

What is Shemita? Literally translated Shemita means "to release." According to Jewish tradition the Shemita year is the seventh year in a seven year cycle. Jewish law states that during this year the land may not be farmed and any produce which does sprout is considered ownerless and cannot be harvested for commercial gain because essentially the land is "released" from ownership for that year. Similarly, all personal debts should be cancelled or "released". The Biblical impetus for these laws can be found in three passages:
"Six years shall you sow your land and gather in your yield; but in the seventh year you shall let it rest and lie fallow." Exodus 23
"For six years you shall sow your field, and for six years you shall prune your vineyard, and gather in its produce. But in the seventh year, the land shall have a complete rest, a Sabbath to the L-rd; you shall not sow your field, you shall not prune your vineyard, nor shall you reap the after-growth of your harvest. . . And [the produce of] the Sabbath of the land shall be yours to eat for you, for your male and female servants, and for your hired worker and resident who live with you." Leviticus 25:3–6
"At the end of seven years you will make a release. And this is the manner of the release: to release the hand of every creditor from what he lent his friend; he shall not extract from his friend or his brother, because the time of release for the L-rd has arrived." Deuteronomy 15:1-2

All sources seem to agree that the agricultural aspects of these laws only apply in Israel and even then there are "work- arounds" that can be employed (Krakowski, 2014). Matza Menutak, literally, "detached platform" allows the use of hydroponics as a growing technique because the plants are not attached to the soil (Krakowski, 2014). Alternatively the produce may be collected and then distributed thru a Otzar Beit Din system whereby the farmers are hired by the collective to tend and harvest the crops from their own "released" land which is then distributed to members of the collective (Krakowski, 2014). The most controversial approach, Heter Mechirah, temporarily sells land owned by a Jew to a non-Jew for the Shemita year, in this way the original Jewish owner of the land may continue to farm and harvest the land without violating the law Schwartz (2014). The loan forgiveness aspect is also virtually a moot point today. A Pruzbul is a legal document that transfers ownership of the debt from the creditor to the Beit Din (Jewish court) who is not obligated to nullify the debt during the Shemita year (Ohrenstein, 1998). While all of this may be interesting, it is hardly the stuff of best sellers or viral YouTube videos and yet between 2012 and 2015, that is exactly what Shemita became, especially among Evangelical Christians. The Google Trends search score of "Shemitah" is 100 meaning that more than 10% of searches were for this word! This essay will examine how a Jewish law seemingly pertaining only to Orthodox Jews farming or purchasing produce in the tiny country of Israel spurred best-selling books, newspaper articles, television interviews and internet videos in the United States aimed almost exclusively at a non-Jewish audience.
Who are Evangelical Christians? The Oxford English dictionary defines Evangelical Christianity as trans-denominational movement within Protestant Christianity, focusing on the doctrine of salvation by grace through faith in Jesus Christ's atonement. The movement has a long history of political involvement and economic discourse based around the idea that America is a land of spiritual exceptionalism ordained by G-d for greatness (Hunter, 1991; Skillen, 2004). The idea that negative economic events arise as a consequence of the loss of G-d's favor seems to stem naturally from this view point. For example, the Evangelical magazine Journal-Champion once ran an article stating, "Because of sin, God usually spanks his people in the pocketbook – farmers get hit in their crops, other Americans get hit in the paycheck" (Phillips-Fein, 2009;

Martin, 2013). It is also important to note that Evangelical sermons often stress sound financial decision making and note that there is no contradiction between "seeking wealth and seeking godliness" (Martin, 2013). In fact, as early as 1905 the Protestant faith, specifically the Protestant work ethic was argued to have a positive impact on economic growth (Weber, 1905).

How did Evangelicalshear about Shemita? Jonathan Cahn, a messianic preacher and author of the 2014 book and corresponding DVD, "The Mystery of Shemita," argues that Shemita is the key to understanding geo-political and economic fluctuations because God either punishes or rewards a nation on this cycle. In 2015the text is the number 1 best seller in Amazon's Christian Proficiencies section. It has also appeared on the New York Times' Best Seller List and USA Today's Best-Selling Books Top 150 list. According to Cahn's hypothesis, God's reaction will be particularly pronounced towards the end of the Shemita year because that is the time when the Israelites were required to cancel their debts. Cahn explained his hypothesis in an interview on the Christian Broadcast Network's The 700 club on 9/8/15:
" The Shemita is an extraordinary thing… all debts are wiped clean, credits are wiped clean, financial accounts of the nation are wiped clean and this is to be a blessing pact but what happens when Israel turns away from God, the blessing turns into a sign of judgment. …The amazing thing is if you look at the last 50 years: 1966-a year of Shemita, the stock market collapses, 1973- a year of the Shemita the stock market collapses. 1980 you have recession and then the stock market collapses after. You have 1987; the stock market collapses in the Shemita of that and you have Black Monday, the worst percent crash in history. Shemita of 1994 the bond market collapses [it is] called the bond market massacre [the] greatest in history. 2001, you have the stock market collapsing, recession, you have the greatest point crash in history and you have 9/11!...And then you have 2008 which is the last one and what do we have? - The greatest collapse since the great depression." (Robertson, 2015)

Articles citing Cahn's theory and it's predations for the end of the 2015 Shemita cycle appeared on several news sites geared towards Evangelical Christians as well as the general public. The Evangelical sites included: the Charisma News (Snyder, 2015), CBN News (Stahl, 2015) and Prophecy News Watch (Hohmann, 2015). Articles citing Cahn's work also appeared in the Huffington Post (Schwimmer, 2015) and the World Tribune. The British investment website MarketOracel ran an article purportedly documenting the cyclical trend (Carlson, 2015). The Times of India even ran an article linking its own "Black Monday" to the Shemita cycle (Sinha, 2015). Jeff Berwick, presented similar linkages in his viral YouTube video "SHEMITAH EXPOSED: Financial Crisis Planned for September 2015," which at the time of this draft has close to 2 million views; however, his presentation lacked the religious connotation expressed by Cahn.

"Regarding Shemita, I want to state for the record that my discovery of it has emerged as part of my financial analysis. The Shemita has religious connotation but that's not my focus. The point is that there are evidence based ramifications to Shemita and from a practical standpoint, that's what I wish to investigate and address... What caught my attention was for the last day of the Shemita for the last two Shemitas in 2001 and 2008; fell on days with a major market collapse. The last day of Shemita in 2001 fell on 9/17 and that was the first day U.S. stock markets opened after 9/11. That day had the greatest one day stock market point crash in U.S. history up to that time. The Dow fell almost 700 points or 7% and it was a record that held for precisely 7 years until the end of the next Shemita year, that year was 2008. On 9/28/08, the exact final day of the Shemita, the Dow plummeted 777 points which still today remains the greatest one day stock market crash of all time" (Berwick, 2014)

Berwick's video claims to have traced the Shemita cycle beginning in 1907 and noted it's linkages with stock market declines in 1907 and 1931, WWII's beginning and end, the end of the Bretton Woods system 1973 and 1987's "Black Monday" (Berwick, 2014). The video concludes with the suggestion that investors can learn how to weather similar market conditions in September 2015 by purchasing his monthly newsletter for $39.99 (Berwick, 2014). Breaking Israel News, an online newspaper geared towards Evangelical Christians and Zionistic Jews, reported that, "an ANOVA test [revealed] that there was some basis for the financial advisor's strategy of avoiding investing in years that ended in seven. It gave a statistical advantage of 100 base points, with years not ending in seven averaging an annual return of 10.19 percent, compared to an overall average of 9.04 percent." (Berkowitz, 2015) This analysis was attributed to Thomas Pound, High

School math teacher, although no such analysis is available online or in any scholarly publication. The same story also appeared on World News Daily another online newspaper.

One is unable to determine how many investment decisions were made based on the assumption of an impending stock market crash in the fall of 2015 but it is known that at least 1 investment advisory company, "Shemitah Investment Advisors LLC," was specifically set up to employ market timing techniques based on that assumption. The firm's investment strategy explicitly states, "We will go "short" (bet against) the stock market in the summer of 2015, in the form of inverse ETFs, traditional shorts, and various put options depending on risk tolerance…. When the "short" positions are sold, likely in October, and hopefully after a crash in gold & silver prices, we will enter into a gold & silver mining investment, in the form of ETFs or individual stocks & warrants, depending on risk tolerance…. This gold & silver mining position will also be short term, as we believe that the political risk of gold legislation will increase rapidly in 2016. Therefore, the overall timeframe of this investing strategy is from the summer of 2015 until roughly the summer of 2016" (Hirelman, 2015). At the time of this draft, the 5575 Shemita year (roughly 9/2014-9/2015 in the Gregorian Calendar) has concluded without a dramatic market decline. While the Shemita cycle supporters either back pedal or move onto the next prophecy this essay will highlight the flaws of Cahn and his contemporary's analysis as well investigate how this phenomena came about thru the lens of behavioral finance.

2. An Empirical analysis of "the Shemita Effect"

Zenz (2015) presents an empirical analysis of Cahn's claims which outlines how the correlations discussed fail to adequately support a causal link due to their lack of consistency. While he did find statistically significant changes in the value of the Dow Jones Industrial Average for Shemita vs. non-Shemita months, the explanatory power was extremely low. Furthermore, he found no statistically significant difference in U.S. GDP change in Shemita years vs. Non-Shemita years between 1889 and 2008 using either annual or quarterly data. In order to more fully investigate the potential "Shemita effect" one should compare the monthly returns of broad market indices during Shemita periods compared with those immediately preceding and following the Shemita. Two indices will be considered, the Wilshire 5000 Total Market Index and the Russell 3000 Index. These indices are chosen because they arguably provide the most comprehensive picture of the U.S. market at any point in time.

The Wilshire 5000 Total Market Indexis a market-capitalization-weighted index of the market value of all stocks actively traded in the United States. At its inception there were 5000 stocks included, since that time the number has varied from a high of 7,562 on July 31, 1998 to a low of 3,776 as on December 31, 2013, currently 3,691 companies are included (Wilshire 5000 fact sheet). Monthly average, non-seasonally adjusted data was downloaded from the Federal Reserve Economic Database (FRED). Based on data availability the Shemita years of 1973, 1980, 1987, 1994, 2001 and 2008 are examined. Since the Jewish and Gregorian calendars do not match up perfectly, the Shemita period is defined for test purposes as September-November of the Shemita year. Both two-tailed t-tests and ANOVA analysis of the Shemita months compared with both the months immediately before and after the Shemita period reveal no statistically significant differences. For consistency the "Pre-Shemita" and "Post-Shemita" periods are defined as June-August and December-February of the Shemita and following years. Furthermore, there was no statistically significant difference between the index values in all of the Shemita months compared with all of the remaining months using either the two-tailed t-tests or ANOVA analysis.

According to the Russell 3000 fact sheet, "the Russell 3000 Index measures the performance of the largest 3,000 U.S. companies representing approximately 98% of the investable U.S. equity market." The index was developed with a base value of 140.00 on December 31, 1986. Monthly adjusted closing data was downloaded from Yahoo finance from September 1, 1987 to October 1, 2015. Based on data availability the Shemita years of 1987, 1994, 2001 and 2008 are examined. The "Pre-Shemita" and "Post-Shemita" periods are as defines above. Consistent with Wilshire 5000 results there are statistically significant differences between the Shemita months and non-Shemita months no matter how you parse the data. The combined results from both indices are shown below.

Table 1: significant differences between the Shemita months and non-Shemita month's data

	Wilshire 5000 Total Market Index		Russell 3000 Index	
	T-test	**Anova**	**T-test**	**Anova**
Shemita vs. Non Entire data set	0.379435195	0.400888839	0.631497996	0.356213
Shemita vs. Pre-Shemita	0.286427419	0.294587717	0.188817114	0.130344
Shemita vs. Post-Shemita	0.861078577	0.456181898	0.235689462	0.252659
Shemita vs. Pre & Post	.201954097	0.575966363	0.712678273	0.710245

As these results show, the invalidity of the "Shemita effect" can be quickly documented using freely available data and simple statistical analysis preformed on Excel, so why did it persist? The next segment will examine the behavioral heuristics exhibited by the Evangelical Christian investors and postulate why they may have been particularly susceptible to them.

3. Literature Review

A Review of the Behavioral Heuristics Exhibited: Behavioral finance is an ever evolving interdisciplinary field synthesizing research from finance, economics, psychology and neurology to examine how individuals make financial decisions and how those decisions impact the market as a whole. Recent research has shown that the same areas of the brain that generate emotional states also process information about risk and rewards suggesting that emotions influence financial decisions. Kuhnen and Knutson (2011) find that excitement induces risk taking and confidence in one's ability to evaluate investment alternatives. Conversely, they find that negative emotions such as anxiety have the opposite effects, thus they note that investors attempt to maintain a positive emotional state by ignoring contradictory information. This tendency underlies the basic behavioral heuristics that are exemplified by the Evangelical response to "the Shemita effect."

Confirmation bias: "A mind is a terrible thing to change. You decide gold is a good bet to hedge against inflation, and suddenly the news seems to be teeming with signs of a falling dollar and rising prices down the road. Or you believe stocks are going to outperform other assets, and all you can hear are warnings of the bloodbath to come in the bond and commodity markets. In short, your own mind acts like a compulsive yes-man who echoes whatever you want to believe. Psychologists call this mental gremlin the "confirmation bias"" (Jason Zweig, in the Wall Street Journal, November 19, 2009). The confirmation bias is the tendency for a person to place more weight on new information that supports their initial opinion and less weight on new information that runs contrary to it, thereby artificially subconsciously confirming their original opinions. This bias has been extensively studied beginning with Lord et al. (1979). Their study examined subjects' reactions to capital punishment. Subjects were presented with some evidence showing that the threat of capital punishment was an effective crime deterrent, and some suggesting that it was not. They found that both initial proponents and opponents to capital punishment tended to rate the evidence that was in line with their initial opinion as being more convincing and reliable and that their opinions after reading this mixed evidence were strengthened in the direction of their initial opinion, which is at odds with Bayesian theory. (Lord et al., 1979) Similarly, Darley and Gross (1983) find that subjects who are primed with a good initial opinion end up with an even more positive evaluation after viewing mixed evidence and vice versa.

Hart et al. (2009) present the most comprehensive synthesis of the literature in this area to date. Their meta-analysis examined 91 studies encompassing 8,000 participants. Their findings indicate that people are twice as likely to pay attention to information that is in line with their prior beliefs. They also note that confirmation bias is strongest when:

- the information received are of good quality
- the decision maker has a high commitment towards his prior beliefs (i.e. their religion lends credence to the idea)
- decision maker is less confident
- the subject is "closed-minded"

Consistent with this literature, the evidence of "the Shemita Effect" must have appeared to be everywhere for Evangelical Christians because, as documented above, it appeared on several media sites targeted towards the group thus perpetuating itself by generating further searches. Rabin and Schrag (1999) investigated the impact of the confirmation bias on belief formation. They found that confirmation bias can lead to overconfidence which in-turn can prevent adequate learning (changing one's opinion or view in light of new information) even after receiving an infinite amount of contradictory information.

Bandwagoning/Convergence: This tendency, often referred to as the bandwagoning phenomenon, occurs when one agent performs an action after witnessing others undertake the same action. Redmond (2003) shows that adoption and diffusion (the spread of adoption thru a network) is a social process facilitated by the would-be adopters desire to emulate their peers. Hirshleifer and Teoh (2003) present a hierarchy of convergent herd behavior rom A – the lowest degree to D- the highest degree. Their argument is as follows:

A. Convergence/divergence: the observation of others *can* influence an agent's actions
B. Observational influence: the observation of others influences an agent's actions in an imperfect way
C. Rational observational learning: the observation of others influences an agent's actions in a predictable Bayesian manner
D. Informational cascades: the observation of others is so informative that convergence/herding/adaptation is the only rational result

As explained by Celen and Kariv (2004), the most notable difference between scenario A and D is fragility. A is fragile because the agents have simply converged on an action simultaneously which can be changed if new contradictory information arises. D, on the other hand is stable, meaning that the effect is so strong that new contradictory information will have no effect. An example of this difference is observing that your friend makes the same investment decision as you or that Warren Buffet makes that same decision[1]. Your friend's decision to make an investment doesn't necessarily indicate to you whether or not this investment is "good", so you may either interpret this positively and invest more or negatively and sell; if however you observe Warren Buffet undertake an investment you will feel almost compelled to follow suit if at all possible. Logically, religious affiliations should have a strong impact on the degree of convergence /adaptation because it has been shown that individuals act in accordance with social norms of their peers (Kohlberg, 1984) and align their beliefs with those of the local culture and religion (Schneider, 1987). Furthermore, we know that people have the tendency to self-select their peers by choosing to work and live in an area where the local culture and religious beliefs are "most suitable for them" (Cialdini and Goldstein, 2004) thus reinforcing this relationship. There is no reason to expect that financial decisions should be exempt from this phenomenon, in fact; Kumar et al. (2011) showed that religious characteristics which had spread among neighborhoods actually affected the portfolio characteristics of institutional investors.

When the "Shemita effect" was explained on The 700 Club it likely almost immediately fell into category D and was probably taken as "gospel" given the prominence of the show and its host. As Prechter (2001) explained "anyone who shares a prevailing majority opinion on any subject, particularly one that is intensely attended by the emotions of the limbic system (such as…religion…), is treated with the respect due his obvious intelligence and morality." If that were the case, it would have been almost impossible for any individual Evangelical to voice a dissenting opinion since to do so would result in cognitive and emotional discomfort (Sunstein, 1996), or in Prechter's words, "One who utters an opposing opinion is immediately punished by a chorus of deprecating smiles, cackling, mooing, snorting, nipping or outright hostility." No one would want that but, Norenzayan and Shariff (2008) suggest that followers of a religious sect may be even more susceptible because they tend to be highly sensitive towards their reputation within the group. They show that individuals adapt to the business practices that satisfy the religious tenets of their co-religionist peers (Norenzayan and Shariff, 2008). When viewed thru the lens of this research, the confirmation/convergence/bandwagoning phenomena is clear: once Cahn's theory (which appeared to be of good quality) was given credence by Pat Robertson (a decision maker with strong commitment towards the idea) his followers (who we assume for arguments sake are less confident in their understanding of market forces) felt compelled to "jump on board" with the idea, thus perpetuating it.

[1]I'm honestly not sure who to attribute this example to. I have used it several times in my classes but I'm not sure where or if it is published.

Has anything like this ever happened before? Strange as these events may seem, there are several examples of the consequences of these biases through history, most notably the "Tulip Mania bubble" of 17th century Holland. Turkish traders introduced tulips to Holland in the early sixteenth century where they quickly became popular among the wealthy (Van der Veer, 2012). At first the market for tulips, particularly the rare varieties was composed almost entirely of wealthy well-informed merchants trading actual blooms. By 1634, however, a futures market had developed to facilitate sales throughout the year without the benefit of actually seeing the resulting flowers (Van der Veer, 2012). In addition to near continuous trading, this new market structure allowed traders to make a profit based purely on price fluctuations without having any knowledge of the underlying quality of the product (Goldgar, 2007). An informational cascade likely contributed the development of the speculative bubble. As Van der Veer (2012) notes, the traders were often linked to one another by religion, marriage, and/or profession, thus likely prompting them to assigned a greater weight to the decisions of other traders which, when aggregated across the entire market, came to outweigh the influence of private knowledge setting the cascade and eventual bubble in motion.

More recently, one may recall the panic surrounding "Y2K". Leading up to January 1, 2000 there were several media reports of a potential disasters resulting from computer programs whose software had been written with the year in two digit form (i.e.: 98 rather than 1998) assuming that January 1, 2000 was actually January 1st 1900! In the United States, President Bill Clinton appointed a "Y2K Czar" to insure that the military, financial and medical infrastructure of the country would survive the dawn of the new century while citizens stocked up on cash, canned goods, water and other supplies (Winerip, 2013). Philip & Harpold (2002) explored the media culture that sprung up in the midst of the panic which they explain lead to the publication of a dozen novels and half a dozen major motion pictures and straight to video films all based on the consequences of this single computer-programming oversite! Even the Reverend Jerry Fallwell weighted in stating, "I believe that Y2K may be G-d's instrument to shake this nation, humble this nation, awaken this nation from this nation start a revival that spreads the face of the earth before the Rapture of the Church." While there were undoubtedly programs that needed updating, the panic that ensued also illustrates the impacts of confirmation and bandwagoning biases.

4. Summary and Conclusion

Many Evangelical Christians believe that America is a land of spiritual exceptionalism ordained by G-d for greatness and that economic downturns can arise as a consequence of the loss of G-d's favor; so when Johnathan Cahn proposed the "Shemita effect" which purportedly linked the country's economic success or failure to a predictable biblically ascribed cycle, it quickly circulated thru the community. Cahn and his contemporaries touted claims that the seven year Shemita cycle mirrored stock market patterns over the last 50 years suggesting that the market would collapse in mid-September, 2015. News of this cycle quickly circulated thru the Evangelical media and at least one man was convinced enough to start an entire investment company based on this theory. The outside observer is left scratching their head and asking why this theory persisted and spread thru the community since it is easily disproven via basic statistical analysis of freely available data. This entire episode is a textbook case of confirmation bias and bandwagoning!

The confirmation bias is the tendency for a person to place more weight on information that supports his/her opinion and to discount information that runs contrary to it. It is known to be strongest when the information received is of good quality and the individual has a strong commitment to the belief (Hart et al., 2009). Cahn's book was a best seller and the story was picked up by several Evangelical and mainstream news sites which undoubtedly helped to increase the appearance of its credibility. Also, the argument as presented appears to be plausible. Furthermore, Evangelical Christian theology has ascribed negative economic events to sin in the past so the belief was already in the collective psyche. For these reasons, the average Evangelical investor likely believed that the "Shemita effect" was true. The cumulative effect of these individual beliefs likely lead to a nearly inescapable informational cascade whereby any attempt to disprove the phenomena could produce consequences ranging from psychological discomfort to potential ostracism so the idea was perpetuated. This episode presents a clear precautionary tale for all investors, regardless of their faith: recognize your personal biases and the biases of your information sources. From a policy perspective, the continued occurrence of these events illustrates the need for competent financial advisors and/or legitimizes the call for increased investor protection regulation.

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The Impact of Leadership Styles on the Entrepreneurial Orientation of Small and Medium Enterprises in South Africa

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Abstract: The critical role Small and Medium Enterprises play in the economic prosperity of nations cannot be understated. SMEs actively contribute towards economic growth and development through their active role as innovators and agents for change. The authors of this paper believe that leadership styles exercised by SME owners have a bearing on the innovative ability of SMEs. Hence, this paper aimed at investigating the impact of leadership styles on the entrepreneurial orientation of SMEs in Polokwane Municipality. A quantitative research method was used and 103 SMEs participated in the survey. The random sampling technique was used. Self-administered questionnaires were utilised to collect data in a survey. Data analysis included descriptive statistics, Pearson's correlation and regression analysis. Reliability of the data collection instruments was measured using the Cronbach's alpha. The results indicated that the SMEs display average levels of entrepreneurial orientation. In addition, the results showed that SMEs display average levels of leadership styles inclined towards transformational leadership style. Furthermore, the results showed a significant positive relationship between the independent variables: leadership styles with the dependent variable (EO) of SMEs. SMEs were recommended to provide flexible leadership styles that will make EO to flourish in their businesses. Furthermore, the policy makers and relevant authorities were recommended to devise and implement a consortium of strategies and policies that can increase the level of entrepreneurial orientation among SMEs in South Africa.

Keywords: *Entrepreneurial orientation, leadership style, SMEs, South Africa*

1. Introduction

There is growing importance for SMEs in various countries worldwide but most particularly in developing countries (Lekhanya, 2013).Unemployment in South Africa is estimated to be 27.1% (Statistics South Africa, 2016). The SME sector has been identified as a possible antidote to pressing challenges facing South Africa (Fatoki, 2012). As remarked by Abor and Quartey (2010), SMEs form a large percentage of formal business entities in South Africa, contributing above 50% towards total economic activity in the country. This contribution is sufficient to alert policy makers of how significant this sector is to the economy of South Africa. Worryingly, as noted by Fatoki and Garwe (2010), most small businesses in South Africa are haunted by premature death. In most instances, this is characterised by most small businesses failing in the introductory phase and others within the range of one to five years. According to Adeniran and Johnston (2011), the statistics of small businesses dying every year is recurrent and is recorded to be at least 70% and 80% at most, which is extremely high. Given such alarming statistics, debate has risen among scholars and policy makers whether this sector carries the so much anticipated solutions to a plethora of challenges facing South Africa. Bowen, Morara and Mureithi (2009) indicate the need to investigate factors, which can enhance SMEs' survival and growth. Fatoki (2014) finds that the factors, which inhibit SME growth and survival in South Africa, include internal as well as external elements of the business environment. Furthermore, the random failure of SMEs is also due to the weaknesses in their strategic framework and their inability to adopt EO (Awang, Ahmad, Asghar & Subari, 2010).

Studies such as Zulkifli and Rosli (2013) and Murimbika (2012) found that EO is important for SMEs survival and growth. EO is exhibited in businesses which are proactive, risky tolerant and embark on innovation to stay ahead of possible competitors (Palalic & Busatlic, 2015). Shahraki and Bahraini (2013) note that EO refers to owner or manager's strategy regarding innovation, leadership and risk taking. Van Geenhuizen, Middel and Lassen (2008) remark that EO has emerged as a sustainable solution to a plethora of challenges faced by various businesses. Thus, this study is of the argument that a well-implemented EO strategy can go a long way towards enhancing the survival and growth of small businesses in this country. A number of elements affect the entrepreneurial orientation of SMEs. Brettel, Chomik & Flatten (2014) and Muneer et al. (2014) identify organisational structure, leadership styles and organisational culture as some of the key drivers of entrepreneurial orientation. Arham, Boucher and Muenjohn (2013) observe that SMEs need effective leadership styles and EO to be successful in their business endeavours. Studies on EO in South Africa such as Mohutsiwa (2012), Bahula (2013), Matchaba-Hove, and Farrington (2015) have focused on its impact on performance. This study is driven by the goal to find out how the leadership styles employed by SMEs affect their entrepreneurial orientation.

Objectives: The objectives of the study were: (1) to identify the entrepreneurial orientation (EO) of SMEs (2) to determine the leadership styles of SMEs and (3) to investigate the relationship between leadership styles and the entrepreneurial orientation of SMEs.

Hypotheses
H_0: There is no link between leadership style and the entrepreneurial orientation of SMEs.
H_1: There is a significant link between leadership style and the entrepreneurial orientation of SMEs.

2. Literature Review

This study derives its theoretical support from two theories namely: entrepreneurial orientation theory and the leadership style theory respectively.

Theory of Entrepreneurial Orientation: The EO concept dates back to the 1970s (Covin & Wales, 2011). As one of the early contributors to the field, Mintzberg (1973), indicate EO as the key element in any entrepreneurial firm. According to Khandwalla (1976/1977), EO orientated firms ought to be dynamic, creative and vibrant to stay ahead of their competitors. SMEs driven by EO tend to integrate elements like risky taking, proactiveness and innovativeness to come up with a new product that drives competitors off the market (Miller, 1983). As Covin and Slevin (1988) indicate, leaders who have an EO mindset should lead entrepreneurially driven organisations. Covin and Slevin (1989) note that businesses in more competitive and unstable environments should consider embracing the EO concept compared to their counterparts who operate in more stable business environments. According to Miller (1983), the EO scale consists of innovativeness, risk taking, and proactiveness. A significant number of studies in the existing literature have used the above three measure of EO, reporting high levels of reliability and validity. Lumpkin and Dess (1996) added aggressiveness and autonomy to the existing EO measures. They argued that this could be able to give an in-depth and dependable measure. This contribution adopts a unidimensional approach to EO by focusing on the three aspects of entrepreneurial orientation conceptualised by Miller (1983).

The EO theory provides an important framework for researching entrepreneurial activity, which is a key ingredient towards high performance of SMEs. SMEs in South Africa should consider incorporating EO in their organisations if they are to survive and grow into future large firms that provide a dependable job creation capacity (Fatoki, 2012). EO is associated with high firm growth (Mwangi & Ngugi, (2014). Muchiri and McMurray (2015) note that firms, which invest on EO, outcompete their rivals in most cases. Many factors can affect the entrepreneurial orientation of SMEs. According to Musa, Ghani and Ahmad (2011), these factors can be internal or external. Internal factors include organisational structure, leadership style, firm size and management techniques among others while external factors include state of the economy, growth and trends in the industry, government rules and regulations (Musa et al., 2011). This study chooses to elaborate on internal factors that affect EO particularly leadership styles. According to Miller (2011), current literature emphasises a need to explore more on internal factors affecting EO.

Leadership Style Theory: Manaf and Latif (2014) defined leadership style as a pattern of behaviour or attitude displayed by a leader in his/her area of influence. To help explain leadership styles various theories have been postulated. These include Burns (1978) and Bass (1985). Bass (1985) built on Burns's (1978) concept of leadership style comprising of transformational and transactional leadership style by adding the laissez-faire leadership style. Avolio and Bass (1991) developed a full-fletched leadership theory to improve on the existing measures. This study focused on transformational and transactional leadership style. The use of laisez faire leadership style has become uncommon in the existing literature hence a decision to drop it in this study.

Transformational Leadership Style: Tarsik, Kassim and Nasharudin (2014) define transformational leadership style as a style demonstrated by leaders who are driven by the desire to unleash the best out of their followers, which enhance productivity and morale in the entire organisation. On that note, the author of this paper believes that transformational leadership style is a key ingredient for firms aiming to reduce high rates of absenteeism, resistance to change and undesirable levels of turnover. Kwasi (2015) further describe transformational leadership as a leadership style where the leader takes an inclusive approach towards meeting the desired targets. Transformational leaders are optimistic, exhibit enthusiasm and they emphasize commitment to a shared goal (Lai, 2011). According to Bass (1985) transformational leadership, style consists of five factors: inspirational motivation- charisma idealised influence, intellectual stimulation and individualised consideration.

Transactional Leadership Style: According to Tarsik et al. (2014), transactional leadership style is exhibited in situations where gains are realised after certain set standards are met. For example, management can set individual goals, which each person should accomplish to get a bonus or a salary increase. However, this is made transactional in that employees will also demand certain resources and support from management to meet the set targets at specified deadlines. Kwasi (2015) remarks that transactional leaders are more task-or goal-oriented than people-oriented. On that note, transactional leaders define objectives and set expectations from each employee prior to the execution of the task (Martin, 2015). For the purpose of this study, transactional leadership style is explained in terms of two factors: contingent reward ad management-by-exception.

Leadership styles and entrepreneurial orientation: Businesses in this 21st century are exposed to a plethora of challenges such as stiff competition, short product life cycles among others all emanating from globalisation. Organisations are therefore required to adapt to the dynamic business environment lest they risk going out of business. It calls for transformational leaders who can initiate change to replace old systems with new ones to keep businesses relevant in the markets they serve. A plethora of studies on EO-leadership relationship has focused mainly on large organisations rather than on SMEs (Muchiri & McMurray, 2015). On that note, it is crucial to understand how it is applied in SMEs bearing in mind that both resources and management to support EO differ greatly between large organisations and SMEs (Muchiri & McMurray, 2015). The context of this study is to link EO of SMEs with each leadership style. According to Panagopoulos and Avlonitis (2010), leadership style is a crucial requirement if a firm desire to adopt an EO strategy successfully.Transformational leadership style is perfectly suited for firms considering adopting EO(Shahraki & Bahraini, 2013). On that note, transformational leaders actively promote creativity and information transfer through their charismatic behaviour (Shahraki & Bahraini, 2013). Studies such as (Nahavandi, 2006) indicate that a transactional leader creates an entrepreneurial orientation atmosphere in the organisation through the concept of exchange. The leader promises the followers some benefits if they meet or surpass the set targets. Various studies like, Oncer, (2013); Shahraki and Bahraini, (2013); Arham et al. (2013) report a significant link between leadership style and entrepreneurial orientation. This paper argues that the development of good leadership style can be a remarkable step towards improving the EO of SMEs.As such; the authors of this paper believe that a significant association exists between leadership style and EO.

3. Methodology

This paper utilised a quantitative research methodology.The respondents were randomly selected to give each SME a chance to be selected. The study area was Polokwane in the Limpopo province of South Africa.Self-administered questionnaires were utilised in a survey to collect data from the respondents following similar studies (Arham et al., 2013; Arham, 2014). Closed ended questions were used where respondents were limited to respond to a set of answers provided in the questionnaire. The questionnaire for the study consisted of three sections; (1) Biographical questions (2) Entrepreneurial orientation and (3) Leadership style. The questionnaire was adapted from existing literature. This questionnaire was used following similar studies on EO (Fatoki, 2012; Soininen, 2013; Mahmood & Hanafi, 2013) where the tool showed high levels of reliability and validity. The Multifactor Leadership Questionnaire (MLQ) to measure leadership styles was adopted from Avolio and Bass (2004). A sample of 103 SME owner/managers participated in the survey. Likert scale questions ranging from: strongly disagree to strongly agree were utilised in the study to obtain data. Data analysis included descriptive statistics, regression analysis and Pearson correlation coefficient. Reliability was measured using the Cronbach's alpha.

4. Research Results and Discussion

Normality can be tested using the Kolmogorov-Smirnov test. This tool was used to test normality since the sample size of 250 SMEs was above the stipulated 100 and above sample size. The Kolmogorov-Smirnov test showed significance measures greater than 0.05. Therefore, it can be deduced that the requirement for normality is satisfied.

Response rate: Table 1 above reflects the response rate of the study. Two hundred and fifty questionnaires were distributed to SMEs in Polokwane Municipality and one hundred and three questionnaires were returned. The response rate was forty-one percent.

Table 1: The response rate

Respondents	No. of questionnaires sent	No. Returned	Response rate
SME owners/managers	250	103	41%

Biographical information: Majority of the participants were males (63%) compared to only (37%) females, falling in the 31-40 age group. This is consistent with studies such as Garwe and Fatoki (2012) as well as Brijlal, Naicker and Peters (2013) which points out that male still own more SMEs than females in South Africa. According to Wealthwise (2014), this huge gap is attributed to the fact that women find it difficult to create a family-work balance. From the findings, it was discovered that the majority (38%) of the respondents of the study have matric qualification. The findings are consistent with the results of Van der Merwe and de Swardt (2008) and Agbenyegah (2013) that individuals with matric own a sizeable percentage of small businesses or equivalent qualifications. A significant number of SMEs (34%) are sole proprietors with majority of them in the retail sector. It was discovered that majority of SMEs employ 1-5 people which indicate that SMEs' contribution to employment creation is relatively weak. Fin Mark Trust (2015) attributes this to the reason that most of them do not grow. Worryingly the results showed that most of the SMEs (41%) have been in operation for between 1 and five years. The findings tally with similar studies (Fatoki & Garwe, 2010) which report that SMEs in South Africa fail in the early stages of the business growth phase.

Factor analysis: Factor analysis aims at reducing the many observable variables into fewer meaningful categories (Yong & Pearce, 2013). Factor analysis was run to check if the variables of the entrepreneurial orientation and leadership styles tally confirm the underlying variables as indicated in the existing literature. Furthermore, this tool was used to verify the discriminant construct validity of measures. Using this statistical analysis tool, items loading above 0.5 and those loading only to one factor loading were considered for further statistical analysis.

Table 2: Factor analysis results of EO variables

EO Measures	Factor 1 Innovativeness	Factor 2 Proactiveness	Factor 3 Risk taking
1. My business has introduced a number of new lines of products and services recently.	0.741		
2. We have experienced dynamic changes in our products and services in recent times.	0.663		
3. My business is generally inclined towards new product and development.	0.434		
5. My business aims to always be the first to introduce new products or services in the market.		0.717	
6. My business always takes a proactive stance when dealing competitors.		0.637	
7. Due to the dynamic nature of the business environment, our business takes a bold stance in order to meet our goals.			0.724
8. My business tends to be aggressive in order take advantage of opportunities.			0.691
9. My business has a huge appetite for high risk/high return projects.			0.593
Eigen value	4.37	2.35	1.49
Percentage of variance explained (74.52%).	28.36	27.43	18.73

Cronbach's alpha	0.743	0.749	0.761

Source: Principal components factor analysis with varimax rotation. Kaiser-Meyer-Olkin (KMO) test of sampling adequacy =0.74; Barlett Test of Sphericity (BTS) = 459.879, p=0.000

Factor analysis for entrepreneurial orientation measures: Table 2 shows factor analysis results. As shown above, three factors with Eigen values greater than one were identified. These are innovation consisting of three variables, proactiveness consisting of two variables and factor three is identified as risk-taking and is made up of three variables. The Cronbach's alphas are greater than 0.700. This is consistent with other studies (Fatoki, 2012; Filler, 2013; Arham, 2014). The factor analysis was able to retain all the variables from the original tool adapted from Miller (1983). This suggests that all the variables above sufficiently measure the underlying EO factors.

Table 3: Factor analysis for transformational leadership style

Transformational Leadership Style Measures	Factor 1idealised influence	Factor 2 Intellectual stimulation	Factor 3 Inspirational motivation
1. I strive to make my employees valuable when they are with me.	0.86		
8. My employees totally trust me.	0.76		
15. My employees enjoy my company.	0.68		
3. I challenge my employees to develop new problem solving techniques.		0.83	
10. I teach my employees to be creative to improve the way they view things around them.		0.67	
17. I get others to rethink ideas that they had never questioned before.		0.60	
2. I express with a few simple words what we could and should do.			0.78
9. I provide appealing images about what we can do.			0.66
16. I help others find meaning in their work.			0.58
Eigen value	3.43	2.12	1.69
Percentage of variance explained (64.79%)	24.32	21.42	19.05
Cronbach's alpha	0.77	0.78	0.74

Source: Principal components factor analysis with varimax rotation. Kaiser-Meyer-Olkin (KMO) test of sampling adequacy =0.79; Barlett Test of Sphericity (BTS) = 489.001, p=0.001.

Factor analysis for transformational leadership style: Table 3 present factor analysis results for transformational leadership style. Three factors were identified: Factor 1 Idealised influence, Factor 2 Intellectual stimulation and Factor 3 Inspirational motivation. Items from individualised consideration were dropped as their factor loadings were less than 0.5. The results are consistent with the findings of (Arham, 2014).

Factor analysis for transactional leadership style: As shown above two factors with Eigen values greater than one were identified. These are Factor 1 Contingent Reward and Factor 2 Management by Exception with three items each. The results indicate that SME owners/managers clearly specify standards expected of employees.

Table 4: Factor analysis for transactional leadership style

Transactional Leadership Style Measures	Factor 1 Contingent Reward	Factor 2 Management by Exception
5. I clearly tell my employees what is expected of them to get a reward.	0.82	

12. In my organisation we reward employees when they meet the set goals.	0.76	
19. I clearly state the rewards associated with a certain output beforehand.	0.57	
6. It pleases me when my employees meet the set goals and targets.		0.78
13. I normally don't change anything if workplace activities are smoothly flowing.		0.76
20. I clarify the job specifications so that employees know the standards they have to meet.		0.61
Eigen value	2.61	1.94
Percentage of variance explained (53.82%)	28.47	25.35
Cronbach's alpha	0.76	0.73

Source: Principal components factor analysis with varimax rotation. Kaiser-Meyer-Olkin (KMO) test of sampling adequacy =0.79; Barlett Test of Sphericity (BTS) = 479.001, p=0.001

Hypothesis Testing

Table 5: Correlation results

Correlations		**EO**	**Transformational leadership style**	**Transactional leadership style**
EO	Pearson Correlation	1	.870**	.626*
	Sig. (2-tailed)		.000	.022
	N	103	103	103
Transformational leadership style	Pearson Correlation	.870**	1	.606**
	Sig. (2-tailed)	.000		.000
	N	103	103	103
Transactional leadership style	Pearson Correlation	.626*	.606**	1
	Sig. (2-tailed)	.022	.000	
	N	103	103	103

Link between leadership styles and entrepreneurial orientation: Table 5 above shows the correlation results. The correlation between EO and transformational leadership is (r=0.870, p =0.000) while the correlation between EO and transactional leadership style is (r=0.626, p=0.022). The findings show that the two leadership styles are positively correlated to EO however mostly with transformational leadership style. The results support the hypothesis that there is a significant link between leadership styles and EO of SMEs. The findings tally with other studies, which investigated similar concepts (Oncer, 2013; Shahraki & Bahraini, 2013; Arham et al., 2013).

Link between leadership styles and entrepreneurial orientation: Table 6 above shows regression analysis results. The regression analysis results between transformational, transactional leadership style and EO are (B= 0.195, sig= 0.000 and B = 0.105, sig =0.000) respectively. The results support the alternative hypothesis (**H_1**) that there is a significant link between leadership style and the entrepreneurial orientation of SMEs. Based on the confidence interval of 95% and Sig.>0.05 this led to the decision to reject the null hypothesis (**H_0**) and accept the alternative hypothesis (**H_1**). The results are consistent with studies (Nahavandi, 2006; Shahraki & Bahraini, 2013; Oncer, 2013).

Table 6: Regression analysis results

Independent variables	**Beta**	**T**	**Sig**
Transformational leadership style	0.195	44.910	.000
Transactional leadership style	0.105	22.799	.000

Source: Data Analysis. Dependent variable: Entrepreneurial orientation. Sig.>0.05

5. Conclusion

The argument of this study was that entrepreneurial orientation is a possible antidote to a plethora of challenges causing SMEs in South Africa to fail. Therefore, it was of significance to understand the factors that improvement repreneurial orientation. It was deduced that leadership style significantly predicts EO of SMEs. The results indicated that the owners/managers display average levels of entrepreneurial orientation. In addition, the results showed that SMEs display average levels of leadership styles inclined towards transformational leadership style. From hypothesis testing, (**H_0**) was rejected. The final decision was to accept the alternative hypothesis. It was concluded that leadership style is significantly linked to EO. This calls for a strong need to improve on this factor since it's a crucial determinant of EO in firms. The findings of this study serve an important role towards contributing empirically and theoretically to the existing EO literature as well as an aid for policy making as will be discussed below. Recommendations to policy makers and SMEs owners/managers on the different measures they can embark on to improve EO were suggested in the following section.

Recommendations: The statistics of SMEs struggling to reach their projected growth targets is on the rise in South Africa. This raises questions on whether SMEs are a sustainable solution to a plethora of problems haunting South Africa. The authors believe that an entrepreneurial orientation strategy can be a panacea to the random SMEs failure in South Africa. Recommendations are made towards two crucial bodies; SMEs and the government (policymaking body).

SME owner/managers: It has been noted from empirical findings that leadership style is a good predictor of EO. Hence SMEs are recommended to provide flexible leadership styles that will make EO to flourish in their businesses. Furthermore, SMEs are recommended to maintain a mix of the two leadership styles (transformational and transactional) since they complement each other. In addition, the reward systems both monetary and non-monetary for SMEs should be structured in a way to encourage EO.

Government (policy making body): The results obtained from this study should give policy makers and relevant authorities a firm ground to devise and implement a consortium of strategies and policies that can increase the level of entrepreneurial orientation among SMEs in South Africa. Some of the policies may include the following:

- The government can also help SME owners acquire and improve their leadership styles and entrepreneurial orientation by creating entrepreneurship training centres in all the provinces in South Africa. This should be made easily accessible to all deserving SME owners from different sectors.
- Role models play a critical role towards motivating entrepreneurs. On that account the government should through its different bodies, conduct workshops where prominent entrepreneurs are given a platform to share their success stories.
- Policy makers should also embark on a more comprehensive support including the collaboration of all sectors in the society.
- Furthermore, the government should put in place business incubation and mentorship services to assist SMEs from start-up to until the growth stage. This should include practices whereby the government makes it a requirement for large organisations to be business incubators for one or two SMEs. However, the government will need to incentivise these large organisations to make the initiative sustainable.

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Re-Thinking a Structural Model for M-Phone Paying among South African Consumers

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Abstract: Contemporary payment systems have transformed global businesses extensively. Nevertheless, despite its vast prospects, the widespread utilisation of mobile phone technology for payment transactions (m-phone paying) and reproduction of pecuniary structures has only been hemmed in among a small number of markets. The proliferated reliance on mobile payment services has not been witnessed universally, suggesting that even success stories are still ambivalent and as a result, cannot be easily replicated. This paper is intended to address this issue by evaluating the determining factors towards the continued use of m-phone payment services by existing South African customers. The research model was tested using SMART PLS 3, upon examining the antecedents of users' intentions toward embracing the emerging mobile phone in commercial transactions. A cross-sectional study was performed on a sample of 474 consumers, wherein security and usefulness were validated as having significant and direct effects on consumers' attitude towards m-phone paying, of which the latter influences future intentions. The relevance of customers' future intentions towards m-phone paying was established, thereby sanctioning the idea to include the variable as a proxy for actual usage in technology adoption research. This study provides sound reason for cumulative research that seeks to refine novel models of technology acceptance even further. For marketers and m-phone technologists, understanding the key determinants is vital towards the upgrade and implementation of m-phone payment services. In lieu of this, delivering m-phone applications and payment services that achieve high usage, value and consumer laudation will be an inevitable boon.

Keywords: *Mobile, m-phone paying, consumers, South Africa*

1. Introduction

Mobile telephony and the Internet itself are of such transformative significance to contemporary society and as such, have been the target of many researches (Abrahão, Moriguchi& Andrade, 2016:221; Overbr, 2014; Diniz, Albuquerque &Cernev, 2011; Cernev, 2010; Dahlberg, Mallat, Ondrus&Zmijewska, 2008; Rao &Troshani, 2007). Generally, mobile devices are considered portable, ubiquitous technologies of which users have a close personal relationship with the physical device involved (Zhong, 2009). Mobile devices, especially the smartphone, remain the centrepiece in which payments could be initiated, apart from being the flagship instrument in the conflux between communication and entertainment functions (Rao &Troshani, 2007). Companies related to the sectors of communication and payments are focused on good business opportunities that are a result of the fulfilment of such needs (Overbr, 2014). Among the services delivered using mobile phone devices such as access to information, entertainment and transaction permissions (ticket bookings, banking, money transfers, tracking orders and verification of banking account records), there is a trend called mobile payments (hereinafter referred to as m-phone paying).

Broadly speaking, m-phone paying draws from the m-payment notion, which is defined as "a process in which at least one phase of the transaction is conducted using a mobile device capable of securely processing a financial transaction over a mobile network or through various wireless technologies" (Ghezzi, Renga, Balocco&Pescetto, 2010:5). Equally, Dahlberg et al. (2008:166) designate mobile payment to be the "payment for goods, services and bills with a mobile device while taking advantage of wireless and other communication technologies". These two definitions encapsulate all types of mobile devices, including mobile phones and personal digital assistants (PDA). Liu, Kauffman and Ma (2015) extend the definition to encompass other monetary exchanges, including banking. Nevertheless, Donner et al. (2008:319) enumerate more related concepts in the field. For instance, the scholars pointed out that m-banking, m-payments, m-transfers and m-finance refer to a communal practise that enables the use of mobile phones by individuals for commercial practises. However, to ensure lucidity, the scholars singled out mobile money, mobile transfer and mobile banking as systems involving simple direct consumer-bank relations. This could encapsulate the checking and storage of value in bank accounts that are linked to mobile phones. Notwithstanding this, mobile phone paying is a process comprising triple players, namely the consumer, commercial retailer and the bank (Olivier et al., 2016). Resultantly, the mobile device has transcended into a definitive method of payment as it permits an all-inclusive convergence between the consumer, consumer's bank and the merchant by using a financial switch (Ondrus&Pigneur, 2007). The focus of this research is exclusively on payments that are conducted using the mobile phone alone, in accordance with previous definitions and distinctions presented. Thus, while m-phone paying includes the payment operations linked to mobile transactions and mobile money, the practise has the advantage of being neutral and universal and is thus considered well-matched for fulfilling the goals of this study.

When technological innovations are associated with the mobility of individuals, a trajectory is evident on the social and professional development of societal members (O'Reilly, Duane & Andreev, 2012). For instance, the extensive usage of mobile phones and the uninterrupted closeness of the devices to the users render them suitable for m-phone payment scenarios. This positions the real commercial significance of mobile phones at the fore. Duane, O'Reilly and Andreev (2014) attest that there are several benefits from conducting commercial payments using mobile devices. Relatedly, the use of mobile phones for payment transactions eliminates the need to use cash (Pham &Ho, 2015), thereby offering convenience and speed (Teo, Tan, Ooi, Hew & Yew, 2015). In addition, the rapid transfer of secure data between devices is made possible (Leong, Hew, Tan & Ooi, 2013). According to the Gartner Group (2012), the value of transactions conducted through mobile devices exceeded $171.5 billion in 2012, across all global markets. In particular, the practise of sending and receiving money has proven to be a success in sub-Saharan Africa, with approximately 16 percent of adults reported as having engaged in the practise in 2012. Furthermore, a global media report revealed that the proceeds realised from mobile payments is projected to surpass USD721 billion in 2017 (Statistica Corporation, 2015), thus rendering m-phone paying an imperative for completing financial transactions. In this vein, m-phone paying could be considered a key enabler of mobile commerce, since such payment initiation mechanisms are the anchor for convenient mobile commerce transactions.

Accenture's (2014) media intelligence report predicts that the mobile payments volume in South Africa will reach over R83 billion by 2017 with 60 percent of South Africans planning to make a commercial payment of sorts, using their mobile phone. Even so, actual m-phone subscribers are fickle, demonstrating erratic behavioural trends that are not strategically viable for the success of a mobile device as a platform for initiating transactions. Nevertheless, since mobile phones are readily available (Dinizet al., 2011), m-phone paying could be the instrumental solution for overall financial inclusion in South Africa. This could have an unprecedented effect on reaching rural communities and other individuals with poor access to mainstream financial services, owing to the lower costs of conducting transactions. Thus, if commercial transactions were to be conducted on mobile phones, they could relatively easily and cheaply, reach people who are excluded presently. The contribution of this study is twofold. First, the paper aims to identify the direct and indirect effects of various antecedent variables towards m-phone paying. This objective is clarified by complementing earlier research that underscores the salience of the technology acceptance model (hereinafter referred to as TAM). The second objective of this work pertains to complementing the findings of earlier studies, thereby expanding cumulative knowledge regarding the determinants of m-payment future intentions within a South African context.

2. Literature Review

Howard and Sheth (1969) explain consumer behaviour based on rationality, comprising the consumer's organisation of decision-making processes as well as the external impacts that stimulate an individual to purchase. Drawing from this, a process view is presented whereby both commercial and social stimuli act as inputs that promote individual reactions regarding purchase choices and behavioural decisions. Such stimuli often comprise the expectations generated by the efforts of marketers, pricing, quality and ease of use among others (Schiffman, Kanuk & Wisenblit, 2010). Such stimuli compel consumers to collect and process information about the available goods and services while synthesising the learning step. The individuals are then able to evaluate all possible alternatives using a set of heuristics implying that a mental pre-disposition is aroused. While the ensuing attitude may be favourable and/or unfavourable, consumers' feelings linked to both environmental and individual influences culminate into a decision or intent to participate in specified acts.

This article forms part of the continuing scholarship on consumer behaviour in which different authors have sought to explain the behaviour of individuals in the face of technological innovations through varied theories and models. Scholars such as Abrahao et al. (2016) have endeavoured to identify the most relevant factors in the adoption of new technologies. Ideally, a model that is useful in both a predictive and explanatory capacity is required by both researchers and practitioners to enable the identification of formulae of corrective measures for that particular system to be acceptable.

The TAM sets the undertones for this study as it has been applied universally, in research concerned with information systems (Abrahao et al., 2016; Jeong & Yoon, 2013). The TAM is used widely owing to its simplicity and parsimony (Jeong& Yoon, 2013:34). In addition, the TAM seems to provide a better foundational theory for this study owing to its specificity in addressing the antecedents of technology use, as compared to the theory of reasoned action (TRA) as well as the theory of planned behaviour (TPB), which generally are considered generic human behaviour theories. Within this vein, Davis, Bagozzi and Warshaw (1989:985) postulate that a fundamental purpose of TAM is to "provide a basis for outlining the impact of external factors on internal beliefs, attitudes and intentions of technology users". As such, TAM proposes that two particular beliefs, namely perceived usefulness and perceived ease of use are the primary enablers of new technology usage. These two variables influence intention to use a system, of which the latter is associated with actual use.

Davis et al. (1989) define perceived usefulness as "the customer's subjective belief that using a particular system would enhance his or her job performance in an organisational context". This definition provides direction regarding the beneficence afforded by new technologies. In the context of online platforms, perceived usefulness indicates that the use of a given technology might be useful for someone to achieve a particular result (Abrahao et al., 2016). In which case, along mobile contexts this would include the extent to which the consumer believes that the payment process will offer access to useful information and will speed up transactions.On the other hand, perceived ease of use refers to "the individual's perception that using a certain system is effortless or simply easy to do" (Daviset al., 1989:986). Since mobile phones come with a number of restrictions, ease of use inevitably becomes a vital enabler of payment services performed along this platform. This is because mobile applications compete with traditional payment solutions on key aspects such as clear symbols, function keys and graphic display. As such, this construct encapsulates consumers' perceptions regarding the easiness of m-phone paying, rather than the actual features of the mobile phone, *per se*. For this reason, ease of use has been validated as having a positive influence on the acceptance of new technology.For all of the abovementioned reasons, both usefulness and ease of use are incorporated in this study as underlying antecedents. Therefore, given that m-phone paying is considered an innovation within existing payment systems of different countries, the benefits afforded by mobile phones are related closely to its advantages. Akin to the aforementioned determinants, security was incorporated as a third determinant since m-phone paying involves detail about transactions that could be personal and sensitive to users (Duane et al., 2014).

Oliveira, Thomas, Baptista and Campos (2016:412) identify security as a future research direction in mobile technology related works, thereby augmenting the scope of this study. According to Mallat (2007:416), subjective security refers to the degree to which a person believes that using a particular payment procedure would be secure. Generally, consumers are concerned about issues relating to confidentiality of their personal details, verification and unauthorized access to user data by unauthorized persons (Kim, Mirusmonov & Lee, 2010:86). Since the applications that operate on the majority of mobile devices function on an open network with no direct human control over individual transactions, it is necessary to develop infrastructure that is hardened against security breaches. A secure payment system should protect consumers against fraudulent activities and further support consumer privacy.

The seminal work by Fishbein (1963) predicated that attitudes reflect people's favourable or unfavourable feelings toward a given behaviour. By implication, the attitudes of consumers mature progressively, consistent with product or service experiences. Research has shown that attitude is an essential pre-requisite of the intention to develop a skill associated with technology use (Fishbein & Ajzen, 1975). Notwithstanding this, other scholars allude that attitude is a multi-dimensional construct comprising a cognitive, emotional and conative or behavioural dimension (Schiffman et al., 2010). The knowledge, perceptions and beliefs that are acquired during use, denote the cognitive component. Similarly, affect (emotional) refers to the individual's feelings and preferences while the conative component is the behavioural intention or inclination to perform (or not) a particular action. The main criticism against the triple-perspectives view is related to the lack of independent measurements of the tripartite set of dimensions. Furthermore, the majority of consumers only respond to the emotional component, which largely complicates the correct measurement of users' attitude (Abrahao et al., 2016). This paper proffers a one-dimensional (emotions) conception, whereby previous beliefs and experiences with m-phone paying is an antecedent, while a user's willingness or conative component stands as a direct consequence of consumers' attitude. In this way, the study relocates the cognitive and conative components outside the conceptualisation of attitude while only the conative component is re-named 'future intentions to conduct m-phone paying' in this work.

Future intentions to conduct m-phone paying: Traditionally, Fishbein and Ajzen (1975:307) have conceptualised the behavioural intentions variable as "the degree to which a person formulates conscious plans to perform or not perform some futuristic behaviour". At this level, both personal and socially induced influences tend to propel individuals to behave in a particular manner. Consequently, Malhotra and McCort (2001:241) impress upon elements comprising the careful reasoning and conversion of individual plans into actionable goals based on experiences with a product, service or technology (Schiffman et al., 2010). While the construct has not been attended to by researchers in other instances, Miltgen, Popovic and Oliveira (2013) position the intentions variable as a type of behaviour that occurs and continues well after users have embraced mobile technology. Drawing from this, future intentions is nominated as the dependent variable in this research since intentions is a principal contributing factor towards definitive actions, albeit in futuristic circumstances. Consistently, several researchers have used intentions as a substitute for actual behaviour (Yu, 2012; Teo, Luan & Sing, 2008; Kim, Chun & Song, 2009; Ajzen, 1989). This approach shadows Solomon, Bamossy, Askegaard and Hogg (2006:157), who noted that there was an affirmative correspondence, in the direction of actual usage when quantitative surveys utilise an intention to use measure. In this study, future intentions is operationalised as the effort of making conscious plans to conduct commercial payments through the mobile phone, in future encounters.

Study hypotheses: The literature throws spotlight upon several validated works, thereby presenting the prospects to test a series of hypotheses in this work. Initially, as already alluded to, m-phone paying is of such a delicate nature since monetary instruments are deployed. Therefore, when consumers advance a positive perception of security and trust in the technology, confidence in the exchange relationship increases and further encourage open, substantive and influential information exchanges (Yousafzai, Pallister & Foxall, 2009). Therefore, security is a "key element in consumers' decisions to adopt mobile payments" (Lin, 2011:256). Moreover, security is linked indirectly with the intentions variable, through attitude.This espoused path concurs with the finding by Meharia (2012) as well as that of Wang and Idertsog (2015). Therefore, it is anticipated that:
H_1*: *Perceived security has a direct and significant effect on attitude towards m-phone paying.

The usage of mobile phones for payments often is motivated by the usefulness of technology in fulfilling daily tasks (Kim et al., 2010). As such, the decision to conduct a payment transaction through the mobile phone will be evaluated by the consequences of such an act. To the time-poor consumer, convenience and compatibility with modern lifestyles is afforded while the merchants benefit from reduced costs per transaction owing to the diminution of brick and mortar branches. Revels, Tojib and Tsarenko (2010:76) established that perceived usefulness is an antecedent towards favourable attitude evaluations of a new technology. Erasmus, Rothmann and Eeden (2015), who attest that a customer will conduct m-payments based on the belief that the platform assists consumers to process tasks fittingly, support this relationship. Therefore, the inference is that when consumers find m-payments both valuable and beneficial for their everyday needs, they are likely to develop positive affective evaluations towards the payment solution. Therefore:
***H_2*: *Perceived usefulness has a direct and significant effect on attitude towards m-phone paying.*

While m-phone paying could offer immense benefits to users, it is possible that usefulness of the platform could be eclipsed by the effort required to process transactions; all the more reason for m-phone paying to be an effort-free activity. Put simply, consumers will be attracted to the notion of conducting payments by mobile phone if the process is user-friendly. This study is predicated upon the assumption that an easy to use m-phone paying service could influence the intention to use mobile payments, albeit through the attitude construct. Therefore, it is stated thus:
H_3: *Perceived ease of use has a direct and significant effect on attitude towards m-phone paying.*

A favourable attitude is formed after perceiving benefits and risk-reduction outcomes associated with conducting payment transactions on the mobile phone. Such evaluations determine future intentions, which most likely ascertain users' acceptance of m-payment technology and related services (Choi, Lee & Ok, 2014). Similarly, Hsiao and Chang (2013) concede that technology users' participation in mobile-based transactions is affected by both rational decisions and affective commitment. Therefore, this study asserts that:
***H_4*:** *Attitude has a direct and significant effect on future intentions towards m-phone paying.*

Problem under investigation: While South Africa is among the top five markets with a high mobile payments readiness score of 29.1, success of the platform is still mediocre (Grubb, 2012). This suggests that the country has not developed adequate capacity yet, for the broad diffusion of mobile technologies across the national continuum. Nevertheless, Dlodlo (2015) refers to 'an elusive dream,' when portraying the degree of mobile paying advancement in the country. This is the current state of affairs; regardless of the fact that acceptance is a key issue that provides direction as to whether consumers will proceed to conduct m-phone paying in forthcoming instances. According to Oliviera, Baptista and Campos (2016), extensive publication effort and documented empirical works exist in the area of Internet banking, in comparison with other systems in the financial sector. Nevertheless, some authors (Slade, Williams, Dwivedi & Piercy, 2014) contemplate that scientific enquiries into the espousal of mobile phone services for commercial reasons are in their early stages. Moreover, the previous lustrum paints a picture of scarce publications on mobile phone payments (Leong et al., 2013; Slade et al., 2014; Tan, Ooi, Chong & Hew, 2014) within top tier journals. Interestingly, the aforementioned referred works advocate for more country-specific studies in this area. Furthermore, quantitative research focusing on mobile phone technology in South Africa is rudimentary and does not employ modelling techniques to test and prove hypotheses.

3. Methodology

Data were collected from a cross-section of participants, using the quantitative research approach. The motivation for following a quantitative approach was in the thoroughness and bias-free nature with which the methodology is applied (Malhotra, 2010).

Research instrument: The measures applied in this research were acquired from previous studies. However, there was need to substitute the words 'm-phone paying', to ensure consistency with the unit of analysis and goals of this research. A structured questionnaire was chosen as a measuring instrument as it is simple to administer and reduces the variability in the results thereby enhancing generalisability (Malhotra, 2010). The structured questionnaire comprised categorical data (gender, age, ethnicity, occupation, education and income levels). In addition, the questionnaire comprised five items measuring perceived security adapted from Yousafzai et al. (2009). Scales used in the works of Schierz, Schilke and Wirtz (2010) and Liêbana-Cabanillaset al. (2014), measured perceived usefulness (three items) and ease of use (four items). Moreover, four scale items relating to consumers' attitude towards m-phone paying were gleaned from the studies of Schierz et al. (2010), while five scale items relating to consumers' future intentions towards m-phone paying were adapted from the studies of Lin (2011). The non-categorical data were anchored along a seven-point Likert scale of agreement, since an improved scale with numerous points presents the potential for abundance of information and greater reliability, whereas anything greater than seven points seemed impracticable for a study of this nature. Moreover, the scale is consistent with previous scholars.

Participants and sampling: The southern Gauteng province of South Africa is the geographic location of the sample. Both male and female users of mobile phone payment services who are 18 years and older were included in the study. However, lack of a reliable and accurate list of participants meant that the study was amenable to non-probability based sampling procedures. More specifically, the snowball sampling technique was used as it has been cited as very beneficial, in the absence of a suitable sampling frame (Churchill, Brown & Suter, 2010). The survey was conducted in June 2016. The final sample participants responded to the study in keeping with their most recent m-phone payment experience (within the past 12 months). The researcher was involved personally in identifying participants for inclusion in this study, with assistance from one trained fieldworker. After editing and cleaning the data using SPSS-data sort cases, only 474 questionnaires could be subjected to eventual data analysis. To prevent inaccuracies in determination of population estimates, a linear extrapolation technique was applied. Armstrong and Overton (1977) suggest that participants' responses be estimated beyond the original observation range by the comparing lower quartile (Q1) and upper quartile (Q4) responses. Fittingly, only insignificant differences (p>0.05) of the confidence interval along gender, age group, highest academic qualification, access to m-phone paying as well as the preferred method for making payments, were reported. This result indirectly points to minimalistic levels of non-response bias in this study.

4. Data analysis

Initially, frequencies and exploratory factor analysis were run on SPSS (Version 23.0). Thereafter, the research hypotheses were modelled using SMART-partial least squares (SMART PLS 3). The results are presented in the same order of extraction.

Sample characteristics*:* Table 1 reports on the sample characteristics and the m-phone payment information.

Table 1: Sample demographic characteristics and m-phone usage information

Variable		Frequency	Percentage (%)
Gender	Male	291	61.4%
	Female	183	38.6%
Age	18≤age in years≤30	138	29.1%
	31≤age in years≤40	253	53.4%
	41≤age in years≤50	71	15.0%
	>50 years	12	2.5%
Highest academic qualification	Senior certificate/Matric	195	41.1%
	Diploma	192	40.4%
	Degree	73	15.5%
	Postgraduate	14	3%
Monthly income (after tax)	Less than R5000	73	15.5%
	Between R5001 and R10000	95	20%
	Between R10001 and R20000	230	48.5%
	Above R20000	76	16%
General preference for payments	Banking hall	16	3.4%
	Credit/debit card	245	51.6%
	Mobile device	213	45%
Access to m-phone	Pre-paid	446	94%
	Post-paid (contract)	28	6%
Experience with m-phone paying	< 1 year	14	3%
	1≤experience in years≤3	20	4.2%
	>3 years experience	440	92.8%

Table 1 discloses that the majority of participants were male (61%) whilst 39 percent were female. The median age was reported at 39 years. Moreover, the modal qualification mix among the participants was in the order of senior certificate (41 percent) and university diploma (40 percent), with consumers reporting higher purchasing power, earning an average of between R10 001 and R20 000 per month. Regarding mobile telephony subscription, 94 percent of the sample are pre-paid customers while the vast majority of the sample members (93 percent) alluded to the fact that they have long-term access towards paying for services with their mobile phones, spanning over three years' experience. This finding is consistent with the sample's preference for making payments through credit and debit cards (52 percent) as well as paying for bills using mobile devices (45 percent). By inference, the sample profile reveals a cohort of individuals who are ready for the use of contemporary transmission channels currently available for payments. On the other hand, the sample description permits the inference that this group of users is familiar with credit and debit cards, which have more mature process performances, thereby implying that the sample comprises individuals that are prepared for the use of various technological innovations.

Exploratory factor analysis (EFA): Principal components analysis was applied, while the factor model was rotated in an orthogonal basis rotation by aligning the scale items with those co-ordinates through Kaiser normalisation. The criterion followed for the extraction of the factors was to have an eigen value higher than one. Moreover, it was deemed imperative that factorial loadings be higher than 0.70, with a significant total explained variance greater than 60 percent (Malhotra, 2010). The aim of this procedure was to reduce the data set to a solution made up of a few items, thereby presenting a workable solution for eventual SEM analysis. The results showed the load of items on five factors extracted based on Eigen values (≥1.0) and accounting for 62.8 percent cumulative variance. The extracted factors were labelled security, usefulness, ease of use, attitude and future intentions, respectively.

Upon applying the thresholds by Hair, Black, Babin and Anderson (2011) in terms of eliminating items with low communality values (< 0.50) and unacceptable factor loadings (< 0.70), most observed variables aligned as anticipated along the respective scales. Nevertheless, four items (SEC4, SEC5, EOU4 and FI5) were identified as candidates for deletion since they failed to meet the requisite criteria. In addition, the four items did not meet the cut-off criteria of 0.30 along the corrected item-to-total correlation values (Field, 2009; Pallant, 2010), but rather item statistical results (Appendix A) pointed out that the Cronbach's alpha coefficient values for the respective factors would increase after item deletion. Consequently, an expert-panel review pointed out that deletion of the four items was in order, as it would not have a deleterious effect on the original constructs' conceptualisation.

Preliminary statistics: The computed descriptive statistics are reported in Table 2.Higher mean values (mean≥4.0) signify sample agreeableness while standard deviation values close to 1.00 are preferred as they are well projected around the arithmetic mean. The future intentions scale had the highest mean value (mean=5.543; SD=0.938), followed by the attitude towards m-phone paying scale (mean=5.505; SD=1.028). Relatedly, the perceived usefulness (mean=5.239; SD=0.984), perceived ease of use (mean=5.131; SD=1.194) and perceived security (mean=4.728; SD=1.046) sub-scales reported acceptable mean values.

Table 2: Descriptive statistical analysis results

Variable	Items	N	Mean	Standard deviation	Skewness	Kurtosis
Perceived security	SEC1-SEC3	474	4.728	1.046	-1.096	1.427
Perceived usefulness	PU1-PU3	474	5.239	0.984	-0.840	1.539
Perceived ease of use	EOU1-EOU3	474	5.131	1.194	-1.379	1.640
Attitude towards M-phone paying	ATT1-ATT4	474	5.505	1.028	-0.955	1.554
Future intentions towards M-phone paying	FI1-FI4	474	5.543	0.938	-0.977	1.385
Valid N (Listwise) =474, Minimum =1; Maximum = 7						

Table 2 reveals that perceived ease of use had the highest standard deviation value reported at 1.194 indicating a greater dispersion with regard to the distance of interpretations from the measurement of the arithmetic mean, for that variable.Measures of dispersion were calculated using the skewness (ranging between -0.840 and -1.379) and kurtosis statistics (ranging between 1.385 and 1.640). While data normality is not a compulsory pre-cursor in SMART PLS 3 analysis, none of the values fell outside the ±2 range, thereby suggesting that the data were relatively flat (Malhotra, 2010).

Evaluation of the measurement (outer) model: PLS modelling was performed to fulfil the dual obligation of first, creating valid model specifications and secondly, fitting the model already specified. PLS modelling requires standardised latent variable scores, since the latter are linear combinations of the indicator variables. Therefore, the first step in applying the PLS-SEM algorithm was to normalise the indicator variables to have a mean of zero and a standard deviation of one. As a result, the standardised model yielded factor loadings and path coefficients ranging between zero and ±1 on the outer and inner models, respectively, with values nearer to one denoting power. The m-phone payments measurement model was constructed from five constructs renamed as follows: security (perceived security), usefulness (perceived usefulness), ease of use (perceived ease of use), attitude (attitude towards m-phone paying) and future intentions (future intentions towards m-phone paying). Table 3 reports on the measurement model results.Upon analysing the measurement model estimates, the following thresholds were considered:

- Standardised factor loadings greater than 1.0 or below -1.0
- Low factor loadings (below 0.70)
- Insignificant factor loadings

Table 3: Measurement (outer) model results

Construct	Item identifier	Summary	Factor loading	VIF (outer) values
Security	SEC1	Requests my approval before processing transactions	0.774	1.524
	SEC2	Does not abuse billing information during transaction	0.843	1.570
	SEC3	I have confidence in the security of transactions	0.828	1.329
Usefulness	PU1	Helps me make payments I usually make within a banking hall	0.838	1.128
	PU2	Helps me increase the effectiveness of payments	0.781	1.436
	PU3	Using the m-phone to make payments helps me increase my productivity	0.857	1.238
Ease of use	EOU1	Mental effort is not required to complete the payment	0.779	1.450
	EOU2	It is easy to do what I want to do	0.731	1.926
	EOU3	M-phone paying is an easy-to-use tool	0.732	1.733
Attitude	ATT1	M-phone paying is a good idea to me	0.773	2.714
	ATT2	M-phone paying is wise	0.729	2.652
	ATT3	M-phone paying is pleasant to me	0.754	2.051
	ATT4	M-phone paying is favourable to me	0.618	2.009
Future intentions	FI1	I plan to make payments using my mobile phone	0.807	1.411
	FI2	I foresee myself making payments using my mobile phone in the short-term	0.810	1.348
	FI3	I am very likely to make payments using my mobile phone in the long-term	0.817	1.208
	FI4	I will encourage my friends and relatives to make payments using their mobile phones	0.777	1.321
Recommended thresholds			≥0.70	<5.0

To the exclusion of indicator variable ATT4, Table 3 reveals acceptable estimates on the outer model, with all significant and greater than 0.70 factor loadings, which is considered ideal by Malhotra (2010). Nevertheless, while ATT4 reported a factor loading of 0.618 (close to 0.70), an expert-panel review pointed out that deletion of the item would alter the original construct's conceptualisation andfor that extrapolation, the indicator variable was retained in this study. The SMART PLS 3 report revealed an RMS theta value of 0.093, which indicates model fit, whereas values higher than 0.12 could suggest a lack thereof (Henseler, Ringle & Sarstedt, 2015). The RMS theta assesses the degree to which the outer model residuals actually correlate (Lohmoller, 1989). It is advisable that the measure is close to zero to imply minor correlations.

Multicollinearity assessment of the outer model*:* Upon following standard procedures in marketing research, the variance inflation factor (VIF) values ($VIF_{xs} = 1/TOL_{xs}$) were computed in lieu of reporting the collinearity issues in this work. Generally, VIF values should not exceed 5.0 while tolerance values below 0.20 are a cause of concern. An alternative method to evaluate collinearity concerns is by computing a bivariate matrix with correlation coefficients greater than 0.60 (r>0.60) signalling collinearity issues in PLS path models (Hair *et al.* 2011).The SMART PLS 3 output reports the following: VIF (outer) values for security (1.329 to 1.570), usefulness (1.128 to 1.436), ease of use (1.450 to 1.926), attitude (2.009 to 2.714) and future intentions (1.208 to 1.411). In addition, the highest correlation coefficient value in the correlation matrix was reported at r=0.591 (refer to Table 5), which is considered acceptable. As a result, the three computed statistics signal that there were no multicollinearity problems within the dataset.

Reliability assessment*:* In this study, it was considered imperative to determine whether the measures used confer strength of the study. In this vein, the internal consistency reliability among the sub-scales as well as the validity measures for this research is reported on in Table 4.

Table 4: Reliability and validity results

Construct	Reliability statistics			Validity statistics		
	Alpha(α)	Rho_A	CR	AVE	SV	Root of AVE
Security	0.884	0.905	0.911	0.631	0.319	0.794
Usefulness	0.881	0.982	0.911	0.673	0.198	0.820
Ease of use	0.872	0.922	0.905	0.656	0.284	0.811
Attitude	0.943	0.943	0.957	0.815	0.431	0.903
Future intentions	0.933	0.935	0.946	0.715	0.376	0.845
Recommended thresholds	≥0.70	≥0.70	≥0.70	≥0.50	≤AVE values	>highest correlation coefficient (r)

CR=Composite Reliability; AVE=Average Variance Extracted; SV=Shared Variance

While only one statistical measure is necessary for reliability assessment, it is not always sufficient, especially where multivariate statistical procedures are applied. Therefore, unidimensionality was assessed by checking, Cronbach's alpha coefficient, Dillon-Goldstein's *rho* values as well asprincipal component analysis of each construct's composite reliability (CR). While Chin (1998) and Höck and Ringle (2010) recommend pre-determinable thresholds of 0.70 or greater, this study reported values above 0.80 across all three statistics, which is considered good reliability for confirmatory research (Henseler et al., 2015). Of note, Cronbach's alpha values for the individual sub-scales ranged from 0.872 to 0.943. Dillon-Goldstein's *rho* values ranged between 0.905 and 0.982, whereas CR values ranged between 0.905 and 0.957.

Table 5: Correlation analysis

Construct	**Security**	**Usefulness**	**Ease of use**	**Attitude**	**Future intentions**
Security	1				
Usefulness	0.406**	1			
Ease of use	0.400**	0.399**	1		
Attitude	0.353**	0.254**	0.230**	1	
Future intentions	0.282**	0.273**	0.177**	0.591**	1
**p= 0.01 level (2-tailed)					
Square roots of AVE	*0.794*	*0.820*	*0.811*	*0.903*	*0.845*

Validity assessment*:* Construct validity of this research was ascertainedusing a tripartite set of evaluative measures. Initially, convergent validity of the study was determined by computing AVE values. AVE is the average of communalities for each latent factor in a reflective model. In general, the AVE values should be at least 0.50, which means that the construct explains at least half of the variance of its observed variables (Malhotra, 2010). AVE values below 0.50 indicate error variance levels that surpass the explained variance (Chin, 1998). The AVE values reported in this study were within the acceptable range (0.631≤AVE≤0.815), implying that more of the variance along each indicator variable was shared with its respective construct. Moreover, the factor loadings for the indicators that were incorporated in the outer model exceeded the 0.70 cut-off point (refer to Table 3), thereby signalling convergent validity of the outer model.In terms of discriminant validity, Fornell and Larcker's (1981) criterion, shared variance values as well as the Heterotrait-monotrait ratio of correlations (HTMT) were employed as shown on Table 5**.**

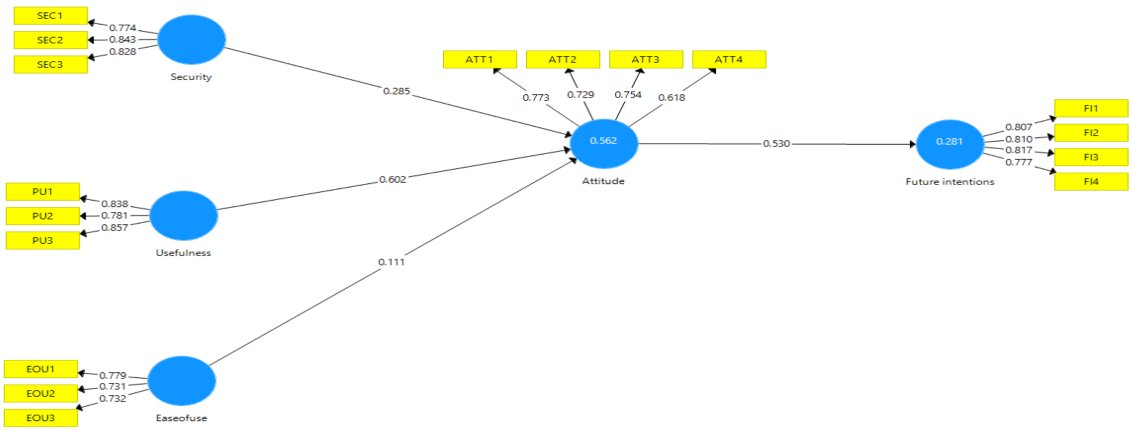
Fornell and Larcker's (1981) criterion dictates that the observed square root of AVE values should be larger than the highest computed value in the correlation matrix, if the constructs are to bear theoretical and practical uniqueness. Table 5 shows that all correlation values are positive and significant at the 0.01 level, with the highest coefficient value reported between attitude and intentions (r=0.591; p= 0.01). This value is subordinate to the computed square root of the AVE values (between 0.794 and 0.903). Relatedly, the shared variance values ranged between 0.198 and 0.431 across all constructs (Refer to table 4), which is subordinate to the value of all AVE estimates computed in this study. Nevertheless, Henseleret al. (2015) showed by means of a simulation study, that applying Fornell and Larcker's (1981) criterion alone, was not an adequate measure of discriminant validity. The authors, therefore, advised the use of the HTMT ratio as an alternative approach. The HTMT ratio values reported in Appendix B fell between 0.195 and 0.734 across all pairs of constructs, which is below 0.90, thereby providing robust evidence of discriminant validity in this study.

Evaluation of the inner model: An examination of the t-values, coupled with the direction and weight of the path regression coefficients, enabled the researcher to establish which hypotheses were supported by the data. Initially, a goodness of fit (GoF) index was computed manually, since GoF is not output by SmartPLS. The following formula was applied:

$$\mathrm{GoF} = \sqrt{}\ \mathrm{AVE} * R^2$$

While GoF values vary from 0 to 1, higher values reflect better explanation (Henseler & Sarstedt, 2013). The calculated GoF value in this work is 0.54, implying a valid inner model since this calculated value exceeds the threshold of GoF>0.36 suggested for large effect sizes ($R^2 \geq 0.26$) (Wetzels, Odekerken-Schröder & van Oppen, 2009). In addition, NFI was reported at 0.903 whereas SRMR was reported at 0.073 which is considered good model fit (Hu & Bentler, 1999).In this study, factor scores for the inner weights were estimated based on the Path weighting factor scheme. The results presented in Figure 1 show that all the hypothesised relationships were supported.

Figure 1: Measurement and structural model results



Shortened terminology for SEM analysis:
Usefulness *= Perceived usefulness;* ***Ease of use****= Perceived ease of use;* ***Security*** *= Perceived security;* ***Attitude****= Attitude towards m-phone payments;* ***Future intentions*** *= Future intentions towards m-phone payments.*

The results provide support for the four proposed relationships along the specified paths. The results shown on Figure 1 indicate that the research model explains 56.2 percent (R^2 =0.562) and 28.1 percent R^2=0.281) of the differences in attitude and future intentions, which Chin (1998:323) describes to be both strong and moderate explanatory power, respectively.

Table 6: Inner model estimates

Causal path	Hypothesis	Path coefficient estimate	*t*-Statistic	VIF (inner)	Result
Security ← attitude	H_a1 (+)	0.285	2.767	1.303	Supported
Usefulness ← attitude	H_a2 (+)	0.602	12.769	1.301	Supported
Ease of use ← attitude	H_a3 (+)	0.111	2.038	1.194	Supported
Attitude ← Future intention	H_a4(+)	0.530	9.991	1.009	Supported

Table 6 reveals that the tolerance statistic values for the inner model ranged between 2.038 and 12.769 (greater than +1.96), indicating that the four specified paths were significant. Moreover, the computed VIF values were all below 5.0 (ranging between 1.009 and 1.303), thereby signifying absence of collinearity problems in the model.

Discussion: Figure 1 indicates that perceived security (Path estimate=+0.285; *p*=0.000) has a significant positive influence on consumers' attitude towards m-phone paying. Consistent with the first hypotheses, a direct and significant effect was established between the two constructs. As a result, H_1 is supported in this study. This hypothesised relationship is consistent with the finding of Meharia (2012) as well as Wang and Idertsog's (2015) research on m-payments. In addition, the studies by McKechnieet al. (2006) as well as Wang, Wang, Lin and Tang (2003) supported the direct impacts of security on attitude towards online retail financial services and Internet banking, respectively. Inevitably, the underlying customer beliefs about safety and risks take paramount consideration upon shaping consumers' attitude towards making payments through the mobile phone. From the findings, it is apparent that South African consumers who conduct payments using mobile phones are particularly concerned about security issues and are prepared to place the responsibility of security solely on the service provider. The moderate coefficient result along this path suggests that security is an important consideration among South African consumers intending to make payments along mobile devices. The absence of authorisation requests and encryption software, such as Thawte, Verisign or TPO seals, reflects sufficient evidence of how consumers' details may be manipulated when conducting transactions using their mobile devices.

In terms of the second hypotheses, the inner model results indicate that perceived usefulness (Path estimate=+0.602; p=0.000) had the strongest, direct influence on attitude. As such, H_2 is supported owing to the statistically significant result. Liébana-Cabanillas et al. (2014) who confirm the influence of usefulness on consumers' attitude towards m-phone paying also established a direct effect. Relatedly, previous studies show that usefulness determines consumers' attitude towards a new payment system more strongly among experienced users (Erasmus et al., 2015) because they already know how this type of payment system works in terms of functionalities and risks. Put simply, usefulness implies that a customer will conduct m-phone payments based on the degree to which it is believed to assist in processing daily tasks, better. The inference in this hypothesis is that when consumers find m-phone services to be valuable and beneficial for their everyday payment requirements, they are likely to develop positive cognitive and affective evaluations towards the payment solution.

The results of the structural model indicate that perceived ease of use does have a significant and direct effect on consumers' attitude towards m-phone paying (Path estimate=+0.111; p=0.000). As a result, H_3 is supported, implying that perceived difficulty associated with transacting on mobile devices has a significant bearing on the attitudinal evaluations by existing m-phone users. The fourth hypotheses were aimed at testing whether attitude influences the future intentions of consumers towards m-phone paying. The results of the inner model indicate a significant direct influence (Path estimate=+0.530; p=0.000) and shows that there is a significant effect. As a result, H_4 is supported in this study. Although this finding strongly supports the proposed model, researchers could still develop further inquiry into this path across different contexts as inconsistent results have been established in the past with attitude having been extensively used as a predictor of future intentions in previous works. A case in point is the research by Erasmus et al. (2015) who found an insignificant influence of attitude on behavioural intentions in their study of enterprise resource systems across a B2B context.

5. Conclusion

In practice, this paper provides information to the business sectors involved to assess the response of the market towards an existing service and allows them to build respective strategies of segmentation and communication, from an understanding of the factors that precede intention towards continued usage of m-phone payment services. As an imperative, it is noteworthy that the model of commercial payments in South Africa is intricate, owing to an existing regulatory environment that is defined by rigid macro-policy makers. To further compound this problem, there exist fragmented technological solutions with the participation of different sectors of the economy. In this eco-system, different and somewhat competing players co-exist, including banks, acquisition companies, commercial establishments, electronic transaction processing companies, telecom providers, retailers, consumers and support service providers. As such, the future growth and development of m-phone payment services depends on an understanding of market characteristics coupled with the preparation of the internal capacity of entities interested in this business. The fact that there are more mobile devices than individuals enables telecom carriers to dream of fulfilling the requirements of money transfer and payments for general users, particularly the self-employed and people without access to a bank account, either through their post or prepaid plans. On the other end, all players involved in the process of paying can gain from the offer of this new service.

Limitations and future research avenues: The results of this study should be interpreted in light of the study's shortcomings. One limitation is that its population frame poses implications for sampling bias. In this study, a group of m-phone payment users was nominatedbased on a referral basis, which could affect the representativeness of the findings and the subsequently derived conclusions. Therefore, prospective research endeavours could attempt to enlarge the scope of this work by utilising probability based methods of drawing samples. Besides, this research only studied one mobile payment system, while there are currently other technologies such as the NFC payment systems (Near Field Communication) based on proximity technology or the QR codes and even recent ones such as biometric fingerprints or voice payment methods. A comparison study of all available instruments would allow researchers to acquire external validity in the results presented and thereby, establish a generalisation of consumers' behaviour towards the new mobile payment systems. In addition, the study can be complemented with the evaluation of the impact of the factors prior to adoption of mobile payments such as performance and effort expectations, social influence, perceived cost and risk, while including the effect of moderating variables, such asage, gender, experience and willingness to use, as proposed by Venkatesh and Morris (2000).

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Appendix A

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.851
Bartlett's Test of Sphericity	Approx. Chi-Square	8785.438
	df	496
	Sig.	.000

Rotation sums of squared loadings

Total Variance Explained

Component	Total	% of Variance	Cumulative %
1	3.619	10.456	10.456
2	2.936	11.635	22.091
3	1.309	12.883	34.974
4	1.188	13.599	48.573
5	1.069	14.219	62.792

Rotated Component Matrix

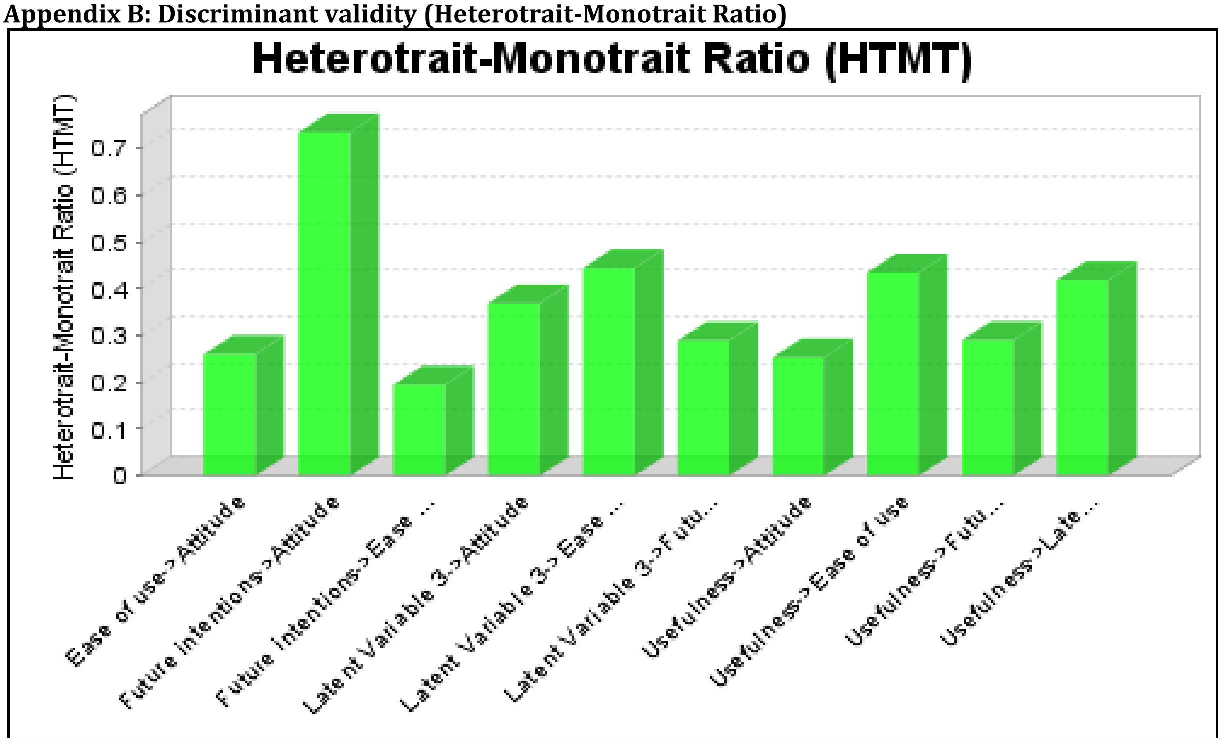
Item	Factor 1	tor 2	3	ctor 4	Factor 5	Communalities
SEC1	0.785					0.793
SEC2	0.793					0.607
SEC3	0.704					0.569
SEC4*	**0.421**					**0.332**
SEC5*	**0.476**					**0.426**
PU1		0.730				0.673
PU2		0.749				0.629
PU3		0.790				0.616
EOU1			0.788			0.674
EOU2			0.753			0.592
EOU3			0.724			0.648
EOU4*			**0.412**			**0.339**
ATT1				0.761		0.543
ATT2				0.722		0.620
ATT3				0.774		0.586
ATT4				0.774		0.651
FI1					0.779	0.541
FI2					0.745	0.612
FI3					0.728	0.634
FI4					0.796	0.600
FI5*					**0.480**	**0.387**

Item-total statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
SEC1	113.399	491.737	.702	.687	.651

SEC2	113.297	497.587	.646	.569	.652
SEC3	113.566	494.661	.612	.516	.652
SEC4	**113.348**	**497.106**	**.269**	**.396**	**.831**
SEC5	**113.350**	**498.224**	**.637**	**.595**	**.883**
PU1	113.403	495.451	.635	.602	.659
PU2	113.271	497.606	.662	.257	.656
PU3	113.319	499.145	.629	.542	.652
EOU1	113.209	500.969	.609	.506	.655
EOU2	113.240	498.077	.712	.661	.709
EOU3	113.280	498.851	.658	.529	.652
EOU4	**113.300**	**497.001**	**.288**	**.316**	**.881**
ATT1	113.247	499.352	.643	.550	.652
ATT2	113.267	497.066	.722	.628	.651
ATT3	113.140	498.568	.652	.602	.699
ATT4	113.380	498.341	.741	.257	.645
FI1	113.200	497.234	.736	.542	.659
FI2	113.447	499.578	.784	.506	.702
FI3	113.467	497.690	.690	.661	.712
FI4	113.140	498.440	.687	.529	.652
FI5	**113.090**	**498.567**	**.247**	**.393**	**.933**

Appendix B: Discriminant validity (Heterotrait-Monotrait Ratio)



The Effect of Farm Input Subsidy Program on Food Poverty Dynamics in Malawi

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Abstract: As part of poverty alleviation and reduction of food insecurity in Malawi, the Malawi Government launched the Farm Input Subsidy Programme (FISP) in 2005/06. The programme is a continuation and expansion of previous subsidy programmes which were designed for the same purpose as the current subsidy programme. Although evaluation studies show that FISP registered success in its first five years, there has been limited research analysing the effectiveness of the programme. This study purposed to investigate how the programme has contributed to food poverty transition during the period 2010 and 2013. The study adopts a Multinomial Logit Model and uses Integrated Household Panel Survey Data of 2010 and 2013 from national statistical office to measure food poverty dynamics between the two periods. Other variables which are expected to influence food poverty dynamics are also explored. Results show that FISP does not increase chances of moving out of food poverty. Rather, education greatly provides higher chances of moving out of food poverty. Between gender that have the same qualification, men have a greater probability of moving a household out of poverty. It was also found that household size has a negatively relationship with the probability of moving out of food poverty. The study recommends that government should strengthen the monitoring, evaluation and audit systems in order to make the FISP programme effective again.

Keywords: *Food security, Poverty, FISP, Education, Households Size*

1. Introduction

Food is one of the most basic needs for human survival and access to it is a basic human right. It is the role of government to ensure that all its citizens are food secure because food insecurity poses major threats to health, labour productivity as well as the survival of individuals in a country (Smith & Subandoro, 2007). In Malawi, the battle against food insecurity has become a common policy issue for every regime because of the nature of the persistence of the problem. A series of policy documents for Malawi, spanning from the Vision 2020 to the currently Malawi Growth Development Strategy II (MGDS) have been citing food insecurity as a major problem the country is facing. The persistence of the problem is hindering the country from creating wealth through sustainable economic growth and infrastructure development, which is the main goal of the MGDS. According to the MGDS, problems of food insecurity are traced to the low and stagnant yields in the agriculture sector, which contributes significantly to national and household food security (Government of Malawi, 2006). Although Malawi has not experienced widespread famine in recent years, results from IHS3 indicate that a substantial proportion of the population experiences extreme forms of food security. About 33 percent of the population had very low food security in the year 2010 (National Statistical Office, 2012). This implies that aside from the climatic factors, there are several challenges which smallholder farmers face which leads to the low stagnant yields. In a bid to improve the agriculture sector and in turn alleviate food poverty, the Malawi government embarked on a comprehensive targeted fertilizer and seed subsidy program called the Farm Input Subsidy Program (FISP) to boost its agricultural production and to enhance household and national food security. The program was launched in the 2005/06 agriculture season. The main aim was to distribute coupons to poor households to purchase fertilizers and seeds at a subsidised price (Dorward & Chirwa, 2011).

However, since its implementation in 2005, there are still serious reports of food shortages in the country. In the 2016 food security assessment conducted by the Ministry of Finance, Economic Planning and Development through the Malawi Vulnerability Assessment Committee (MVAC) results showed that 39 percent of Malawi's Population will not be able to meet their annual food requirements during the 2016/17 consumption period (Ministry of Finance Economic Planning and Development, 2016). It is under the mentioned shortfalls that this study aims to fill this gap by finding out whether if the FISP program has significantly eradicated poverty. The study formulated the following objectives

- Assess the economic characteristics on food poverty dynamics in Malawian households

- Assess the effect of demographic characteristics on food poverty dynamics in Malawian households
- Assess the effect of the size of arable land available to households on food poverty dynamics.

To achieve the set objectives, the study will use the 2010 and 2013 panel data from the IHS, which will provide more information variability because it is a nation-wide survey and incorporates more variables.

2. Literature Review

Food poverty can be regarded as the lack of food. However, there is no sole definition and measurement of food poverty. Measurements and definitions vary from study to study and across regions. The term food poverty itself stems from the term poverty, which has the same characteristics as the former in terms of the wide variations of measurements and definitions. The concept of poverty is a dynamic and multi-dimensional phenomenon. On a global perspective, The World Bank Institute (2005) defines poverty as deprivation in well-being and well-being is viewed in three main approaches. The first approach relates to one's well-being or as the command over commodities in general, meaning that people are better off if they have a greater command over resources. In this view, the main focus is on whether households or individuals have enough resources to meet their needs. Typically, poverty is then measured by comparing an individual's income or consumption with some defined threshold below which they are considered to be poor. This is the most conventional view of poverty widely adopted by most studies (World Bank Institute, 2005).The second approach views well-being in terms of whether people are able to obtain specific types of consumption goods. For example, if an individual does not have shelter or medical care or clothes and other goods; they are regarded as poor. Therefore on this basis, poverty is defined as lack of necessities (Bradshaw, 2006). The measurement of this approach goes beyond monetary indicators and it dwells on specific goods. However, Sen (2001) argued that what is deemed as a must have is subjective across different societies, in a way that a necessity to one person may not be uniformly a necessity to others. In other words needs may be relative to what is possible and are based on social definition and past experience. The third approach was developed by Amartya Sen (1987), who views well-being as the lack of capability to function in a society. Thus poverty arises when individuals and households do not have the capability to acquire their needs. It also includes non-material goods such as self-esteem, sense of power and rights. In order to distinguish the poor households from non-poor households, a poverty line is employed as a threshold in this case poverty is usually measured in terms of a monetary cost of basic needs per given person. The poverty line comprises two parts; the food and the non-food component. The food poverty line hence represents the cost of a food bundle that provides the necessary energy requirements per person per day.

In Malawi, according to the Integrated Household Survey (2012), the national poverty rate was 50.7 percent showing that almost half of the population was poor. The problem of poverty in the country hasn't improved much; World Bank (2016) indicated that poverty trends in the country are increasing especially in the rural areas where over80 percent of the population resides. Ibid further indicated that low agricultural activities the main obstacle to reducing poverty in the country. Malawi heavily depends on agriculture which contributes to nearly 31 percent of the country's GDP. However, almost 75 percent of the farming is done by smallholder farmers who cannot maximise their production due to adverse shortfalls such as limited land, limited access to credit and extension services, as such increasing food shortages in the country. The government has over the years embarked on different policies to reduce poverty in Malawi, dating from the 1970s and 80s, there were general price subsidies and subsidised credit which made the country achieve a high degree of self-reliance in Malawi's staple food, (maize). This was followed by the 1998, Starter Pack Schemes (SPS), which later evolved into Target Input Program (TIP). However, due to unfavourable weather conditions in the 2004/05 season coupled with the scaling down of TIP, The country experienced food shortages and very high maize prices in that harvest season (Chibwana et al., 2010). In 2005/06 the Government embarked on a Farm Input Subsidy Program (FISP) targeting households that could not afford to purchase farming inputs. Such households were given coupons to purchase fertilizer and seeds at a highly subsidised price (Dorward & Chirwa, 2011). FISP is not only a Malawi phenomenon. A number of countries in Africa have also adopted the program to carter for their poor smallholder farmers. Example include: Ghana, Nigeria, Zambia, Tanzania, Rwanda, Mali and Senegal. According to Chirwa and Dorward (2013), in all the mentioned countries, the efficiency in the provision of subsidised inputs to smallholder farmers is debatable hence a number of donors do not prefer the system. Ibid further relates to Malawi case where several shortfalls have been discovered, the most prominent being discrepancies in the monitoring, evaluation and audit systems which are crucial for improving efficiency and effectiveness of the programmes. This study attempts to make a contribution in evaluation of the programme by assessing how the programme helped households move out of food poverty in Malawi between 2010/11 and 2013. Another problem associated with the programmes is the difficultly to graduate and achieve independence by the smallholder farmers. There seems to be no end to the programmes and beneficiaries have settled for receiving hand-outs rather than looking for alternative sources of inputs by themselves.

Since the implementation of the FISP programme, there has been a number of studies addressing the issue and have brought in mixed results. Research conducted in the early days (soon after initiation) showed that there was good progress. For example, Mussa and Pauw (2010) reported that in the FISP implementation period, there was a sharp decline in poverty from 52 to 39 percent and in ultra-poverty from 22 to 15 percent. In addition, the Government of Malawi, (2013) in the Malawi Growth and Development Strategy II also cited that the number of Malawians at the risk of hunger had decreased over time due to FISP and from 2004 to 2010, the increase in food production also contributed substantially to reduction of poverty and eradication of hunger in the country. However, despite the success story of the FISP program in its early years, recent study show that the FISP program is becoming ineffective. Holden and Lunduka, (2012) argued that while the program enhances food production and food security, it does not target the poor. They claimed that basic problems such as illegal markets for coupons and fertilizers, leakage of coupons, failure to establish a system of beneficiary and targeting are a serious problem which makes the program ineffective. In line to this, Pauw et al. (2016) used constructed regional poverty lines for Malawi and found that the program did not benefit those close enough to the poverty line to be lifted out of poverty. In addition, Mvula et al. (2011) in their qualitative evaluation of the 2010/11 farm input subsidy program also found that there were several growing challenges which hinder the FISP from reaching out to most vulnerable poor targeted beneficiaries. They found that fertilizer politics, gender discrimination of female headed households and discrimination of the elderly were some of the major problems in the program.

The above cited evidence reveals that the FISP program is slowly becoming less effective in its agenda of alleviating food poverty despite significantly moving households out of food poverty soon after its implementation. Although there have been various studies done on the FISP program and food poverty (Chirwa 2010, 2011, 2013, Shiverly & Gilbert, 2013), there is no recent study that has been conducted with recent IHS panel data to prove the effectiveness of the FISP program in poverty alleviation. It is against this background that this research is motivated to establish if indeed the FISP program has effectively assisted in alleviating food poverty. The study will also explore demographic, economic and social characteristics that are also suspected to contribute to the movement in or out of food poverty. Instead of using food security, the study uses food poverty dynamics to measure the impact of FISP and other variables.

3. Methodology

In order to assess the effectiveness of the FISP on food poverty dynamics in Malawian households, the study employed a qualitative analysis to measure the in and out movement of household poverty from 2010/11 to 2013 depending on the FISP program and other factors. The study thus uses a linear probability model where the dependent variable is a dummy variable and four categories namely movement into poverty, movement out of poverty, remaining in food poverty and remaining in a non-food poverty status as the dependent variable. The outcome "remaining in food poverty" is the base category outcome. Since a multinomial logit model is an extension of the logit model where the expected outcomes are more than two, hence, a multinomial logit model becomes suitable for this research. In general, a multinomial logit model simulates a case where there are discrete categorical outcomes m, 3, 2, 1 recorded in y and the explanatory variables X. Although coded, the categories for a multinomial logit model for this study are not ordered. Specifically, to explore the movement across the poverty line between 2010/11 and 2013, two multinomial logit regressions are going to be estimated. The first regression will be of initial conditions of the first round of the survey conducted in 2010/11. The second regression will compose of the initial conditions plus the changes which took place between 2010/11 and 2013. Each of these regressions will have a categorical dependent variable of four mutually exclusive categories.

The first category describes no change in food poverty status where a household remained poor after participating in FISP from 2010/11 to 2013, the second describes movement from a food poor status in 2010/11 to a non-food poor status in 2013 while the third addresses movement from a non-food poor status in 2010/11 to a food poor status in 2013. The fourth category describes no mobility from a non-food poor status in both rounds. These categories will be labelled 1, 2, 3 and 4 respectively. The model can be expressed as follows as used by Khalid, *et al.*, (2005). Where; Y_{ij}= 1 if the i^{th} individual chooses the j^{th} alternative and y_{ij}= 0 otherwise, where j=1,2,3,4

Prob [y_{ij}=1]=P_{ij} and since the probabilities must add up to unity, we have

$$P_{i1} + P_{i2} + P_{i3} + P_{i4} = 1$$

Thus the multinomial logit model can be expressed as:

$$\text{Prob}(\text{Y} = \text{j}) = \frac{e^{(\alpha_j + \beta_j X_j)}}{1 + \sum_j^k e^{(\alpha_j + \beta_j X_j)}}$$

Where k is the number of outcomes being modelled. The above will express the probability that a household with characteristics X_i will lie in the j^{th}category of poverty.

Description and Measurement of Variables: The advantage of the IHS panel data is that it gives a wide range of variables some of which are going to be relevant for this study. This allows the study to observe poverty dynamics while avoiding specification bias. It has to be noted that all the expected signs of the variables are described under the *cateris paribus* assumption. The following are the variables used in the study;

Table 1: Variable description

VARIABLE	TYPE	DESCRIPTION
FISPpart	Binary	If a household participated in FISP
cropdiversity	Continuous	Number of crops grown by a household
Land	Continuous	Size of arable land for a household in acres
business	Binary	If a household own a non-farming business
prim_ind	Continuous	Number of household members in primary industry
second_ind	Continuous	Number of household members in secondary industry
tert_ind	Continuous	Number of household members in tertiary industry
None	Binary	If maximum education by any member is none
Plsc	Binary	If maximum education by any member is PLSC
Jce	Binary	If maximum education by any member is JCE
Msce	Binary	If maximum education by any member is MSCE
tertiary	Binary	If maximum education by any member is tertiary
hh_size	Continuous	Number of members in a household
hh_headsex	Binary	Sex of household head
hh_headage	Continuous	Age of head of household
hh_headage2	Continuous	Age of head of household squared
Rural	Binary	Residence of a household
Centre	Binary	If household is based in the central region
South	Binary	If household is based in the southern region

Food Poverty Status: This is a dummy outcome variable with 4 categories. The categorical outcomes are described as follows;

$$y = \begin{cases} 1\ldots foodpoor2010 - foodpoor2013\ldots\ldots\ldots\ldots staying\_in\_food\_poverty \\ 2\ldots foodpoor2010 - nonfoodpoor2013\ldots\ldots\ldots exiting\_food\_poverty \\ 3\ldots nonfoodpoor2010 - foodpoor2013\ldots\ldots\ldots entering\_food\_poverty \\ 4\ldots nonfoodpoor2010 - nonfoodpoor2013\ldots staying\_outside\_food\_poverty \end{cases}$$

Where categorical outcome 1 is the base outcome and a food poor status is poverty status in which a household's consumption is below MK 22, 956.00

Independent variable: The independent variable is described as follows,

Empirical Model Specification: Two regression equations are going to be estimated. The first regression will estimate the changes in food poverty status in relation to the initial conditions of the households in 2010. The first regression is presented as follows.

$$\begin{aligned} foodpoverty\_cat &= \beta_0 + \beta_1 FISPpart\_2010_{it} + \beta_2 hh\_headsex\_2010_{it} + \beta_3 hh\_size\_2010_{it} \\ &+ \beta_4 land\_2010_{it} + \beta_5 cropdiversity\_2010_{it} + \beta_6 hh\_headage\_2010_{it} + \beta_7 hh\_headage2\_2010_{it} \\ &+ \beta_8 prim\_ind\_2010_{it} + \beta_9 second\_ind\_2010_{it} + \beta_{10} tert\_ind\_2010_{it} + \beta_{11} business\_2010_{it} \\ &+ \beta_{12} none\_2010_{it} + \beta_{13} plsc\_2010_{it} + \beta_{14} jce\_2010_{it} + \beta_{15} msce\_2010_{it} + \beta_{16} tertiary\_2010_{it} \\ &+ \beta_{17} south_{it} + \beta_{18} centre_{it} + \beta_{19} rural_{it} + \mu_{it} \end{aligned}$$

The second equation will regress the changes in food poverty status on the variables plus the changes in the variables over the period 2010/11 to 2013 and is expressed as follows

$$\begin{aligned} foodpoverty\_cat &= \beta_0 + \beta_1 FISPpart\_2010_{it} + \beta_2 hh\_headsex\_2010_{it} + \beta_3 hh\_size\_2010_{it} \\ &+ \beta_4 land\_2010_{it} + \beta_5 cropdiversity\_2010_{it} + \beta_6 hh\_headage\_2010_{it} + \beta_7 hh\_headage2\_2010_{it} \\ &+ \beta_8 prim\_ind\_2010_{it} + \beta_9 second\_ind\_2010_{it} + \beta_{10} tert\_ind\_2010_{it} + \beta_{11} business\_2010_{it} \\ &+ \beta_{12} none\_2010_{it} + \beta_{13} plsc\_2010_{it} + \beta_{14} jce\_2010_{it} + \beta_{15} msce\_2010_{it} + \beta_{16} tertiary\_2010_{it} \\ &+ \beta_{17} south_{it} + \beta_{18} centre_{it} + \beta_{19} rural_{it} + \beta_{20} dFISPpart_{it} + \beta_{21} c\_cropdiverty_{it} + \beta_{22} c\_land_{it} \\ &+ \beta_{23} dbusiness_{it} + \beta_{24} c\_prim\_ind_{it} + \beta_{25} c\_second\_ind_{it} + \beta_{26} c\_tert\_ind_{it} + \beta_{27} c\_hhsize \\ &+ \beta_{28} dhh\_headsex_{it} + \beta_{29} c\_hh\_headage_{it} + \beta_{30} c\_hh\_headage2 + \beta_{31} dnone_{it} + \beta_{32} dplsc_{it} \\ &+ \beta_{33} jce_{it} + \beta_{34} dmsce_{it} + \beta_{35} dtertiary_{it} + \mu_{it} \end{aligned}$$

Where *i* is the i^{th}household in the study and *t* is the initial period under observation, 2010/11.

4. Results and interpretation

The results are interpreted as follows,

Food poverty transition matrices: The food poverty transition matrices are statistics that describe the movement across the food poverty line. In this study, the transition matrices are represented by the dependent variable food poverty.

Table 2: Frequency, Percentage and Cumulative distribution of food poverty status

Food Poverty Status	Frequency	Percentage	Cumulative
Remained food poor	20	1.04	1.04
Exited food poverty	134	6.98	8.02
Entered food poverty	97	5.05	13.07
Remained non-food poor	1670	86.93	100.00
Total	1921	100	

From table 2, it can be seen that after cleaning the data, a sample of 1,921 households remained for study. 20 households remained poor in the period between 2010/11 and 2013, representing 1.04 percent while 134 household exited food poverty representing 6.98 percent. Meanwhile, 97 (5.05 percent) households entered into food poverty while the remaining 1670 (86 percent) did not change their food status.

Diagnostic Tests Results: Three diagnostic tests were run in the study, pair wise correlation, Hausman test and a Wald test. In all tests $\alpha = 0.05$, the results for pair wise correlation showed a correlation of 0.9306 between the variable hh_headage_2010 and hh_headage2_2010. As Gujarati (2004) suggests, a pair wise correlation greater than 0.8 depicts serious levels of multicollinearity. As a result, the variable hh_headage2_2010 was not included in the regression. For the Huasman test, it was found that the chi-square for all the categories of the dependent variables did not exceed the chi-critical therefore, it was concluded that there was no sufficient evidence to reject the null hypothesis since the test statistics are not significant. Thus the IIA assumption of the MNL model was not violated. Finally, a Wald test showed that at a chi-square value of 1114.75 with 48 degrees of freedom, there is a p-value of 0.0000. Therefore we reject the null hypothesis that the coefficients of change variables were not jointly significant. Thus, the study will proceed to run two regressions; one of initial conditions and the other of initial conditions plus the change variables.

Multinomial Logit Regression Results: In this final section, results of the two regressions are going to be presented starting with the initial conditions regression then following the initial conditions plus change variables regression. Due to the nature of the multinomial logit model, marginal effects are used to interpret the data. The remained poor category is used as the referral category. As such all interpretations will be based on that category.

Regression of Initial Conditions in 2010: In this regression, the results show that the model has a pseudo R-squared of 19 percent. This means the regression model explains 19 percent of the variability in the outcomes of food poverty. The results are shown in table 3.

Table 3: Marginal effects for initial conditions regression

Variable	Exit	Standard error	Entry	Standard error	Remain non-food poor	Standard error
FISPpart_2010	-0.01633	(0.011056)	0.009157	(0.015028)	0.015221	(0.018538)
cropdiversity_2010	-0.01962***	(0.005522)	-0.0317***	(0.009682)	0.05398***	(0.010699)
land_2010	-0.00195	(0.005394)	-0.03506*	(0.014101)	0.036135**	(0.014016)
business_2010	-0.04003**	(0.01654)	-0.02541	(0.019763)	0.073279***	(0.025121)
prim_ind_2010	-0.00022	(7.049114)	0.047033	(1.726278)	0.103359	(21.365)
second_ind_2010	-0.8208	(120.2879)	-0.70705	(147.5289)	1.632169	(174.5733)
tert_ind_2010	-0.76023	(147.4413)	-0.65813	(167.4746)	1.513825	(204.8451)
none_2010	0.026778**	(0.013238)	-0.01547	(0.019036)	-0.00635	(0.023038)
plsc_2010	0.048815	(9.550346)	-0.75638	(106.6676)	0.845447	(99.4581)
jce_2010	0.039662	(11.68184)	-0.76633	(145.3347)	0.857861	(134.3993)
msce_2010	-0.79123	(181.4326)	-0.70818	(218.7491)	1.604022	(262.3748)
tertiary_2010	-0.62747	(211.879)	-0.6873	(244.9812)	1.386841	(296.605)
mscefem_2010	0.093552	(465.2066)	-0.02139	(529.0167)	-0.08326	(650.7519)
mscemal_2010	0.921432	(511.767)	0.662006	(557.8207)	-1.70414	(699.5586)
hhsize_2010	0.021068***	(0.002431)	0.011835***	(0.003152)	-0.0365***	(0.003963)
hh_headsex_2010	-0.02237*	(0.012909)	-0.0179	(0.016078)	0.046965**	(0.02059)
hh_headage_2010	114.17	(0.000381)	-74.89	(0.000421)	0.000137	(0.000564)
rural_2010	-4.59***	(0.035366)	-0.01262	(0.016614)	-0.1803**	(0.037266)
centre_2010	-0.02767*	(0.015376)	-105.88	(0.017325)	-21.2*	(0.022855)
south_2010	0.033602**	(0.013458)	0.010106	(0.016849)	-0.03659*	(0.021414)

*, ** and *** represent significance at 10%, 5% and 1% respectively. Standard errors in parentheses

FISP participation: Holding all other independent variables constant and with reference to the "remained food poor" category, participating in FISP negatively affects exit from food poverty. Participating in FISP reduces the chances of getting out of food poverty by 1.6 percentage points. This does not conform to our *apriori* expectations. However, the variable is not significant in all the three outcomes. This is possibly because participating in the programme does not have a huge impact on those households which are food poor as Mvula et al. (2011) found. Participating in FISP increases the chances of moving into food poverty by 1.5 percent and influences entry into food poverty by 0.9 percentage points.

Crop diversity: Just like participation in FISP, assuming all other independent variables are held constant and with reference to the remained food poor category, an addition of the number of crops grown reduces chances of food poverty exit by 1.9 percentage points. This outcome is contrary to the expectation of the study. An addition of number of crops grown reduces chances of entry into poverty by only 3 percentage points and increases the chances of remaining non-food poor by 5 percent. The latter two outcomes conform to *apriori* expectations. The variable is statistically significant in all outcomes at 1 percent.

Land: Similarly, one acre addition to land does not reduce chances of exit from poverty holding all other variables constant and with reference to the remained food poor category. One acre addition of land reduces the chances of exiting from food poverty by 0.2 percent, which is insignificant and does not conform to expectations. This is possibly because households who are food poor cannot afford to get the best out of the additional land due to their poverty status. A unit addition of land increases the chances of remaining non-food poor and reduces the chances of slipping into food poverty by 4 percentage points each. The variable is significant at 10 percent for "entry" outcome and at 5 percent for the "remain non-food poor" outcome.

Business: Holding all other independent variables constant and with reference to the remained food poor category, owning a business reduces the chances of exiting from poverty by 4 percentage points than not owning a non-farm business. It reduces the chances of entry into food poverty by 3 percentage points and increases the chances of remaining non-food poor by 4 percentage points. Only the exit from food poverty outcome does not conform to *apriori* expectations. The variable is significant for "exit" outcome at 5 percent and for "remain non-food poor" at 1 percent.

Employment Variables: Holding all other independent variables constant and with reference to the remained food poor category, an addition member of a household employed in the primary sector barely affects the chances of exiting food poverty by -0.02 percentage points. It increases the chances of entering into food poverty and remaining non-food poor by 5 and 10 percentage points respectively. For the secondary employment sector variable, an addition of one household member employed in the secondary sector negatively affects chances of exiting poverty by 82 percentage points. This is surprisingly not expected in this research. However, it significantly reduces chances of entering into food poverty by 71 percentage points and increases the chances of remaining in non-food poor by 163 percentage points. For tertiary employment sector variable, an addition of one household member employed in the tertiary sector reduces chances of exiting food poverty by 76 percentage points and reduces chances of entry into poverty by 65 percentage points. An addition of a member employed in the tertiary sector increases chances of remaining non-food poor by 151 percentage points. All the employment variables are statistically insignificant.

Education Variables: Assuming all other influences on food poverty outcome are kept constant and still using the remain food poor as our referral category, the following is how education variables influence food poverty outcomes;

- If a household has adult members with no maximum level of education, chances of exit, entry and remaining in food poverty are 3, -1.5 and -0.6 percentage points respectively. Increasing chances of exit from food poverty by 3 percentage points and reducing chances of entry by 1.5 percentage points does not conform to expectations. However, the results are not practically significant.
- If a household has adult members with primary school leaving certificate as maximum level of education, chances of exit, entry and remaining in food poverty are 5, -7.5 and 85 percentage points respectively. These results conform to the expectation of the study.
- If a household has adult members with Junior Certificate as maximum level of education, chances of exit, entry and remaining in food poverty are 4, -77 and 86 percentage points. If a household has

adult members with Malawi School Leaving Certificate as maximum level of education, chances of exit, entry and remaining in food poverty are -80, -71 and 160 percentage points. Surprisingly, there is a negative relationship between the outcome exit from food poverty and having a maximum number of adults with an MSCE, which is contrary to expectations of this study. If a household has adult members with tertiary qualification as maximum level of education, chances of exit, entry and remaining in food poverty are -63, -69 and 139 percentage points. Again, the negative relationship between exit from food poverty and having a maximum number of individuals with a tertiary qualification does not match with expectations of the study.

From the results, it can also be seen that the sex of the individual who has the education qualification significantly matters. All things being equal, an addition of a female member with an MSCE increases the chances of exiting food poverty by 9 percent while an addition of a male member with an MSCE increases the chances of escaping food poverty by 92 percentage points. However, an addition of a male member with an MSCE increases chances of entry into poverty by 66 percentage and reduces chances of remaining non-food poor by 177 percentage points. This does not match the study's expectations.

Household Characteristics: *Cateris paribus*, an addition member to a household increases the chances of exiting food poverty by 2 percentage points. This is not in line with the expectation of the study. The addition also increases chances of entry into food poverty by 1 percentage point. It also reduces the chances of remaining non-food poor by 4 percentage points. This variable is significant at 1 percent. All things being equal, if the household head is a male, chances of exiting food poverty lower by 2 percentage points and chances of entering poverty are reduced by 2 percentage points while chances of remaining non-food poor are also higher by 5 percent. This is contrary to our expectation. *Cateris paribus*, it is found that an additional increase in household head age increases the chances of exiting food poverty, reduces the chances of entering into food poverty and also increases the chances of remaining in a non-food poor state.

Location and region: Holding all other variables constant, a household in the rural part of Malawi has less chances of escaping food poverty compared to the rural household by 459 percentage points. This conforms to the expectation of the study. Chances of entry into poverty are higher by 1 percentage point for households in the rural and chances of staying outside food poverty are also less by 18 percentage points. For this rural variable, only the outcome for entry into poverty is statistically insignificant. This is possibly because the sample consists of a majority of households who reside in rural areas and are already in food poverty. *Cateris paribus*, residing in the central region reduces chances of exiting poverty by 3 percentage points compared to residing in the northern region. This is significant under 5 percent. It also reduces chances of entering into food poverty by 106 percentage points. This is insignificant statistically. Residing in the central region also reduces chances of maintaining a non-food poverty status by 21 percentage points and this is significant under 10 percent. Residing in the southern region of Malawi increases chances of exiting from food poverty by 3 percentage points more than living in the north and it increases chances of staying non-food poor by 4 percentage points more than the rural residents.

Regression of Initial Conditions plus Change Variables: The regression of initial conditions plus changes is worth observing because it has more explanatory power of the variability in the food poverty outcome. The pseudo R-squared of this regression is higher than that of the initial conditions at 27 percent.

FISP participation and crop diversity: There are differences in the significance of the variables. Notably, in the FISP participation variable, the outcome of chances of exit from food poverty which was insignificant in the first regression is now significant in the second regression at 10 percent. This means that all things being equal, chances of escaping poverty reduce by 3 percentage points if a household participates in the program. Again, crop diversity is no longer significant in influencing the exit from food poverty but it is still significant in the other two outcomes; entry into food poverty and remaining in non-food poverty status.

Land and Business: Land has no longer a significant influence on the chances of remaining non-food poor but it still has a significance on reducing chances of entry into food poverty now at 1 percent level of significance. Business is no longer a significant variable in the second regression. This is possibly due to the small-scale nature of the non-farming businesses which most Malawians are engaged in. These kinds of business fail to make a significant impact on the food poverty status of households.

Employment Variables: To the surprise of this study, all the employment variable has no significant influence on the poverty outcomes. This is possibly because the sample consists of a larger proportion of households who have individuals who are not involved in any kind of work and those who work have very low earnings which fail to make an impact on the food poverty status of the households.

Table 4: Marginal effects of Initial Conditions plus Change Variables regression

Variable	Exit	Standard error	Entry	Standard error	Remain non-food poor	Standard error
FISPpart_2010	-0.02588*	(0.014552)	0.014872	(0.015222)	0.015199	(0.020961)
cropdiversity_2010	-0.01282	(0.007952)	-0.03344***	(0.009338)	0.053***	(0.012174)
land_2010	0.003485	(0.013138)	-0.04064***	(0.014809)	0.030582	(0.019529)
business_2010	-0.00185	(0.041712)	-0.01689	(0.024996)	0.033678	(0.04833)
prim_ind_2010	-0.01487	(5.834547)	0.050119	(4.248574)	0.097822	(22.36283)
second_ind_2010	-0.86319	(145.0206)	-0.58982	(136.5908)	1.536671	(184.8577)
tert_ind_2010	-0.78405	(171.5621)	-0.54935	(144.6415)	1.398487	(208.7695)
none_2010	0.024579*	(0.013135)	-0.02059	(0.017999)	-0.00244	(0.021995)
plsc_2010	0.024348	(8.028383)	-0.65774	(96.02257)	0.74494	(90.08264)
jce_2010	0.015013	(9.962696)	-0.681	(126.3901)	0.777093	(117.8219)
msce_2010	-0.82866	(224.8969)	-0.6382	(222.8074)	1.554399	(294.5094)
tertiary_2010	-0.66445	(243.0678)	-0.56839	(222.4777)	1.281764	(305.1923)
mscefem_2010	0.106126	(547.5545)	-0.01379	(499.7509)	-0.09629	(693.0803)
mscemal_2010	0.861112	(599.7131)	0.524803	(552.2658)	-1.99099	(763.4786)
hhsize_2010	0.017001***	(0.003325)	0.01741***	(0.002923)	-0.04***	(0.004694)
hh_headsex_2010	-0.01464	(0.016434)	0.010878	(0.017039)	0.00724	(0.023926)
hh_headage_2010	-0.00018	(0.000512)	0.00096**	(0.000446)	-0.00053	(0.000679)
rural_2010	0.161061***	(0.035138)	-0.00655	(0.018373)	-0.18***	(0.038597)
centre_2010	-0.03242**	(0.015448)	0.03487*	(0.018702)	0.006502	(0.023897)
south_2010	0.025864*	(0.013678)	0.048012**	(0.018915)	-0.07***	(0.022928)
dFISPpart	-0.008	(0.014409)	-0.01317	(0.009957)	0.014368	(0.01748)
c_cropdiversity	0.007949	(0.006556)	-0.00918*	(0.004678)	0.005817	(0.008123)
c_land	0.00532	(0.012128)	-0.00702	(0.00719)	-0.0013	(0.013888)
Dbusiness	0.0408	(0.041601)	0.004234	(0.020024)	-0.03922	(0.045371)
c_hhsize	-0.00638*	(0.003665)	0.01532***	(0.002151)	-0.01***	(0.004189)
dhh_headsex	-0.07756	(0.60494)	-0.05603	(0.440087)	-0.38856	(2.318129)
c_hh_headage	10.87	(0.000485)	0.000617*	(0.000348)	-0.00055	(0.000594)

*, ** and *** represent significance at 10%, 5% and 1% respectively. Standard errors in parentheses

The margins above portray similar effects on the outcome of the food category statuses. The signs of the independent variables in the initial conditions regression are the same with those in the second regression of initial conditions plus change variables.

Education Variables: Similarly, education variables still remain insignificant and the variable household size remains significant. Meanwhile, the variable household head sex loses its significance. In the second regression, age of household head is now significant at 5 percent in terms of its influence on entry into poverty. This means that *cateris paribus*, an addition of one year to the age of household age increases chances of entry into food poverty by 0.1 percentage point.

Location and Region variables: There is no change in significance in the rural variable between the two regressions. The variable centre is now significant at 1 percent in influencing the outcome of entering in food poverty. This implies that all things being equal, residing in the central region increases chances of slipping into food poverty more than residing in the north by 3 percentage points. In addition, the variable south is also significant at 5 percentage points in influencing the outcome of entering in food poverty. This implies that residing in the south increases the chance of entering food poverty by 5 percentage points more than residing in the north.

Change variables: Change in FISP participation in not significant in all the three outcomes. This is possibly because the benefits of the program do not suffice for the food needs of a household. If a household which was not participating in FISP in year 2010 joins the programme in 2013, it reduces its chances of exiting food poverty by 0.8 percentage points, reduces chances of entering into food poverty by 1 percentage point and increases chances of remaining non-food poor by 1.4 percentage points, *cateris paribus*. Crop diversity is only significant at 10 percent in the entry outcome. This means a household which has grown one additional new crop by 2013 reduces its chances of entering into food poverty by 1 percentage points assuming all other variables are held constant. Land and business change variables were found to be insignificant. This is possibly because increasing the land to cultivate does not bring significant returns to affect a food poverty status. Similarly, returns from non-farm business for Malawian households are very small and thus to not make a significant profit.

Cateris paribus, change in household size between 2010 and 2013 reduces chances of exit, entry and remaining in non-food poverty by 0.6, -1.5 and 1 percentage points. This variable is significant for the exit outcome at 10 percent and for the entry and remaining in food poverty at 1 percent significant level. Change of sex of the household is also not significant in the second regression. This is possibly because between 2010 and 2013, there had not been many changes in the sex of the household. Change in age of household is significant only for the entry into food poverty outcome at 1 percent level of significance. Additional years of the household head between 2010 and 2013 increased the chances of moving into food poverty by 0.062 percentage points.

5. Conclusion

Transition matrices show that out of a sample of 1921 used in the study, about 7 percent exited food poverty and 5 percent entered food poverty while 1 percent remained in food poverty. This indeed alludes to the fact poverty is a dynamic concept. Two regressions were run in the study; the regression of initial conditions and the regression of initial conditions plus the change variables. It was found that the regression which incorporated the change variables had a higher explanatory power of the variability in the model at pseudo R-squared equal to 27 percent compared to the regression of initial conditions which had an explanatory power of 19 percent. For this reason, the study is going to use the second regression to draw conclusions. Based on the objectives set by the study which were; to assess the effect of FISP on food poverty dynamics, to assess the effect of economic characteristics on food poverty dynamics, to assess the effect of demographic characteristics on food poverty dynamics and to assess the effect of size of arable land available to a household on food poverty dynamics, the following results were found; Participation in the FISP programme does not increase chances of getting out of food poverty. In fact, according to the results of this study, participating in FISP reduces chances of getting out of poverty and also it increases chances of entering into food poverty. For those who were not in food poverty, participating in the programme increases their chances of remaining in that status. Therefore, it can be said that the programme only benefits those who are not food poor.

Secondly, it was found that among economic characteristics which were used in this study, education has more pronounced effects than any other group of variables. In addition, a social issue in terms of gender was discovered. Males who have an MSCE have more influence on moving a household out of food poverty than females. This is possibly due to gender biases because it is expected that individuals who have the same education qualification have the same economic contribution, all things being equal. In the demographic variables, *cateris paribus*, a unit increase in household size reduces the chances of getting out of food poverty. This is also true for change in household size which takes place between 2010 and 2013. A change in household head to a female also reduces chances of getting out of food poverty. A one year increase in head of household age has no influence on exit from poverty. This is probably because a one year in age change cannot have an immediate impact on food poverty status. A change in age between 2010 and 2013 has more pronounced positive effects on chances of exiting poverty. Finally, an increase in land cultivated by a household increases chances of getting out of poverty assuming all this are equal.

Policy Implications: From the above conclusions, the following can be suggested for government to consider addressing the problem of food poverty. First of all, from the results of the study, it is evident that the FISP programme is no longer effective as it used to be in its first five years. Government should strengthening monitoring and evaluation programmes to help track loopholes in the programme. As Chirwa & Doward (2013) found out, there are weak monitoring, evaluation and audit systems in the subsidy programme. This encourages corruption and brides within the programme. Alternatively, policy makers should consider abandoning the programme and explore channels through which they can affect food poverty. This is suggested so because subsidies come at a very cheap cost to the beneficiaries. This retards the beneficiaries' work ethics and they start to over depend on the subsidised inputs. This can also be a possible explanation as to why the programme is recently being ineffective as compared to the first five years. Government should consider focusing on programmes aimed at capacity building skills development. These kinds of programmes assure sustainability and encourage responsibility of citizens for their own welfare. Subsidy programmes should only be used in cases of emergency.

Policy makers should also consider providing more education opportunities to its citizens. As it has been seen in the results, owning an education qualification above JCE greatly increases the chances of escaping food poverty. As such, more focus for policy planners should be on providing secondary and tertiary education to its citizens. Instead of subsidising farm inputs, which has proven to be ineffective in the long run, government should consider subsidising secondary and tertiary education which has long term benefits. Policy planners must also ensure that there are equal opportunities between males and females. This will help government get the best out of female's potential economic productivity, which is barren by gender biases. Another suggestion government should consider is curbing population growth. This can be done through encouraging family planning programmes and sensitising households on the benefits of having a smaller family size and the consequences of large families and rapid population growth. Lastly, government must strengthen and support institutions which aim agricultural productivity. This is so because land available to household is a very limited resource and households cannot keep on increasing land to escape food poverty. As such, individuals need to be equipped with techniques and resources, other than subsidies which can improve agricultural productivity.

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Private Financing and Human Resource Practices of Small Local and Foreign-Owned Cosmetological Businesses

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Abstract: There exists a growing body of empirical studies that explore both the sources of small, micro and medium enterprises (SMME) funding, and the quality of their human resource practices. However, there is paucity of literature that interrogates the impact of private funding of local and foreign SMMEs on the quality of human resources. Nevertheless, the wide recognition of the economic significance of SMMEs in emerging economies and the pivotal role that funding plays in the growth of such firms suggest that the nexus between SMME private funding and human resourcing is integral to this condition and growth. As a result, the current study examined the influence of private financing of local and foreign-owned hair salon SMMEs on the quality of their human resources, in an attempt to bridge the aforementioned research gap. The study, which drew on a quantitative approach, is based on a survey conducted on 150 South African and foreign immigrant-owned hair salon businesses. The findings suggest that the private financing structure was dominated by a combination of debt and equity financing, followed by debt financing, with equity financing as the least employed funding model. The study established the significant impact that access to private equity financing has on recruitment, selection and compensation. However, the level of private debt financing, attractiveness of interest rates for private debt financing and financial value of funding from private institutions (banks) do not have any impact on human resources management practices. A major observation from the results is that, some aspects of private financing impact negatively on human resources management albeit a small effect size, which somehow raises critical questions about the popular claims that financing, contributes positively to the quality of human resources of firms.

Keywords: *Hair salons, private financing, small foreign owned businesses, private equity*

1. Introduction

The reality that small, cosmetological South African businesses, such as hair salons, tend to be predominantly female managed and foreign immigrant-owned entities, makes them susceptible to financial exclusion as they may not qualify for funding options availed by national and private funding institutions. Both local and foreign immigrant female-owned small, micro and medium enterprises (SMMEs) encounter gender discrimination when seeking finance from traditional South African financial institutions and state-owned institutions (Small Enterprise Development Agency, n.d.; United National Development Programme, 2014). The United National Development Programme (2014) bemoans that South African women entrepreneurs still encounter difficulties in accessing finance despite the existence of various financial institutions and funding mechanisms that specifically target women-owned businesses. The foreign and female-owned SMMEs encounter challenges such as poor access to financial assistance, credit and lack of collateral. In addition, their business activities tend to fall predominantly in the informal sector, where engagement in value-adding activities, prospects of business growth, and transition to the mainstream economy is severely limited (Small Enterprise Development Agency, n.d.).

In addition to the literature focusing on meagre financial resources availed to SMMEs, there exists a further stream of research that focuses on the nature of SMMEs' human resource practices (Kim & Gao, 2010; Lee, Lee & Wu, 2010; Laforet, 2013; Mpiti, 2016; Nyamubarwa, 2016). The predominantly informal, intuitive, ad hoc and unsophisticated nature of human resource practices of SMMEs (Rand & Torm, 2012; Sheehan, 2013; Mpiti, 2016; Nyamubarwa, 2016) is attributed to the lack of financial resources to sponsor the establishment and operation of complicated human resourcing processes (Mpiti, 2016; Rambe & Mpiti, 2017). The largely informal human resource management (HRM) practices of SMMEs are normally in sync with the efficient management of their impoverished resource base and afford them increased flexibility to respond to the ever-changing, complex business environments they operate in (Kim & Gao, 2010). Conversely, the lack of formal, written HR policies often contributes to high employee absenteeism, turnover, and low employee motivation (Laforet, 2013; Nyamubarwa, 2016). Therefore, one of the critical and yet underestimated requirements for SMME success is the presence of a supportive human-resource base, as it fosters an ideal environment within which latent human potentialities are realised (Falkena et al., 2001). As such, formalised HRM practices are desirable as they impact positively on the business strategy and leverage a firm's performance (Lee, Lee & Wu, 2010; Nyamubarwa, 2016). Nonetheless, the SMMEs' more sophisticated HR practices require stable and consistent private funding, which is highly dependent on the sophistication of financial markets, the regulatory environment within which financial institutions operate and their ability to assess, manage and price the risks associated with loan products for SMMEs (Falkena et al., 2001).

A gap exists between literature that examines the financing of SMMEs on the one hand (Falkena et al., 2001; Fatoki, 2014; Mpiti, 2016) and the formalisation of human resource practices of SMMEs on the other (Cameron & Miller, 2008; Umer, 2012; Sheehan, 2013; Nyamubarwa, 2016). In addition, there is a paucity of literature that explores the intersection between private financing and human resource practices of SMMEs in emerging economies. Hence, this research explores the impact of private funding on the human resourcing of hair salon SMMEs. While Severino (2012) attempts to bridge the research chasm between SMME private financing and SMME human resource practices by arguing that the profitability of equity or quasi-equity investments in African SMMEs has been compromised by the low levels of human resources and scarcity of local capital, the study adopts a continental perspective rather than a micro perspective adopted in this study. The other complicated dimension is that many entrepreneurs incubate their small businesses with very limited capital and that financial capital is not significantly related to the probability of being a nascent entrepreneur (Davidson & Honing, 2003; Hurst & Lursadi, 2004; Simpeh, 2011). As such, the way in which the private financing of SMMEs relate to the quality of human resourcing of such SMMEs remains speculative. The ambiguity of this relationship is further compounded by the reality that most South African SMMEs, including hair salons, operate as low-productivity self-employment or "survivalist" entities for poor households (Davies & Thurlow, 2009; Demacon Market Studies, 2010), which undermines their capacity to develop formalised human resource practices. The current study, therefore, breaches the knowledge gap between the private funding-human resources relationship by examining the influence of private funding on the quality of SMMEs' human resources within the context of an emerging economy.

The study addresses three research questions and these are:

- What is the composition of the private funding in hair salon SMMEs operating in the Mangaung Metropolitan Area (MMA) of the Free State Province in South Africa?
- Which human resource practices are prevalent among these SMMEs operating in MMA in the Free State Province?
- How is the impact of private funding on the quality of human resources of Afro hair salons in the MMA constituted?

The rest of the paper is structured as follows: the research background and problem statement are outlined, followed by a brief literature review, research methodology, findings and discussion, study implications and the final section focuses on the conclusion to the study.

Problem background: The gulf between the SMME financing literature (Falkena et al., 2001; International Finance Corporation 2011; Mahembe, 2011; Timm, 2012, Fatoki, 2014) and SMME human resourcing (Horwitz, 2013; Almeida et al., 2015; Davis & Luiz, 2015; Nyamubarwa, 2016) stems from the varied foci of these discourses. The literature on SMME financing has foregrounded: SMMEs' limited awareness of external funding opportunities, nascence of the African financial systems and high cost of borrowing (Beck et al., 2009); SMMEs' bureaucracy which complicates their capacity to capitalise on available funding opportunities (Lekhanya & Mason, 2014), the complexities in meeting loaning requirements (Chimucheka & Mandipaka, 2015) and limited access to financing opportunities (Schmidt, Mason, Bruwer & Aspeling, 2016). This foci on funding can be contrasted with the research on SMME human resourcing that is pre-occupied with the significance and challenge of the adoption of human resources in SMME development (Hung, Cant & Wiid, 2016); the low human resource and technological capabilities of SMMEs (Hussain, Si & Wang, 2010), and the influence of human resource management (HRM) practices on SMMEs' financial and non-financial performance (Din, Bibi, Karim & Bano, 2014). Tiwari and Saxena (2012) acknowledge that the implementation of HRM practices affects employees' attitude, employee-employer relations, employee productivity and the financial performance of the firm. However, the body of literature seems to ignore the significance of financing on the operationalisation of HRM practices. As a result, financial matters are mentioned as performance outcomes of good human resource practices (Din, Bibi, Karim & Bano, 2014), just as the contribution of public and private partnerships (including financial partnerships) in accelerating SMME development and productivity is foreground (Hussain, Si & Wang, 2010) at the expense of HRM practices.

There are a number of factors that explain the SMMEs' limited pre-occupation with the quality of human resources. These include the size of SMMEs and limited funding, which collectively undermine the development of full-fledged human resource departments and culminates in the fusion of managerial and administrative roles in an individual owner/manager. The Infrastructure Dialogues Report (2015) highlights that the vibrancy, energy and entrepreneurship exhibited in the township economies, where most hair salons and their customers are mostly situated, is nevertheless characterised by the SMMEs' co-existence with poverty, poor facilities and financial investments, and a state of fragmentation among these SMMEs. The characteristic smallness of the SMMEs also deters them from instituting sophisticated human resource systems and hence, their reliance on informal or quasi-formal human resource practices. Critics such as Umer (2012), Blackburn, Hart and Wainwright (2013) and Nyamubarwa (2016) identify informal relationships as one of the key defining characteristics evident in the way SMMEs conduct their business and HR practices. Therefore, resource constraints compel SMMEs to employ limited HR professionals in as much as these businesses encounter difficulties in recruiting and retaining employees, hence their reluctance to engage in costly or restrictive practices (Cardon & Stevens, 2004; Bhatti et al., 2012).

Large corporation focus: The issue of the quality of SMME human resourcing is often ignored due to literature's pre-occupation with large multinational corporations and their subsidiaries (see Aytaç, Mousseau & Örsün, 2014; Horwitz, 2015) or with the HRM practices of developed countries (Almeida, Fernando, Hannif & Dharmage, 2015). Mainstream human resource literature takes little account of the SMMEs' conditions, a situation reflected in an acute shortage of research on HR practices in SMMEs (Richbell, Szerb & Vitai, 2010, Nyamubarwa, 2016). Nonetheless, an avalanche of employee-related problems and the increasing dissatisfaction of employees with the work place experience (Barrett, 2004) demonstrates the need for [small] organisations to create new human resource systems that deal effectively with changes taking place both internally and externally (van der Walt & Swanepoel, 2015). The reality that recruitment, selection, compensation, employee relations, performance appraisal, training and development challenges are not unique to large corporations implies that SMMEs are not immune to these challenges as well, considering that SMMEs often lack of coping mechanisms and rely on the authoritative leadership of their owner/managers. The Human Resource Development Strategy for South Africa (HRD-SA) 2010 – 2030 recognises the growing complexity of the work place, how it is being accelerated by the dynamic impact of globalisation on national economies, production and trade, and has placed HRD at the heart of contemporary development strategies.

Problem statement: The gulf between literature that explores the private funding opportunities of SMMEs in emerging economies on the one hand (Falkena et al., 2001; Mahembe, 2011; Timm, 2012; Fatoki, 2014) and SMME HRM practices on the other (Kim & Gao, 2010; Laforet, 2013; Nyamubarwa, 2016) complicates the understanding of the impact of private financing on human resourcing of SMMEs. Despite the postulated positive relationship between finance and the performance of SMMEs (Zhenxing & Zheng, 2008; OECD, 2015), there is limited literature that explores the influence of private finance on the human resourcing of SMMEs (Mpiti, 2016; Rambe & Mpiti, 2017). Yet well managed and sufficiently resourced human resources are one of the most strategic factors that provide flexibility and adaptability to organizations (Khatri, 1999; Tiwari & Saxena, 2012). This limited focus on the financing-HR relationship within SMME context could be attributed to the absence of formal HR departments in most SMMEs (Aldrich & Von Glinow, 1991), the difficulty of recruiting and retaining employees due to lack of financial resources (Cardon& Stevens, 2004; Bhatti et al., 2012) and their avoidance of complicated recruitment processes to reduce their overheads. In fact, the SMMEs' small operational budgets, infusion of management and ownership roles to reduce operational costs and lack of or a small HR complement, preclude the understanding of the exact impact of financing on the human resource quality of local and foreign-immigrant SMMEs such as hair salons. As such, the influence of private funding on the quality of human resources remains unclear and ambiguous, hence this study.

2. Literature Review

Private financing for SMMEs: Private funding is described as the monetary "support received from commercial banks, retail banks, financial credit schemes, micro lending institutions, personal savings, borrowing from family and friends, individual lending schemes (matshonisas) and community and collective savings (stokvels)" (Rambe & Mpiti, 2017:106). Despite the diverse private funding options, such as private commercial banks, micro financial institutions, community group savings and individual private lenders (see Rwigema & Venter, 2004; Mutezo, 2005; Calvin & Coetzee, 2010; Consultative Group to Assist the Poor, 2012) that are available to SMMEs, the small businesses that are predominantly foreign-owned, such as hair salons, are confronted with multiple challenges such as lack of sufficient collateral, weak (or limited) credit histories (Falkena et al., 2001), lack of financial management records (Rambe & Mpiti, 2017), high credit risk and a high failure rate (Dzansi, 2004; Agbobli, 2013; Agbotame, 2015). These challenges present small businesses with a dire need for greater financial institution variety, increased innovation and a greater emphasis on financial mentoring (Falkena et al., 2001) for them to increase their breadth of financing, reduce the cost of borrowing and make better choices about responsible spending. The challenge, however, is to locate literature that targets hair salons in particular as most literature focuses on the funding challenges faced by SMMEs in general.

The literature focusing on the private funding of SMMEs emphasises inter alia: the unambitious and limited range of SMME support systems especially the refinancing or guarantee instruments offered by the primary banks (Severino, 2012); bolstering access to finance for female-owned SMMEs (International Finance Corporation 2011); possible public-private partnerships to augment the financing of SMMEs (Timm, 2012) and the breadth and extent of financial credit access in South Africa (Mahembe, 2011). Studies have also documented SMME financial access challenges such as limited awareness; skewed distribution of financial challenges in cities, exorbitant costs of browsing support services and cumbersome administrative processes (Berry et al., 2002; Mahembe, 2011; Mpiti, 2016) and the problematic lumping of small and micro enterprises in the determination of financial options (United Nations Development Programme [UNDP], 2014). However, the nexus between private funding interventions and the quality of human resources of SMMEs still remains a grey area.

SMME human resources: Studies which examine the lack of financial support in SMMEs normally focus on the provision of human resources, accounting and marketing planning training to SMMEs (Small Enterprise Development Agency (SEDA), undated), as well as the need to increase the volume and quality of human resource skills in the industry through knowledge exchange and technology transfer via increased interaction and mobility (Business Partners and Limited and the SME Toolkit South Africa, 2015). The studies often cite the shortage of human resource and business skills, adverse economic conditions, escalating business costs and a hostile regulatory environment as major constraints to the growth prospects of SMMEs in South Africa (UNDP, 2014). Studies have also unpacked the predominantly informal, intuitive and ad hoc character of most SMME human resource processes (Umer, 2012; Sheehan, 2013; Nyamubarwa, 2016) and the way in which the selection of the senior managers is based on family kinship ties [and friendship networks] rather than management skills (Cameron & Miller, 2008:5). Nevertheless, the human resource practices of SMMEs, especially those of hair salon businesses, remain an underexplored terrain. The existing research has indeed considered contextual and organisational variables, such as firm location, size and duration of existence of the business, and the availability of institutional support and that of an HRM department, which collectively shape the formalisation of human resource processes (Urbano & Yordanova, 2008; Jan de Kok et al., 2011; Nyamubarwa, 2016) rather than the quality of human resources per se.

Influence of private financing on the SMME human resources: The prominence of SMME human resource issues in recent years (Hussain, Si & Wang, 2010; Tiwari & Saxena, 2012; Din et al., 2014; Hung et al., 2016) has tended to ignore the influence private financing on the quality of such SMME human resources. The few exceptions that highlight the financing-human resource relationship tend to emphasise the sequential order in which financing and HRM matters are addressed. Dun, Short and Liang (2008) observe that most SMMEs' commencement of operations is characterised by a focus on financial and marketing aspects of the businesses at the expense of HRM issues. The SMMEs' limited access to financial resources (Levy, 1993) and the higher transaction costs they encounter when obtaining credit (Saito & Villanueva, 1981), may make the location and hiring of right employees a challenge for small businesses (Hull, 2013).

3. Methodology

Research design: The research adopted a survey design, in which primary research data was extracted from South African and foreign-owned hair salon businesses located in the Free State province. Surveys are appropriate for research seeking to assess the current status, opinions, beliefs and attitudes of respondents from a known population (McMillan & Schumacher, 2001). The Industrial Development Corporation and National Youth Development Agency approximated the number of hair salons in the Free State at around 500 (i.e. a known population). A survey was the most ideal in examining hair salon owner/managers' perspectives on the impact of private funding on human resourcing practices of their businesses.

Sample and sampling method: De Vos and Strydom (2005) highlight that a sample of 20% (i.e. 100 individuals) should be drawn from a total population of 500 individuals. The research, however, catered for low response rates associated with surveys by using a sample of 150 hair salon owner/managers drawn from the population of hair salon businesses in the province. Stratified sampling was also employed owing to the existence of sharp variations in the number of hair salons in the metropole, cities, towns and rural areas. These samples were drawn at each of the noted levels and in proportion to the general population size of those levels.

Measuring instrument and data collection: The study employed a Lickert scale based questionnaire, which comprised closed ended questions. The questions embodied in the measuring instrument emerged from a rigorous review of literature covering the issues under investigation. The instrument had four sections covering sample demographics, the business' profile, private funding and human resources practices and the elements of business competitiveness. Two research assistants assisted the researcher with the collection of data. The survey was administered during the times that were convenient to the hair salon owner/managers. The research team travelled to the different geographical areas to administer the questionnaires, as the small hair salon businesses were spread around in the Free State Province. The self-administration of the questionnaire contributed to the achievement of a high response rate to the survey. Of the 150 questionnaires distributed, 110 were successfully completed and returned, representing a response rate of 73%.

4. Results

Data analysis: Data was first entered into excel, cleaned to eliminate incomplete responses and correct errors and exported to the Statistical Package for the Social Sciences (SPSS) version 22 for detailed analysis. Descriptive statistical analysis such as frequency tables (comprising means and percentages) were employed for analysis and presentation of demographic data. Correlation analysis was conducted to determine the relationship between private funding and the quality of human resources of small hair salon businesses. The results of the analysis were presented in correlation tables.

Reliability analysis: A reliability analysis was conducted on constructs in the questionnaire with the summary of the results presented in Table 1. The table reports on the constructs that are relevant to this study. Except for equity financing, which has a low Chronbach's alpha co-efficient, all the other constructs reflected comparably high alpha coefficients, thus signifying higher levels of reliability. The lower alpha values for equity could be attributed to the fewer items for this construct.

Table 1: Reliability analysis of constructs

Construct	Number of items	Alpha value
Level of debt financing	9	0.632
Level of equity financing	4	0.478
Recruitment and selection	11	0.875
Compensation	9	0.701

The overall reliability statistics of the entire questionnaire, which include all Likert scaled questions, were also calculated. The Likert scaled questionnaire which had 165 items showed a high internal consistency (Cronbach's Alpha= of 0.937). The Shapiro-Wilk test rejected the normality hypothesis for all the 4 variables (i.e. the level of debt financing, and levels of equity financing, recruitment and selection and compensation). Thus, the non-parametric techniques for assessing group variances on the 4 variables were conducted. The Mann-Whitney U Test was conducted to establish the variations relationships between financing and human resources by nationality of owner/managers. These results are discussed in the findings of the study.

Demographic information: This section provides an overview of the demographic profile of the owner/managers sample. The profile included the gender, age and educational status of the respondents. There was a moderately balanced representation of male hair salon owner/managers (53.6%) and female owner/managers (46.4%). The higher representation of males in such business contradicts Mosweunyane's (2013) finding on hair salon owner/management which observed that there were more (60%) female hair salon owner/managers than male managers (40%) in the North West Province of South Africa. About 55.5% of Afro hair salon owner/managers in the Mangaung Metropolitan Area were a youthful population aged between 25-34 years, and these were followed by the 35-44 years group which amounted to 24.5%. Hence, it can be interpreted that a majority (80%) of the respondents belonged to the economically active population of the nation. The findings somehow corroborates Woldie, Leighton and Adesua's (2008) finding that the younger owner/managers possessed the necessary motivation, energy and commitment to work and were more likely to take business risks than their older counterparts, which was established from their investigation on the business enterprise sector.

There was a fair balance between foreign owner/managers (50.9%) and South African citizens (48.2%). This buttresses Kalitanyi and Visser's (2010) claim that foreign-owned SMMEs constitute a significant element of South Africa's changing economy and landscape in the country's different cities. They elaborate that foreign migrant involvement in the nation's SMME sector is predominantly visible in a narrow band of retail and service than in the production sectors. The majority (61.8%) of the respondents were sole proprietors, while 39% were partnerships. This probably reflects the technical and financial complexity of establishing other business arrangements, such as private corporations, which demand more technical skills and finance to establish and run sustainably. A sizable percentage (47.3%) of the businesses had between two and five employees and many businesses (84.5%) had a turnover of less than R 100 000. In addition, a majority (75.2%) of the businesses had been in existence for not more than six years. A consideration of these phenomena, therefore, demonstrates the small size and perhaps infancy of the hair salon businesses.

Composition of private financing-a summary: The nature of private financing of Afro hair salons was considered using Likert scale question summaries. These questions were grouped into constructs which were summarised as latent factors that were later used in the inferential analysis. Many hair salons (47.3%) got their start-up capital from both debt and equity financing. The other businesses got their start-up capital from debt financing only (36.4%), equity financing only (14.5%) and from the Sector Education Training Authority (SETA). Debt financing comprised of borrowings from friends and family or from the bank/micro credit institutions. The composition of debit financing, itself a component of private funding, was also disaggregated into various constituents. A majority (52.7%) of hair salon businesses secured their debt funding from community or group savings, followed by the *Matshonisas*, individuals mostly located in former black townships who lend money for short durations at high interest rates to borrowers (50.9%), and then retail banks (50%). About 47.7% of hair salon SMMEs had secured debt funding from trade credit, 28.2% from micro credit schemes and 25.5% from NGOs.

Extent of Debt Financing: The study explored the extent to which hair salon SMMEs borrowed from various lenders in order to determine the composition of debt financing among these businesses.

Many businesses had not received financing from bootstrapping (79.1%), NGOs (78.2%), leasing companies (78.9%) nor micro credit firms (56.4%). Most businesses, however, claim to have received funding from *Matshonisa*s, community or group savings and debt financing from banks, which shows that SMMEs have easy access to these forms of financing.

Equity Financing: The study explored the sources of equity financing available for hair salon SMMEs. A majority (81.8%) of these businesses considered family and friends as their main source of equity financing. This could be a clear reflection of the easy accessibility and the inexpensive nature of such financial support as these sources may not impose interests on money borrowed by owner/managers.The second highest (22.7%) source of equity funding is the contribution from the entrepreneur and team members, which suggests some personal or group investment into these SMMEs. Only 11.8% of the SMMEs had been financed by business angels while 8.2% of them had borrowed money from venture capitalists.

Extent of Equity Financing: The study also examined the extent of access to equity funding by interrogating the degree to which SMMEs borrowed from these sources.

Table 2: Level of debt financing

Debt financing from private institutions		Frequency Distribution						Descriptives		Latent Factor Coefficients
		None borrowed	Least Lender	Moderate lender	Third biggest lender	Second biggest lender	Biggest lender	Mean	StdDev	
Q21.1 Debt financing amount received from bootstrapping	Count	87	6	6	1	2	8	1.63	1.45	0.572
	%	79.1%	5.5%	5.5%	0.9%	1.8%	7.3%			
Q21.2 Debt financing amount received from Trade credit	Count	54	17	24	6	1	8	2.15	1.47	0.629
	%	49.1%	15.5%	21.8%	5.5%	0.9%	7.3%			
Q21.3 Debt financing amount from *Matshonisas*	Count	46	9	16	11	10	18	2.85	1.92	0.578
	%	41.8%	8.2%	14.5%	10.0%	9.1%	16.4%			
Q21.4 Debt financing amount from Community or group saving	Count	40	3	31	13	14	9	2.86	1.69	0.586
	%	36.4%	2.7%	28.2%	11.8%	12.7%	8.2%			
Q21.5 Debt financing amount from micro credit firms	Count	62	15	19	10	2	2	1.92	1.25	0.530
	%	56.4%	13.6%	17.3%	9.1%	1.8%	1.8%			
Q21.6 Debt financing amount from leasing companies	Count	86	11	6	2	2	2	1.43	1.03	0.545
	%	78.9%	10.1%	5.5%	1.8%	1.8%	1.8%			
Q21.7 Debt financing amount from NGOs	Count	86	6	4	8	1	5	1.61	1.33	0.574
	%	78.2%	5.5%	3.6%	7.3%	0.9%	4.5%			
Q21.8 Debt financing amount from banks	Count	39	13	18	16	14	7	2.76	1.68	0.240
	%	36.4%	12.1%	16.8%	15.0%	13.1%	6.5%			
	Cronbach's Alpha							0.632		
	% of total variation accounted for by latent factor							29.56%		

Table 3: Level of equity financing

Equity financing from private institutions		Frequency Distribution						Descriptives		Latent Factor Coefficients
		None borrowed	Least Lender	Moderate lender	Third biggest lender	Second biggest lender	Biggest lender	Mean	StdDev	
Q22.1 Equity financing amount from entrepreneur and team members	Count	89	10	7	3	1	0	1.34	0.79	0.648
	%	80.9%	9.1%	6.4%	2.7%	0.9%	0.0%			
Q22.2 Equity financing from friends and family	Count	31	13	31	18	6	11	2.89	1.59	0.222
	%	28.2%	11.8%	28.2%	16.4%	5.5%	10.0%			
Q22.3 Equity financing from business angels	Count	85	11	5	6	2	0	1.43	0.95	0.821
	%	78.0%	10.1%	4.6%	5.5%	1.8%	0.0%			
Q22.4Equity financing from venture capitalist	Count	91	5	10	2	2	0	1.35	0.86	0.868
	%	82.7%	4.5%	9.1%	1.8%	1.8%	0.0%			
Cronbach's Alpha								0.478		
% of total variation accounted for by latent factor								47.41%		

Table 3 indicates that the majority of businesses (82.7%) did not receive equity financing from venture capitalists. Venture capitalists are often reluctant to invest their money in SMMEs due to their high risk of failure. The findings suggest that most business (80.9%) did not receive equity financing from entrepreneurs and team members. This is surprising as entrepreneurs and team members would be expected to invest in their SMME business over and above different forms of borrowings. Most SMMEs (78.0%) did not receive equity funding from business angels. A business angel is an individual funder who finances someone's businesses but prefer to keep his/her identity unknown to the general public. It can be assumed that most business angels are reluctant to invest in high risk businesses for fear of losing their money. The high failure rate of new start-ups explains both the general unwillingness of these business angels to invest in SMMEs and their risk averse behaviour. Nevertheless, equity financing came mainly from friends and family (31.9%) - a clear indication of significance of donations/support from family or friends.

Human resources management practices of hair salons: The study also examined the HRM practices of hair salon business before relating them to funding. The practices considered here included recruitment, selection, training, development and compensation.

HR Recruitment and selection: The study investigated whether small businesses followed the proper procedures when recruiting and selecting their personnel. The results are presented in Table 4 below.

Table 4: HR recruitment and selection

Human resources: Recruitment and Selection		Frequency Distribution					Descriptives			
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	%Agree/ Strongly Agree	Mean	StdDev	Latent Factor Coefficient
Q37. Someone is responsible for human resources in the business	Count	3	9	39	31	28	53.6%	3.65	1.04	0.753
	%	2.7%	8.2%	35.5%	28.2%	25.5%				
Q38. We recruit, select, appoint, train and develop human resources	Count	2	5	47	32	24	50.9%	3.65	0.93	0.744
	%	1.8%	4.5%	42.7%	29.1%	21.8%				
Q39. Business emphasises qualifications in its recruitment and selection	Count	4	13	38	29	25	49.5%	3.53	1.08	0.757
	%	3.7%	11.9%	34.9%	26.6%	22.9%				
Q40. The business emphasises relevant experience when recruiting and appointing	Count	1	8	22	45	34	71.8%	3.94	0.94	0.775
	%	0.9%	7.3%	20.0%	40.9%	30.9%				
Q41. The business emphasises knowledge of hair salons employees	Count	1	4	19	51	35	78.2%	4.05	0.85	0.733
	%	0.9%	3.6%	17.3%	46.4%	31.8%				
Q42. We employ friends, family members, relatives, acquaintances	Count	35	18	31	16	10	23.6%	2.53	1.32	0.138
	%	31.8 %	16.4%	28.2%	14.5%	9.1%				
Q43. The business provides a clear and comprehensive job description	Count	1	3	23	47	36	75.5%	4.04	0.86	0.642
	%	0.9%	2.7%	20.9%	42.7%	32.7%				
Q44. The business provides clear job specifications	Count	2	3	20	56	29	77.3%	3.97	0.85	0.706
	%	1.8%	2.7%	18.2%	50.9%	26.4%				
Q45. The business appoints candidates in terms of relevant experience, skills and qualification	Count	3	8	38	26	35	55.5%	3.75	1.07	0.713
	%	2.7%	7.3%	34.5%	23.6%	31.8%				
Q46. Reference checks are part of recruitment	Count	0	9	27	43	31	67.3%	3.87	0.92	0.746
	%	0.0%	8.2%	24.5%	39.1%	28.2%				
Q47. The business possess overall knowledge of HR recruitment process	Count	0	6	49	24	31	50.0%	3.73	0.94	0.776
	%	0.0%	5.5%	44.5%	21.8%	28.2%				
	Cronbach's Alpha							0.875		
	Cronbach's Alpha without Q42							0.905		
	% of total variation accounted for by latent factor (without Q42)							54.14%		

A majority (71.8%) of hair salons prioritise the possession of relevant experience when selecting prospective employees, while 49.5% claimed that their businesses emphasised the possession of qualifications during employee selection. The fact that most hair salon businesses rely more on technical hand work than academic knowledge might explain the less emphasis on prospective employees' academic qualifications. Business knowledge of hair salon employees (78.2%) and reference checks (67.3%) were constitutive components of the selection criteria of employees of hair salons. The high percentages on knowledge of the hair salon industry and employee reference checks is commendable. However, hair salon businesses have complicated HR practices. For instance, while it was observed that many provide clear job descriptions (75%) and job specifications (77.3%) to employees, some owner/managers (23%) admitted to hiring family members and acquaintances, which is a problematic HR practice.

HR Compensation: The study also investigated the way employees are compensated and whether access to private funding influences human resources practices within small businesses.

Table 5: HR compensation

		Frequency Distribution					Descriptives			
Human resources: Compensation		**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**	**%Agree/ Strongly Agree**	**Mean**	**StdDev**	**Latent Factor Coefficient**
Q48. Salaries are in accordance with labour market standards	Count	1	7	17	33	52	77.3%	4.16	0.97	0.472
	%	0.9%	6.4%	15.5 %	30.0%	47.3%				
Q49. Employees are registered for income tax	Count	39	25	12	22	12	30.9%	2.48	1.43	-0.398
	%	35.5%	22.7 %	10.9 %	20.0%	10.9%				
Q50. Employees are compensated according to hours of work	Count	8	18	20	29	35	58.2%	3.59	1.29	0.317
	%	7.3%	16.4 %	18.2 %	26.4%	31.8%				
Q51. Access to private funding influences employee training	Count	10	8	34	33	25	52.7%	3.50	1.19	0.772
	%	9.1%	7.3%	30.9 %	30.0%	22.7%				
Q52. Access to private funding influences retention of employees	Count	12	13	41	23	21	40.0%	3.25	1.21	0.841
	%	10.9%	11.8 %	37.3 %	20.9%	19.1%				
Q53. Access to private funding influences employee compensation	Count	10	19	25	36	20	50.9%	3.34	1.22	0.759
	%	9.1%	17.3 %	22.7 %	32.7%	18.2%				
Q54. Employee pay rates are kept confidential	Count	1	1	16	36	56	83.6%	4.32	0.82	0.734
	%	0.9%	0.9%	14.5 %	32.7%	50.9%				
Q55. Employee salary is determined based on comparison with competitors	Count	9	19	30	33	19	47.3%	3.31	1.19	0.427
	%	8.2%	17.3 %	27.3 %	30.0%	17.3%				
Q56. Salary ranges are used to determine salary rates	Count	2	2	28	45	32	70.6%	3.94	0.89	0.683
	%	1.8%	1.8%	25.7 %	41.3%	29.4%				
	Cronbach's Alpha							0.701		
	Cronbach's Alpha (when Q49 is omitted)							0.795		
	% of total variation accounted for by latent factor (Q49 excluded)							43.04%		

A majority (83.6%) of hair salons held the opinion that their businesses keep employee records confidential and that salary ranges are used to determine salary rates (70.6%). However, the businesses displayed complex organisational processes. The majority (77.3%) of the respondents claim that their companies offer market-related salaries and only 30% confirmed that their employees are registered for income tax payments. In addition, more than half (58%) of the respondents claimed that their employees are paid according to the hours they worked. Hair salons owner/managers offer more or less the same salaries as other hair salons. A total of 40% of the firms believed that access to private funding influences the training of employees and 50.9% professed that access to private funding influences employee compensation. Having access to private funding allows the owner/manager to take their employees for training to improve their skills and pay their salaries.

Debt financing by nationality: A Mann-Whitney two-sample rank-sum test was conducted to examine whether there were significant differences in debt financing between the levels of nationality. The Mann-Whitney two-sample rank-sum test is a non-parametric alternative to the independent samples *t*-test, which does not share the independent samples *t*-test's distributional assumptions (Conover & Iman, 1981). There were 53 observations in group SA_Citizen and 57 observations in group SA_Non_Citizen (see Table 6). The results of the Mann-Whitney U test were not significant, $U = 1370$, $z = -0.84$, $p = .399$. The mean rank for group SA_Citizen was 52.85 and the mean rank for group SA_Non_Citizen was 57.96. This suggests that the distribution of debt_financing for group SA_Citizen is not significantly different from the distribution of debt_financing for the group SA_Non_Citizen. This probably shows that both South African citizens and foreign nationals encounter the same lending conditions from debtors such as family members, friends and business angels. Table 6 presents the results of the Mann-Whitney U test.

Table 6: Mann-Whitney Rank Sum Tests for debt financing, equity financing, recruitment and section and compensation by nationality of hair salon owner/managers

Variable	**Mean Rank SA_Citizen**	**SA_Non_Citizen**	***U***	***z***	***p***
Debt_financing_	52.85	57.96	1370.00	-0.84	0.399
Variable	Mean Rank SA_Citizen	SA_Non_Citizen	*U*	*z*	*p*
Equity_financing	49.72	60.88	1204.00	-1.86	.063
Variable	Mean Rank SA_Citizen	SA_Non_Citizen	*U*	*z*	*p*
Recruitment and_ Selection_	67.82	44.04	2163.50	-3.92	< 0.001
Variable	Mean Rank SA_Citizen	SA_Non_Citizen	*U*	*z*	*P*
Compensation	59.09	52.16	1701.00	-1.14	0.253

Equity_financing by nationality: A Mann-Whitney two-sample rank-sum test was conducted to examine whether there were significant differences in equity financing between the levels of nationality. There were 53 observations in group SA_Citizen and 57 observations in group SA_Non_Citizen (see Table 6). The results of the Mann-Whitney U test were not significant, $U = 1204$, $z = -1.86$, $p = .063$. The mean rank for group SA_Citizen was 49.72 and the mean rank for group SA_Non_Citizen was 60.88. This suggests that the distribution of equity_financing for group SA_Citizen is not significantly different from the distribution of equity_financing for group SA_Non_Citizen.

Recruitment and selection by nationality: A Mann-Whitney two-sample rank-sum test was conducted to examine whether there were significant differences in recruitment and selection between the levels of nationality. There were 53 observations in group SA_Citizen and 57 observations in group SA_Non_Citizen (see Table 6). The results of the Mann-Whitney U test were significant, $U = 2163.5$, $z = -3.92$, $p < .001$. The mean rank for group SA_Citizen was 67.82 and the mean rank for group SA_Non_Citizen was 44.04. This suggests that the distribution of recruitment and selection for group SA_Citizen is significantly different from the distribution of recruitment and selection for group SA_Non_Citizen. The difference in recruitment and selection in the two levels of nationality is perhaps the result of the South African sample's acquaintance with a well-established labour regulation regime and the efficiency driven nature of their economy. In contrast, the SA Non-citizen sample may not be sufficiently grasping the labour laws that affect recruitment and selection and the risks associated with non-compliance with these regulations.

Compensation by Nationality: A Mann-Whitney two-sample rank-sum test also determined whether there were significant differences in compensation between the levels of nationality. There were 53 observations in group SA_Citizen and 57 observations in group SA_Non_Citizen, as shown in Table 6 outlining the results from the Mann-Whitney U test. The results of the Mann-Whitney U test were not significant, U = 1701, z = -1.14, p = .253. The mean rank for group SA_Citizen was 59.09 while that for group SA_Non_Citizen was 52.16. This suggests that the distribution of compensation for group SA_Citizen is not significantly different from the distribution of compensation for group SA_Non_Citizen. The familiarity of each group with the compensation structures of the other group (due to the informality of the HRM systems) probably explains their almost identical rewarding systems.

Effects of private funding on human resources: The correlation analysis method was also used to determine the nature of the relationship between private funding and human resources. Table 7 below presents the correlations between the various private funding variables, discussed in the previous sections, and the already discussed human resources variables.

Table 7: Correlations between private funding and human resources

Correlations			Private Funding							Human Resources	
			Level of Private Debt Financing	Level of Private Equity Financing	Attractiveness of Interest rates for Private Debt Financing	Attractiveness of Interest rates for Private Equity Financing	Accessibility of funding for Private debt Financing	Accessibility of funding for Private Equity Financing	Financial Value of funding from Private Institutions (Banks)	Human Resources Recruitment and Selection	Human Resources Compensation
Private Funding	Level of Private Debt Financing	Correl									
		p-value	-								
		N									
	Level of Private Equity Financing	Correl	0.136								
		p-value	0.168	-							
		N	105								
	Attractiveness of Interest rates for Private Debt Financing	Correl	0.817**	0.129							
		p-value	0.000	0.186	-						
		N	105	107							
	Attractiveness of Interest rates for Private Equity Financing	Correl	0.056	0.700**	0.202*						
		p-value	0.566	0.000	0.036	-					
		N	106	109	108						
	Accessibility of funding for Private debt Financing	Correl	0.716**	0.170	0.751**	0.169					
		p-value	0.000	0.078	0.000	0.077	-				
		N	106	109	108	110					
	Accessibility of funding for Private Equity Financing	Correl	0.030	.798**	0.040	0.738**	0.229*				
		p-value	0.765	0.000	0.680	.000	0.016	-			
		N	105	108	107	109	109				
	Financial Value of funding from Private Institutions (Banks)	Correl	0.570**	0.155	0.587**	0.203*	0.582**	0.127			
		p-value	0.000	0.113	0.000	.036	0.000	0.194	-		
		N	104	106	106	107	107	106			
Human Resources	Human Resources Recruitment and Selection	Correl	0.055	-0.198*	-0.014	-0.185	-0.188*	-0.204*	-0.017		
		p-value	0.581	0.040	0.884	0.054	0.050	0.034	0.863	-	
		N	105	108	107	109	109	108	106		
	Human Resources Compensation	Correl	0.080	-0.273**	0.006	-.299**	-0.166	-0.281**	0.051	0.658**	
		p-value	0.419	0.004	0.952	0.002	0.084	0.003	0.601	0.000	-
		N	105	108	107	109	109	108	106	108	

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

*. Correlation is significant at the 0.05 level (2-tailed).

Private funding and human resources: The accessibility of funding for private equity financing has a significant negative impact on recruitment and selection (correlation=-0.204, p-value=0.034) and compensation (correlation=-0.281, p-value=0.003). This contradicts claims that the availability of financial resources is critical for an improved recruitment and selection of an enterprise's employees. The results in Table 7 show that the level of private debt financing, attractiveness of private debt financing interest rates and the value of funding from private institutions (banks) do not have any impact on the human resources management two constructs of recruitment and selection, and compensation (small correlations and p-values>0.05). The level of private equity financing has a negative impact on recruitment and selection (correlation=-0.198, p-value=0.040) and compensation (correlation=-0.273, p-value=0.004). The attractiveness of interest rates for private equity financing has a negative impact on compensation (correlation=-0.299, p-value=0.002). The accessibility of funding for private debt financing has a negative impact on recruitment and selection (correlation=-0.188, p-value=0.050). Therefore, it is important to note that, while some aspects of private finance have a negative impact on human resources management, the effect size of such an impact is very minimal, for none of the absolute correlation values are greater than 0.300. Thus, the general observation is that private funding has a limited impact on human resources management.

Discussion-*SMME Financing:* While a combination of debt and equity comprised almost half (47.3%) of the total financing for small businesses, debt financing was considerably higher than equity financing, thus demonstrating the small businesses' complexities in generating funding internally. This finding corroborates evidence from literature where the low equity capital generation capacity of small firms is identified as a major constraint to the growth of small firms (International Finance Corporation 2011; Severino, 2012). Severino (2012) affirms that SMMEs' equity capital constraints are a consequence of their owners' financial incapability, which forecloses their access to financial opportunities and business growth potential. Our finding contradicts Fatoki's (2014) claim that South African SMME operations can enhance their credibility when sourcing funding externally by first seeking internal equity before considering other funding sources.

In terms of debt financing, most hair salon SMMEs relied heavily on *Matshonisa* (private individual lenders) and community or group savings to finance their businesses. The popularity of these funding sources stems from their perceivably relaxed lending procedures, especially the exclusion of collateral from borrowers. While this finding resonates with the claim by Falkena et al. (2001) that non-bank financial intermediaries play a significant role in SMME enterprise lending, the same finding contradicts their claim that these intermediaries are imposing constraints on SMMEs' lines of credit. Our finding is, nevertheless, consistent with the reality that South Africa's black-owned businesses rely more on informal financial options, such as Matshonisas, community savings and funeral and burial schemes as such businesses are financially excluded by formal financial institutions such banks (SEDA, undated).

Banks were sometimes another credible source of funding as noted in the 50% of SMMEs that borrowed from the banks. This finding is surprising and somewhat contradicts conventional wisdom about SMMEs' complexities of accessing finance from retail and commercial banks due to lack of tangible assets or collateral (Gichuki, Njeru & Tirimba, 2014; Mwaka, 2014; Mpiti, 2016). Alternatively, this points to local banks' diversification of their funding portfolios to include pro-poor lending, even though they may be extending small amounts of credit to reduce their risk vulnerability. Many hair salons had not received funding from bootstrapping, NGOs, leasing companies and micro credit firms. Perhaps, this scenario can be attributed to insufficient information about their funding procedures due to their poor marketing or the associated high costs of borrowing. In addition, the dominance of national and provincial government agencies that provide loan facilities to SMMEs, such as the National Youth Development Agency, SEDA and Small Enterprise Finance Agency (SEFA), may eclipse the visibility of the aforesaid funding modalities (Small Enterprise Finance Agency, 2015).

With regard to equity, borrowing from family and friends constituted the prime forms of lending, while borrowing from entrepreneurs and team members, business angels and venture capitalist were the least represented. While this evidence signifies the equity problem, it contradicts Mason and Harrison's (2013) observation that entrepreneurs and team members may invest their assets in high risk-high return enterprises in exchange for the firm's equity. Our findings buttresses literature, which suggests that national institutions should increase financial stimulus for small businesses due to the reluctance of venture capitalists and business angels to support emerging businesses and SMMEs' high risk of failure (Falkena, 2001; Cobbett, 2008). The same findings resonate with Timm's (2012) claim that unlike other emerging markets such as Chile and Malaysia, which are increasing angel investment networks by funding businesses through angel investors' collaboration with state entities to mitigate the risk of investing in small business entities, South Africa lacks a business angel-investing environment.

Human resourcing practices: Hair salon businesses had complicated HRM practices. For instance, the possession of relevant experience was noted as an integral requirement for their recruitments, even though they did not hire highly educated employees. The reluctance or inability to hire highly educated personnel is inconsistent with the recognition that educated personnel are more productive and have more learning and innovative abilities (Batra & Tan 2003; Hussain, Si & Wang, 2010). Our findings on the recruitment of people with lower education attainments cohere with observations on the low human resource capabilities of SMMEs, especially qualification-job match, which constrain the SMMEs' development in emerging economies (Hussain, Si & Wang, 2010). Hair salons' deployment of trained personnel, however, resonates with Onsongo's (2015) study on factors influencing the growth of hair salon enterprises in Kisii Town, Kenya, which reported that the hair salons require highly trained and knowledgeable staff that keeps abreast with industry demands and offer quality products and services.

The finding on many SMME owner/managers' engagement in HRM practices is inconsistent with the literature on SMMEs. Lockyer and Scholaries (2005) revealed a general lack of systematic procedures for employee resourcing and a limited tradition of legitimate human resource practices within SMMEs. In addition, the owner/managers' claim that they paid their employees market competitive salaries demonstrates their businesses' compliance with national labour relations. The Government Notice Report on Bargain Council for hairdressing, cosmetology beauty and skincare states that no employer shall pay and no employee shall accept a salary lower than the prescribed national minimum salary for that trade/profession (Oliphant, 2013).

Relationship between financing and human resource practices: The accessibility of funding for private equity and debt financing has a significant negative impact on recruitment and selection, and compensation. This contradicts Hussain, Si and Wang's (2010) finding that access to financial resources is integral to the development of an effective technical and HR programme, which is vital for the development of small enterprises. The findings also contradict the Board of Governors of the Federal Reserve Systems Report (2012) finding that the provision of equity is fundamental to a healthy and thriving human resource compliment. The levels of private debt financing, attractiveness of interest rates for private debt financing and financial value of funding from private institutions (banks) do not have any impact on the two constructs of human resources management, namely, recruitment and selection, training and compensation (small correlations and p-values>0.05). Since the dominant forms of debt financing were from banks and from community group savings, it could argue that these institutions are loaning SMMEs small amounts, which do not impact considerably on the businesses' recruitment and compensation processes. The risk averseness of banks is well documented (Fatoki, 2014; Mpiti, 2016; SEDA, undated). In the same vein, community group savings also involve small amounts, which may be inconsequential to the human practices of SMMEs.

The level of private equity financing has a negative impact on recruitment and selection and compensation. The reality that family members and friends provided private equity funding suggests that these lenders can demand equity from the businesses either as co-owners/managers or demanding competitive salaries. This interpretation on hiring family and friends contradicts Kanu's (2015) finding on Sierra Leone SMMEs' engagement in formal HRM practices, which were observed as positively influencing the HR development and sales. The current study demonstrates that the attractiveness of interest rates for private equity financing has a negative impact on compensation. Perhaps, attractive interest rates compel owner/managers to recoup profits, which they in-turn channel to quick loan repayments. This may mean that SMME employees end up as the victims of their success as money intended for their competitive salaries gets diverted to repay loans.

5. Conclusion

The current study interrogated the three issues: (1) the constitution of private funding options available to resource-constrained foreign and locally owned hair salon businesses, (2) the quality of the human resources of the SMMEs and (3) the relationship between private funding and human resources practices. Almost half of the hair salons surveyed with regard to the constitution of private funding, employed a combination of both debt and equity funding. However, a sizable percentage of SMMEs relied on debt financing after equity and debt financing had been disaggregated, while a small percentage employed equity capital. This demonstrates the complexity of generating equity financing internally and contradicts the firm life-cycle theory that emphasises the need for small firms to generate financial resources internally for their increased growth before resorting to debt financing. Hair salons' dependence on family members and friendship networks for debt financing also demonstrates the constricted sources of external financing for SMMEs. As a result, SMMEs collectively need a more conductive economic environment for the diversification of their internal and external sources of funding. To this effect, venture capital and business angels are strong, under-exploited avenues that the South African government can strengthen through increased public-private partnerships with these financiers to share and externalise risks for small businesses.

Although small businesses appointed well experienced staff and remunerated them competitively, they also displayed unsophisticated recruitment practices, such as recruiting family members/friends and personnel with low educational attainments. This, at face value, may not be a problem in view of the fact that hair salon related tasks may not necessarily require tertiary level attainments, innovation, productivity and open learning requirements of firms, but it is common knowledge that enterprises may be compromised by the use of such cheap labour. The diversification of funding and pursuit of higher education attainments by hair salon owner/managers themselves could be the entry point to the development of the educational threshold for the SMME work force. While accessibility of funding for debt financing has a positive but insignificant impact on recruitment and selection and point to the capacity of funding to leverage HRM practices of hair salons, all the other private finance-HRM relationships were negative. The reality that the level of private debt financing, attractiveness of interest rates for private debt financing and the financial value of funding from private institutions (banks) do not have any impact on the human resources management constructs (i.e. recruitment and selection, and compensation), may imply different issues. These include the insufficiency of funds borrowed for overhauling HRM practices or the possible diversion of funds intended for salary increments to debt servicing leading to stagnancy of salary levels. Hence, the diversity of pro-poor funding sources meant for SMMEs would contribute to the overhaul of their HRM practices.

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Factors Influencing Competitiveness of Small and Medium Enterprises (SMEs) in Nairobi County, Kenya

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Abstract: The purpose of this study was to examine factors influencing firm competitiveness among the Small and Medium Enterprises in Nairobi, Kenya. Specifically the study set out to examine the influence of strategic leadership, technology, resources and organization culture on competitiveness of Small and Medium Enterprises in Nairobi. The study adopted a descriptive research design. The study population comprised of SMEs in Nairobi which fall within the top 100 SMEs in Kenya. There are 79 SMEs from Nairobi County in the Top 100 SMEs in Kenya. A sample size of 25 SMEs which represented 30% of the target population was selected through stratified random sampling. The stratification was based on five business sector categories (real estate, supplies, services, distribution and manufacturing). The study utilized primary data which was collected from top management employees through the use of questionnaire. Data was analyzed using both descriptive and inferential statistics. Correlation analysis was employed to aid in establishing the nature and strength of the relationships between variables of interest. Correlation analysis results indicate that strategic leadership, adoption of relevant technology, resources availability and organization culture has a positive and significant relationship with firm competitiveness. The study concludes that sustainable competitive advantage of the firm stems from effective strategic leadership, adoption of technology, resources availability and effective organization culture. The study recommends that SMEs should embrace various competitive strategies to remain relevant in the market and achieve the required competitiveness. The SMEs managers should embrace strategic leadership practices, benchmark on best practices to ensure constant touch with their customers, embrace adoption of appropriate technology towards realizing higher levels of efficiency and effectiveness, ensure optimal utilization of resources, and cultivate a good balance between the organization culture and the organization processes so as to enhance competitive advantage. This study was confined to factors influencing organizational competitiveness of small and medium enterprises within Nairobi County. Other studies could be pursued in terms of expanding the geographical setting and taking recognition of other variables that could intervene and or moderate the investigated relationship.

Keywords: *Competitiveness, SMEs, Leadership, Technology, Resources, Culture*

1. Introduction

Competitiveness is a characteristic which allows a business undertaking to be successful when it competes with other business undertakings (Ireland and Hitt, 1999). Hakansson and Snehota (1989) argue that 'no business is an island', indicating that companies are involved in long-term relationships. Organizations must understand how changes in their environment are unfolding and should actively look for opportunities to exploit their strategic abilities, adapt and seek improvements in every area of the business, building on awareness and understanding of current strategies and successes. Organizations must be able to act quickly in response to opportunities and barriers in the industry (Abishua, 2010). Competitiveness does not generally refer to a win or lose situation, but rather a comparative advantage in a specific area (Garelli, 2006). While there are a number of policies which can be implemented to improve the competitiveness of a financial system, at its foundation is the competitiveness of firms. A company achieves competitive advantage whenever it has some type of edge over rivals in attracting buyers and coping with competitive forces. There are many routes to competitive advantage, but they all involve giving buyers what they perceive as superior value compared to the offerings of rival sellers. When focusing on the competitiveness of individual financial institutions, there are a number of things which represent competitiveness. The two main items used to measure performance are the firms market share within the particular industry in which it operates and its profitability. Profitability is then used to measure the company return on capital employed hence value to its shareholders. Kaplan and Norton (2001) introduced the balanced score card as a more realistic measure of performance. In addition to the financials the tool also considers customer issues, learning and growth within the organization and internal business processes. Internal business process is the path to achieving strong financial results and superior customer satisfaction.

Small and Medium Enterprises Sector: Middle market companies represent more than a third of American jobs and more than $9 trillion in annual revenue. The average employment growth in 2012 for middle market companies was 2.7%, compared with 2.1% for large firms. The services industry companies in healthcare or the restaurant business, for instance showed the most growth, adding approximately 950,000 employees. While small businesses struggled to pay the lease or turn a profit, and large corporations laid off thousands of workers to satisfy shareholders, medium-size companies scooped up top talent and got creative (Caldwell, 2013). Aremu and Adeyemi (2011) in their study in Nigeria noted that the SME sector is the main driving force behind job creation, poverty reduction, wealth creation, income distribution and reduction in income disparities. In Kenya, SMEs is a critical sub-sector towards the realization of the Kenya Vision 2030 (long-term development blueprint for the country). The aim of Kenya Vision 2030 aims at transforming Kenya into newly-industrializing, middle income country providing a high quality of life to all its citizens in a clean and secure environment. In other words the vision aspires to meet the Sustainable Development Goals (SDGs) for Kenyans. The Vision is anchored on three key pillars: Economic; Social; and Political Governance. The medium sized enterprises are considered key in the implementation of flagship projects that will help achieve this vision (Republic of Kenya, 2009). According to the Economic Survey (Republic of Kenya, 2012), the SME sector contributed 79.8% of new jobs created in that year in Kenya. It is also important to note that the Kenya's development plans for the 1989-1993, 1994-1996 and 1997-2001 periods put special emphasis on the contribution of small and medium size enterprises in the creation of employment in the country.

According to the statistics provided by Nairobi county licensing office there were 825 SMEs in 2014 based in Nairobi County operating in service and manufacturing sectors. The contribution of SMEs to job creation in the country is regarded as immense. Analysis by county shows that Nairobi County recorded a 5.4 increase in job creation in 2011 in the SMEs sector (Republic of Kenya, 2012). Like in any other part of the country SMEs in Nairobi have high mortality rates with most of them not surviving to see beyond their third anniversaries (Republic of Kenya, 2009). The top 100 SMEs survey was first launched in Kenya in 2008, in Uganda in 2009 and in Tanzania in 2010. Top100 SMEs survey seeks to identify the country's fastest growing medium sized companies, showcase their business excellence and highlight some of the country's most successful entrepreneurship stories. Kenya's Top 100 mid-sized companies Survey is an initiative of KPMG Kenya and Nation Media Group. The Survey seeks to identify Kenya's fastest growing medium sized companies in order to showcase business excellence and highlight some of the country's most successful entrepreneurship stories. Essentially, a top 100 SME is one which ranks ahead of its peers in terms of revenue growth, profit growth, returns to shareholders and cash generation/liquidity. A Top 100 company has succeeded in progressively growing its market position in the industries in which it operates and over time; the growth translate into both returns for its shareholders and a fairly sound financial position. The top 100 SMEs fall into five categories: manufacturing, supplies, services, distribution and real estate.

Statement of the Problem: The Small and Medium Enterprises (SMEs) sector has an important role to play in developing economies, poverty alleviation and job creation. There is notable growth in the SMEs sector in terms of number of enterprises and products offered across the various subsectors. This growth intensifies the competitive environment for the players. For an organization to survive, achieve and sustain competitive advantage in such an environment, it has to differentiate itself in terms of cost and quality of products and services. Given the increasing intensity of competition and the demands and expectations of customers and potential customers for quality products and services, organizations day in day out are strategizing to always be within or beat the competition. However, the achievement of competitiveness can be explained by various factors. According to Thompson et al. (2012), many factors may explain an organization's performance and thus competitiveness. Some of these factors could be attributed to the high mortality rates of SMEs in the region, with most of them not surviving beyond the third year after taking off.
Empirical research has indicated that in competitive and rapidly changing market environments, firms need to possess capabilities that are dynamic to sustain their competitive advantage (Ambrosini, Bowman and Collier, 2009; Ray, Barney and Muhanna, 2004). Some of the notable studies that have been conducted on SMEs both within Kenya and internationally include a study by Qiuhong and Tiorini, (2009) who focused on strategic Management in East Asia SMEs, Aremu and Adeyemi (2011) who examined Small and Medium Scale

Enterprises as A Survival Strategy for Employment Generation in Nigeria and, Nzitunga (2015) whose study focused on Strategic Development for Manufacturing Small & Medium Enterprises (SMEs) in Namibia. There seem to be little attention towards understanding factors that influence competitiveness of SMEs in Kenya, hence this study. This study set out to examine factors influencing organizational competitiveness among the Small and Medium Enterprises in Nairobi County, Kenya. Specifically the study aimed at examining the influence of strategic leadership, adoption of technology, resource availability and organization culture on competitiveness of Small and Medium Enterprises operating in Nairobi.

2. Literature Review

Theoretical Framework: According to Thompson et al. (2012), there is a tight connection between competitive advantage and profitability. The quest for sustainable competitive advantage always ranks high in the crafting of strategic framework for the organization. A brief discussion of relevant theories is done below.

Resource-Based View Theory: From a resource based view of the firm, it is of high importance to take a close look at the internal organization of a company and its resources in order to understand how competitive advantage is determined within firms (Wernerfelt, 1984). In other words, the central premise of RBV addresses the fundamental question of why firms are different and how firms achieve and sustain competitive advantage by deploying their resources (Kostopoulos et al., 2002). The resource based perspective of firms is based on the concept of economic rent and the notion of an organization as a collection of capabilities (Kay, 2000). Whereas traditional strategy models focus on the organization's external competitive environment, the RBV accentuates the need for a fit between the external market context in which a firm operates and its internal capabilities. From this perspective the internal environment of an organization, in terms of its resources and capabilities, is the critical factor for the determination of strategic action (Hunt & Derozier, 2004).

The original idea of viewing a firm as a bundle of resources can be traced back to Penrose (1959), who argues that it is the heterogeneity, not the homogeneity, of the productive services available from its resources that give each company its unique character. The view of the firm's resources heterogeneity is the basis of the RBV and was advanced by Wernerfelt (1984), suggesting that the evaluation of companies in terms of their disposable resources could lead to different insights from traditional perspectives that view competitive advantage as a rather external paradigm and argue that the alignment of a firm to its external environment is the main determining factor for a firm's profitability (Porter, 1985). Barney (1991) developed a framework for the identification of the properties of firm resources needed for the generation of a sustainable competitive advantage. The properties include whether resources are valuable, rare among a firm's current and potential competitors, imitable, and non-substitutable. If resources have these characteristics they can be seen as strategic assets. Subsequently, this notion has been adopted by many researchers (Amit & Schoemaker, 1993; Peteraf, 1993) and expanded to include the properties of resource durability, non-tradability, and idiosyncratic nature of resources.

The RBV can be depicted as an "inside out" process of strategy formulation. A central thrust is the contribution of core competencies as strategic assets, which will be the continuing source of new products and services through whatever future developments may take place in the market, which by their nature, are not known (Connor, 2002). The emphasis of the RBV approach to strategic management decision-making is on the strategic capabilities as basis for superiority of the firm rather than attempting to constantly ensure a perfect environmental fit. Resources are the specific physical, human, and organizational assets that can be used to implement value-creating strategies. Capabilities present the capacity for a team of resources to perform a task or activity (Grant, 1991). In other words, capabilities present complex bundles of accumulated knowledge and skills that are exercised through organizational processes, which enable companies to coordinate their activities and make use of their assets (Day, 1994). The resource-based theory postulates that from the principle that the source of firms competitive advantage lies in their internal resources, as opposed to their positioning in the external environment. Barney (1995) argues that competitive advantage depends on the unique resources and capabilities that a firm possesses. The resource-based view of the firm facilitates managers to predict the potential of certain types of resources owned and controlled by firms to generate competitive advantage and eventually superior firm performance (Ainuddin et al., 2007).

Strategic Leadership Theory: The essence of strategic leadership involves the capacity to learn, the capacity to change and managerial wisdom (Boal & Hooijberg, 2001). Strategic leadership theories are "concerned with the leadership of organizations and are marked by a concern for the evolution of the organization as a whole, including its changing aims and capabilities" (Selznick, 1984). According to Boal and Hooijberg (2001) strategic leadership focuses on the people who have overall responsibility for the organization and includes not only the head of the organization but also members of the top management team. Activities associated with strategic leadership include making strategic decisions, creating and communicating vision of the future, developing key competences and capabilities, developing organizational structures, processes and controls; sustaining effective organizational cultures and infusing ethical value systems into the organization (Hunt, 1991). Strategic leaders with cognitive complexity would have a higher absorptive capacity than leaders with less cognitive complexity. To the extent that these leaders also have a clear vision of where they want their organization to go the absorptive capacity will have a greater focus. That is, strategic leaders look at the changes in the environment of their organization and then examine those changes in the context of their vision (Boal & Hooijberg, 2001).

The trait theory reinforces this line of thought. It assumes that people inherit certain qualities or traits make them better suited to leadership. These qualities shape leader effectiveness in terms of realization of the set strategic objectives. On the other hand participative leadership theories suggest that the ideal leadership style is one that takes the input of others into account. This style of leadership has potential for enhancing commitment, collaboration, support and smooth execution of planned tasks and hence successful business performance. Contingency theory recognizes existence of various situational variables which best predict the most appropriate or effective leadership style to fit the particular circumstances for organizational effectiveness. All these theories are deemed relevant to this study as they highlight the contribution of leadership in business success. The theory also emphasizes that the environment turbulence can also be maintained through strategic leadership.

Diffusion of Innovation (DOI): Rogers' (1995) Diffusion of Innovation (DOI) theory is another popular model used in information systems research to explain user adoption of new technologies. Rogers defines diffusion as 'the process by which an innovation is communicated through certain channels over time among the members of a social society' (Rogers, 1995). Also Rogers (2003) makes another attempt to define an innovation as an idea, practice, or object, which is perceived as new by an individual or an organization. The theory considers a number of attributes associated with technological innovations and which are believed to influence the rate of widespread adoption of the innovations. These attributes are relative advantage, compatibility, complexity, trailability, observability, and security/confidentiality.

Leadership and performance: Leon (2010) contends that organizational culture and leadership styles have a link and both play an important role in determining organizational effectiveness. Arham (2014) investigated the impact of leadership behaviors on the performance of services SMEs in Malaysia. 193 owners and top managers of services SMEs in Malaysia participated in the study. The results revealed that there were significant relationships between different leadership behaviors and organizational performance of services SMEs and transformational leadership contributed more significantly to the performance of SMEs than transactional leadership behavior. These findings imply that leadership practices are among the key factors that influences SMEs performance. Ali, Elmi and Mohamed (2013) investigated the relationship between leadership behavior and employee performance in Mogadishu-Somalia. The study employed both descriptive and correlation research design to establish the nature of the relationships. The study findings revealed the existence of statistically significant positive relationship between leadership behavior and employee performance. A study by Zumitzavan and Udchachone (2014) examined the relationship between the demographics of respondents, leadership styles, organizational innovation, and organizational performance. Results of this study show that leadership styles do have an influence on organizational performance. Shafie, Baghersalimi and Barghi (2013) investigated the relationship between leadership style and performance in the Real Estate Registration in Tehran province. Using a descriptive correlation method, the study results showed that development-oriented and pragmatic- oriented leadership style has a positive impact on employee performance, transformational leadership style had a higher association with performance, pragmatic leadership proved more successful in stationary environment and more unsuccessful in the dynamic environment than transformational leadership. Laissez-faire leadership led to chaos in the organization. Koech and Namusonge (2012) investigated the effects of leadership styles on organizational performance of state-owned corporations in Kenya by looking at laissez-faire, transactional and transformational leadership styles. The descriptive study targeted the perceptions of middle and senior managers in thirty state-owned corporations using questionnaires. From the findings, correlations of 0.518 to 0.696, $P < .05$ was established between the transformational-leadership factors and organizational performance; correlations of 0.219 to 0.375, $P < .05$ was established between the transactional-leadership behaviors and organizational performance was laissez-faire leadership style was not significantly correlated to organizational performance.

Technology and Competitiveness: Information technology has the potential of improving operational efficiency and effectiveness. As is the case with all technologies, small businesses are slower than large ones to adopt new ICTs (OECD, 2004). Use of ICT increases the tendency of companies to perform better in market due to easier differentiation of products and services. Ollo-Lopez and Aramendia-Muneta (2012) stated that ICT adoption seems to have a positive effect on productivity, directly as well as indirectly, depending on the sectors. Further, the use of e-mail, e-commerce, and social media network has significantly cut down on the physical transportation involved in sending mail, banking, advertising and buying goods (Manochehri, Al-Esmail and Ashrafi, 2012). According to Brynjolfsson and Hitt (1996), ICTs can enhance enterprise performance through indirect cost savings such as labor costs and increased labor productivity, and direct cost reduction of firm's input such as information costs. On top of these short-run impacts of ICT adoption in the production process, the use of ICTs in the transaction process can foster input and output market expansion. However, in the long run, ICT may have an even bigger impact as it can completely restructure the production process and transaction methods, increase flexibility and improve outputs.

Adeosun et al. (2009) state that the use of ICT enables strategic management, communication, collaboration, information access, decision making, data management and knowledge management in organizations. ICT can provide powerful strategic and tactical tools for organizations, which, if properly applied and used, could bring great advantages in promoting and strengthening their competitiveness (Buhalis, 2004). The use of ICT can assist to lower coordination cost and increase outsourcing in organizations. Ramsey et al. (2003) noted that organizations generally stand to gain from ICT in areas such as reduced transaction costs, information gathering and dissemination, inventory control, and quality control. Mutula and Van Brakel (2006) noted that ICTs, especially the internet, have a significant impact on the operations of SMEs by facilitating their access to global markets, enabling them to sell to international customers, and to compete favorably with large corporations. ICT has the potential to reduce the impacts of distance, reduce transaction costs, be used in information gathering and dissemination, inventory control, and quality control. Information and Communication Technology can enable SMEs to participate in the regional and international markets which are strategic for competitiveness, growth and further development.

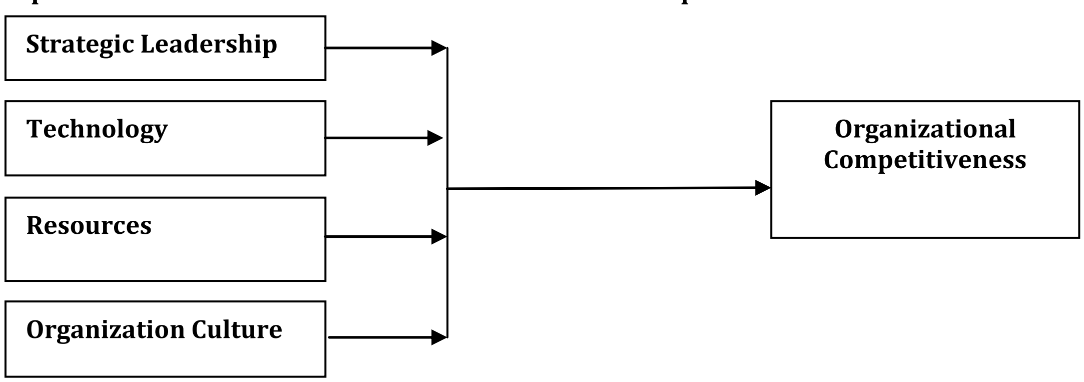
Resources and Competitiveness: The resource-based view focuses primarily on the resources and capabilities that a company has and only secondarily on the industries/markets in which it operates. The proponents of this thought argue that organizations develop unique resources and capabilities, which becomes the ultimate source of competitive advantage. Most basic resource is heterogeneity, which assumes that at least some resources and capabilities are different across firms (Barney, 2011). The pioneer on the subject, Penrose (1959), describes better than any other researcher the role resources play in firm success. The most salient characteristic of the Resource-based perspective is the focus on the firm's internal strengths, a view that is connected, mostly, to the seminal work of Penrose (1959). Resources are classified in many ways, but the most common classification is based on three categories: tangible, intangible and capabilities. Grant (2011) identified six categories. Williamson (2009) identified physical capital resources, human capital resources, organizational capital resources, financial resources, technological and reputation. What is more, resources have to possess some requisites if they are meant to be sources of competitive advantages. Barney (2011) found that resources include, among others, capital equipment, skills of individual employees, reputation, and brand names. Grant (2011) wrote that the firm's resources, capabilities, and strategies are thought to impact performance. Resources, to him, are the source of a firm's capabilities, whereas capabilities are the main source of competitive advantages. Ngugi, Gakure, Were, Ngugi and Kibiru (2012) examined the influence of intellectual capital and growth of small and medium enterprises in Kenya. Findings of this study indicated that management's technical skills influenced the growth of small and medium enterprise.

Organization Culture and Competitiveness: Schein (2010) notes that a strong organizational culture has generally been viewed as a conservative force. He argues that just because a strong organizational culture is fairly stable does not mean that the organization will be resistant to change. Chittithaworn et al. (2011) studying factors affecting business success of SMEs in the manufacturing sector in Thailand among other findings, established that ways of doing business significantly affect performance. The organizational culture stands out as one of the components that are important to sustaining performance, and competitive advantage, and a good reason for becoming a great company. A study by Shahzad et al. (2012), based on a critical analysis of existing literature indicates that **o**rganizational culture has deep impact on the variety of organizations process, employees and its performance. Committed employees, who also have the same norms and value as per organizations have, can increase the performance toward achieving the overall organization goals.

Conceptual Framework: The inter-relationships which form the basis upon which the study objectives are founded are captured in the conceptual framework model as reflected in Figure 1 below.

Figure 1: Conceptual Framework

Independent Variables **Dependent Variable**



3. Methodology

Research Design: This study employed a descriptive research design. The choice of the descriptive survey design was based on the fact that in the study was interested on the state of affairs already existing in the field with respect to the variables of interest. This design was envisaged to help describe the way the factors such as strategic leadership, technology, resources and culture affect the organizational competitiveness according to the respondents.

Population and sampling: The target population for this study comprised of the Top 100 SMEs in Kenya. There are 79 SMEs from Nairobi County in the Top 100 SMEs. The sample size for this study was 25 SMEs which represented 30% of the target population as shown in Table 1 below. Stratified sampling was used to select the SMEs operating in Nairobi County. The stratus were the five categories; real estate, supplies, services, distribution and manufacturing. The study focused on top management employees who develop competitive strategies for the organization. Thus special interest was on the business development managers or any manager equivalent to the business development manager in the SMEs.

Table 1: Population and Sample Matrix

Category	Population	Sample Size
Real Estate	6	2
Supplies	24	7
Services	27	8
Distribution	8	3
Manufacturing	14	5
Total	**79**	**25**

Data Collection Methods and analysis: In view of the advantages and the need to gather more information a combination of open and closed ended questionnaires were utilized as the main data collection tools. The questionnaire was structured into two parts; part I focusing on demographic information about respondents and the SMEs, while part II focused on information on the study variables (strategic leadership, adoption of technology, resources, organization culture and competitiveness). SPSS was used to aid in data processing (both descriptive and inferential statistics). Pearson correlation coefficient was used to show the relationship between the independent variables and the dependent variable.

4. Results and Discussion

Introduction: A response rate of 84% was achieved and this was considered acceptable. Of those who responded, 38% were aged between 41 to 50 years, while 33% were over 50 years and 29% were between 31 to 40 years of age. In terms of years of experience of the respondents, 47.6% had experience of between 5-10 years while 33.3% had worked between 1-5 years and 19% had worked for over 10 years. This implies that the respondents had worked long enough in the organizations and thus were knowledgeable on the issues being addressed by the study. 47.6% of the respondents were general managers, 33.3% were operations manager and 19% were business development managers. The findings imply that the respondents were in managerial level hence were involved in making critical decisions on issues regarding organizational competitiveness and ways of gaining competitive advantage among its competitors. Responses in terms of type of business indicated that 43% were private limited companies, 33% were in partnerships and 24% were public limited companies. On the area of management of the business, 52% are managed by owners. On the fronts of the years the business has been in operation, 66.7% of the businesses had been in operation for a period of between 5-10 years, while 23.8% had been in existence for less than 5 years while 9.5% had been in operation for a period of 11-20 years. The findings imply that most of the companies are young and they are being established and thus the needs for them to relook at the factors that can help them thrive through the competitive environment.

Descriptive Analysis results: The first objective of the study was to determine the influence of strategic leadership on competitiveness of Small and Medium Enterprises in Nairobi County. 61.9% of the respondents indicated that leadership was a critical factor that enhances organizational competitiveness, 62% indicated that the leadership in their institution was effective in setting SMART goals and objectives for team members and 76.2% indicated that leaders in their institution have put in place a clear vision statement to guide the companies operation. Furthermore, 61.9% of the respondents indicated that leaders in their corporation motivate the employees to increase their productivity, while 66.7% agreed that leaders in their corporation always communicated about an achievable view of the future and another 66.7% agreed that leaders in their corporation inspired to set an example for employees to accomplish tasks in the organization. Finally 71.4% of the respondents agreed that leaders in their institution encouraged employees' participation and involvement in decision making process. On the extent to which strategic leadership influenced the SMEs competitiveness, 47.6% indicated that strategic leadership influences competitiveness to a great extent while 33.3% indicated to a very great extent and 19% indicated to a moderate extent. The study findings are in line with strategic leadership theory which according to (Hunt, 1991), the activities associated with strategic leadership include making strategic decisions, creating and communicating vision of the future, developing key competences and capabilities, developing organizational structures, processes and controls; sustaining effective organizational cultures and infusing ethical value systems into the organization.

The study examined the influence of technology on competitiveness of Small and Medium Enterprises in Nairobi County. 76.2% of the respondents indicated that adoption of technology had a significant correlation with organizational competitiveness, 61.9% indicated that technology advancement has significantly promoted market-like forms of production and distribution in their company and 61.9% indicated that adoption of technology promotes high levels of efficiency and performance within their organization. 76% of the respondents agreed that E-commerce was certainly a very effective tool when it comes to establishing customer relations and provision of access to global markets, 85.7% agreed that through technology their company has been able to increase the market size and market structure and 71.5% agreed that the Internet was helping them to enlarge their existing markets by cutting through many of the distribution and marketing barriers. In addition, 71.5% agreed that E-commerce lowers information and transaction costs for operating on overseas markets and providing a cheap and efficient way to strengthen customer-supplier relations while 76.2% agreed that technology has encouraged their company to develop innovative ways of advertising, delivering and supporting their marketing efforts. The study sought to determine the extent to which technology deployment affects competitiveness in organization. 42.9%, 38.1% and 19% of the respondents indicated that technology influenced competitiveness to a very high extent, a high extent and moderate extent respectively. This finding is in consistent with those of Mutula and Van Brakel (2006) who noted that ICTs, especially the internet, have a significant impact on the operations of SMEs by facilitating their access to global markets, enabling them to sell to international customers, and to compete favorably with large corporations.

In examining the influence of resources on competitiveness of Small and Medium Enterprises in Nairobi County was examined, 76.2% of the respondents agreed that they recognize human capital as crucial to the exploitation of business opportunities and 76.1% agreed that they evaluated their resources and capabilities and understood their value for the firm. In addition, 76.2% of the respondents agreed that they developed human resources which help in identifying and operating in markets while 71.4% agreed that they demonstrated timely responsiveness, rapid and flexible product/service innovation coupled with internal and external competencies. Of those who responded, 76.2% agreed that they had rare resources in their organization as compared to their competitors. Finally, 76.2% of the respondents agreed that they had non-substitutable resources in their organization amongst their potential competitors and another 71.4% agreed that they had non-imitable resources in their organization amongst their potential competitors. In terms of the extent to which availability of resources affect SMEs competitiveness, 7.6%, 42.9% and 9.5% of the respondents indicated that resource availability influenced their competitiveness to a very high extent, a high extent and moderate extent respectively. The study findings are in support of Resource-based view theory which claims that resources are tradable and thus transferable and imitable and that instead, capabilities are unique and the source of competitive advantage. Barney (2011) also found that resources include, among others, capital equipment, skills of individual employees, reputation, and brand names. On the influence of organization culture, 57.2% of the respondents agreed that their organization allowed employees to be innovative, 61.9% agreed that employees in their organizations are willing to experiment new things and 95.2% agreed that employees in their organizations have high expectations for performance. 76.2% agreed that employees in their organization work in collaboration with others and 85.7% agreed that employees in their organizations have respect for individual rights. 85.7% of the respondents agreed that there is fairness in their organization. On customer centric perspective, 71.4% of the respondents agreed that their organizations are customer oriented and 76.2% agreed that their firms have shaped a customer responsive culture by hiring employees who are outgoing and friendly.

In comparison with competition, 85.7% of the respondents agreed that compared to their competitors in the previous year, their organization's sales growth rate was higher, 81% agreed that their organization's market share was bigger and 85.7% agreed that the level of employee productivity in their organization was higher. In furtherance, 76.1% of the respondents agreed that compared to the previous year, the level of profitability of their organization was higher while 76.2% of the respondents agreed that the company had experienced an increase in total revenue over the last 5 years and 66.6% agreed that compared to the previous year, their revenue flow was higher and increasing steadily. Finally, 61.9% of the respondents agreed that their firm's level of customer satisfaction had improved compared with their competitors and 76.2% agreed that the customers are loyal to their products and services and they rarely switch to new firms or competitors. The respondents were asked to indicate how their business had performed in the last four years in terms of market penetration level. 38.1%, 33.3% and 28.6% of the respondents indicated that in terms of penetration level their businesses had performed to a high extent, a very high extent and a moderate extent respectively. In regards to how the business performed in the last four years in terms of general product awareness level, 57.1%, 28.6% and 14.3% of the respondents indicated that their business had performed to a high extent, very high extent and moderate extent respectively.

Inferential Statistics analysis results: Bivariate analysis was carried out through cross tabulation to find out the relationship between demographic factors and the level of competitiveness amongst SMEs in Nairobi County. Demographic factors included age of the business, type of business and age bracket of the respondents. The results are presented in Table 2. Age of business was found to be statistically significant with the level of competitiveness (P=0.001). Comparing young businesses (less than 5 years) and old business (above 5 years), older business had a higher likelihood of being competitive as compared to the businesses less than 5 years old. Age bracket of the respondents was a significant factor to level of competitiveness (P=0.004). Aged (over 40 years) respondents had a higher likelihood of being competitive as compared to young managers, this could be attributed to by the experience and knowledge gained by older managers in comparison with younger managers. Type of business was not a significant factor to the level of competitiveness. The findings imply that all types of businesses whether partnerships or private limited companies can be competitive if correct measures are put in place to gain competitive advantage.

To establish whether there is a relationship between the study variables, Pearson product of moment's correlation coefficients was utilized. The results indicate that competitiveness and strategic leadership had a strong and significant positive relationship with a correlation coefficient of 0.819. This finding is in agreement with those of Arham (2014) who investigated the impact of leadership behaviors on the performance of SMEs in Malaysia which revealed that: a) there were significant relationships between different leadership behaviors and organizational performance of services SMEs; and b) transformational leadership contributed more significantly to the performance of SMEs than transactional leadership behavior. This finding also corroborates with that of Ali, Elmi and Mohamed (2013) who investigated the relationship between leadership behavior and employee performance in Mogadishu, and concluded that there exists a statistically significant and positive relationship between leadership behavior and employee performance. The results also indicated that there exists a positive and significant ($r=0.659$, p-value<0.001) correlation between competitiveness and adoption of technology. The findings are of relevance for SME successful implementation of IS particularly when we consider that Small and Medium Enterprises (SMEs) in Kenya has been targeted as a mechanism in generating domestic-led investment to stimulate economic development.

Table 2: Relationship between Demographics and Level of Competitiveness within SMES

		Level of competitiveness		**Chi-square**
		Low	**High**	
Age of business	Less than 5 years	5	0	
	5 – 10 years	1	13	
	11 – 20 years	1	1	X2=14.571(p=0.001)
Age bracket	31-40	5	1	
	41-50	0	8	
	Over 50	2	5	X2=10.821(p=0.004)
Type of business	Partnership	3	4	
	Private Limited	4	10	X2=0.429(p=0.531)

Table 3: Bivariate Correlation analysis results

Variable		Competitiveness
Strategic leadership	Pearson Correlation	0.819
	Sig. (2-tailed)	0.000
Technology	Pearson Correlation	0.659
	Sig. (2-tailed)	0.001
Resources	Pearson Correlation	0.795
	Sig. (2-tailed)	0.000
Organization culture	Pearson Correlation	0.635
	Sig. (2-tailed)	0.002

Analysis results further indicated that resources and competitiveness had a positive and significant relationship ($r=0.795$, $p\text{-value}<0.000$). This finding mirrors that of Oliver (1997) who in examining sustainable competitive advantage from the institutional and resource-based views suggests that both resource capital and institutional capital are indispensable to sustainable competitive advantage. This finding is also in corroboration with that of Ngugi, Gakure, Were, Ngugi and Kibiru (2012) who examined the influence of intellectual capital and growth of small and medium enterprise in Kenya and concluded that management's technical skills influenced the growth of Small and Medium Enterprises. Analysis results also revealed the existence of a positive and significant relationship between organizational culture and competitiveness ($r=0.635$, $p\text{-value}<0.002$). This finding concurs with that of Ehtesham et al. (2011) whose study statistical analysis results revealed that involvement is highly correlated with consistency and adaptability. Similarly, the other dimensions of organizational culture have a positive significant relationship with the performance management practices. Leon (2010) also contends that organizational culture and leadership styles have a link and both play an important role in determining organizational effectiveness. The analysis results also is in tandem with the assertion by Shahzad et al. (2012) that if employees are committed and having the same norms and values as that of the organization, performance towards achieving the overall organization goals is enhanced. This finding also supports the assertion by Abdi and Senin (2014) that organization members with great experience and organizational culture enhances the performance of the organization. Based on the review of the existing literature, Abdi and Senin conclude that organizational culture plays a significant role in innovation.

5. Conclusion and Recommendations

The study concludes that strategic leadership influenced organizational competitiveness. Sustainable competitive advantage of the firm stems from the effective strategic leaders. The commitment and enthusiasm of a strategic leader shapes the common goals of the organization and provides inspiration and motivation for people to perform even better. The study also concludes that technology influences organizational competitiveness by increasing internal efficiencies and promoting better handling of the external environment through us of use of electronic marketing and e-commerce to improve sales, reduce cost and increase overall business efficiency and hence this help firms in gaining competitive advantage by ensuring low cost and high quality products. Study findings also reveal that an organizational internal resource has a positive influence on the competitiveness of Small and Medium Enterprises in Nairobi County. Finally the study concludes that organization culture significantly related to competitiveness.

Based on the study findings, SMEs should embrace various competitive strategies to remain relevant in the market and achieve the required competitiveness. The SMEs and players in the sector should pursue deliberate efforts to enhance leadership effectiveness through appropriate exposure, leadership training and development initiatives. SMEs owners and managers should be encouraged to embrace appropriate innovations and technology towards realizing higher levels of efficiency and effectiveness in the areas of product design, product delivery and customer service. We also suggest that SMEs should ensure effectiveness and efficiency in development, prioritization and optimal utilization of available resources. Additionally, as in other firms, SMEs in Kenya need to develop, nurture and cultivate an innovative and entrepreneur culture as an avenue to enhancing firm competitiveness. This culture can be strengthened through establishment of incubation and mentorship centres across the country. This study focused on the factors influencing organizational competitiveness of small and medium enterprises within Nairobi County, Kenya. Other studies could be pursued in terms of expanding the geographical setting and taking recognition of other variables that could intervene and or moderate the relationship being investigated.

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Academics' Perceptions of the Principles for Responsible Management Education (PRME) for Sustainable Development

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Abstract: In light of business leaders' failings, including corporate corruption, the financial crisis and various ecological system crises there is a growing expectation that management education institutions should be leading thought and action on issues related to corporate responsibility and sustainability. Therefore, there is a need to ascertain management education institutions' ability to ensure responsible and sustainable management education. This paper seeks to assess academics' perceptions of how the University of KwaZulu-Natal has adopted the United Nation (UN) supported initiative, Principles for Responsible Management Education (PRME), to ensure responsible and sustainable management education in South Africa. The sample was drawn using the probability sampling technique called cluster sampling. Permanent academic staff from the Graduate School of Business and Leadership and the School of Management, Information Technology and Governance who responded to the structured, self-administered questionnaire formed the sample. Questions asked related to fostering a sustainable culture, strategically adapting curriculum, creating learning environments, aligning research, fostering sustainable partnerships and encouraging constant dialogue with regards to PRME. In order to assess the implementation of the PRME for sustainable development, a quantitative research design was adopted. This is the first study, to the researcher's knowledge, to examine the University of KwaZulu-Natal's Graduate School of Business and Leadership and the School of Management, Information Technology and Governance's motives, effects and challenges of engaging in PRME. The study has also explored key aspects such as the adaptation of teaching practices by the academic staff, the role of academics and diversification that influences the decision of the Graduate School of Business and Leadership and School of Management, Information Technology and Governance to participate in PRME. The results indicate that academic staff in both schools is engaging in activities that pursue the cause of sustainable development. There is evidence of addressing modern societal and environmental challenges by fostering change in design in curricula, fostering a sustainable culture and creating a learning environment. However, evidently more careful and deliberate attention needs to be given to fostering constant dialogue and aligning PRME and research to enhance economic, environmental and social development. This study provides a model/framework to present current practices and obstacles/setbacks experienced in adopting PRME and will present recommendations to facilitate the adoption of PRME by UKZN.

Keywords: *Academics' Perceptions, Principles, Responsible Management Education, Sustainable Development*

1. Introduction

Our modern society is facing very complex issues which demand sustainable and pragmatic solutions. This is complicated by increased ecological, economic and geopolitical uncertainty. In light of business leaders' failings, including corporate corruption, the financial crisis and various ecological system crises, it is evident that education has a major role to play. Addressing these complex issues requires global leaders and citizens who are capable of perspective transformation and are equipped with habit of mind that reflect sustainability concepts. As higher education institutions are in charge of producing future generations of teachers, scientists, engineers, managers and policy makers there is a pressing need for said institutions to practice responsible and sustainable management of education (Erickson, Griswold, Hohn & Saulters, 2010). The expectation that management education institutions should be leading thought and action on issues related to corporate responsibility and sustainability has been reinforced. The United Nations supported Principles for Responsible Management Education (PRME) initiative is an important catalyst for the transformation of management education and a global initiative to change and reform management education in order to meet the increasing societal demands for responsible business. In order to develop a new generation of business leaders capable of managing the complex challenges faced by business and society in the 21st century, PRME seeks to establish a process of continuous improvement among management education institutions by ensuring that education has purpose, incorporates the values of social responsibility, adopts effective learning methods, engages in research contributing to the creation of sustainable value, ensures partnerships with business corporations and dialogue with key role players related to global social responsibility and sustainability. This paper intends to explore how the University of KwaZulu-Natal has adopted the United Nations (UN) supported initiative Principles for Responsible Management Education (PRME) to contribute towards responsible and sustainable management education in South Africa. In particular, it explores how the School of Management, Information Technology and Governance, and the Graduate School of Business are fostering a sustainable culture, fostering change/design in curricula, creating a learning environment, aligning PRME and research and fostering PRME partnerships and constant dialogue to enhance economic, environmental and social development.

2. Literature Review

Sustainable development: Sustainable development can be defined as the development which meets the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987). Furthermore, when human beings strive for enhanced life conditions without diminishing the meaning of life itself, namely, our children's future, one calls this development sustainable. Munasinghe (2002, p. 8) states that "while no universally acceptable practical definition of sustainable development exists, the concept has evolved to encompass three major points of view: economic, social and environmental, each viewpoint corresponds to a domain (and a system) that has its own distinct driving forces and objectives". The economy is geared mainly towards improving human welfare, primarily through increases in the consumption of goods and services. The environmental domain focuses on the protection of resilience and integrity and of ecological systems. The social domain emphasizes the enrichment of human relationships, the achievement of individual and group aspirations, and the strengthening of values, beliefs and institutions (Munasinghe, 2002). According to Redclift (2005) and Kunz (2006), the balance between the environmental, economic and social 'pillars' of social development is attained through consideration and has now been incorporated into the mainstream political discourse. Gebreselassie (2010) concurs, stating that sustainable development centres around three core domains, namely, environmental, economic and socio-political sustainability.

Education for sustainable development (ESD), a United Nations (UN) initiative, is a movement advocating for the reorientation of education which emphasizes the development of stewards and citizens who have values, knowledge and skills that support civic engagement, sustainable behaviour, as well as viable employment and an improved quality of life (Egan, 2004; Kevany, 2007; UNESCO, 2005). According to Armstrong (2011, p. 18), "preparing students for lifelong learning is central to this approach, which is an adaptive quality that makes the student more malleable in a time when most societies are experiencing dramatic economic, social and environmental transformation". Consequently, this reorientation is thought to require an entire re-conceptualization of how and what students should learn (UNESCO, 2005). In higher education especially, the integration of ESD has been slow (Bosselmann, 2001; Everett, 2008; Rode & Michelsen, 2008).

In order to address the challenges of the 21st century, the United Nations (UN) has devised the Principles for Responsible Management Education (PRME) which is a United Nations Global Compact sponsored initiative with the mission to inspire and champion responsible management education, research and leadership thought globally. According to Haertle (2012a, p. 4), "the Six Principles of PRME are inspired by internationally accepted values, such as the Ten Principles of the United Nations Global Compact". The United Nations has encouraged higher education institution business schools to adopt the Principles for Responsible Management Education (PRME) into their offered programs. Once higher education institutions have incorporated the six Principles for Responsible Management Education (PRME) they have to adhere too (PRME Steering Committee, 2014). For the purpose of this paper, the major challenges faced in the 21st century have been identified as human rights, poverty, labour, environment and anti-corruption. These challenges are represented in the United Nations Millennium Goals and can also be represented as such: anti-corruption and labour as economic development, environment as environmental development, human rights and poverty as social development. The literature on these challenges has been vast but there is very little literature to suggest that these challenges have been incorporated into the education system of universities. Therefore, the management of education cannot be viewed as responsible and sustainable.

Principles for Responsible Management Education (PRME): Launched at the United Nations Global Compact Leaders' Summit in Geneva, the Principles for Responsible Management Education (PRME) were developed in 2007 by an international task force of sixty Deans, University Presidents and official representatives of leading business schools and academic institutions. According to Haertle (2012a, p. 4), "the Principles for Responsible Management Education initiative is the first organized relationship between business and management schools and the United Nations, with the PRME Secretariat housed in the United Nations Global Compact Office". PRME's fundamental goal is to inspire, encourage and champion responsible management education, research and leadership thought worldwide. Internationally accepted values, such as the United Nations Global Compact's Ten Principles, have been the inspiration for the Six Principles for PRME. The PRME initiative offers an engagement structure for academic institutions by incorporating universal values into research and curricula in order for academic institutions to advance social responsibility. In order to develop a new generation of business leaders capable of managing the complex challenges faced by business and society in the 21st century, PRME seeks to establish a process of continuous improvement among management education institutions (PRME Steering Committee, 2014). The Six Principles are:

- **Purpose:** "Develop the capabilities of students to be future generators of sustainable value for business and society at large and work for an inclusive and sustainable economy". (Principle 1)
- **Value:** "Incorporate into academic activities and curricula the values of global social responsibility as portrayed in international initiatives such as the United Nations Global Compact". (Principle 2)
- **Method:** "Create educational frameworks, materials, processes and environments that enable effective learning experiences for responsible leadership". (Principle 3)
- **Research:** "Engage in conceptual and empirical research that advances understanding about the roles, dynamics, and impact of corporations in the creation of sustainable social, environmental and economic value". (Principle 4)
- **Partnership:** "Interact with managers of business corporations to extend the knowledge on the challenges they face in meeting social and environmental responsibilities and to explore jointly effective approaches to meeting these challenges". (Principle 5)
- **Dialogue:** "Facilitate and support dialog and debate among educators, students and business, government, consumers, media, civil society organizations and other interested groups and stakeholders on critical issues related to global social responsibility and sustainability". (Principle 6) (PRME Steering Committee, 2014).

The PRME initiative as a framework, serves as a gradual, systematic change in management-related institutions and business schools, based on three distinctive characteristics of the initiative: learning network, reporting progress to stakeholders and continuing improvements. As a participant institution, reporting to stakeholders through Sharing Information on Progress (SIP) is a crucial part of active commitment to PRME. "SIP reporting provides an opportunity for exchanging effective practices and information on progress achieved in the implementation of PRME, resulting in the creation of a learning community with other participating business and management institutions" (PRME Steering Committee, 2014).

Purpose of PRME: The United Nations supported initiative 'Principles for Responsible Management Education' (PRME) addresses the responsibilities of management education institutions in preparing today's and tomorrow's business professions for the challenge of bringing about more responsible and sustainable business. It expects fundamental changes to the conduct of business, on the assumption that companies have wider responsibilities for society and the environment than simply profitability and meeting shareholders' interests. The expectation that management education institutions should be leading thought and action on issues related to social responsibility and sustainability has been reinforced in the light of their association with business leaders' failings, regarding corporate corruption, for example, Enron, Siemens, UBS, and economic failings such as, the financial sector meltdown and ecological setbacks, for example, regarding global warming system failings. Given their critical role in management education (for example, as one of the financial sector's main recruitment source) they have frequently been singled out by their stakeholders as having a particular responsibility in the broad agenda for social, economic and ecological sustainability (Khurana, 2010; Khurana & Nohria, 2008). In response to these criticisms, some efforts have been made to advance business ethics and corporate social responsibility education (Matten & Moon, 2005; Moon & Orlitzky, 2011; Orlitzky & Moon, 2010). Nonetheless, the challenge remains rethinking management and leadership education (Global Responsibility Leadership Initiative, 2012). In this context, PRME has been referred to as the key catalyst for the transformation of management education and for necessary changes required to meet the increasing societal demands for a responsible economy (Haertle, 2012b; Rasche & Kell, 2010; Waddock, Rasche, Wehane & Unruh, 2011).

Engaging higher education institutions in the challenge of sustainability: In order to meet climate challenges faced by citizens of the world, the current business landscape has created the need to develop and equip management graduates with capabilities that foster sustainability and responsible leadership (Young & Nagpal, 2013). In the development of management graduates, citizens of the world have to alter their behaviour and the systems that support human civilization, such as the social, economic and political governance. The changes that are required are needed within corporations in their relations with media, customers, governments, suppliers, competitors, civil society, including external systems. Management education needs to adapt existing knowledge to include issues of climate and sustainability within core disciplines as part of the new business imperative, thus assisting with dealing with the needed change effectively. Young and Nagpal (2013, p. 498) espouse that "climate challenge is multi-disciplinary and the responses must be based on multi-stakeholder dialogue on climate change among educators, students, and other stakeholders such as, but not limited to, governments, business practitioners, local and global communities and NGOs". As advanced by the United Nation**s** Global Compact, low carbon innovation and climate action is part of the bigger sustainability agenda, whose values have inspired the Principles for Responsible Management Education (PRME). Along with the three related global risks such as the food crises, water sustainability and energy uncertainties, the pivotal problem of climate change requires simultaneous attention to the preservation of the basis of human growth.

Evidently, a new education system must be envisioned, one that is capable of addressing modern societal and environmental challenges in all their complexities. In order to stay in tune with the global development on these issues the United Nation**s** Principles for Responsible Management Education (UNPRME) can be used as a guide for delivering sustainability-focused management education and providing an opportunity to structure the change process and to offer support through partnerships (Sterling, 2001). Young and Nagpal (2013, p. 497) observed that "there has been increased debate over how to adapt management education to best meet the demands of the 21st century business environment, since the inception of the United Nations Global Compact sponsored initiative Principles for Responsible Management Education (PRME) in 2007". While the majority of globally focused management education institutions have reached consensus on incorporating sustainability into the management education curricula, the overarching question is no longer why management education should change but rather how?

3. Methodology

Research approach: The research methodology has been designed to undertake a quantitative, cross-sectional study to assess academics' perceptions of the principles for responsible management education (PRME) for sustainable development.

Research participants: The population comprised of all academic staff in the Graduate School of Business and the School of Management, Information Technology and Governance which consists of 92 staff members from which a sample of 74 employees was drawn using cluster sampling. Although the desired sample size was not achieved, the adequacy of the sample was determined using the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (0.792) and the Bartlett's Test of Spherecity (232.818, p = 0.000) which respectively indicated suitability and significance. The results indicate that the normality and homoscedasticity preconditions are satisfied. The composition of the sample may be described in terms of age, gender, race, discipline and position. The majority of academics that responded are >40 years (40%), followed by those who are 36-40 years of age (30%). More female (53.3%) than male academics (46.7%) participated, with the majority of participants being Black (46.7%) followed by Indians (43.4%). Furthermore, the majority of the participants are at the lecturer level (53.3%), and from the Discipline of Human Resource Management and Industrial Relations (26.7%) with an equal number being from Marketing and Supply Chain (23.3%) and the Graduate School of Business (23.3%).

Measuring instrument: Data was collected using a self-developed questionnaire consisting of five sections, namely, Sections A, B, C, D and E. Section A enlisted the respondents' demographic profile which included age, gender, race, position currently held and discipline which he/she belongs to which were measured using a nominal scale. Section B was constructed to assess the perceptions of academics regarding the background of economic development (anti-corruption and labour), environmental development and social development (human rights and poverty). Section C was designed to assess academics' perceptions of the Principles for Responsible Management Education (PRME), with a focus on:

- Fostering a sustainable culture centered on economic, environmental and social development.
- Fostering change/design in curricula centered on economic, environmental and social development.
- Creating a learning environment conducive to economic, environmental and social development.
- Aligning PRME and research on economic, environmental and social development.
- Fostering PRME partnerships to enhance economic, environmental and social development.
- Fostering constant dialogue to enhance economic, environmental and social development.

Section D tapped into academics' perceptions of sustainable development and Section E assessed staff perceptions of the link of the dimensions of economic, environmental and social development with the six Principles for RME. Sections B, C, D and E utilized a 5 point Likert scale.

In-house pretesting was adopted to assess the suitability of the instrument. Pilot testing was also undertaken by administering the questionnaire to 3 academics. The feedback from the pilot testing confirmed that the questionnaire was appropriate in terms of relevance, wording and construction. The validity of the questionnaire was assessed using Factor Analysis. A principal component analysis was used to extract initial factors and an iterated principal factor analysis was performed using SPSS with an Orthogonal Varimax Rotation. Only items with loadings >0.4 were considered to be significant. Furthermore, when items were significantly loaded on more than one factor only that with the highest value was selected. In terms of the anticipated dimensions of the study, 7 factors with latent roots greater than unity were extracted from the factor loading matrix as originally designed, thereby confirming the validity of the questionnaire (Table 1).

Table 1: PRME Measuring Instrument (Academics): Factor Analysis

Factor	Eigenvalue	Factor Name
1	11.779	Sustainable development
2	7.539	Fostering PRME partnerships to enhance economic, environmental and social development
3	5.012	Fostering change/design in curricula centered on economic, environmental and social development
4	4.031	Fostering a sustainable culture centered on economic, environmental and social development.
5	3.822	Aligning PRME and research on economic, environmental and social development
6	3.237	Creating a learning environment conducive to economic, environmental and social development
7	3.042	Fostering constant dialogue to enhance economic, environmental and social development

The overall reliability of the questionnaire was determined using Cronbach's Coefficient Alpha (Alpha = 0.982). This coefficient alpha indicates a very high level of internal consistency of the items and, hence, a high degree of reliability.

Research procedure: The questionnaires were administered personally by the researcher and a research assistant over a six month period and during a PRME Workshop held in the School of Management, Information Technology and Governance.

Statistical analyses: Descriptive and inferential (correlation, ANOVA, Post-Hoc Scheffe's test, t-test, multiple regression) statistics were used to analyze the quantitative data.

Table 2: Reliability of the measuring instrument (Academics): Cronbach's Coefficient Alpha

Dimension	Reliability
Creating a learning environment conducive to economic, environmental and social development	0.837
Aligning PRME and research on economic, environmental and social development	0.904
Fostering PRME partnerships to enhance economic, environmental and social development	0.918
Fostering constant dialogue to enhance economic, environmental and social development	0.919
Fostering change/design in curricula centered on economic, environmental and social development	0.920
Sustainable development	0.942
Fostering a sustainable culture centered on economic, environmental and social development	0.962
Overall Questionnaire	0.982

Table 2 indicates that the reliabilities of the respective principles for responsible management education and sustainable development range from 0.837 to 0.962, thereby reflecting a very high level reliability across all dimensions.

4. Results

The perceptions of academic staff of the Principles for Responsible Management Education (PRME) are analysed using descriptive and inferential statistics.

Descriptive Statistics: Academics' perceptions of PRME and Sustainable Development: Academic staff members were asked questions with regards to fostering a sustainable culture, fostering change and design, creating a learning culture, aligning PRME and research, fostering PRME partnerships, fostering constant dialogue and sustainable development centred on economic, environmental and social development. This was accomplished by making use of a five point Likert scale.

Table 3: Descriptive statistics: Academics' perceptions of PRME and Sustainable Development

Dimension	Mean	Critical Range		Variance	Std. Dev.	Min.	Max.
		Lower Bound	Upper Bound				
Fostering a sustainable culture	3.624	3.265	3.983	0.923	0.961	1	5
Fostering change and design	3.850	3.527	4.1720	0.748	0.865	1	5
Creating a learning culture	3.572	3.277	3.868	0.626	0.791	1	5
Aligning PRME and research	3.072	2.685	3.459	1.074	1.036	1	5
Fostering PRME partnerships	3.300	2.936	3.664	0.951	0.975	1	5
Fostering constant dialogue	3.106	2.724	3.487	1.043	1.021	1	5
Sustainable development	3.133	2.743	3.523	1.091	1.045	1	5

The perception of academics of the Principles for Responsible Management Education (fostering a sustainable culture, fostering change and design, creating a learning culture, aligning PRME and research, fostering PRME partnerships, fostering constant dialogue centred on economic, environmental and social development) and sustainable development in descending level based on mean score values are:

- Fostering change and design (Mean = 3.850)
- Fostering a sustainable culture (Mean = 3.624)
- Creating a learning culture (Mean = 3.572)
- Fostering PRME partnerships (Mean = 3.300)
- Sustainable development (Mean = 3.133)
- Fostering constant dialogue (Mean = 3.106)
- Aligning PRME and research (Mean = 3.072) (Table 3).

From the aforementioned it is evident that academics believe that the schools concerned are fostering change and design in curricula centered on economic, environmental and social development. However, they are least convinced that the schools are aligning PRME and research centered on economic, environmental and social development. In order to engage in in-depth analyses of academics' perceptions of the principles and dimensions for PRME, frequency analyses were conducted and are consolidated in terms of strengths and areas for improvement in Table 4.

Table 4: Frequency Analyses: Principles and dimensions of PRME – Strengths and Weaknesses

Principle	Strengths	Area for Improvement
	Within the degree academic**s** lecture in, their modules:	Within the degree academic**s** lecture in, their modules:
Fostering change and design	• .... emphasize the importance of ethical conduct in business. • .... recognize the importance of equality in society and work environment.	• .... there is no engagement on issues recognising the right of collective bargaining and freedom of association in the work environment.
Fostering a sustainable culture	• .... are highly recognised in the market**,** making it easier for students to secure a job and improve their human welfare.	• .... do not cater for them to continuously encourage students to have greater environmental responsibility and take cognisance of environmental challenges.
Creating a learning culture	• .... use real-life case studies that provide students with first-hand experience of the job market in terms of factors that hinder, and strategies for enhancing, economic development. • .... are designed with an e-learning component that facilitates learning in addition to traditional lecture methods.	• .... are not sufficiently designed in a manner that requires prospective students to access information on anti-corruption outside of the traditional learning environment. • The School does not sufficiently embrace going green and this is evident in its daily operations including increased online interactions
Fostering PRME partnerships	• The School supports partnerships with environmentally responsible organisations. • The School supports the invitation of guest lecturers from corporations to enlighten students on the challenges that they face as a result of corruption, environmental degradation and/or violation of human rights and poverty.	• .... do not incorporate the use of case studies to emphasise the importance of partnering with corporations that adhere to human rights.
Fostering constant dialogue	• Guest lecturers are invited and/or students are encouraged to engage in discussions around labour and skills utilisation for human and economic development. • .... require students to engage in discussions/presentations regarding social diversity and interaction amongst all groups in a socially sustainable system that shapes the process of development.	• .... do not enable constant dialogue and debates on climate change. • .... do not require students to engage in discussions/presentations regarding environmental degradation and its prevention.
Aligning PRME and research	• Academics' reading and exposure to literature within the modules they lecture have enlightened them on the minimum international standards for individual protection of rights and freedom. • The assignments that academics prepare require students to understand the relationship between poverty and socioeconomic, geographical and political conditions in South Africa and/or brainstorm on strategies for poverty reduction.	• Within their appointment, academics are not forced to engage in empirical research centered on understanding and fighting corruption and/or its impact on human and economic development. • .... does not require them to engage in research that advances knowledge on climate change.

Inferential Statistics: Staff perception of PRME and Sustainable Development: Inferential statistics were computed to test the hypotheses of the study and draw conclusions with regards to academic's perceptions of PRME and sustainable development.

Hypothesis 1: There exists significant intercorrelations amongst academic staff perceptions of the Principles for Responsible Management Education (fostering a sustainable culture, fostering change and design, creating a learning environment, aligning PRME and research, fostering PRME partnerships, fostering constant dialogue) respectively (Table 5).

Table 5: Intercorrelation amongst the Principles for Responsible Management Education (Academics)

Dimension	r/p	Fostering a sustainable culture	Fostering change and design	Creating a learning environment	Aligning PRME and research	Fostering PRME partnerships	Fostering constant dialogue
Fostering a sustainable culture	r	1.000					
Fostering change and design	r	0.707	1.000				
	p	0.000*					
Creating a learning environment	r	0.758	0.595	1.000			
	p	0.000*	0.001*				
Aligning PRME and research	r	0.662	0.569	0.608	1.000		
	p	0.001*	0.001*	0.000*			
Fostering PRME partnerships	r	0.748	0.569	0.666	0.682	1.000	
	p	0.000*	0.001*	0.000*	0.000*		
Fostering constant dialogue	r	0.723	0.613	0.724	0.803	0.633	1.000
	p	0.000*	0.000*	0.000*	0.000*	0.000*	

* $p < 0.01$

Table 5 indicates that there exists significant intercorrelations amongst academics' perceptions of the principles for responsible management education (fostering a sustainable culture, fostering change and design, creating a learning environment, aligning PRME and research, fostering PRME partnerships, fostering constant dialogue) respectively, at the 1% level of significant. Hence, Hypothesis 1 may be accepted. Table 5 also indicates that the dimensions relate to each other in varying degrees. Significant and strong relationships exist between fostering a sustainable culture and fostering change and design ($r = 0.707$), creating a learning environment ($r = 0.758$), fostering PRME partnerships ($r = 0.748$) and fostering constant dialogue ($r = 0.723$) respectively. Furthermore, significant and strong relationships were noted between fostering constant dialogue and creating a learning environment ($r = 0.724$) and aligning PRME and research (Mean = 0.803) respectively.

Furthermore, Table 5 indicates that significant and moderate relationships exist between fostering a sustainable culture and aligning PRME and research ($r = 0.662$). Furthermore, Table 5 reflects that significant and moderate relationships exist between fostering change and design and all the other principles for management education (creating a learning environment, aligning PRME and research, fostering PRME partnerships, fostering constant dialogue) respectively. In addition, Table 5 indicates that significant and moderate relationship exist between creating a learning environment and aligning PRME and research ($r = 0.608$) and fostering PRME partnerships ($r = 0.666$) respectively. Also, Table 5 indicates that a significant and moderate relationship exists between aligning PRME and research and fostering PRME partnerships ($r = 0.682$) and between fostering PRME partnerships and fostering constant dialogue ($r = 0.633$).

Hypothesis 2: The Principles for Responsible Management Education (fostering a sustainable culture, fostering change and design, creating a learning environment, aligning PRME and research, fostering PRME partnerships, fostering constant dialogue) as perceived by academics significantly relate to sustainable development) (Table 6).

From Table 6 it is evident that the Principles for Responsible Management Education (fostering a sustainable culture, fostering change and design, creating a learning environment, aligning PRME and research, fostering PRME partnerships, fostering constant dialogue) as perceived by academics significantly relate to sustainable development at the 1% level of significance. Hence, Hypothesis 2 may be accepted. Table 6 also reflects that, based on academics' perceptions, the strongest relationship lies between the principle of fostering constant dialogue and sustainable development (r = 0.818) followed by aligning PRME and research and sustainable development (r = 0.733) and closely followed by creating a learning environment and sustainable development (r = 0.709). Based on academics' perceptions, the remaining principles **for P**RME moderately relate to sustainable development.

Table 6: Pearson Correlation: Principles for Responsible Management Education (PRME) and Sustainable Development (Academic)

Dimension	r/p	Sustainable development
Fostering a sustainable culture	r	0.642
	p	0.000*
Fostering change and design	r	0.649
	p	0.000*
Creating a learning environment	r	0.709
	p	0.000*
Aligning PRME and research	r	0.733
	p	0.000*
Fostering PRME partnerships	r	0.546
	p	0.000*
Fostering constant dialogue	r	0.818
	p	0.000*

* p < 0.01

Hypothesis 3: There is a significant difference in the perception of academics varying in biographical profiles (age, race, discipline, position, gender) regarding the principles for responsible management education (fostering a sustainable culture, fostering change and design, creating a learning environment, aligning PRME and research, fostering PRME partnerships, fostering constant dialogue) and sustainable development respectively (Table 7 to Table 9).

Table 7: ANOVA-Biographical variables (age, race, discipline, position) and PRME and sustainable development (Academics)

Dimension	Age		Race		Discipline		Position	
	F	p	F	p	F	P	F	p
Fostering a sustainable culture	4.980	0.007*	1.078	0.389	0.505	0.798	0.386	0.764
Fostering change and design	1.913	0.152	0.160	0.956	0.507	0.796	0.836	0.486
Creating a learning environment	6.164	0.003*	0.893	0.483	1.490	0.226	0.471	0.705
Aligning PRME and research	5.165	0.006*	0.842	0.512	0.862	0.537	0.752	0.531
Fostering PRME partnerships	2.894	0.054	1.808	0.159	0.735	0.626	0.933	0.439
Fostering constant dialogue	3.517	0.029**	1.242	0.319	1.673	0.173	0.804	0.503
Sustainable development	12.566	0.000*	1.332	0.286	1.351	0.276	1.649	0.202

* p < 0.01
** p < 0.05

Table 7 indicates that there is a significant difference in the perceptions of academics varying in age regarding fostering a sustainable culture, creating a learning environment, aligning PRME and research, and sustainable development at the 1% level of significance. Furthermore, there is a significant difference in the perceptions of academics varying in age regarding the principle of fostering constant dialogue at the 5% level of significance. However, there is no significant difference in the perceptions of academics varying in age regarding fostering change and design and fostering PRME partnerships respectively. Therefore, Hypothesis 3 may be partially accepted in terms of age. Table 7 also reflects that there are no significant differences in the perception of academics varying in race, discipline and position regarding the principles for responsible management education (fostering a sustainable culture, fostering change and design, creating a learning environment, aligning PRME and research, fostering PRME partnerships, fostering constant dialogue) and sustainable development respectively. Therefore, Hypothesis 3 may not be accepted in terms of race, discipline and position. In order to assess exactly where the significant differences in academics' perceptions, based on age, lie the Post-Hoc Sceffe's Test was computed (Table 8).

Table 8: Post-Hoc Scheffe's Test: Age and PRME dimensions (Academics)

Dimension	Categories of Age	N	Mean
Fostering a sustainable culture	26-30 years	3	3.370
	31-35 years	6	3.037
	36-40 years	9	2.519
	> 40 years	12	3.852
Creating a learning environment	26-30 years	3	3.000
	31-35 years	6	3.778
	36-40 years	9	2.963
	>40 years	12	4.069
Aligning PRME and research	26-30 years	3	3.500
	31-35 years	6	3.194
	36-40 years	9	2.148
	>40 years	12	3.597
Fostering constant dialogue	26-30 years	3	2.889
	31-35 years	6	3.306
	36-40 years	9	2.352
	>40 years	12	3.625
Sustainable development	26-30 years	3	3.333
	31-35 years	6	3.648
	36-40 years	9	1.938
	>40 years	12	3.722

Table 8 indicates that academics between the ages of 36-40 years are least convinced that the schools concerned are fostering a sustainable culture, creating a learning environment, aligning PRME and research, fostering constant dialogue and sustainable development as compared to all other academics. Table 8 also reflects that academics who are >40 years are most convinced that these principles for responsible management education and sustainable development are being achieved by the schools concerned.

Table 9: t-TEST-Gender and PRME dimensions (Staff)

Dimension	Gender				T	Df	p
	Male		Female				
	N	Mean	N	Mean			
Fostering a sustainable culture	14	3.72	16	3.54	0.530	28	0.600
Fostering change and design	14	4.02	16	3.70	1.031	28	0.311
Creating a learning environment	14	3.60	16	3.55	0.147	28	0.885
Aligning PRME and research	14	3.26	16	2.91	0.936	28	0.357
Fostering PRME partnerships	14	3.35	16	3.26	0.234	28	0.817
Fostering constant dialogue	14	3.20	16	3.02	0.479	28	0.635
Sustainable development	14	3.31	16	2.98	0.860	28	0.397

Table 9 indicates that there are no significant differences in the perceptions of male and female academics regarding the principles for responsible management education (fostering a sustainable culture, fostering change and design, creating a learning environment, aligning PRME and research, fostering PRME partnerships, fostering constant dialogue) and sustainable development respectively. Hypothesis 3 may not be accepted in terms of gender.

Hypothesis 4: The Principles of Responsible Management Education (fostering a sustainable culture, fostering change and design, creating a learning culture, aligning PRME and research, fostering PRME partnerships, fostering constant dialogue centred on economic, environmental and social development), as perceived by academics, significantly account for the variance in sustainable development (Table 10).

Table 10: Multiple Regression: Sustainable development and PRME (Academics)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.861[a]	0.741	0.673	0.59704

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Significance
1	Regression	23.441	6	3.907	19.960	0.000
Residual		8.198	23	0.356		
Total		31.640	29			

Coefficients

Model	Unstandardized coefficients		Standardized coefficients
	B	Std. Error	Beta
1 (Constant)	-0.467	0.583	
Fostering a sustainable culture	-0.058	0.238	-0.054
Fostering change and design	0.256	0.188	0.212
Creating a learning culture	0.336	0.237	0.255
Aligning PRME and research	0.223	0.202	0.222
Fostering PRME partnerships	-0.155	0.197	-0.144
Fostering constant dialogue	0.466	0.225	0.456

Table 10 indicates that the Principles of Responsible Management Education (fostering a sustainable culture, fostering change and design, creating a learning culture, aligning PRME and research, fostering PRME partnerships, fostering constant dialogue centred on economic, environmental and social development) significantly account for 67.3% of the variance in sustainable development. Hence, Hypothesis 4 may be accepted at the 1% level of significance. The remaining 32.7% may be due to other factors that lie outside the jurisdiction of the study. Table 10 also reflects that the Principles of Responsible Management Education impact on sustainable development in varying degrees, which in descending level of impact based on Beta loadings are:

- Fostering constant dialogue to enhance economic, environmental and social development
- Creating a learning culture conducive to economic, environmental and social development
- Aligning PRME and research centered on economic, environmental and social development
- Fostering change and design in curricula centered on economic, environmental and social development
- Fostering PRME partnerships to enhance economic, environmental and social development
- Fostering a sustainable culture centered on economic, environmental and social development

Discussion of results: From the results of the study it is evident that the academic staff in both schools is, either knowingly or unknowingly, engaging in activities that pursue the cause of sustainable development. There is evidence of addressing modern societal and environmental challenges especially through:

- Fostering change/design in curricula centered on economic, environmental and social development.
- Fostering a sustainable culture centered on economic, environmental and social development.
- Creating a learning environment conducive to economic, environmental and social development, and
- Fostering PRME partnerships to enhance economic, environmental and social development.
- With regards to the aforementioned, academics believe that their modules emphasize the importance of ethical conduct in business, are highly recognised in the market and enable their students to secure jobs, have an e-learning component in their modules and ensure partnerships with corporations that are environmentally responsible, especially through guest lectures. Whilst academics use real-life case studies that provide students with first-hand experiences of the factors that hinder and strategies for enhancing economic development, they acknowledge the paucity of partnerships with corporations that adhere to human rights. Evidently, whilst some degree of satisfaction in achieving the aforementioned principles have been expressed by academics, they also identify specific drawbacks and areas of improvement:

- The modules do not allow engagement on issues of recognising the right of collective bargaining and freedom of association in the work environment.
- Students are not encouraged to access information on anti-corruption outside of the traditional learning environment.
- The schools do not sufficiently embrace going green in its daily operations.

In addition to the aforementioned, the results indicate that schools aiming to further the PRME agenda and contribute to global development need to pay more careful and deliberate attention to the remaining 2 principles for responsible management education, namely:

- Fostering constant dialogue to enhance economic, environmental and social development, and
- Aligning PRME and research on economic, environmental and social development.

With regards to these 2 principles for responsible management education, academics are predominantly of the view that their modules do not accommodate for constant dialogue on climate change or require students to engage in discussions/presentations regarding environmental degradation and its prevention. Furthermore, nearly half of the academics emphasize that they do not, and are not encouraged to, engage in research centered on understanding and fighting corruption and/or brainstorm on strategies for poverty reduction or that advances knowledge on climate change. Contrary to the aforementioned findings, several researchers (Cotton, Bailey, Warren & Bissell, 2009; De le Harpe & Thomas, 2009; Sterling & Scott, 2008; Wals, 2009) found that research initiatives and campus greening are the most notably marked progress at higher education institutions. The aforementioned drawbacks in the pursuit for the PRME act as obstacles for attaining sustainable development. This is visibly evident in the fact that nearly half of the academics are not convinced that their lectures incorporate the values of Global Social Responsibility relating to economic, environmental and social development, nor emphasize that climate change is a business reality and represents an unprecedented challenge for human society and that curricula have changed to introduce climate change issues. Likewise, Cotton et al. (2009), de le Harpe & Thomas (2009), Sterling & Scott (2008) and Wals (2009) noted that pedagogical practice has been much slower to develop.

The results of the study also reflect that the 6 principles for responsible management education significantly intercorrelate with each other thereby emphasizing that any improvement in adopting and enhancing any one of these principles will have a snowballing and rippling effect to improve all other principles for responsible management education. One can only imagine the tremendous improvement that can be achievement in management education should ongoing efforts be directed to enhancing the incorporation and adherence of all 6 principles. Likewise, Haertle (2012a) emphasizes the need to establish a process of continuous improvement in management education institutions in order to develop a new generation of business leaders capable of managing the complex challenges experienced by business and society in the 21st century. It is also evident that fostering a sustainable culture centered on economic, environmental and social development significantly and strongly correlates with all other principles. The implication is that concentrating on this principle alone has the potential to develop and augment all other principles for management education. Likewise, fostering constant dialogue has the potential to enhance the alignment between PRME and research as well as create a learning environment. The intercorrelations amongst the principles for responsible management education emphasize the need for management and business schools to pledge to developing a new caliber of leaders that are capable of understanding the interrelation between the global challenges and acting effectively with new techniques, strategies, skills and efficacy to enable the required change (Copenhagen Business School, 2009, p. 1).

The results also indicate that all the principles for management education significantly correlate with sustainable development and in particular it is beneficial to focus on fostering constant dialogue to enhance economic, environmental and social development, aligning PRME and research on economic, environmental and social development and creating a learning environment conducive to economic, environmental and social development. In this regard, Young and Nagpal (2013) emphasize the importance of integrating climate and sustainability issues into the very core of business strategy and stresses that this integration begins in the curricula of business and management schools. The results reflect that only age influences academics' perceptions of the PRME and sustainable development. In particular, academics between the ages of 36-40 years are least convinced that the schools are fostering a sustainable culture, creating a learning environment, aligning PRME and research, fostering constant dialogue and encouraging sustainable development. Perhaps, like Nolet (2009, p. 437), academics in this age category are most aware that one cannot prolong the thinking and education practices of the past when addressing challenges of the 21st century and believe most strongly that a new education system is needed.

The results also reflect that whilst all six principles for responsible management education are imperative for attaining sustainable development, realising sustainability in the academic environment demands constant dialogue, creating a learning environment and aligning PRME and research. In order to foster constant dialogue the Winchester Business School collaborates with non-for-profit organizations in improving their practices through consultancies. In response to creating a learning environment conducive to sustainable development, the University of Winchester has encouraged international cooperation in learning without increasing our carbon footprint and has invested in the use of interactive web technology and a range of unique learning spaces such as Stock Market Trading Simulation to enrich the student experiences and learning capabilities. In relation to aligning PRME and research the University of Winchester academic staff engages in research, knowledge exchange and inter-sector collaboration activities in the area of responsible management and sustainability (University of Winchester, 2011).

5. Recommendations and Conclusion

The results of the study provide guidance on how to continue to achieve those principles for responsible management education that are being achieved and how to overcome obstacles identified. In attempts to enhance the realisation of the PRME and to pursue other strategies to further its cause, the following are recommended:

- Continue to foster change/design in curricula centered on economic, environmental and social development. This can be done by scheduling time in the year planner to review all modules in the interest of incorporating PRME. Commitment can be assured by reformulating all module templates to ensure documentation and implementation. A planned and deliberate effort is needed School-wide. All reviews/audits should evaluate and cautiously assess the realisation of the principles for responsible management education within the modules.
- Continue to foster a sustainable culture centered on economic, environmental and social development by ensuring that the degree and modules respond to current business and societal demands. Efforts should be made to identify specific business and societal issues and to incorporate these into the curricula in terms of how they may be effectively managed.
- Creating a learning environment conducive to economic, environmental and social development. Real-life case studies, having an e-learning component, focusing more on anti-corruption in the business environment and going green should be core elements when delivering module content.
- Continue to foster PRME partnerships to enhance economic, environmental and social development with corporations that are environmentally responsible. Invite guest lecturers from organisations to enlighten students on the challenges that they face as a result of corruption, environmental degradation and/or violation of human rights and poverty.
- Ensure that the modules allow engagement on issues of recognising the right to collective bargaining and freedom of association in the work environment. This can be done by arranging seminars and open forums.
- As a part of assessments, request students to access information on anti-corruption outside of the traditional learning environment.
- The schools need to embrace going green in its daily operations. Leaders in this campaign in each school may be recognised per semester.
- Foster constant dialogue to enhance economic, environmental and social development. This can be done through dialogues, debates, discussions and presentations involving industry leaders regarding climate change, environmental degradation and its prevention.
- Aligning PRME and research on economic, environmental and social development. Encourage students and academics to engage in research centered on understanding and fighting corruption and/or brainstorming strategies for poverty reduction or that advances knowledge on climate change. Incentives relating to funding should be greater and attractive for research undertaken in

these areas. Conference funding, research grants and other incentives may be utilised to encourage such research. PRME and sustainable development should occupy a special and prioritised session in Conferences arranged by the College.
- Ensure that lectures incorporate the values of Global Social Responsibility relating to economic, environmental and social development, emphasize that climate change is a business reality and represents an unprecedented challenge for human society and that curricula have changed to introduce climate change and other PRME issues.

In conclusion it is evident that the Graduate School of Business and the School of Management, Information Technology and Governance are adopting some aspects of the PRME. However, the focus of the education system needs to change and respond to modern societal and environmental complexities. Whilst issues on ethics and going green are easier to practice, greater energies have to be spent on developing pedagogical practice with regards to PRME to ensure sustainable development.

Recommendations for future research: This study was only undertaken in two schools within the University of KwaZulu-Natal. The study needs to be extended to all other schools at the university as educational practices in the university as a whole need to change to best meet the economic, social and environmental demands of the 21st century if one is provide education for sustainable development.

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E-Communication and Customer Satisfaction: a Case of the Mobile Telecommunications Industry in South Africa

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Abstract: Electronic communication (e-communication) refers to communicating by electronic means, especially over computer networks. Organisations use the internet to distribute valuable content in a variety of ways including e-newsletters, articles, videos, webinars, chats, live online events, social networks and forums. Customer satisfaction measures how well the expectations of a customer concerning a product or service provided by an organisation have been met. Customers can be satisfied with more than just the organisation's product offerings. Customers use the Internet to search for general information, instruction guides or tips that they consider interesting or valuable. They often base their buying decisions on what they find. Valuable content can result in positive advertising as customers share positive content-related experiences with others. It can also increase loyalty as customers start to view or perceive an organisation as an expert about industry-related topics. This paper examines the relationship between e-communication and customer satisfaction within the mobile telecommunications industry in South Africa. This research was quantitative, descriptive and cross sectional in nature. The study found that e-communication was being used by the majority of the service providers in the mobile telecommunications industry and that it led to increased customer satisfaction.

Keywords: *e-communication, customer satisfaction, mobile telecommunications*

1. Introduction

Since organisations operate in a competitive environment that is dynamic, they need to ensure that they are able to satisfy and retain customers. Marketing communication can be used to influence customers. Customer satisfaction ranks high among the priorities of any organisation. These organisations are always in search of new tactics to meet the expectations of their customers and to increase their levels of satisfaction. They are working on the premise that an extremely satisfied customer buys more than a customer that is just satisfied. E-communication allows people to interact in different ways and combine many forms of media in the process. E-communication makes it easy to interact with groups through chat interfaces or video conferencing. E-communication allows customers to communicate with the organisation more efficiently. E-communication allows an organisation to combine text, graphics, sound and video into a single message tailored to a specific audience. It also creates a new form of many-to-many communication that lets geographically distributed groups communicate interactively and simultaneously through text, sound and video. Improving customer satisfaction is one of the main goals of e-communication. Increasing customer satisfaction leads to increased income and profit. This paper examines how e-communication is being used by service providers to positively influence customer satisfaction in the mobile telecommunications industry in South Africa.

2. Literature Review

Du Plessis, Strydom & Jooste (2012) explain that when a sender and receiver exchange messages via a signal system, this is e-communication or digital communication. Digital channels and information technology are changing the way in which organisations communicate, and build and maintain relationships with their customers. Digital communication channels such as the Internet, e-mail, mobile phones and digital TV present organisations with endless opportunities for cost-effective, personalised and interactive communication with their target markets. Digital channels offer the benefit of organisations being able to identify individual customers and collect information from and about them, and then to personalise communication for them. This in turn builds loyalty as communication rather than persuasion becomes the foundation of customer-focused marketing. The digital environment also offers convenient opportunities to organisations to move from one-way to interactive communication. According to Johnston, Clark and Shulver (2012), many organisations have restructured their operations to provide electronic-based services for their customers and suppliers. E-commerce has challenged traditional business models and has created new ways of assessing customers and providing different customer experiences. It also gives customers much more control, as information, such as prices and services offered, is more transparent. The benefits that accrue to the service providers are direct access to customers, opportunities for local businesses to become global and build their brands, making information available to customers and linking services.

Stokes (2011) explains that "marketing is about conversations, and the internet has become a hub of conversations", supporting the idea that through the interactive use of the internet, an organisation is able to follow and track the conversations between itself and its customers. This assists the organization to keep up to date with new trends and create an awareness of the changing needs of its customers. According to Theodosiou and Katsikea (2012), organisations, which attained higher-level electronic business performance expansively, utilised the internet to a greater extent to complete various actions to add value to the product or service. Woon-Kian, Shafaghi, Woolaston and Lui (2010) reinforce the growing awareness of the value of e-marketing and its impact on changes within the relationship between the consumer marketers and the consumer. Their findings support the belief that e-marketing improves business processes while strengthening the awareness in new markets of the organisation. The influence of the Internet and its tools can be seen in some form in virtually every business. Therefore, marketers need to take advantage of the opportunities offered by the Internet. With the Web, marketers can now embrace an electronic version of the marketplace. It allows providers a fresh sales channel, new methods of advertising, new ways of communicating and an innovative means of creating customer relationships. It has also facilitated the customisation of offerings to suit individual customers and helped improve service delivery. Marketers will have to prepare for the world of the new 'customer of power' of the digital era and learn how to use the marketing and communications tools of this era effectively. Digital marketing endeavours not only to provide information but build and maintain customer relationships through online (digital) activities. Digital marketing is distinct because it is interactive and unique in nature. It rejects the "one message fits all" philosophy of mass media communication. With digital marketing, information is collected using sophisticated multimedia channels, which encourage customer interaction and feedback (Koekemoer, 2011).

A study by Harridge-March (2004:297) reflects that e-marketing will not substitute conventional marketing but observes that it is a helpful and supportive activity. Harridge-March (2004:297) further suggests that the new technology must be included by managers with the intention that customers will then receive superior value. Similarly, Hamidi and Safabakhsh (2010:365) investigated the effect of information technology within e-marketing. The collection of data was accumulated in various ways including a questionnaire to suppliers, designers and users of e-marketing. Financial statements were analysed from companies and government agencies and also information was gathered from the various related literature. The findings confirm that information technology has brought about the following effects. Firstly, information technology creates an opportunity for advertisements to be directed at any time of the day or to any location. Secondly, information technology enhances possible advertising opportunities. Thirdly, information technology enlarges the firm's income and reduces pollution and energy consumption. The advantages of e-communication as described by the MEAM Editorial Team (2013) are quick transmission since it requires only few seconds to communicate, extensive coverage since the world has become a global village and communication around the globe is instantaneous, saving of time and money as it allows immediate feedback. The evolution of electronic media has resulted in managers easily controlling their global business operations via video or teleconferencing, e-mail and mobile communication.

Chipp and Ismail (2012) discuss the advantages of online communication. The Internet provides consumers with round-the-clock access to information; more relevant information is provided since the communication is sent to customers who are interested in the offering rather than those who will probably just ignore the message; online advertisements are flexible and adaptable and can be fine-tuned to suit the preferences of the target audience; it facilitates direct transactions; excellent production quality and it is interactive. The disadvantages of using e-communication is that people are bombarded with so much of data that it becomes difficult to take it all in within a short period of time; high development costs since there is infrastructure to consider; the need for more investment since changes in technology happen very rapidly; the legal considerations and data that does not get distributed because of a system error or issues with technology (MEAM Editorial Team 2013). Du Plessis, van Heerden & Cook (2010) explain that in order to cultivate an integrated style of marketing, interactive digital communication tools must be used. Marketers must keep in mind that consumers will use any media that is convenient to communicate access and transact with the organisation. The benefit of the Internet, SMSs, blogging, social networking sites and the Worldwide Web is that communication is interactive and not limited by physical and time constraints.

According to Strauss and Frost (2014) by using, the Internet individual users have access to information, entertainment, networking, and communication, which is also convenient. Consumers use the Internet to do product and price comparisons, look at product reviews posted by other users on Facebook and SNSs. Consumers also download music, movies and other types of entertainment directly to their personal computers (PCs), iPads and televisions. This can be done at their convenience on the device of their choice. Multi-media, personalised communication is also possible via the Internet. This influences the manner in which individuals work, communicate, and consume. This provides a great opportunity for marketers to provide value offerings to satisfy these individuals while earning a profit. Chipp and Ismail (2012) explain the opportunities provided by the Internet are two-way interactive communication; real-time adjustments can be made; real-time dialogue is possible; offers a new way for customers to initiate contact with the company; companies can follow-up on customer suggestions; companies can use the two-way approach to help develop new products and services and allows companies to personalise customer service. Statistics show that there were approximately 150 million individuals using mobile devices to access the internet in Sub-Saharan Africa (SSA) in 2013. This translates to an overall mobile internet penetration rate of only 17% of the total population. The average figure for mobile internet penetration worldwide is just over 30%. By 2020, the rate will increase to 38% and 240 million more people across SSA will have mobile internet access. The following difficulties are experienced with extending mobile internet access in SSA. There is the issue of cost; high levels of poverty and network coverage in rural areas with insufficient infrastructure. This is a huge concern since 70% of the population are living in rural areas (The Mobile Economy 2014: Sub-Saharan Africa Report).

Buttle (2004) states that company websites can also be a good source of or for new customers. Anyone with access to the Internet is a prospective customer. The Internet enables prospective customers to search globally for products and suppliers. Berndt and Tait (2012) explain that websites serve as a marketing channel for the organization they represent and they are increasingly being used as virtual stores where customers can shop and buy products. On the other hand, websites also serve as an interactive communication channel for customers to ask questions, state their views, share opinions and, if necessary, to complain. As a marketing and shopping channel, the web offers powerful touch points for the customer when doing business with a company. The web also facilitates the automation of many tasks (such as paying accounts or lodging a service request). According to Berndt and Tait (2012) e-mail is probably one of the most common means of business communication in the modern world. The main benefit of e-mail is that it is a very cheap form of communication. In addition, an increasing number of customers have e-mail addresses. E-mail is quick and easy to use. E-mails can be stored, forwarded to others, replied to and may even include digital attachments. E-mail may be used in conjunction with call centres and websites to extend the reach of a company and to offer an alternative way to communicate with customers. E-mail is an attractive marketing communication tool because it is convenient, not difficult to use and facilitates interaction with the customer. Also, messages can be aimed at specific customers, it is cost effective and it has a worldwide reach since the response can be immediate and quantified (du Plessis et al., 2012).

The manner in which organisations engage with and relate to their customers has changed considerably because of mobile technology. The introduction of tablets and smartphones has changed the way customers read, learn, work, and connect with each other. These devices have become an integral part of society. So much so, that marketers need to find a way to present their offerings in this space. A mobile platform allows an organisation to connect with people via their offerings and their content. By using mobile technology and digital publishing, organisations can distribute information and publish content quickly to multiple devices. These digital editions are an influential and resourceful way to communicate with a rising audience. With digital publishing, magazines, catalogues, sales tools and annual reports become an appealing experience created for the reader (Sloan, 2014). In 2015, the Mobile Africa study was conducted by GeoPoll and World Wide Worx. They investigated mobile phone usage in five African countries (South Africa, Nigeria, Kenya, Ghana and Uganda). The major finding was that Internet browsing via phones is 40% across these markets. With regards to using their mobile phone to access the internet, results showed 51% of respondents in Ghana, 47% in Nigeria, 40% in South Africa, 34% in Kenya and Uganda are the lowest at 29%. When looking at app downloads, South Africa is the leader, with 34% of mobile users making downloads from app stores. This is usually an indication of higher smartphone adoption. In terms of app downloads for the other countries, Ghana is at 31%, Nigeria 28%, Kenya 19% and Uganda 18%. This study also found that mobile broadband infrastructure is stronger in South Africa (Staff writer, 2015).

Social media (Hanna, Rohn and Crittenden, 2011) have transformed Advertising and promotion. It has also had an effect on consumer behaviour. Social media guides the way in which consumers gather information about products and services all the way to their actions after they have made a purchase. Therefore, marketers need to take advantage of this opportunity and use their social media websites to engage and interact with potential consumers and build strong relationships (Mersey, Davis, Malthouse and Calder, 2010). In order to set their organisation apart from competitors, marketers can use online communication to highlight the benefits and positioning of their offering. While marketers may be assertive about promoting only one advantage in the market concerned, they can use their online presence and social networks to appeal to consumers. It is clear that social media is more efficient than traditional communication channels therefore organisations participate in Facebook, Twitter and Myspace in order to flourish online (Ioanăs and Stoica, 2014). In 2008, Cone Inc. conducted a social media study. The results showed that 93% of social media users deem it necessary that the companies that they purchase from should have a presence in social media. 85% think that a company interacts with its consumers via social media. 56% of users indicated that they interact better with companies who have a social media presence. Therefore, marketers err when they consider a social medium as a mere connector since this medium becomes the means by which marketers connect with connectors and for connectors to link up with each other. In this way, they can share their thoughts and start conversation with society at large (Giannini-Jr, 2010:157).

Stelzner (2009:14) conducted a study that indicated that 81% of the companies created more publicity for their organisation from their social media activities, 61% of them saw an increase in customer traffic, in 56% there were new business partnerships and 45% of the companies reported a decrease in their marketing expenses. A study by Zabin (2009) identified the effects of social media marketing for three types of companies, depending on the degree of their adoption of social media. The study found that the experience of the 20% top performance scorers engaging Web 2.0 applications as a marketing tool enhanced the chances of customers recommending the firm's offering in 95% of the cases. While 87% of the cases showed an improvement in the return on marketing investment and improved the customer acquisition rate in 95% of the cases. Marketers use social media for their promotion function. This appeals to social media users and it prompts them to participate. Present day consumers require a different kind of involvement so traditional marketing communication does not work. Therefore, social media marketing presents an innovative way to create and maintain long lasting relationships with consumers. The web and social media marketing have replaced traditional marketing. Marketers now have the opportunity to use different methods to reach their target audience. Marketing is no longer limited to products and services; it can now influence social change through connecting with customers. It is clear that relationship marketing for the Facebook generation demands both thinking and acting differently (Sri Jothi, Neelamalar & Prasad, 2011).

Clark and Melancon (2013:138) explain that social media is fast becoming a popular way to communicate with consumers. Statistics revealed that 92% of marketers are using Facebook, 84% are using Twitter, 71% are using LinkedIn, 68% are using blogs and 56% are using YouTube. As a result, spending on social media is increasing and the number of employees and hours firms dedicate to connecting with consumers via social media is also increasing. Studies show that consumers who participation in an organisations social media strategies share a better relationship with that organisation. The organisation benefits since followers feel that the organisation is making a greater investment in their relationship. They see their relationship with the organisation as being of a higher quality than that of non-followers. Therefore, satisfaction, word of mouth advertising, and loyalty are all higher for followers of social media than non-followers. In the last few years, companies have noticed a change in the relationship with their customers. As communication methods have evolved, customers now have more control and say over the company's offerings. Customers are essential to any business and social networking provides an opportunity for the business to create and maintain even closer and more rewarding relationships with their customers. Therefore, companies need to respond to this change so that they can benefit by using social networking in their marketing. They can also get a better understanding of their customer needs and wants, which will improve relationships with their customers. Social networking can also change the way companies consider their customers. They can use customer relationship management to overlap with social networks. These social networks provide ways for companies to connect with their customers. Combining social networking and marketing makes it easier for companies to follow their customers, achieve their goals and control and measure their activities (Assaad et al., 2011:13).

The SA Social Media Landscape report (2015) found that Facebook is the first SNS in South Africa that has equal number of male and female users (5.6 million for each) The South African market still shows a slight male bias when it comes to the use of the Internet so this finding emphasises the degree to which social media has become mainstream. According to this report, Facebook remains the most popular SNS in South Africa, followed by YouTube and Twitter. Of a total of 11, 8-million South African users (22% of the population), it was found that 8, 8-million access it on their mobile phones. Du Plessis et al. (2012) describe customer satisfaction as a "customer's positive evaluation of the performance of product or service when compared to his or her expectations". Maintaining customer relationships, creating loyalty, retaining customers becomes easier when customer satisfaction is high. When customer satisfaction is low or non-existent, organisations have no chance of creating customer loyalty and retaining their customers. Harris (2014) defines customer satisfaction as the "customer's overall feeling of contentment with a customer interaction". Satisfaction can develop quickly or take a long time to develop if customers have any concerns. Satisfaction could also be a 'customer's afterthought.' This can happen when a customer reflects on the experience and rates it in terms of how pleasant or unpleasant it was. Satisfaction is defined as the 'customer's fulfilment response' and they go on further to explain, "It is a judgment that a product or service feature, or the product or service itself, provides a pleasurable level of consumption-related fulfilment" (Zeithaml, Bitner and Gremler, 2013). The customer will assess the offering according to whether it has met his/her needs and/or expectations. Failure to meet these needs and/or expectations will result in dissatisfaction.

Ercis and Rasouli (2013) maintain satisfaction plays a key role in the success of an organisation. As soon as an organisation starts a relationship and interacts with the customer, satisfaction comes into play. Therefore, it is vital that organisations/firms assign substantial resources to measuring and managing customer satisfaction. To have a close relationship with the customer, the organisation must be fully aware of his/her needs and wants. Rizan, Warokka and Listyawati (2014) explain that satisfied customers are less likely to move to a competitor. If a customer is in a fruitful relationship, there is a greater likelihood for loyalty. A highly satisfied customer will stay loyal for a longer period of time, will purchase more, will have complimentary things to say about the organisation, will pay little or no attention to competitors and is less costly to do business with than new customers. Satisfaction is the result of customers' overall assessment of their perceptions of the service compared to their prior expectations. These perceptions could be about the service process itself, their overall experience, the quality of the products used and their perceived value for money. When perceptions of the service are equal to their expectations then customers should be satisfied. If perceptions of the service exceed their expectations, customers will be more than satisfied, even delighted. If perceptions of the service do not meet their expectations, customers may be dissatisfied, even disgusted or outraged (Johnston et al., 2012).

In view of the ever-increasing competition in the mobile telecommunications industry in South Africa, relationship marketing is applicable when developing enduring relationships with customers because the services on offer from the various service providers are fairly alike and it is not easy to tell the difference. Ndubisi (2004) reported that increasingly firms are taking advantage of the strong firm-customer relationship to gain invaluable information on how best to serve customers and keep them from defecting to the competition. Hence, customer relationship building generates returns for both parties and the firm can obtain quality sources of marketing intelligence, which will assist in better planning. Customer satisfaction is defined as a "customer's overall evaluation of the performance of an offering to date" (Ercis & Rasouli, 2013). When customers are totally satisfied, it impacts positively on customer loyalty. Example of this in the telecommunications industry is provided by Bolton (1998:61) who found a positive outcome on customer satisfaction for the duration of the relationship for cellular phone customers, and Bolton and Lemon (1999) who indicated a positive outcome on satisfaction for customer usage of telecommunications subscription services. It has been established that increased customer satisfaction can lead to loyalty. Marketers can use social media to address their customer service issues and this can raise their customers' satisfaction to greater heights. Since social media allows customers to express their views as well, any issues with the organisation can be resolved timeously (Krishna, Dangayach, and Jain, 2011). The perks for customers who join via social media include special offers, discounts, entertainment, or personal interaction with the organisation and other customers.

The study conducted by Ndubisi, Malhotra and Wah (2009:8) suggests a strong link between the dimensions of relationship marketing dimensions with customer satisfaction and the link between customer satisfaction and customer loyalty. The study also showed an indirect relationship using customer satisfaction between the dimensions of relationship marketing and customer loyalty and a direct relationship between the RM dimensions and customer loyalty. On the whole, the results for this study pointed towards the indirect effect of RM variables on customer loyalty (via customer satisfaction) being a better model than the direct effect. This could be as a result of the higher percentage of variance in customer loyalty. It is very clear that customer loyalty is a good gauge of return on relationship. This is supported by the concept of the 'lifetime value of customers,' and by the notion that it costs way more to acquire a new customer than it is to retain an existing one (Gummesson, 1999). Gummesson (2004:141) defines return on relationship (ROR) narrowly as the "long-term net financial outcome caused by the establishment and maintenance of individual customer relationships."

The study conducted by Boohene and Agyapong (2011:236) in the telecom industry discovered that more often than not, customers will continue with their service provider if there is a high level of service quality. This indicates that here is a positive relationship between service quality and customer loyalty. The study concluded that for customers to be loyal, telecom firms must provide "appealing sales points, wide coverage, and neat, comfortable and convenient office locations as well as being responsive to their requests." However, focusing on customer satisfaction is also necessary as it might enable the firm to cater for some important aspects of the services e.g. switching cost and complaint handling. This study also indicated that the quality of service is the most significant factor in obtaining customer loyalty. The implication for the management of telecom is that they need to emphasise service quality. For telecom, it means that they have to analyse and improve their relationship with their customers since there is no tangible product involved. In order to do this the management of telecom should invest in training and developing their staff in the areas of customer service, customer satisfaction and loyalty and relationship marketing skills. This will lead to the building of a customer-oriented organisation. Staff will then be in a position to provide efficient and effective service delivery. Also staff will be aware that securing and keeping customers is the crux of relationship marketing. Other issues for gaining customer loyalty for telecom includes "confidentiality in transactions, trust worthiness of staff, and availability of customer care centres on weekends, extension of working hours, and provision of security for customers' transactions."

Stokes (2011) explains that "marketing is about conversations, and the internet has become a hub of conversations", supporting the idea that through the interactive use of the internet, an organisation is able to follow and track the conversations between itself and its customers. This assists the organization to keep up to date with new trends and create an awareness of the changing needs of its customers. According to Theodosiou and Katsikea (2012), organisations, which attained higher-level electronic business performance expansively, utilised the internet to a greater extent to complete various actions to add value to the product or service. Woon Kian et al. (2010) reinforce the growing awareness of the value of e-marketing and its impact on changes within the relationship between the consumer marketers and the consumer. Their findings support the belief that e-marketing improves business processes while strengthening the awareness in new markets of the organisation. The influence of the Internet and its tools can be seen in some form in virtually every business. Therefore, marketers need to take advantage of the opportunities offered by the Internet. With the Web, marketers can now embrace an electronic version of the marketplace. It allows provides a fresh sales channel, new methods of advertising, new ways of communicating, an innovative means of creating customer relationships. It has also facilitated the customisation of offerings to suit individual customers and helped improve service delivery. Marketers will have to prepare for the world of the new 'customer of power' of the digital era and learn how to use the marketing and communications tools of this era effectively. Digital marketing endeavours not only to provide information but to build and maintain customer relationships through online (digital) activities. Digital marketing is distinct because it is interactive and unique in nature. It rejects the one message fits all philosophy of mass media communication. With digital marketing, information is collected using sophisticated multimedia channels, which encourage customer interaction and feedback (Koekemoer, 2011).

Hsu and Yang (2013) explain how marketing has evolved over time. It has transformed in terms of content, focus and boundaries. Specifically, the development of the Internet has seen marketing move from being focussed on transactions to being more in favour of relationships. Furthermore, marketing is now network centred rather than market oriented with a major focus on customers and creating what they need and want. More recently, the deployment of Web 2.0 technologies, such as social networking sites, wikis, and blogs, has made relationship marketing (RM) even more viable. Du Plessis et al. (2010) explain that in order to cultivate an integrated style of marketing, interactive e-communication tools must be used. Marketers must keep in mind that consumers will use any media that is convenient to communicate access and transact with the organisation. The benefit of the Internet, SMSs, blogging, social networking sites and the Worldwide Web is that communication is interactive and not limited by physical and time constraints. The extensive access to information, social networking and better communication that its consumers, society at large and businesses enjoy is possible because of the Internet and virtual communities. Therefore, social networks can be described as websites, which connect millions of users worldwide who share the same interests, opinions and pastimes. Blogs, podcasts, social networks, bulletin boards, and wikis are used to communicate and share ideas about a given product, service, or brand and to interact with other consumers who have objective information about these offerings (Ioanăs and Stoica, 2014).

According to du Plessis et al. (2010) by using the Internet as an e-communication tool, organisations have a chance to build relationships and experiences for the consumer. This tool is interactive and has a world-wide reach, which makes it ideal for consumers to interact with the brands, and this allows consumers to create a perception of these brands. The Internet cannot be used on its own and should be combined with all other media to facilitate a constant and collaborative brand message. The continuity, immediacy, world-wide coverage, depth and interactive nature of the Internet offer outstanding communication opportunities. Berndt and Tait (2012) explain that websites can facilitate home purchasing, thus making the shopping experience easier for busy or working home keepers; enable customers to lodge complaints and provide other feedback on the company; allow customers to access a wide range of information about the company and its products; allow customers to track deliveries; provide customers with links to a wide range of supporting information to enable them to make the right purchase decision; keep customers informed about special offers, events, new products, withdrawn products and other related information; enable customers to view their accounts and make account payments; allow customers to have contact with the company wherever they are; access purchase policy information, warranties, guarantees, contact details, company location and opening hours and create a community where customers can share experiences and communicate with others to learn about the company and product.

Social media is made up of all the actions and practices between groups of people who collect and share information and opinions online. This is called conversational media. Conversational media uses web-based applications to create and deliver content in the form of words, pictures, videos. Therefore, social media is about sharing information, experiences, and views. New web technologies have made it easy for people to create and distribute their own content. Social media is characterised by participation, openness, conversation, community, and connectedness (Alkhoms and Alnsour, 2013). Ioanăs and Stoica (2014) explain that the most important role of social media is that it has transformed the manner in which marketers and consumers communicate. We live in an informational society and this affects the consumer decision processes and product evaluations. With social media, consumers have a new medium to get product information through peer communication. Additionally, by using social media, consumers also have the power to influence other buyers through their own product reviews and commentary on services used. Consumers are also influenced by other psychosocial characteristics like: income, purchase motivation, company presentation, company or brand's presence on social networks, demographic variables (age, sex and disposable income), workplace, method of payment and type of stores (online or physical).

3. Methodology

This study was descriptive, cross-sectional and quantitative in nature. According to Iacobucci and Churchill (2010) a descriptive research study describes the rate of occurrence of something or the relationship between two variables. This study is cross-sectional in nature since information is gathered from the sample population at a given point in time. With a cross- sectional study, a description of the variable is specified at a particular point in time and the sample characterises the target population. For this study, data was collected from 440 individual mobile phone users who were representative of mobile phone users in KwaZulu-Natal [KZN], one of the largest provinces in South Africa. KZN is divided into 11 municipal districts. The researcher usedquota sampling to ensure that the respondents in KZN were suitably represented in the study. Clow and James (2014) explain that the purpose of a quota sample is to make sure that the sample contains the same number of the characteristics identified by the researcher and it is apparent in the population being studied. Individual mobile phone users were chosen using convenience sampling based on accessibility of respondents to the researcher. A questionnaire was used to gather data from the respondents.

4. Results

Biographical Details: The respondents' biographical details showed that the majority of the respondents (29%) were in the age category 18 to 25, 27% were in the age category 26to35, 20% were in the age category 36 to 45, 17% were between 46 and 55 years with 6% being between 56 and 65 years and 2% were over 65 years old. There were more females than males (62% and 38% respectively). In terms of gender, the majority of the respondents (46%) were Asian/Indian, 43% were Black, 6% were Coloured, 4% were White and two respondents indicated "other". On the issue of highest education level, 41% of respondents indicated that they had a diploma or degree, 35% have passed matric while 11% have a qualification below matric, 10% have a Honours/BTech qualification, and 3% have a Masters qualification while only three respondents had a PhD. Respondents were questioned about how long they have been a mobile phone user. The majority (36%) indicated 6 to10 years, followed by 27% who indicated 11 to 15 years, 22% indicated more than 15 years, while 15% indicated 0 to 5 years. 68% of respondents have their mobile phone for personal use, 3% for business use and 29% indicated that they used their mobile phone for both personal and business purposes.

Smartphone ownership: 67% of the respondents indicated that they owned smartphones while 33% do not own a smartphone. This result correlates with the report by Goldstuck (2014) which states that there were 14.5 million smartphones users by the end of December 2013 - MTN had 7.3 million active smartphone users while Vodacom had 7.2 million active smartphone users. That translates to about one smartphone for every 3.8 active accounts reported by the two networks. Between them, these two networks have about 55 million connections. The implication for the service provider is increased revenue from both the purchase and use of the smartphone. For business, it means that customers can communicate more directly with the business, access information more easily and demand responses more aggressively.

Type of customer: 52% of the respondents were prepaid customers and 48% were contract customers. Linked to this are the results of the infoDev study on use of mobile phones in South Africa, which found that the majority of people from the low-income groups are on prepaid mobile phones considering that these are cheaper than having contracts. In 2012, only 4% of low-income users living in rural areas had a contract phone, compared with 11% from the same income group in urban areas (SouthAfricaWeb 2014).

Current service provider: The majority of the respondents (38%) are currently with MTN followed by 35% who are with Vodacom, 22% with Cell C, 3% of respondents being subscribed to Telkom and 2% with 8ta. The study conducted by Molapo and Mukwada (2014) revealed that the level of customer satisfaction varied significantly amongst cell phone network providers in South Africa, ranging from 63% for Vodacom to 5% for 8ta. This result could be attributed to 8ta being a newcomer to the cell phone industry, while Vodacom is already well established. MTN has the largest market share in the industry but the second lowest level of satisfaction. The majority of the respondents (32%) have been with the same service provider for 4 to 6 years, 28% for more than 10 years, 23% for 1 to 3 years and 17% for 7 to 9 years. Number portability was introduced in 2006. This could be one of the reasons why respondents could have changed their service provider. 62% of respondents did not change their service provider while 38% did. This could suggest that the majority of respondents were satisfied with their current service provider.

Use of e-communication by service providers: 91% of respondents believed that their service provider used e-communication, 2% of respondents did not believe that their service provider used e-communication and 7% were unsure in this regard.41% of the respondents felt that using e-communication was an excellent idea, 28% felt it was a very good idea, 22% indicated that it was a good idea, while 9% remained neutral in this regard. There was zero response for it being a bad idea or a terrible idea. This suggests that e-communication was very well received by respondents.

Reasons for changing service provider: 38% of the respondents indicated that they did change their service provider. The reasons indicated were poor network coverage as indicated by 50% of the respondents, being very expensive (38%), poor service (30%), dissatisfaction (22%), unreliable service (11%), untrustworthy (2%), three respondents indicated it was because of poor communication and one respondent cited ineffective advertising.

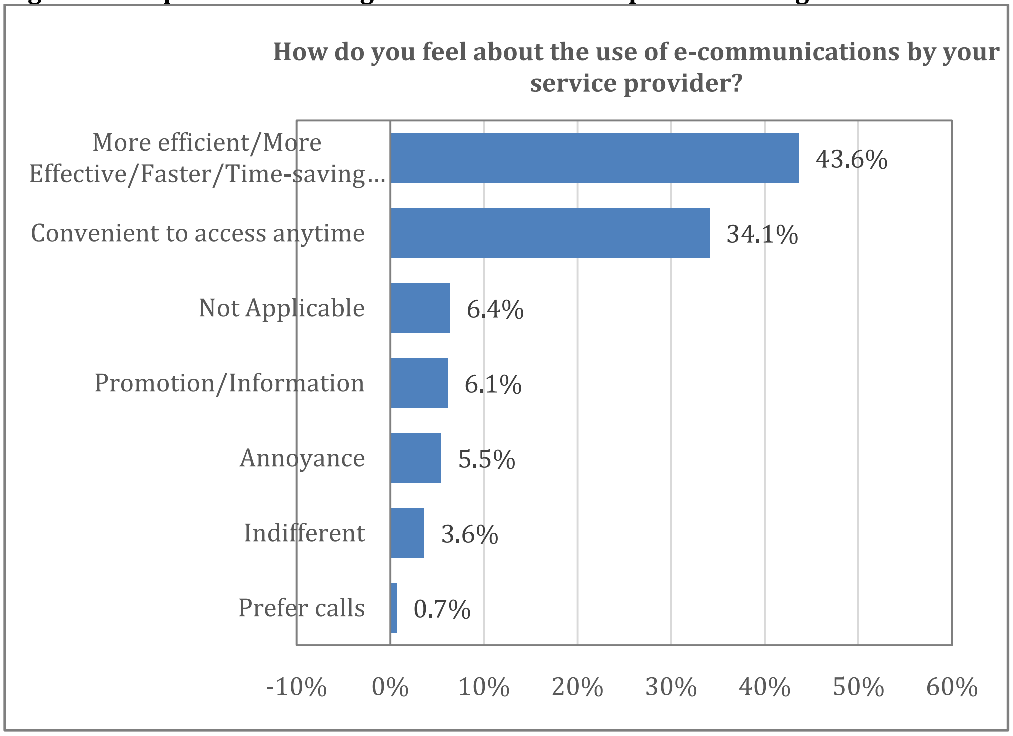
Methods of e-communication used by service providers: The majority of the respondents (91%) indicated that their service provider uses e-communication. When asked which mediums are used for e-communication, respondents indicated SMS (83%), e-mail (50%), internet (16%), MMS (13%), SNSs (11%), websites (8%) and blogs (3%). 15% indicated that all the mediums mentioned were used, as reflected in Table 1. It is clear that service providers need to use the internet, MMS, SNSs, their websites and blogs to a greater effect. Most owners use their mobile devices for more than simply phone calls. On average, 76% of users in emerging and developing markets indicated that they have used their cell phones to send text messages in the past 12 months. In the Philippines, Venezuela, Indonesia and South Africa, more than 95% of cell phone owners indicated that they text regularly (Pew Research Center 2015).

Table 1: Multiple response of how service providers are perceived to use e-communication

	n	Percentage
SMS	331	83
MMS	50	12.5
E-mail	199	49.9
Blogs	13	3.3
Internet	64	16.0
Website	32	8
Social Networking Sites (SNSs)	44	11
All of the above	58	14.5
Total	791	198.2

Respondents' feelings about their service provider using e-communication: When asked how they feel about their service provider using e-communication, the majority of the respondents (44%) replied that it was more efficient and effective, faster to use and a time-saving way of communicating. 34% indicated that it was convenient to access anytime, 6% indicated that it was not applicable to them. A further 6% indicated that it was used for promotions/information while 5.5% considered it to be an annoyance. 4% were indifferent while less than 1% of respondents preferred calls, as shown in Figure 2.

Figure 2: Respondents' feelings about their service provider using e-communication



The relationship between the variables: It emerged that there were no significant differences between the dimensions of trust, loyalty and commitment, and length of time as a user (p>0.05). The analysis also examined the relationship between trust, loyalty and commitment and use of mobile phone (business use, personal use and both). The results yielded no significant relationship between usage and the dimensions of trust, loyalty and commitment (p>0.05). The results also indicated significant differences between those who changed their service provider and those who have not, for the dimensions of loyalty (p= 0.014) and commitment (p= 0.001), but not for the dimension of trust (p>0.05). It also emerged that there was a significant relationship between the use of e-communication and the three dimensions: trust (p=0.002), loyalty (p=0.005) and commitment (p=0.008).

5. Conclusion

This paper examined the relationship between e-communication and customer satisfaction in the mobile telecommunications industry in South Africa. It found that the use of e-communication by the service providers in the telecommunications industry did lead to greater customer satisfaction. The majority of the respondents indicated that e-communication assisted in making service providers more efficient and effective. This was because e-communication provided a faster way of communicating that saved time and was convenient to access anywhere. The results also showed that service providers used e-communication primarily to communicate with their customers and for advertising and promotions in general. SMS, e-mail and the internet emerged as the most popular tools of e-communication. The results suggest that by using the various e-communication tools, service providers are able to establish trust, loyalty, and commitment and improve communication with their customers in the mobile telecommunications industry. Furthermore, by focussing on these relationship marketing variables, these service providers can improve satisfaction, which will help to retain customers and ultimately maintain a long term relationship with them. By building trust, loyalty and commitment and improving communication, service providers are contributing towards customer satisfaction. This in turn leads to creating and maintaining long-lasting relationships with customers.

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Regulation, Cross Border Migrants and the Choice of Remittance Channels in South Africa

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Abstract: Remittances have become an increasingly important factor in developing economies. Among others, compliance with onerous regulation requirements discourages the use of formal methods of remittances. The paper discusses results from a survey of the influence of regulation on the choice of migrants' remittance channels in South Africa. It aims to highlight how regulation affects the choice between formal and informal channels of remitting funds. A questionnaire was administered to collect primary data from migrants seeking documentations from the Department of Home Affairs, those remitting funds at taxi ranks or bus terminals, and those remitting through commercial banks and money transfer operators. 275 responses were analysed using a Likert rating scale format of 1 (highest) to 5 (lowest). Regulatory requirements of documentary evidence are an important factor influencing the choice of the remittance channel used. Documentation requirement in the formal market causes migrants to be ineligible for the formal channels of remittances and is a factor that influences the choice of remittance channel. Restrictive visa requirements could easily push migrants to become illegal aliens which further deny them access to formal remittance channels. The paper adds to the academic literature on the determinants of remittance channels in Africa. Understanding the relevant issues could assist regulatory authorities to restructure the remittance market with a view to encouraging migrant workers to enter the formal financial system.

Keywords: *Migration; Formal and informal remittances, Choice of remittance channel; South Africa*

1. Introduction

Regulation[2] of economic activity is a key issue confronting national Governments and supranational policymakers (OECD, 2003). There are many definitions of regulation, referring to the diverse set of instruments by which governments set requirements on enterprises and citizens.
"*Any government measure or intervention that seeks to change the behaviour of individuals or groups. It can both give people rights (e.g. equal opportunities), and restrict their behaviour (e.g. compulsory use of seat belts)." (BRTF, 2003*)
Regulation is: ``...A set of `incentives' established either by the legislature, Government, or public administration that mandates or prohibits actions of citizens and enterprises ... .Regulations are supported by the explicit threat of punishment for non-compliance'' (OECD, 1994).
These definitions encompass all measures or interventions undertaken by Central and Local Government bodies which affect business activity. These include: taxation and financial reporting, employment and health and safety, trading standards and consumer rights, environmental protection, intellectual property, premises and planning rules, data protection and Transport. Government also supports a legal framework of contract and property rights, which both enables and constrains business activity (See Akinboade & Kinfack, 2012).

Impact of regulation on cross border migrants in Southern Africa: The World Bank estimates that more than 247 million people or 3.4 percent of the world population, live outside their countries of birth (World Bank, 2016) .Stock of emigrants in Africa in 2013 was 23.2 million or 2.5 percent of population. The top 10 emigration countries were Somalia, Burkina Faso, Sudan, the Democratic Republic of Congo, Nigeria, Cote d'lvoire, Zimbabwe, Mali, South Africa, South Sudan. South Africa attracts is a magnet for migrants from all over the continent who played an indispensible role in building South African infrastructure (Kotze & Hill, 1997). They worked primarily in the mining sector. Post-independence African migrants have tended to be refugees and asylum-seekers. In 2012, 5.7% of the South African population was foreign born, comprising legal and illegal immigrants (Statssa, 2012 a, b).Historically, the entry of non-nationals into the South African labour market has been governed by a dual system of control, sometimes referred to as the "two gates" system (Truen & Chisadza, 2012). White migration was predominantly emphasised at the beginning of the

[2] SeeAkinboade, O.A &Kinfack, E.C (2012)

20th century. This was, for all intents and purposes, intended to attract British immigrants (see Kotze & Hill, 1997). Black immigrants were necessary to cater for the booming mining industry. However, recent developments of the migration regulation have become tight in South Africa. In terms of the immigration laws of South Africa, the Aliens Control Act of 1991 was amended in 1995 in order to place greater emphasis on the skills and qualifications of potential immigrants applying for permits.

Peberdy (2010) notes that the immigration policy emphasizes the entry of skilled migrants This was due the growing concerns about a domestic shortage of skills and the high emigration rates of skilled professionals. In the light of this the Department of Home Affairs (DHA) specifies the objectives of the Immigration Act, 2002 (Act No. 13 of 2002),as implemented on 7 April 2003, to include regulating the influx of foreigners by facilitating foreign investment and attracting skilled and qualified foreigners to South Africa. Others are the facilitation and simplification of the issuance of permits promoting tourism to South Africa. When the Immigration Act of 2002 was amended in 2004, it further reinforced the country's determination to facilitate the entry of skilled migrants. Under the aforementioned "two gate" system, migrant workers with the right to enter and work were documented. This was the way the first and front gate was implemented for mainly the skilled migrants. They received either temporary permits (such as work permits), or permanent residency permits. This gate is governed by immigration laws. The alternative gate otherwise called the second or back gate was opened to cheap, black, migrant labour (see Segatti, 2011a,b). This gate is governed by bilateral treaties between the South Africa and southern African countries like Botswana, Lesotho and Swaziland (the BLS countries), and Mozambique.

Although unskilled and semi-skilled workers did not qualify for work permits, the Act did however recognise the international bilateral labour agreements especially with Southern African Countries. The mining and agricultural sectors retained their preferential access to unskilled contract labour from neighbouring states. These contract labourers would not however have access to the immigration system except through marriage, and would not be able to bring their families with them. Truen et al. (2005) in Table 1 developed a framework to estimate immigrants stock in South Africa based on the assumption that any economic migrant faces two key legal challenges, namely the issue of whether they have the legal right to enter the destination country, and then whether they have the legal right to stay and work.

Table 1: Analytical quadrants of immigrants in South Africa

	Right to enter	**Right not to enter**
Right to stay and work	(1)Skilled migrants on work permits or other temporary residence permits (2)Contract migrants in mining or the commercial farming sector (3)Permanent residents	(1)Asylum seekers and refugees (have a legal right to enter, but no entry permit at time of entry) (2)Beneficiaries of immigration amnesties
No right to stay and work	(1)Migrants that enter on a non-work related permit (e.g. visitors', study and medical permits) and then are employed without a work permit. (2)Migrants that enter legally but then fail to leave the country once their permits (study, visitors, etc.) expire. (3)Retrenched contract workers	Irregular migrants (e.g. border jumpers)

Source: Truen et al. (2005)

In Table 2, it is shown that immigrants typically enter South Africa as relatives of other immigrants. Strict regulation requirements for documentations means that only about 30% of immigrants from overseas countries, and 18% from Africa are successful in work permit applications. Zimbabweans, Nigerians and Kenyans are typically highly skilled and proficient in English and are hence highly successful in work permit applications compared with other African immigrants. Otherwise African immigrants typically apply for refugee status permits and are less successful in obtaining business permits. Not surprisingly, immigrants from Africa's conflict zones such as Somalia, Congo, Democratic Republic of Congo, and Rwanda are most successful in applying for refugee permits in South Africa.

Table 2: Percentage distribution of the types of temporary residence permits by region and the ten leading countries in each region, 2013

Region/Sub-Region	Percentage distribution of Migrants Permit Categories										
	Visitors	Work	Relatives	Study	Business	Medical	Waiver	Retired persons	Treaty	Exchange	Total
Overseas	34,1	30,0	22,6	6,4	2,6	0,4	2,3	1,4	0,1	0,1	100,0
Europe	50,2	15,8	15,1	9,1	1,2	0,8	4,0	3,5	0,2	0,2	100,0
North America	52,7	15,5	14,5	11,4	0,9	0,4	2,7	1,7	0,1	0,0	100,0
Central and South America	46,5	19,6	16,5	11,3	0,6	0,9	2,9	0,6	1,2	0,0	100,0
Australasia	51,1	17,1	18,0	8,8	0,9	0,9	2,1	0,9	0,3	0,0	100,0
Middle East	52,7	17,0	12,4	12,4	4,1	0,3	0,2	0,6	0,1	0,2	100,0
Asia	23,3	39,3	27,7	4,2	3,4	0,2	1,5	0,4	0,0	0,0	100,0
Africa	31,2	18,3	24,0	22,2	1,3	2,2	0,5	0,1	0,1	0,0	100,0
SADC	29,1	21,1	21,7	24,5	0,3	2,5	0,6	0,1	0,0	0,0	100,0
East and Central Africa	30,0	14,7	21,2	27,3	3,6	2,5	0,5	0,1	0,0	0,0	100,0
West Africa	38,0	12,5	30,4	14,7	2,6	1,3	0,4	0,0	0,1	0,0	100,0
North Africa	26,0	21,8	34,0	13,6	2,7	0,4	1,1	0,0	0,4	0,0	100,0
Total	33,3	23,8	9,5	19,0	0,0	14,3	0,0	0,0	0,0	0,0	100,0
	32,5	23,6	23,4	15,1	1,9	1,4	1,3	0,7	0,1	0,0	100,0

Source: Statssa (2015; p.42)

The Government of South Africa created in November 1994, fourteen units of a new police division called the Illegal Alien Tracing Unit in order to address the problem illegal international migration(Maharaj, 2009). The task of the Unit was to detect corruption, identify fraudulent documents, take action against employers and persons assisting foreigners, and to identify and apprehend illegal immigrants. This action placed additional hurdles on the possibility of getting the right documentation for migrants in the country.

Study Motivation: Understanding the relationship between migration and development is crucial to poverty reduction efforts and is also gradually influencing other policy areas, such as immigration policy and banking regulation (Bracking & Sachikonye, 2010). Informal remittance channels tend to be popular in countries where the financial sector is weak, mistrusted, or missing altogether (as in countries in engaged in or emerging from conflict).They are also often chosen where banking and foreign exchange facilities are inadequate, inefficient or even destroyed altogether regardless of transaction costs (Puri & Ritzema, 1999). This is not the case in South Africa where the financial sector is strong and well developed. However, regulatory controls could have impact on the ability of migrants to use formal remittance channels, and promote the use of informal channels instead. It is therefore important to examine these issues as part of the process of understanding how policies could enhance the developmental impact of migrant remittances. This is crucial if migration is to enhance poverty reduction through the generation of migrant remittances and contribute to economic growth in sending and receiving countries.

Research objective: This study seeks to determine the influence of regulations on migrant workers choice of cross border remittance channels as between opting for formal and/or informal channels. This is intended to develop a deeper understanding, from a remitter's perspective, of the channels used to remit money from South Africa to cross border destinations. A better understanding of migrant remittances will contribute to the dialogue between academics, policymakers, remittance service providers and migrant workers. This could possibly help to increase the remittance flows to the formal channels. The study only focussed on financial transfers and did not include the transfer of goods or services as part of remittances sent. The rest of the paper is organised as follows. Section two discusses remittances, their importance to African economies, and the formal as well as informal channels of transmission. It later highlights how regulation could have an influence on the choice of remittance channels. Section three is about the research method adopted. Results are presented in section four. The last section concludes the paper.

2. What are remittances?

Daseman (2013) makes a detailed discussion of remittances, their importance to the economies of African countries and how regulations influence the choice of preferred channels.Remittances are funds transferred from migrants to their home country such as monetary or cash transfers and other transfers, and may include consumer goods, capital goods and skills and technological knowledge (Taylor &Fletcher, 2007). Lucas & Stark (1985) suggest that the primary intention for sending remittances is often to ensure that family members back home perform various care-taking services.

The importance of remittances in Africa: The volume of remittances to developing countries has grown significantly over the years, along with a sharp rise in value. In 2007, the aggregate remittances increased to US$240 billion out of the global amount of US$318 billion, up from US$2.98 billion in 1975 and US$90 billion in 2003 (Ratha & Xu, 2008).The World Bank estimates that remittances to developing countries stood at $436 billion in 2014, and would reach $440 billion in 2015 (World Bank, 2015c).The African diaspora fuels the continents' budget to the tune of 5% of its total GDP and may be between $120 billion and 160 billion (Radlicki, 2015). Recent research shows that remittances are as important as direct investment flows and have grown at a faster rate than the amount of official development assistance (Bouoiyour and Miftah, 2015). They are a large and stable source of foreign currency and they behave very differently from foreign private capital flows (Bouoiyour & Miftah, 2015).Official or recorded remittances have surpassed total amount of official development assistance and now represent approximately two-thirds of overall foreign direct investment (Acosta, Baerg, & Mandelman, 2009). This contributes to almost two percent of the gross domestic product of developing countries and illustrates the importance of remittances as a valuable source of external funding for these countries (Acosta, Baerg, & Mandelman, 2009). The total amount of remittances is considerably more than this figure, but is not recorded, as it is carried out through informal channels (Maphosa, 2005). Informal remittances amount to about 35 to 75 percent of official remittances to developing countries (Bracking & Sachikonye, 2010).

According to the International Fund for Agriculture Development (IFAD), African remittance flows to and within the continent each amount to about $40 billion per year. About three quarters of all these transfers are informal.Though these flows are under-reported, between 2000 and 2007, remittances to the continent increased by more than 141 percent, from US$11.2 billion to nearly US$27 billion. These amounts only reflect officially recorded transfers; the actual amounts including unrecorded flows through formal and informal channels are believed to be significantly larger. Recorded remittances are more than twice as large as official aid and nearly two-thirds of foreign direct investment flows to developing countries. In particular, remittance flows to Africa are grossly underestimated, with wide gaps in data reporting in many countries (Anyanwu & Erhijakpor, 2010).

The effects of remittances: The beneficial and detrimental effects of migration and overseas remittances can be classified using three perspectives, namely at the macro or national level, at the community level and at the household level (Anyanwu & Erhijakpor, 2010). At the macro or national level, one of the most significant benefits of the inflows of remittances to the country is that it increases the foreign exchange earnings of the labour exporting country (Daseman, 2013). In addition, workers' remittances exert a positive impact on the balance of payments of many developing countries, as well as promoting economic growth through their direct effects on savings and investment, and indirect effects through consumption. Remittances that raise the consumption levels of rural households might have substantial multiplier effects because they are more likely to be spent on domestically-produced goods. However, as far as countries with low gross domestic product figures are concerned, remittance receipts can distort the functioning of formal capital markets and also destabilise exchange rate regimes through the creation of parallel currency markets.

International remittances can also indirectly promote community development through spill-over mechanisms. Firstly, increased consumption of migrant households can generate multiplier effects. If recipient families increase their household consumption on local goods and services, this will benefit other members of the community through increases in demand, which stimulate local production, thereby promoting job creation and local development. Secondly, remittances are also found to support formation of small-scale enterprises, thereby promoting community development. International remittances ease credit constraints by providing working capital for the recipients to engage in entrepreneurial activities. This results in job creation and enhancement of the development of the remittance receiving country's community. Thirdly, remittances, especially through migrant associations, may also contribute to the creation of new social assets and services and the community's physical infrastructure, such as schools, health centres, roads and other community projects. Lastly, on the negative side, international remittances are found to increase income inequality, especially for rural dwellers.

At the household level, international remittances increase family incomes, thus raising consumption of both durable and non-durable goods and/or savings. In Africa, remittances are part of a private welfare system that transfers purchasing power from relatively richer to relatively poorer members of a family. They reduce poverty, smooth consumption, affect labour supply, provide working capital and have multiplier effects through increased household spending. For the most part, remittances seem to be used to finance consumption or investment in human capital, such as education, health and better nutrition. Remittances may also serve as capital for starting businesses. Thus, international remittances generally raise the immediate standard of living of recipient families. On the economic side, international remittances do promote idleness on the part of the recipients, as it may create a moral hazard problem, inducing disincentives to work. On the social side, it may increase family tensions within households, both among those at home and with migrants who are remitting money.

Formal remittance channels: Formal remittances refer to those remittances which enter into the economy through legitimate channels such as banksand non-bank financial institutions such as exchange bureaus,Money Gram, Western Union, etc (Sharif Mahmud, 2012). The transfers carried through money transfer operators (MTOs) and post offices are also included within the framework of formal transfers (Siegel & Lucke, 2009). The formal channels are thus officially registered entities and as such any other remittance services are defined as informal channels (Kosse & Vermeule, 2014). Regular remittances are more likely to go through officially recognised channels (Pieke, Van Hear, & Lindley, 2007).In Kenya bank transfer services are used more than in Tanzania and Uganda for domestic and intraregional money transfers, including remittances, because Kenya has a relatively well developed banking industry (See Sander, 2004).In particular, less-skilled workers are more likely to go through officially recognised channels, possibly in part because they have fewer opportunities to return home with money and because their remittances are required more regularly by poorer and more dependent families, compared to the more skilled workers.

The importance of formalising remittance channels: Typical amounts sent for personal purposes range from $5 to 500 and for small traders up to $-50,000 per transaction (Sanders, 2004).Due to the size of this flows, the encouragement of greater remittance inflows through official banking channels is important for development. It enhances savings and enables better matching of savings and investment opportunities (Mookerjee & Roberts, 2011). This is because remittances received as cash through unofficial channels are less likely to be saved than those received through bank accounts (Mookerjee & Roberts, 2011). A way to improve remittance flows through official channels is to enhance financial sector development through increases in the number of banking institutions in developing countries and the number of bank branches (Mookerjee & Roberts, 2011). The weaknesses in conventional financial system, such as high costs, poor or unavailable services and lack of access, steers remitters away from formal channels (Sharif Mahmud, 2012). Lower transaction costs can be achieved by increasing the number of banking institutions that offer remittance transfer services (Mookerjee & Roberts, 2011). This generates greater competition and drives transaction costs down (Mookerjee & Roberts, 2011).

The formalisation of remittances has the potential to introduce migrant workers and their families to the formal financial sector in both the sending and receiving countries (Ambrosius, Fritz, & Stiegler, 2008). Remittances can provide a point of entry to the formal financial system for the unbanked population, providing them with access to bank accounts and other financial products such as consumer loans, mortgages, life and non-life insurance products and pensions (Ambrosius, Fritz, & Stiegler, 2008). In addition remittance recipients usually demonstrate higher levels of account holding than the average population. An example of government initiatives to include undocumented working migrants in the formal system was the quasi-formalisation of migrants in the United States (Ambrosius, Fritz, & Stiegler, 2008). This involved the issue of an identification document called 'Matrícula Consular de Alta Seguridad' (MCAS), to provide them access to the formal financial sector. Despite some criticisms, this alternative form of documentation became acceptable to a wide range of banks and other institutions in the United States, thus granting undocumented migrants access to financial services, including the sending of remittances. On the receiving side it provided access to micro-finance operators (MFOs) which had a broader footprint than traditional banks. Although they could not provide funds due to foreign exchange regulations, micro-finance operators accepted remittances as collateral for credits. The money transfer operators also collaborated with credit unions to provide a beneficiary account registration by which a remittance sender opened a bank account in the name of the recipient family member and the account was personally formalised when receiving the remittance (Ambrosius, Fritz, & Stiegler, 2008).

Types of informal or alternative remittance transfer system: Informal remittance channels include those money transfers which occur through private, unrecorded and illegitimate channels. (Sharif Mahmud, 2012). The transfers carried out through the use of minibus operators, train conductors and bus drivers are some of the options used for informal remittances (Siegel & Lucke, 2009). Informal channels also include remittances carried by friends or relatives or the migrant himself to destination countries (Sharif Mahmud, 2012). Informal remittance transfers can be made through a range of systems, encompassing the actors, institutions and procedures that transfer money from migrants to their families (Pieke, Van Hear, & Lindley, 2007). Such systems may have a wide international reach and operate along corporate commercial lines. They may be organised among and specifically meet the demands of particular nationalities or ethnic groups, or they may be organised around more personalised connections with a particular locality in the country of origin. Some remittance systems are based on forms of value transfer without actually physically moving money. In value transfer systems, such as the *hawala* system used in the Horn of Africa, the Middle East, Pakistan and Afghanistan, and the *hundi* system used in South Asia, the customer gives money to an agent in the host country, who communicates to a corresponding agent in the country of origin the instruction to pay out the equivalent sum to a nominated individual. The agent makes money on the transaction through a fee or by other means. Other types of transfers outside the mainstream include hand carrying/couriering, money transfer as part of other businesses, dedicated money transmitters and systems associated with credit unions, micro-finance and insurance institutions (Pieke, Van Hear, & Lindley, 2007).

Hand carrying: Hand carrying of cash remittances by migrants on a return visit is common. Customs restrictions, sanctions for non-compliance, customs corruption or crime in home countries may be factors in limiting the total amount of cash that migrants carry on return visits (World Bank, 2004). Certain categories of migrants are also less likely to return on visits, especially refugees and irregular migrants, who may not want to risk re-entry problems on return to the country of residence. Alternatively, instead of returning personally with funds, the migrant may trust a relative, friend or prominent person to deliver the money to recipients. Northern Sudanese and Congolese people in Europe reported the option, frequently taken, of going to the airport on the day of a homebound flight and asking a person from the check-in queue to take an envelope with cash along (Pieke, Van Hear, & Lindley, 2007).Migrants may also use money-delivery services offered by transport companies to remit particularly within Africa. Taxis are sometimes used to send money home across borders in Southern Africa, with anecdotal evidence suggesting that drivers generally charge about 20 percent of the total transfer value to transport remittances from South Africa to neighbouring countries (Pieke, Van Hear, & Lindley, 2007). Maphosa (2005) finds that the bulk of the value transferred from migrants in South Africa to a district of Matebeleland in Zimbabwe is transmitted in kind, in the form of products such as maize-meal, sugar, salt, cooking oil, consumer goods, and agricultural inputs and building materials. In East Africa, a number of buses, coach or courier companies offer money transfer or transport services for domestic or intra-regional transfers.

Hand carrying goods as gifts during return visits is common among all migrant groups. Bringing gifts is culturally significant, as it is considered a duty to friends and relatives and a sign of migratory success, and bringing goods as gifts may actually be preferred, especially in periods of economic crisis or financial breakdown (Pieke, Van Hear, & Lindley, 2007). Hand carrying and couriering cash as remittance methods are poorly researched, meaning that the amounts involved are currently impossible to quantify. The lack of data here is remarkable considering the significance reported on this channel (Pieke, Van Hear, & Lindley, 2007). A survey of return migrants in Ghana and the Ivory Coast about their previous remittance habits found that migrants on a return visit or relatives or friends delivered significant sums. Hand carrying in cash and kind to home countries may amount to as much as 25 percent of all informal remittances leaving the United

Kingdom. Hand carrying seems to be particularly common in Africa in comparison with the rest of the world (Pieke, Van Hear, & Lindley, 2007).

Remittance transfer in the context of other businesses: Cash-intensive businesses, particularly outlets with good international communications facilities, often offer remittance transfer services as a side-line (Pieke, Van Hear, & Lindley, 2007). Transfer services may be offered from private residences and market stalls as well. Some such outlets conform to host-country and country-of-origin financial regulations, while others do not (Pieke, Van Hear, & Lindley, 2007). The agents involved make money on the exchange-rate spread and often also from fees charged to the customer. Rigid foreign-exchange regulations in many countries mean that money can be made from exchanging remittances at black-market exchange rates or simply from exchange-rate speculation. Where there are strong exchange controls, there is high demand from importers for foreign exchange. Where there are strong tax regimes on imports, some importers are keen to under-invoice imports. These factors all encourage money transfer activity.

Senegalese people living in France, Italy, Spain, Belgium or Germany can contact a transnational Senegalese trader, and make an arrangement for the trader to pay an agreed amount to the migrant's family on the trader's return to Senegal (Pieke, Van Hear, & Lindley, 2007). The migrant will repay the loan during the trader's next business trip to his or her country of residence. The advantage of this for traders is that they do not have to exchange currency in Senegal for the next trip because they expect to be repaid on their return to Europe. There are several variants on this practice, such as the migrant may approach the trader and make an arrangement for a business partner in Senegal to transfer money to the migrant's family, or the migrant may contact the trader while she or he is still in Senegal and make the arrangement in advance.

A further variation involves depositing money in advance of the transfer with the trader with an agreement on rates of exchange and details of the recipient (Pieke, Van Hear, & Lindley, 2007). The trader can then use the money from the emigrant to purchase merchandise in Europe and elsewhere. On return to Senegal, the trader can both quickly sell his or her new merchandise and make the payment to the designated recipient. This system was very common in the 1980s and 1990s for Somali migrant workers in the Middle East transferring money back to Somalia in connection with the thriving livestock export trade from Somalia, to mutual benefit. It has become less common in the light of the rise of large, specialised Somali money transfer firms, which grew out of and eventually replaced such mechanisms (Pieke, Van Hear, & Lindley, 2007).

Dedicated money transmitters: There are also dedicated money transmitters offering services from Europe and North America to African countries. They are in many ways direct competitors, albeit in niche markets, to the big mainstream companies, such as Western Union and MoneyGram. Many of these small-scale, local businesses have arisen from a specific group of migrants' remittance needs. An example, as taken from the Sudan case study by Riak Akuei (as cited by Pieke, Van Hear, & Lindley, 2007), is that of a business established by two friends. The majority of clients are repeat customers, which make up almost 90% of the business. A file is kept for each person who requests a transfer. It contains their personal details and transaction histories. Anyone sending money must show valid identification, such as a passport and provide the name, address and telephone number for themselves and the intended recipients of the funds. The fee to send money to Sudan through this channel is £5 regardless of the amount. Upon receipt of the funds in London, a fax is sent to the office's agent in Khartoum. Pay out usually occurs within 24 hours in local currency. Periodically, the accumulated cash is taken to a person who works for a large company with foreign interests in Khartoum. The money is brought to the businessman about every two weeks who works for the company. Then the agent is notified, who goes to the subsidiary to pick it up. Some beneficiaries of remittances reside outside greater Khartoum. In order for funds to reach these recipients, the agent in Khartoum makes a domestic bank transfer without any fees deducted. The Asia Pacific Group (as cited by Pieke, Van Hear, & Lindley, 2007) mentions that many of these dedicated, sophisticated money transmitters have established websites or advertise in telephone directories in both the ethnic and local press, and on the radio. Passas (as cited by Pieke, Van Hear, & Lindley, 2007) indicates that both systems often rely on socially embedded mutual trust and common economic interest, which explains how some remittance systems can be based on forms of value transfer without actually transferring money simultaneously. It is important to note that many remittance transfer systems like this originate from small-scale arrangements between migrants and people at home cooperating in response to common interests.

Other kinds of transfer mechanisms outside the mainstream: In recent years, some credit unions and microfinance institutions in areas of significant emigration and immigration have begun to offer remittance transfer services, sometimes in conjunction with large, mainstream operators (Pieke, Van Hear, & Lindley, 2007). The World Council of Credit Unions (WOCCU) has been leading efforts to diversify credit unions into remittance transfer services, with the goal of using remittances to attract new members to credit unions, both immigrants and recipients (Pieke, Van Hear, & Lindley, 2007). Innovative financial services are also emerging that can circumvent the need to transfer money. Higazi (as cited by Pieke, Van Hear, & Lindley, 2007) mentions that among the Ghanaian diaspora, for example, an innovative scheme was being developed to provide medical insurance to enable migrants to finance both their own health care and that of relatives back home through contributions to a single scheme.

Regulation as a determining factor in the remittance channel chosen: Regulatory and policy factors exert important influence on the availability and accessibility of formal money transfer services and thus the range of remittance-sending channels available to migrants. Government policies and regulations of host countries, such as foreign exchange control, monetary policy, high tariffs and taxes, bureaucratic licensing process for financial institutions are some of the policies that play a role in popularity of informal channels (Sharif Mahmud, 2012). Informal remittance channels occupy monetary policy debates due to concerns about potential misuse for criminal ends, including money laundering, the financing of terrorism and smuggling. Moreover, they usually entail a higher risk of theft or loss as they often rely on informal contracts with little or no guarantees of enforcement. There are a number of ways in which regulation impacts the ability to send money formally (Bester, Hougaard, & Chamberlain, 2010). Regulation causes documented and undocumented migrants to be ineligible for the formal channel of remittances and access to the financial system (Bester, Hougaard, & Chamberlain, 2010). Remittance transfers through informal remittance service providers involve a minimum amount of paperwork which is often easier and more appealing for clients that lack the required documentation (Kosse & Vermeulen, 2014). This creates a barrier to formalisation of remittances. It also has indirect effects through impacting on the cost and convenience of the transaction. The three most important regulatory barriers are the following:

- Exchange Control
- Anti-money Laundering Legislation
- Immigration Laws

Recent efforts are being made to loosen exchange control regulations in South Africa. Depending on which country the transaction is directed, different rules are expected to apply due to the common monetary area (CMA) agreements (Bester, Hougaard, & Chamberlain, 2010). There are no trade and exchange restrictions between the member countries of the CMA, but this does not apply to non-residents transaction flows to non-CMA countries. Each of the CMA countries has its own exchange control regulations and authorities, and the application thereof must be at least as strict as that of South Africa. Implementing exchange control regulation requires the knowledge of the identity of the remitter, the issuing of authorised dealer licences and some reporting system requirements (Bester, Hougaard, & Chamberlain, 2010).Anti-money laundering laws are targeting illicit flows that impact on the remittance market. In South Africa the anti-money laundering legislation is the Financial Intelligence Centre Act (FICA). A key obstacle for remittance formalisation is the FICA requirements for customers due to the required due diligence. In terms of this Act, before a financial institution can open an account or perform a single transaction for a customer, the bank must obtain the full name, date of birth, identity number or passport and the residential address of the person.

Immigration laws place a legal duty on financial institutions to ascertain the status or citizenship of the persons with whom they enter into commercial transactions, including the transfer of money. Documented and undocumented migrants face a further barrier to the rest of the financial system as they cannot proof their residence status and thus cannot access formal remittance channels (Bester, Hougaard, & Chamberlain, 2010). Wage earners usually obtain work visas for a limited period, usually one year, with the hope that they can extent their visa for several years subsequently (Sharif Mahmud, 2012). On the other hand the money that they spent to go abroad is not covered by their salary of one year. If this Visa could not be extended they could not return to their home countries, otherwise they become illegal residents and do not have the documentary requirements to operate in the formal financial system (Sharif Mahmud, 2012). In the formal system, banks require clients to have a bank account, whereas Money Transfer Operators only require official identification, which forces some clients to use the informal channels (Kosse & Vermeulen, 2014).

3. Methodology

A quantitative research design has been employed, to analyse migrant workers choice of sending cash or financial transfers from South Africa to other countries. The sample includes migrants seeking documentations from the Department of Home Affairs, migrants remitting at taxi ranks or bus terminals, and those remitting through official routes like commercial banks and money transfer operators. Approximately 350 questionnaires were administered to face-to-face respondents that were based mainly in the Gauteng province of South Africa and to others based in the eight other provinces. Only 295 responses were received in total including some by email. Some respondents did not complete the survey questionnaires and were removed during the data clean-up process. As such, only 275 responses were analysed. A Likert rating scale format (1-5) was used to allow a fair range of both positive and negative answer options (Albright, Winston, & Zappe, 2009). The scale of 1 represents the highest/strongest opinion regarding agreement with the probing question and 5 the lowest. It is the most frequently used rating scale format in studies like this (Saunders, Lewis, & Thornhill, 2009).

4. Results

Most of the migrant workers in South Africa originate from the Southern Africa Development Community (SADC) region. They are mainly Zimbabweans who make up 30 percent of the respondents. They are mostly aged between 21 and 45. Respondents aged 26 to 35 represent 37 percent of the sample. More than 80 percent of the migrants have been in South Africa for at least a year, and about 30 percent of them have been in the country for three years or longer. Some studies report that migrants with higher education are less likely to use informal cash transfer channels, suggesting a potential role for financial education when attempting to increase the use of formal channels (Kosse & Vermeulen, 2014). Siegel (2007) also finds that education has a very positive impact on the decision to remit formally. In our study, twenty percent of the respondents have no formal educational and 30 percent have a matric qualification.

Result of frequency of sending remittances: Cross border migrants from Southern Africa do not remit frequently from South Africa. Remittances are mostly carried out five to twelve times a year. Only about three percent remit annually. Less than three percent of sampled migrants remit cash on weekly basis. This is considered to be the exception rather than the rule.

Awareness of remittance channels: Two-thirds of the respondents are aware of a variety of remittance channels other than the one used at any particular time. This provides evidence that remitters are taking active economic decisions on the most appropriate remittance channel to use.

Results of the popularity of remittance channels: The use of Money Transfer Operators (MTOs) is the dominant means of sending money from South Africa, with the use of family and friends being about three percent less. The use of taxis, buses and trucks are in close proximity with the preference of banks. The Post Office and other means of sending remittances are the least popular of the channels used.

Table 3: Split of Formal and Informal remittance channel

Formal Remittances	Percent	Informal Remittances	Percent
Bank	18.5	Taxi/ Bus/ Truck	20.0
Post Office	7.3	Family/ Friends	24.7
Money Transfer Operator	28.0	Other	1.5
Total	53.8%	Total %	46.2%

Source: Survey Results

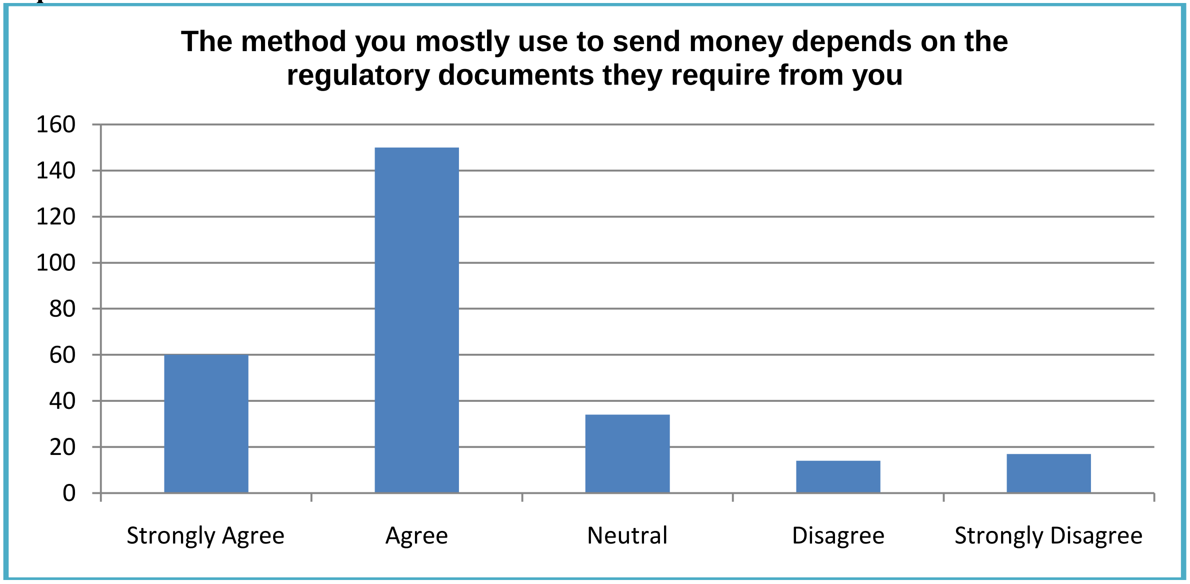
Descriptive Statistical Overview of Survey Results: The results show that most respondents are of the view thatregulatory or documentary requirements are an important factor influencing the choice of the remittance channel used. More than three-quarters of the respondents agree or strongly agree with the probing question.The mean response is 2.19 measured on the Likert scale. This falls below 3, indicating a string agreement with the probing question. The median is measured to be 2, contributing to the importance of the mean response obtained. The standard deviation of 1.034 is low and indicates that the data points tend to be very close to the mean and thus there is not a lot of deviation from the mean score. The skewness is 1.244 indicating that it is skewed to the left. Thus individual scores would not greatly influence the mean. The Kurtosis is 1.349 indicating that the scores are closely grouped, and is within the acceptable reliable levels. The result is highly significant (p-value is 0.000), indicating a statistically proven relationship between the variables. We can conclude that regulatory or documentary requirements are an important factor determining the choice between formal and informal remittances. Furthermore, the mean is 2.19 indicating a strong agreement that regulation strongly influences the choice of remittance channel. The proposition is thus proven. This result is consistent with the literature in that there are a number of ways regulation impacts the ability to send money through the formal channels (Bester, Hougaard, &Chamberlain, 2010). The requirement in the formal market causes documented and undocumented migrants to be ineligible for the formal channels of remittances and is a factor that influences the choice of remittance channel (Bester, Hougaard, & Chamberlain, 2010). The regulatory requirements to prove the residential status of migrants place a further barrier to migrants to access formal channels (Bester, Hougaard, & Chamberlain, 2010). (Kosse & Vermeulen, 2014) indicate that remittance transfers through informal channels involve a minimum amount of paperwork and are easier for clients that do not have required documentations. Sharif Mahmud (2012) also mentions that other documentary requirements such as work visas are only issued for a limited period and if not extended migrants immediately become illegal residents and no longer possess the regulatory requirements to enter or operate within the formal financial system.

Table 4: Overview of Survey Results

Statistics							
	N		Mean	Median	Std. Deviation	Skewness	Kurtosis
	Valid	Missing					
The method you mostly use to send money depends on how much it will cost you	275	20	1.77	1.00	1.027	1.599	2.234
The method you mostly use to send money depends on the regulatory documents they require from you	275	20	2.19	2.00	1.034	1.244	1.349
The method you mostly use to send money should be conveniently located for you, to have easy access.	275	20	2.04	2.00	.992	1.328	1.869
The method you mostly use to send money depends on how fast/quick my family can get the money	275	20	2.12	2.00	1.074	1.171	1.005
The method you mostly use to send money depends on the use of technology, such as cellphones, debit cards and electronic transfers	275	20	2.41	2.00	1.203	.822	-.242
The method you mostly use to send money should be reliable and secure	275	20	1.91	2.00	1.087	1.272	.971
The method you mostly use to send money should be trustworthy.	275	20	1.75	1.00	1.039	1.620	2.194
The method you mostly use to send money is familiar or well-known to you.	275	20	1.88	2.00	1.065	1.409	1.571

Source: Survey Results

Figure 1: Choice of remittance channel used is dependent on the regulatory or documentary requirements of the remittance channel



Impact of regulation on formal remittance channels: A rigid regulatory environment has made cross-border remittances very difficult, as financial regulations–like FICA, set onerous administrative requirements for foreign nationals and South Africans wishing to do cross-border mobile money transfers. Financial institutions are required, among others, to verify the background (full names, identity number), country of origin, proof of residence, South Africa's tax number, and source of a client's income as well as the source of the funds that the particular client expects to use in concluding the single transaction or transactions in the course of the business relationship. Remitting funds through the formal channels is also expensive. According to World Bank data, the global cost of remittances averaged around 8% of the amount transferred in the fourth quarter of 2014 (World Bank, 2015d). The cost of remittances in sub-Saharan Africa, however, far outstrips this at 12% of the transaction cost. According to World Bank data for the first quarter of 2015, the cost of sending cash through formal banking channels in South Africa averaged 20% of the value of remittances. The costs of sending money from South Africa to Zambia, Malawi, and Botswana are the most expensive in the region (World Bank, 2015b).Thus, in South Africa, mobile money services are undercutting banks when it comes to the cost of sending money to countries such as Zimbabwe. Money flowing to Zimbabwe forms one of the largest remittance corridors out of South Africa (Donelly, 2015). Operators such as "Mama Money" allow Zimbabweans living in South Africa to send money home through their cellphones at a rate of just under 5% of the total cost of the transaction.

5. Conclusion

Appropriate regulations can help increase migrants access to the formal financial system for these migrants. This can contribute to social upliftment, in not only South Africa, but also in the receiving countries. Also, the formalisation of remittances can also assist in preventing money laundering in a country. Results of this study suggest that regulatory and documentary requirements are important in driving the choice between formal and informal remittances have been consistent with the literature findings. South Africa has stringent foreign exchange rules to protect its reserves. As such the country's regulators prefer to have only banks dealing in money transfers. This follows their unfavourable experience with Western Union and its former in-country agency, Union African Money Transfer, which failed to comply with foreign exchange control regulations (Sander & Maimbo, 2005).Regulations have created barriers to the flow of remittances, especially in the financial industry, where restrictive licensing of money transfer services limits the potential impact on remittances.South African regulators should assist the remittance sector in meeting regulatory compliance needs. This will encourage and support new immigrants in their newly established small business enterprises or employment sectors.

Recently, in South Africa the Minister of Finance extended the business of designated foreign exchange transactions to Bureaux de Change institutions and authorised dealers with limited authority (Donelly, 2015). Money Transfer Operators can now operate by themselves and do not need a bank to partner with. Their business activities are restricted to that of money remittance services such as cross border person-to-person payments. In order to encourage remitters who use informal and risky channels to instead use formal ones, in June 2015, The South African Authorities relaxed the onerous regulations and financial institutions are no longer be required to obtain proof of residence or a South African tax number for cross-border transactions, provided the amount is less than R3 000 a day or R10 000 in a calendar month(Donelly, 2015).This notwithstanding, financial institutions must scrutinise the remittance activity on an on-going basis and use “enhanced measures, over and above normal procedures” to identify and report any suspicious activity. This would help curtail money laundering and improve security of funds transfer.

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Budget Deficits and Economic Growth: A Vector Error Correction Modelling of South Africa

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Abstract: The primary motivation behind this study was to explore the consequential effects of budget deficit on South Africa`s economic growth. Six variables were used, namely: real GDP, budget deficit, real interest rate, labour, gross fixed capital formation and unemployment. The Vector Error Correction Model (VECM) was used to estimate the long-run equation and also measure the correction from disequilibrium of preceding periods. Using annual time series data spanning the period 1985 to 2015, empirical evidence from the study revealed that budget deficits and economic growth are inversely related. It was therefore concluded that high levels of budget deficit in South Africa have detrimental effects on the growth of the economy. The estimate of the speed of adjustment coefficient found in this study revealed that about 29 per cent of the variation in GDP from its equilibrium level is corrected within one year. The results obtained in this study are favourably similar to those in the literature and are also sustained by previous studies.

Keywords: *Budget Deficit, Economic Growth, Real Interest Rate, Vector Error Correction Model, South Africa*

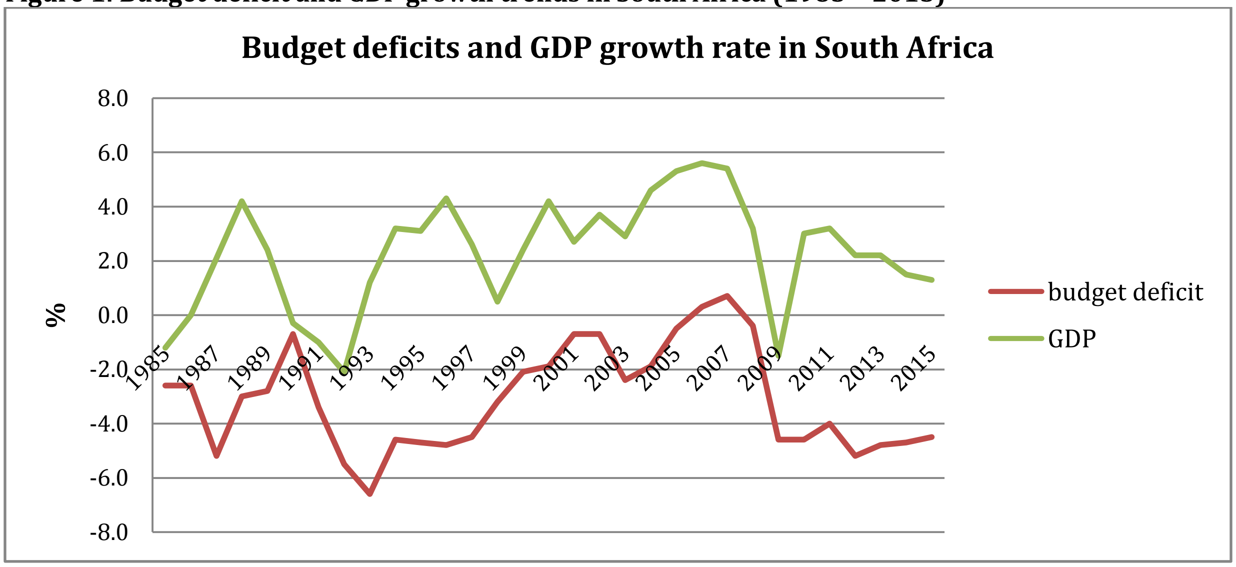
1. Introduction

It is an ideal depiction of every country both advanced and emerging to realise equilibrium between government expenditure and government raised revenue. However, government expenditure on both goods and services and transfers is likely to exceed the available resource envelope or collected revenue. This is predominantly due to excessive reliance on government expenditure as a source of social security, improved standard of living conditions and expanded physical infrastructure. Therefore, the realization of budget stability remains a challenge more particularly in developing economies where government expenditure is regarded as an indispensable component of economic growth and development. According to Mashakada (2013), in most Africa countries and other emerging economies, high budget deficits are at the centre of macroeconomic adjustments due to the developing nature of their economies. South Africa like other developing countries such as Zimbabwe, Mozambique, and Democratic Republic of Congo has experienced budget deficits over several decades. The very same budget deficits have led to numerous economic challenges such as price volatilities, high interest rates, stumpy economic performance, worsened credit ratings and uncontrollable debt. According to Murwirapachena, Maredza and Choga (2013) the South African government has since 1980’s embarked on enormous spending sprees in an attempt to accomplish Pareto efficiency. For instance, the 2015/2016 total consolidated government expenditure was estimated at R1.4 billion whilst the revenue raised only amounted to R1.2 billion translating to a deficit of -3.9 per cent as affirmed by National Treasury (2015).

However, in spite of the yearly budget deficit being incurred by the government of South Africa, there are yet some economic challenges that remain unsolved. These include high unemployment rate (which was reported at 25.5% by Statistics South Africa, poorly positioned and insufficient infrastructural facilities, increasing unsettled public sector wage bill, insufficient revenue generation capacity as well as uneven service delivery. This is a clear indication that the South African performance in recent years fall short of expectations compared to peer countries such as Brazil, Turkey and India. Consequently, the motivation for this study is to examine the effects of budget deficits and some selected macroeconomic variables on the economic growth of South Africa. This study is structured as follows: the next section analyse the theoretical aspects to budget deficits and economic growth. In the same section, relevant empirical studies underpinning the subject matter are reviewed. Section 3 presents the methodological framework of the study. Empirical findings of the study are reported and discussed in section 4 while section 5 presents conclusion and policy recommendation.

Budget deficits and economic growth in South Africa: Since the year 1985, South African fiscal trends have recorded substantial budget deficits accompanied by stagnated economic growth. According to the National Treasury (2011), high fiscal deficits in South Africa emerged predominantly due to high levels of unemployment and stumpy economic growth performance. The first highest budget deficit recorded by South Africa was -6.6 per cent in 1993 while GDP only grew by 1.2 per cent. One major reason adduced for this was the increasing expenditure in preparation for the first democratic elections in the country. Just a year into democratic government, the budget deficit slumped down to -4.6 per cent at the same time as GDP was growing by 3.4 per cent. This was a good indication that the new government of South Africa was taking a correct path in addressing the errors of past apartheid regime. The South African government continued being fiscally enthusiastic and dedicated to cautious fiscal reforms through the implementation of Growth, Employment and Redistribution policy (GEAR) in 1996. This policy initiative was aimed among others at reducing the overall budget deficits to 3 per cent, encouraging the government level of savings, and decreasing government consumption relative to gross domestic product. The policy assisted the government of South Africa in reducing budget deficits to -3.2 per cent in 1998 as reported by South Africa Reserve Bank (2013). However, the budget deficits were still above the anticipated 3 per cent as stipulated by the GEAR policy. During the same year of 1998, the GDP growth rate only grew by 0.5 per cent (see figure 1 below).

Figure 1: Budget deficit and GDP growth trends in South Africa (1985 – 2015)



Source: author's own computation using data from World Bank

Based on figure 1 above, the highest GDP growth rate recorded by South Africa was 5.6 per cent and 5.4 per cent in 2006 and 2007 respectively. This was the same period South Africa recorded its first budget surpluses of 0.3 per cent and 0.7 per cent correspondingly. The budget surpluses were mainly due to large savings form debt servicing cost and under-spending by government departments. The reasonable expansionary monetary policy implemented by the South Africa Reserve Bank during that time also assisted the fiscal authorities in realising budget surpluses. The favourable economic conditions of that time assisted the government of South Africa in reducing the debt and also allowed expenditure redistribution. In the later stage of 2008 towards the beginning of 2009, the South African economy became hostile mainly due to the global economic meltdown. The magnitude of the global economic predicament on South African economy was enormous with budget deficits shifting from a surplus of 0.7 per cent to deficit of -4.6 per cent. Since then, the South African economy has been struggling to fully recover and this has positioned the country under fiscal constraint environment. According to the National Treasury (2015), the fiscal constraints facing the country has affected the swiftness and extent of government's contribution to the National Developmental Plan (NDP).

2. Literature Review

Empirical theoretical views on the relationship between budget deficits and economic growth can be traced back to the 1900s when Keynes (1936) endorsed government as a significant economic agent. According to Keynes, without government intervention an economy would fail as it was evident in the western industrialised world during the 1929-39 Great Depression. In a nutshell, Keynes believes that government should not be strained to present a balanced budget every financial year since this would weaken the role of taxation and transfers as stabilisers. However, with the commencement of the neoclassical theory, Diamond (1965) and Hubbard & Judd (1986) dismissed the works of Keynes predominantly due to the fact that it supported budget deficits. The above-mentioned neoclassical theorists pointed out with great emphasis that continual government deficits results in crowding out of private capital accumulation. In support, Kotlikoff (1986) also argued strongly that budget deficits have diminutive effects on economic performance of the country. The above-mentioned theories led to the formation of the fiscal theory by Barro (1989) who strongly believed that deficit financing is just a postponement of future taxation. According to Barro (1989), the deficit in any present period is precisely equivalent to the current worth of forthcoming taxation that is compulsory to settle off the augmentation of debt resulting from deficit. Given the reason that there existed no coherent finding regarding the relationship between budget deficits and economic growth, a wide range of empirical studies have been carried out by different authors and various results were obtained. According to Fatima, Ahmed & Rehman (2012) and Ezeabasili, Tsegba & Ezi-herbert (2012) budget deficits are detrimental to economic growth whilst Eminer (2015) and Odhiambo, Momayi, Lucas & Aila (2013) found budget deficits to be growth enhancing. In South Africa reviewing existing literature with regards to the relationship between budget deficits and economic growth remains a vast challenge. However fewer researchers including Murwirapachena, Maredza and Choga (2013), Biza, Kapingura & Tsegaye (2015), Mujuta (2013) as well as Bonga-Bonga (2011) conducted studies to examine the effect of budget deficits on South Africa's economic growth and other macroeconomic variables. Both researchers concluded that budget deficits are not desirable for South African economy and as a result, government must apply expenditure ceiling and improve the taxation system to find sense of balance between government expenditure and revenue collected through taxation.

3. Methodology

This study employs the Vector Error Correction Model (VECM) to examine the consequential effect of budget deficits on economic growth of South Africa. Techniques such as the Augmented Dickey-Fuller (ADF) and the Phillip-Perron (PP) are performed to assess stationarity or the order of integration on the variables employed. If variables are found to be integrated at the same order I (1), then the study will proceed to test the long-run economic equilibrium correlation using the Johansen (1991, 1995) Maximum-Likelihood cointegration test. Afterwards, a VECM will be employed to estimate the long-run equation and the existence of the error correction. To ensure the goodness of fit of the model, the study will conduct the diagnostic checks and further perform the General Impulsive Response Function and the Variance Decomposition to examine how GDP respond to shocks coming from budget deficits and other selected economic variables.

Empirical model specification: To analyse the relationship between budget deficits and economic growth in South Africa, the study adopted the model used by Aslam (2016) in Sri Lanka. The model can be expressed in functional form as follows:

$$GDP = f\,(BDIF, RIR, LAB, GFCF, UN) \quad \ldots \ldots (1)$$

Using the VAR Framework stochastic model of regression analysis, the model can then be specified as follows:

$$GDP = \delta_0 + \delta_1 BDIF + \delta_2 RIR + \delta_3 LAB + \delta_4 GFCF + \delta_5 UN + \mu_t \quad \ldots \ldots (2)$$

Where:

GDP = Gross domestic product,
BDIF = Budget deficits,
RIR = Real interest rate,
LAB = Total labour force,
GFCF = Gross fixed capital formation,
UN = Total Unemployment, and
μ_t = Error term.

This study included quite number of variables that have influence over GDP in order to avoid the problem of misspecification. Since variables are expressed in percentages, they are not transformed into logarithm. The model in (equation 2) can be converted to a VEC form as follows:

$$\Delta GDP_t = \delta_0 + \delta_1 \Delta BDIF_{t-1} + \delta_2 \Delta RIR_{t-1} + \delta_3 \Delta LAB_{t-1} + \delta_4 \Delta GFCF_{t-1} + \delta_5 \Delta UN_{t-1} + \xi_{t-1} + \mu_t \ldots \ldots (3)$$

Where:
Δ = difference operatives
ξ_{t-1} = lagged significance of error term.

Data analysis: All variables used in this study except GDP are derived from World Bank dataset. The variable GDP is derived from South African Reserve Bank Macroeconomic dataset. This data is tested for stationarity to avoid producing nonsensical or spurious results. The ADF and the PP techniques are employed at first difference and the results are presented in Table 1 and 2.

Table 1: Augmented Dickey-Fuller test results

Variables	Model	t-value (lags)	5% critical Value	Order of integration
GDP	Trend & intercept	-5.232(0)	-3.644***	I (1)
BDIF	Trend & intercept	-4.988(0)	-3.574***	I (1)
RIR	Trend & intercept	-7.215(0)	-3.574***	I (1)
LAB	Trend & intercept	-3.786(0)	-3.574***	I (1)
GFCF	Trend & intercept	-6.166(3)	-3.595***	I (1)
UN	Trend & intercept	-4.659(0)	-3.574***	I (1)

**/ [**]/ (***) denotes significance at 10%, / [5%]/ (1%), level of significance respectively*

Table 2: Phillip-Perron test results

Variables	Model	t-value (lags)	5% critical Value	Order of integration
GDP	Trend & intercept	-5.232(0)	-3.644***	I (1)
BDIF	Trend & intercept	-4.988(0)	-3.574***	I (1)
RIR	Trend & intercept	-7.215(0)	-3.574***	I (1)
LAB	Trend & intercept	-3.786(0)	-3.574***	I (1)
GFCF	Trend & intercept	-6.166(3)	-3.595***	I (1)
UN	Trend & intercept	-4.659(0)	-3.574***	I (1)

**/ [**]/ (***) denotes significance at 10%, / [5%]/ (1%), level of significance respectively*

It is evident from Table 1 and 2 that variables are stationary at both 1%, 5% and 10% level of significance using trend and intercept. Therefore, the study rejects the null hypothesis of unit root in each of the series and concludes that variables are integrated of the same order I (1).

4. Results

Since it is confirmed that variables are integrated of the same order I (1), the study can then proceed assessing the existence of long-run economic equilibrium relationship amongst variables. But then again, it is very essential that the study conduct a lag length selection test to establish the number of lag to employ in the analysis. The results are presented in Table 3 which suggest that all the criterions except the Akaike information criteria (AIC) selected a lag of 1.

Table 3: selection of lag order criteria

Lag	LogL	LR	FPE	AIC	SIC	HIQ
0	-257.472	NA	2172.326	21.873	22.118	21.938
1	-327.623	NA	83.334*	27.009	30.026*	27.954*
2	-250.303	69.321	89.386	26.089*	32.124	27.979

** indicates lag order selection of criterion, LR: Sequential modified LR test Statistics (each test at 5% level). FPE: Final Prediction Error. AIC: Akaike Information Criterion. SC: Schwarz Information Criterion. HQ: Hannan Quinn Information Criterion*

Based on the optimum lag length of one, the Johansen technique is then performed using two test statistics known as Trace and Maximum Eigen-value. These two test statistics assist in evaluating the null hypothesis of

$\Upsilon = 0$ in contrast to the alternatives of $\Upsilon > 0$, 1, 2, or 3. The Johansen cointegration rank test results are presented Tables 4 and 5 below.

Table 4: Cointegration rank test (Trace test)

Hypothesized No. of CE(s)	Trace Statistic	0.05 Critical Value	Prob.**
None *	96.50334	95.75366	0.0444
At most 1	61.00516	69.81889	0.2058
At most 2	35.60699	47.85613	0.4164
At most 3	20.65744	29.79707	0.3793
At most 4	8.979829	15.49471	0.3672
At most 5	2.354730	3.841466	0.1249

Trace test indicates 1 cointegrating equation(s) at the 0.05 level
**denotes rejection of the hypothesis at the 0.05 level*

Table 5: Cointegration rank test (Maximum-Eigen test)

Hypothesized No. of CE(s)	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None*	45.49818	40.07757	0.0300
At most 1	25.39817	33.87687	0.3586
At most 2	14.94955	27.58434	0.7522
At most 3	11.67761	21.13162	0.5797
At most 4	6.625100	14.26460	0.5344
At most 5	2.354730	3.841466	0.1249

Max-eigenvalue test indicates 1 cointegrating equation(s) at the 0.05 level
**denotes rejection of the hypothesis at the 0.05 level*

Table 4 (Trace) and Table 5 (Maximum-eigen) both suggest the existence of 1 cointegrating equation at 5 per cent level of significance. Therefore, the study rejects the null hypothesis of $\Upsilon = 0$ and concludes that there is a long-run economic equilibrium correlation amongst the variables. To distinguish between the long-run and the short-run influence that the explanatory variables have on the explained variable, the study employed the VECM. The long-run estimation of the selected variables on economic growth in South Africa is presented in Table 6 using the equation 3.

Table 6: Long-run results: GDP

Variables	Coefficient	Standard Errors	t-statistics
BDIF (-1)	-0.214	0.054	-3.964
RIR(-1)	-0.046	0.035	-1.302
LAB(-1)	0.238	0.090	2.630
GFCF (-1)	0.285	0.027	10.611
UN(-1)	-0.153	0.068	-2.239

The long-run results as shown in Table 6 suggest that there is a negative long-run relationship between BDIF and GDP in South Africa. These results are consistent with the studies conducted by Fatima, Ahmed & Rehman (2012) and Ezeabasili, Tsegba & Ezi-Herbert (2012). By implication, the outcomes of this study justify the fact that the economy of South Africa deteriorates predominantly due to budget deficits among other reasons. Furthermore, the results revealed an inverse relationship of RIR and UN towards GDP and a positive relationship of GFCF and LAB towards GDP. All the variables with the exception of RIR are statistically substantial in explaining the explained variables since they have t-values greater than two absolutely. The policy consequence of these results is that 1% increase in BDIF would worsen GDP by 0.21%. Moreover, a 1% increase in RIR and UN would diminish GDP by 0.05% and 0.15% respectively. LAB and GFCF were found to be enhancing economic growth by 0.24% and 0.29% respectively. Furthermore, the VECM results confirm the existence of error correction as shown in Table 7 below. The coefficient of the error term is -0.29 and statistically substantial with t-value of -2.41. This suggests that about 29% of the variation in GDP from its equilibrium level is corrected with a period of a year.

Table 7: Error correction results: RGDP

Variables	Coefficient	Standard Errors	t-statistics
CointEq1	-0.287	0.406	-2.411
D(GDP(-1))	-0.149	0.354	-0.423
D(BDIF(-1))	-0.171	0.204	-0.841
D(RIR(-1))	-0.345	0.188	-2.830
D(LAB (-1))	-0.371	0.394	-0.940
D(GFCF(-1))	-0.019	0.067	-0.278
D(UN(-1))	-0.230	0.189	-1.219

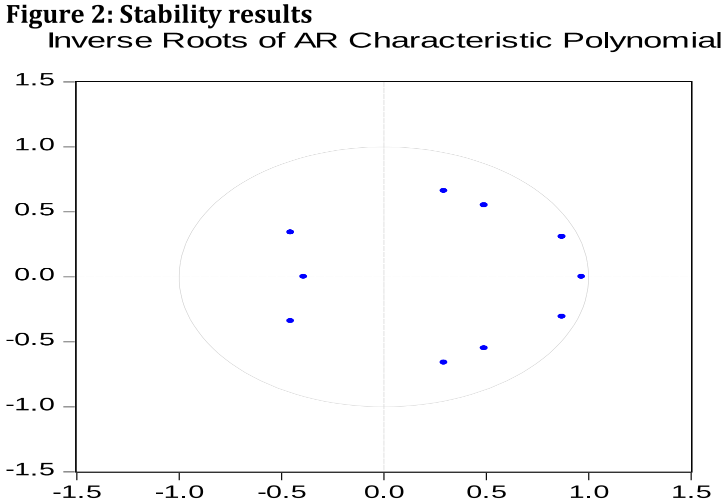
The diagnostic checks were performed in order to confirm if the model estimated is of good fit. The goodness of the model was tested by employing three techniques namely langrage multiplier (LM) test for serial correlation, Jarque-Bera for normality test and the white test for heteroskedasticity. Results presented in Table 8 suggest that the model estimated is not suffering from serial correlation, the residuals are distributed normally and there is no evidence of conditional heteroskedasticity.

Table 8: Diagnostics tests results

Test for:	Test	Null hypothesis	P-value	Conclusion
Breuch-Godfrey Serial correlation	LM test	No serial correlation	0.437	Accept H_0
Heteroskedasticity	White	Homoscedasticity	0.394	Accept H_0
Normality	JB test	Normally distributed	0.995	Accept H_0

The model was furthermore tested for stability by means of the Inverse Roots of AR Characteristic Polynomial technique. The results presented in figure 2 suggest that all the inverse roots are contained within the unit cycle and are less than 1. This is a good indication that VAR fulfils the stability condition of the model estimated.

Figure 2: Stability results



To denote the breakdown of the forecasted error variance for a specific time distance, the study employed the Variance Decomposition. Unambiguously, the Variance Decomposition splits the discrepancy in an endogenous variable into the component shocks to the VECM. The Variance Decomposition results are presented in table 9.

Table 9: Variance Decomposition results: GDP

Period	S.E.	GDP	BDIF	RIR	LAB	GFCF	UN
1	1.592204	100.0000	0.000000	0.000000	0.000000	0.000000	0.000000
2	2.275472	76.63155	5.116885	13.03147	2.877831	0.270964	2.071295
3	2.706356	64.32098	7.544030	23.18199	3.259627	0.191692	1.501675
4	2.965966	58.66716	10.90624	25.07187	3.609359	0.272342	1.473028
5	3.153743	56.36553	13.20223	24.42105	4.363728	0.292476	1.354995
6	3.344279	56.18206	13.83730	23.55084	4.952699	0.260203	1.216909
7	3.562731	56.21723	13.82003	23.39119	5.202530	0.240440	1.128586
8	3.781891	55.50901	13.93888	24.01840	5.289202	0.218400	1.026114
9	3.977382	54.50027	14.36898	24.63080	5.373942	0.197747	0.928259
10	4.149264	53.71825	14.88924	24.84260	5.511549	0.184865	0.853492

Cholesky ordering: RGDP, BDIF, RIR, LAB, GFCF, UN

Table 9 presents the comparative implication of respective structural shock to the variables in the system. The study reports the variance decomposition of GDP over a 10 years period. In the first period, 100% of GDP variances can be explained by its own innovation. It is also evident that as time goes by; its contributions are gradually reducing until it reaches 53.7% in the last year which is still the highest contribution as compared to the other variables. This brings to a conclusion that over 5 years ahead, GDP discrepancies can be described by its own shocks. Following GDP itself, the 2nd up to the 8th period reveal the significance of BDIF, RIR, LAB, GFCF and UN in explaining the variation of GDP. It is evident that from the second year, BDIF accounts for 5.1% in the variation of GDP, RIR accounts for 13% while LAB, GFCF and UN accounts for 2.9%, 0.3% and 2.1% respectively. Based on the analysis, the GDP is mainly influenced by RIR and BDIF. The results obtained undoubtedly associate discrepancies in the level of GDP in South Africa to be explained by the contributions of real interest rate, budget deficit and labour.

The study further applied the General Impulsive Response Function to trace the consequence of one-time shock to one of the innovations on the present and forthcoming values of the endogenous variables. In other words, the General Impulse Response Function (GRIF) demonstrates the effects of shocks on the adjustment path of the variables. This study employed the GIRF as proposed by Pesaran and Shin (1998) as a replacement to the simple Impulse Response Function (IRF) mainly due to its numerous shortcomings. The GIRF over the 10 years for the VECM estimation is shown in Appendix 1. In this study, the response of GDP to a shock in itself is positive over the period of the study. Moreover, Appendix 1 suggests that the response of GDP to shocks from BDIF is positive in the first two years. Subsequently, the response of GDP is seen to be negative which permits the study to justify the decrease in the economic growth of South Africa due to budget deficits. This response is as anticipated in the neoclassical theory which substantiates that increase in budget deficits will result in reduction of economic growth. The conclusion of the GIRF reveals that an adjustment in the level of GDP will cause BDIF, RIR, LAB and UN to respond negatively through all the years.

5. Conclusion and Recommendations

This study was undertaken to examine the nature of the relationship between the budget deficits and economic growth in South Africa. To answer this question, this study adopted the VECM procedures using annual data covering the period 1985 to 2015. The Johansen cointegration test confirmed the existence of 1 cointegrating equation between the variables employed. Furthermore, the VECM results showed a negative relationship between budget deficits and economic growth in South Africa. This implies that increase in budget deficits would lead to reduction in economic growth. These results are consistent with the neoclassical hypothesis that suggested that budget deficits are detrimental towards growth and development of a country. The error correction results revealed that there is a convergence towards steadiness in the long-run although the adjustment is weak at 29% per annum. The diagnostic checks validated the model estimated. The Variance Decomposition and General Impulsive Response Function were also employed to assess the responsiveness of GDP towards shocks coming from the selected variables. Since it was found that budget deficits are detrimental to economic growth of South Africa, the government should put much emphasis on strengthening policies such as fiscal consolidation and austerity measures across all government departments and state owned entities. Furthermore, the government must apply expenditure ceiling and improve the taxation system to find a balance between government expenditure and revenue collected. The government of South Africa should also work hand in hand with private sectors, labourers and other stake holders to create efficient environment that will promote economic growth.

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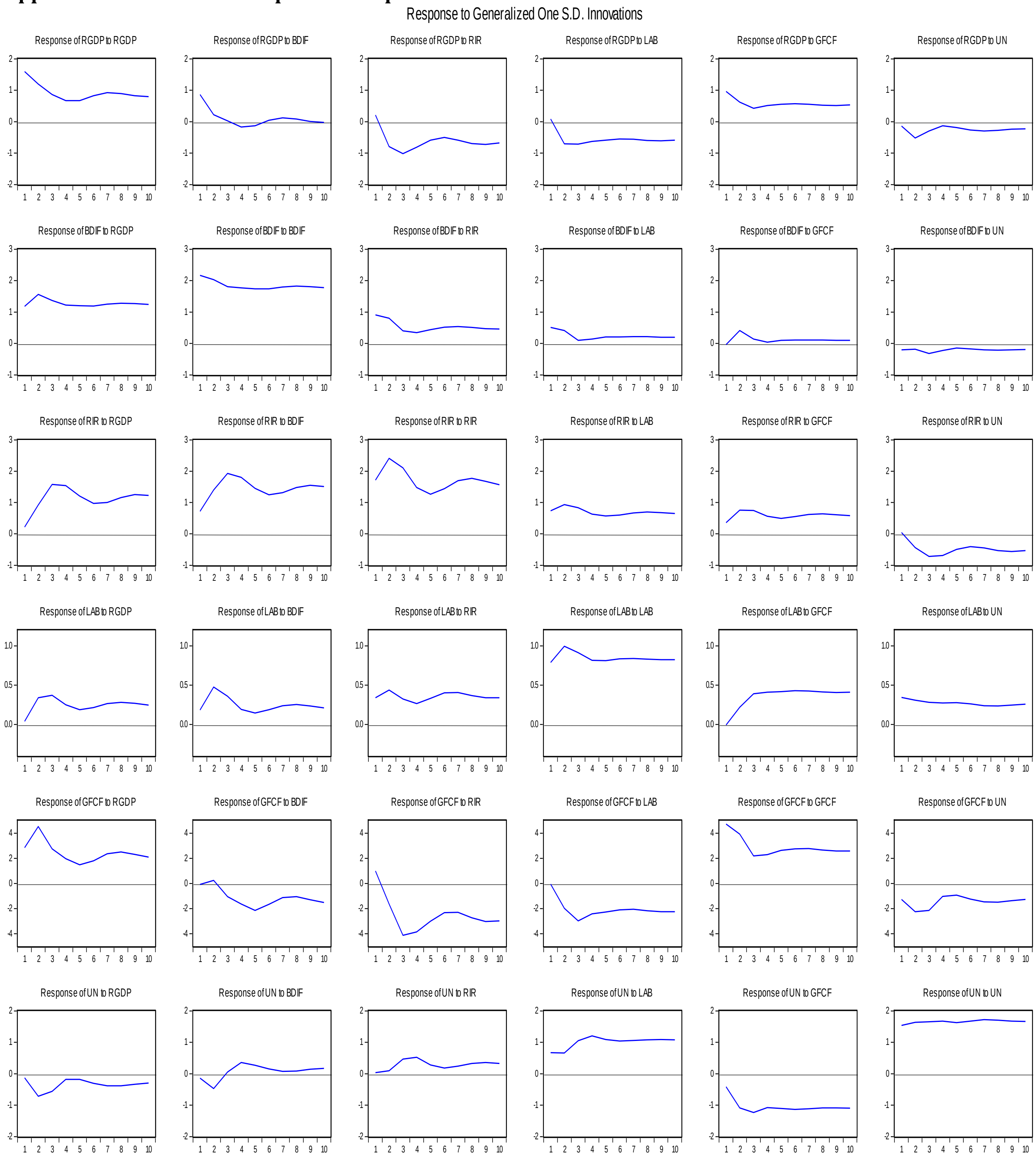
Appendixes

Appendix 1: The General Impulsive Response Function



Analysis of Government Expenditure and Sectoral Employment in the Post-apartheid South Africa: Application of ARDL Model

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Abstract: The current study has been designed to analyse the interactions between real government spending and job creation in South Africa focusing on five major economic sectors, namely construction, financial, manufacturing, mining, and retail sectors. The main objective of the study was to determine how job creation in different economic sectors responds to changes in real government spending. To achieve this objective, the study used five different autoregressive distributed lag (ARDL) models to analyse the long-run and shot-run relationships between government spending and employment rate in each of the aforementioned five economic sectors. The sample period consisted of quarterly observations starting from the first quarter of 1994 to last quarter of 2015. The study found a long-run relationship between government spending and job creation in the mining sector but there was no evidence of long-run relationships between government spending and jobs creation in construction, financial, manufacturing, and retail sectors. The short-run analysis showed that government spending could create jobs in all five sectors. This paper concluded that increasing government spending can only create short-term jobs but does not create lasting jobs in most sectors, except the mining sector. To increase the number of durable jobs, the South African government should therefore increase spending on mining sector.

Keywords: *ARDL model, employment, job creation, government spending, South Africa*

1. Introduction

Unemployment remains a persistent serious challenge for many countries and it negatively affects economic growth and social wellbeing. As in other developing countries, unemployment in South Africa is one of the economic growth barriers and a strain to social wellbeing. South Africa's unemployment rate faced a shortfall and employment rate increased by one percent in 2015 (StatsSA, 2015). This decline in the unemployment rate was a result of improved job creation in some South African economic sectors (StatsSA, 2015). Despite this decline in unemployment rate, sectors such as transport, utilities and finance experienced a decline in employment rate (StatsSA, 2015). Nevertheless, the growing unemployment rate remains a crucial concern for South African macroeconomic authorities and policy–makers. Among various strategies used to boost job creation, fiscal policy is seen as one of the major tools that can be used to deal with unemployment. However, economists tend to have different views on how fiscal policy can be implemented in order to promote economic growth and employment creation (Edelberg et al., 2002). One of the fiscal policy components that can assist with addressing unemployment is government spending, since an inverse relationship exists between unemployment and total government expenditure (Farmer, 2010). According to the South African Reserve Bank (2015), government spending refers to any amount spent by government in purchasing goods and services, investment or subsidies to stimulate growth and job creation within the economy. However, government alone is not able to create all employment; the private sector also plays an important role towards creating employment in the economy. Therefore, a combination of public and private sector would allow total government spending to be more effective and efficient (Kenyon, 1997).

The role of spending in the economy is explained by the new Keynesian model, which emphasises that government spending plays an important role towards employment growth. Within the new Keynesian model, individuals and firm's behaviour and decisions are grounded mostly on their expectations of how much the government would spend in an economy (Cogan et al., 2010). Though in some instances government spending might not be targeting job creation, each cent spent by government creates jobs indirectly (Roberts, 2010). Consequently, government spending creates jobs regardless of how spending is allocated. In contrast, Riedl (2008) argued that the theory insinuating that government spending stimulates economic growth and new jobs should be viewed as a myth because government does not have a stock of money from which it can take a portion for its spending. Rather, government has to tax or borrow out in order to spend on economic and social activities. As a result, the government's main task becomes resource redistribution instead of job creation. Nonetheless, this resource redistribution would eventually lead to job creation.

In the South African context, the increasing unemployment rate has progressively created a barrier to economic expansion. Unemployment is the root of many other challenges such as inequality, poverty, labour unrest and sluggish development (Kingdon & Knight, 2004; Ferreira & Rossouw, 2016). In trying to resolve the unemployment problem, South African government has introduced and implemented different strategies such as the Employment Tax Incentive (ETI) introduced in January 2014. The aim of the ETI was to allow companies and employers to hire more young job seekers (South African Revenue Services, 2016). According to African Economic Outlook (2015), the ETI has created more than 5600 jobs since its introduction. However, Ranchhod & Finn (2016) found a negative effect of ETI on employment because it did not reduce the growing unemployment rate. Thus, the contribution of government spending and other government strategies on job creation seems to be ambiguous. This ambiguity of the relationship between government spending and job creation is the motivation behind this study. Thus, the main aim of this study is to analyse how government spending can enhance job creation within different economic sectors. More specifically, the objectives of this study are to compare short-run and long-run links between government expenditure and job creation in different economic sectors in South Africa and to identify the specific sectors that can boost job creation through government spending.

2. Literature Review

Government spending is one of the expansionary fiscal policies that drive firms and consumers' behaviours; it can boost production and increase consumption (Dornbusch et al., 2014).Government is able to employ different strategies through fiscal policy to increase the number of new jobs, depending on the country's current economic position (Meyer, 2014). Studies have been conducted to determine the relationship between job creation and government spending and their findings tend to differ depending on the study location (country) and/or the methodology employed by each study. Holden & Sparrman (2016) analysed how government expenditure affects employment in 20 countries of the Organisation for Economic Co-operation and Development for the period of 27 years and found that an increase in government spending led to economic growth, which thereafter increased the level of employment. Habanabakize & Muzindutsi (2015) also found that government spending has a long-run effect on job creation in South Africa. This confirms the inverse relation between government spending and unemployment rate. The more government spends, the lower the unemployment rate and the higher the number of new jobs created (Ramey, 2012).

Job creation is normally linked to economic growth. The economic growth results from various economic sectors' activities and those activities affect employment in different ways. Thus, a country's employment is an aggregate of job created from different economic sectors. Consequently, special attention is given to such economic sectors in order to determine how government should allocate the resources. To stimulate job creation, government must determine the right sector for resource allocation. Studies conducted on government spending and sectoral employment (Kenyon, 1997; Hassen, 2000; Levine, 2009; Cray et al., 2011; Leigh & Neill, 2011; Estache et al., 2012; Maisonnave et al., 2013; Houseman, 2014) found that the infrastructure sector plays a key role in job creation compared to other economic sectors. Consequently, government spending in this sector is considered one of the better strategies to grow employment. This explains why the infrastructure sector was preferred by the South African National Development Plan as the generator of a higher number of new jobs (Mabugu, 2016). Government spending on infrastructure and subsidies to domestic firms tends to improve investments and create durable jobs (Girma et al., 2007; Beard et al., 2011; Boushey & Ettlinger, 2011).

Beside the infrastructure sector, manufacturing, construction and mining contribute a large share towards employment growth (Dlamini, 2012; Maia, 2013; Muzindutsi & Maepa, 2014). These three sectors have a common contribution to the economy, which is to create direct and indirect jobs. Direct contribution to job creation refers to the increase in hiring within the respected sectors, while indirect contribution involves stimulation of job creation in other sectors (Houseman, 2014; Atkinson et al., 2015). However, these sectors create jobs in different ways. For example, manufacturing employs people with advanced skills and academic qualifications, whilst construction and mining can hire a large number of semi-skilled and less qualified people (Saks, 2008; StatsSA, 2016). This means that increasing spending on construction and mining sectors can reduce unemployment in the semi-skilled population. Besides the aforementioned sectors, other sectors such as financial and retail contribute to economic growth and job creation, in particular through government spending. Different studies (Neumark et al., 2011; Wessels & Ellis, 2012; International Labour Conference, 2015; OECD, 2015) found that business retail influence more on job creation. However, the contribution of small and medium retail enterprises differs from mature and large retail firms. The former can create and destroy jobs at the same time, while the latter creates and sustains jobs, even during economic crises. New firms are increasing firms attracting and hiring many people. However, lack of experience and less competitiveness can cause some of these new firms to fail and go bankrupt, resulting in massive job losses. Jobs created by large and mature firms are few, yet sustained, because these firms are competitive and they are less likely to be affected by changes in the business cycle (Kerr et al., 2014; OECD, 2015).

Without financial institutions, job creation in different economic sectors is almost impossible. Financial institutions play a major role in providing loans and funds to economic sectors. As with the manufacturing, mining and construction sectors, the financial sector hires employees and stimulates job creation within other sectors. Through financial institutions, the financial sector becomes a channel of money circulation (Asmundson, 2011). Therefore, government can increase jobs within various sectors via the financial sector. In addition, the financial sector plays another two important roles in the economy, namely job stimulation and job preservation in the private sector (Praveen, 2011; Botha, 2015). Most new firms and businesses need loans and financial support, which are provided mostly by financial institutions. Therefore, the financial sector indirectly creates jobs through other economic sectors. However, the financial sector is easily affected by economic crises; the negative effect of any crisis on the financial sector reduces employment, not only in the financial sector but also in other sectors that depend on financial services (International Labour Organization, 2009).

The aforementioned arguments support the hypothesis that an increase in government spending can create employment. However, findings of Afonso & Sousa (2009) show that the contribution of government on job creation might be insignificant because government spending has little effect on GDP, which is the key to creating more jobs. What matters is not how much government spends, rather where government spends. If government spending is not targeting economic growth, the relationship between unemployment and government spending becomes negative. A study by Mahmood & Khalid (2013) found that the Pakistan government spent more resources on the war and as result, unemployment increased. Furthermore, government spending on job creation is more effective during the sluggish economic conditions than when the economy is booming (Beard et al., 2011). Therefore, the outcome of government spending on job creation is subjected to the economic cycle. Whenever the country's economy is at a peak, the level of government spending on employment or job creation declines and the government has a possibility to support economic sectors' growth themselves; yet when economic growth is down, government has to increase its budget on job creation and unemployment support (Bertolis & Hayes, 2014). When unemployment is high, as is the current case for South Africa, government spending should also be increased in order to support unemployed people by means of unemployment grants and to create employment (Loizides & Vamvoukas, 2005). Although different studies asserted that government spending stimulates and indirectly creates jobs in the private sector, Ramey (2012) argued that government spending creates only direct employment (jobs in public sector). This is because job creation in the private sector results from spending from these sectors, yet government spending does not increase private spending, rather, in many cases, it causes a decline in private spending. However, this is not always the case as the government spending can boost private spending and job creation in some economic sectors (Tcherneva, 2008). Thus, establishing the link between sectorial employment and government spending in the South African context can shed more light on the topic.

3. Data and Methodology

This study used quarterly time series data from 1994 quarter 1 to 2015 quarter 4. This sample period refers to the post-apartheid era, which started with the democratic government in 1994 (Padayachee & Desai, 2011). Variables used include government spending and employment rate in five sectors, namely construction, manufacturing, financial, retail and mining. Real government spending is measured in billions of the local currency (Rand)and includes current payments, transfers and subsidies payments for final assets and interests paid on debts (SARB, 2015).Employment refers to the sum of formally created jobs in each sector and is measured by the number of jobs created (millions). The study used employment in construction sector (ECONS), employment in financial sector (EFIN), employment in manufacturing (EMAN), employment in mining sector (EMIN) as dependent variables whilst real government spending was used as independent variable. All variables were acquired from the South African Reserve Bank. Regarding methodology, the study adopted the autoregressive distributed lag model (ARDL) initially developed by Pesaran & Shin (1996) and revised by Pesaran et al. in 2001. The ARDL model was chosen over Johansen & Juselius (1990) co-integration because the latter estimates a long-run relationship within a system of equation, whilst ARDL simply uses a single and reduced form of equation (Pesaran & Shin, 1995). The other benefit of using the ARDL model is that it does not require all variables to be integrated in the same order. Thus, the ARDL can be employed when all variables are stationary (I(0)), non-stationary (I(1)) or even when they are a mixture of I(0) and I(1) variables. Moreover, the use of the ARDL model allows the use of a different number of optimal lags for each variable. The ARDL formula employed to determine the relationship between government spending and employment is presented as follow:

$$\Delta LEMP_t = \propto_0 + \sum_{j=1}^{k} \beta_j \, \Delta LEMP_{t-j} + \sum_{j=1}^{k} \lambda_j \Delta GOVS_{t-j} + \varphi_1 LEMP_{t-1} + \varphi_2 GOVS_{t-1} + u_t \qquad (1)$$

Where ΔLEMPL denotes the change in natural logarithm of total sectoral employment at the time t; ΔLGOVS denotes the change in natural logarithm of total government spending at the time t. $\propto_0$ represents the intercept, k denotesthe number of lags, whilstu_t designates white noise error term. β_j and λ_j indicate the short-term dynamics of the model, whereas φ_1 and φ_2 represent the long-run coefficients. Equation (1) was estimated for each of the five sectors; meaning that five different ARDL models were estimated.
From the above equation, the following hypotheses were set to determine whether the employed variables co-integrate.

- The null hypothesis(H_0) for no co-integration: $\varphi_1 = \varphi_2 = 0$
- The alternative hypothesis(H_1) for no co-integration: $\varphi_1 \neq \varphi_2 \neq 0$

In order to test these hypotheses, the bound test, which is F-test in ARDL model, was employed. This test allows a comparison between estimated F-statistics and critical value from the Pesaran et al. (2001) table. The null hypothesis is rejected if F-statistic is greater than the upper critical value from the table and the conclusion is that a long-run relationship (co-integration) exists between variables. However, if the lower critical value from the table is greater than the calculated F-statistics, the null hypothesis is not rejected and the conclusion is that there is no co-integration between variables. Without further information, the outcome is inconclusive if the estimated F-value lies between the upper and lower critical values (Dube & Zhou, 2013). The result from co-integration determines if the study can proceed with error correction model (ECM). If there is a presence of long-run relationships between variables, then the following ECM equation is derived from Equation:

$$\Delta EMP_t = \propto_1 + \sum_{j=1}^{k} \beta_{1j} \, \Delta EMP_{t-j} + \sum_{j=1}^{k} \lambda_{1j} \Delta GOVS_{t-j} + \delta u_{t-1} + e_t \qquad (2)$$

Whereas u_{t-1}symbolises the error correction term and δ is its coefficient, which measures the speed of adjustment towards the long-run equilibrium.

Prior to the ARDL estimation, the correlation analysis test was performed in order to establish the relationship between variables. The Schwarz' Bayesian information criterion was used to determine the optimal number of lags to be employed by the study. The choice was made because this criterion provides accurate results regardless of the sample size of the data (Brooks, 2014). Furthermore, to ensure the accuracy of the obtained results, certain diagnostic tests such as normality, stability, autocorrelation and heteroscedasticity were performed and the study passed all the tests.

4. Empirical Findings

Correlation Analysis: Correlation coefficient (r) is a measurement of the statistical relationship between two variables. It lies between -1 and +1. Mathematically, it is presented as follow: $-1 \leq r \leq 1$. The closer to zero the correlation coefficient, the smaller the relationship between the two variables and the further from zero the relationship is between those variable (Ahlgren et al., 2003). In other words, the higher the absolute value the stronger the association between the variables. The correlation between LGOVS and other variables (LECONS, LEFIN, LERET, and LEMAN) is significant at the 5 percent level of significance. However, the correlation between LGOVS and LEMIN is not significant. These results suggest a strong association between government spending and employment in retail, construction, financial and manufacturing sectors. In addition, a positive correlation between LGOVS and other variables is observed except LERET and LEMAN, which have a negative association with LGOVS. The correlation coefficients among sectors are all significant at 1 percent level of significance, excluding the correlation coefficient between LEMIN and LEFIN. There is a negative and weak correlation between LECON and LERET, a strong and positive correlation between LEFIN and LECONS, a strong and negative correlation between LEFIN and LERET. The correlation of LEMAN with other sectors is negative, except its correlation with LERET. Lastly, the correlation between LEMIN and other sectors seems to be weaker compared to other sectors' correlations.

Table 1: Pearson's Correlation Coefficients

	LGOVS	LERET	**LECONS**	**LEFIN**	**LEMAN**	**LEMIN**
LGOVS	1					
LERET	-0.727*	1				
LECON	0.786*	-0.500	1			
LEFIN	0.906*	-0.882	0.808	1		
LEMAN	-0.812*	0.754	-0.383	-0.740	1	
LEMIN	0.073*	0.349	0.468	-0.018	0.416	1

Note: * indicates significant at the 5% level of significance

Unit root and ARDL Model Selection: For the ARDL model to be used none of the variables should be I (2); thus, the ADF unit root test was used to test if the variables meet this condition. The ADF results, exhibited in Table 2, show that not all variables are stationary at levels. However, they become stationary at first differences. Therefore, all variables are integrated of order one, that is, they are I (1). This means that the ARDL model can be used to test for the co-integration between the variables.

Table 2: Augmented Dickey-Fuller Unity Root Test

Variables	**Level intercept**		**Trend &intercept**		**First difference Intercept**		**Integration order**
	t-Stat.	**P-values**	**t-Stat.**	**P-values**	**t-Stat.**	**P-values**	
LGOVS	-2.8955	0.9595	-3.4635	0.0982	-2.8959	0.0086**	I(1)
LERET	-2.8951	0.3701	-3.4622	0.9919	-2.8963	0.0139*	I(1)
LECON	-2.8951	0.7514	-3.4622	0.5486	-2.8955	0.0000**	I(1)
LEFIN	-2.8951	0.7136	-3.4622	0.6975	-2.8955	0.0000**	I(1)
LEMAN	-2.8951	0.5818	-3.4622	0.5595	-2.8955	0.0000**	I(1)
LEMIN	-2.8955	0.2017	-3.4629	0.5056	-2.8955	0.0001**	I(1)

** denotes the rejection of the null hypothesis of unit root at the 1% significance level
* denotes the rejection of the null hypothesis of unit root at the 5% significance level

Table 3: ARDL Model Selection

	Model 1	Model 2	Model 3	Model 4	Model 5
Variables	LERET & LGOVS	LECON & LGOVS	LEFIN & LGOVS	LEMAN & LGOVS	LEMIN & LGOVS
Selected model	ARDL 3,0	ARDL 0,0	ARDL 1,0	ARDL 1,2	ARDL 1,0

Table 3 presents the outcome of the model specification for each sector. The best model was selected by EViews 9 with SBIC information criterion. The maximum number of four lags suggested initially for independent and dependent variables in each of the five models. With regard to the model selection, the best model between employment in retail sector and total government spending was ARDL (3, 0) whilst ARDL (0, 0) was the best model between employment in construction, financial sector and government spending. Lastly, ARDL (1, 2) and ARDL (1, 0) were selected for employment in manufacturing, mining and total government spending, respectively.

Analysis of Long-run Relationships: Having selected the best ARDL model for each economic sector, the next step was to determine whether there is a long-run relationship between government spending and employment in each sector. Table 4 shows the estimated F-statistics and their corresponding lower and upper values with unrestricted intercept without trend (Pesaran et al., 2001). The estimated F-values of retail, construction, financial, manufacturing and mining are 4.47; 3.44; 1.09; 3.92 and 7.93 respectively. These results show that all estimated F-values are less than the lower bound of 6.56 at the 5 percent level of significance. Therefore, the null hypothesis of non-co-integration between job creation in these four sectors, namely retail, construction, financial, manufacturing and government spending was not rejected. This signals the lack of long-run relationship between government spending and job creation in these sectors. The F-value of employment in mining sector (7.93) is greater than upper bound value of 7.3, implying that the null hypothesis for non-co-integration is rejected. This implies that the co-interacting relationship between government spending and employment is significant only in the mining sector. Thus, in the long-run, government spending creates jobs in the mining sector but not in the other four sectors.

Table 4: Bound Test for Co-integration

Model	Estimated F-value	Pesaran critical value at 5% Lower bound	Pesaran critical value at 5% Upper bound	Presence of co-integration
ARDL(2,0): retail	4.47	6.56	7.3	No
ARDL(1,0): construction	3.44	6.56	7.3	No
ARDL(1,0): financial	1.09	6.56	7.3	No
ARDL1,0): manufacturing	3.92	6.56	7.3	No
ARDL(2,0): mining	7.93	6.56	7.3	Yes

Note: The unrestricted intercept without trend table was utilised for critical values (Pesaran et al., 2001).

The co-integration results are in line with other studies (Afonso & Sousa, 2009; Ramey, 2012; Beard et al., 2011;World Bank, 2013; Kerr et al., 2014; Mahmood & Khalid, 2013; OECD, 2015) that found government spending might not create or stimulate jobs within the private sector due to economic variability of the economic cycle. However, the long-run relationship between government spending and job creation in the mining sector is supported by the studies by Dlamini, (2012), Maia, (2013) and Houseman, (2014) whose findings asserted a positive relationship between government spending and job creation in the mining sector. The long-run equation[3] for the mining sector shows that a 1 percent increase in government spending increases job creation in the mining sector by 0.25 percent. Consequently, increasing government spending leads to the long-run increases in the number of people employed in the mining sector.

Analysis of Short-run Relationships: After testing for the long-run relationship, the next step was to estimate the error correction model (ECM) to determine the speed of adjustment towards the long-run

[3]The long-run equation can be abstained from corresponding author.

equilibrium. The outcome of ECM estimation is exhibited in Table 6. The presence of a negative sign for error correction term, which is significant at the 5 percent level of significance, implies that the model restores the equilibrium. The coefficient of -0.035721 indicates that around 3.6 percent of any disequilibrium between employment in the mining sector and government spending is corrected each quarter. This means that it takes approximately 28 (1/ 0.035721) quarters for changes in government spending to have a complete effect on job creation in the mining sector. Therefore, about seven years are required for government spending to completely create employment in the mining sector. In the ECM, the coefficient for changes in government spending is not significant, suggesting that government spending does not have a short-run effect on job creation in the mining sector. The coefficient for lag one of mining employment is significant at the 1 percent level of significance, suggesting that current employment in the mining sector is affected by the employment created in the previous quarter.

Since there is only a long-run relationship between government spending and the mining sector, the short-run relationships were estimated to determine whether government spending could at least create short-term jobs in the other four sectors. The short-run results for non-co-integrated variables are depicted in Table 6. These results show that in the remaining four sectors, namely retail, construction, financial and manufacturing, employment in previous quarter affects current employment. However, government spending does not have any short-term effect on job creation in the financial and retail sectors. This confirms the finding from previous studies (Haltiwanger et al., 2010; Kerr et al., 2014) that new and starting businesses may destroy more jobs than they create. Moreover, if government spending stimulates the financial sector, which increases funding for the use of advanced technology, more jobs will be lost than created. Nonetheless, the null hypothesis suggesting that there is no short-run relationship between government spending and job creation in construction and manufacturing sectors was rejected in favour of the alternative. Therefore, government spending creates only short-term jobs in construction and manufacturing sectors. These findings suggest that the sum of money spent by government on construction and subsidies for domestic manufactured products tends to boost short-term employment in construction and manufacturing sectors (Girma et al., 2007; Beard et al., 2011; Boushey & Ettlinger, 2011; Dlamini, 2012; Maia, 2013). Thus, government spending can assist in creating short-term jobs in most of the South African economic sectors.

Table 5: ECM Results for the Mining Sector

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LMIN(-1))	0.530268	0.091586	5.789826	0.0000
D(LGOVS)	-0.008423	0.165288	-0.05096	0.9595
ECT(-1)	-0.035721	0.016695	-2.13963	0.0353

Table 6: Short-run Results for the Four Non-co-integrating Sectors

Model	Variable	Coefficient	Std. Error	t-Statistic	Prob.
LERET vs. LEGOVS	D(LERET (-1))	-0.09642	0.114412	-0.84275	0.402
	D(LERET (-2))	0.193863	0.111087	1.745145	0.253
	D(LERET (-3))	0.292604	0.109443	2.673582	0.0462
	D(LGOVS)	0.119215	0.42986	0.277335	0.3527
	C	-0.00477	0.004702	-1.01494	0.3133
LECONS vs. LGOVS	D(LECONS)	0.0721	0.109376	0.659193	0.5116
	D(LGOVS)	0.1235	0.053309	2.316667	0.023
	C	-0.00274	0.009476	-0.28955	0.7729
LEFIN vs. LGOVS	LEFIN(-1)	0.926041	0.050135	18.47099	0.000
	LGOVS	0.263347	0.234423	1.123382	0.2645
	C	-3.12271	2.879523	-1.08446	0.2813
LEMAN vs. LGOVS	LEMAN(-1)	0.928517	0.037611	24.68764	0.000
	LGOVS	-0.65493	0.27853	-2.35137	0.0211
	LGOVS(-1)	1.136311	0.51052	2.225792	0.0288
	LGOVS(-2)	-0.49893	0.280259	-1.78026	0.0788
	C	0.56093	0.339649	1.6515	0.1025

Diagnostic Tests Results: To ensure the accuracy of the study findings, we conducted a number of diagnostic tests[4]. Results from these tests as certain that there is no evidence of heteroscedasticity, serial correlation and that residuals are distributed normally. The test for parameter stability also showed that parameters were stable. Thus, the estimate five ARDL models met the required econometric assumptions.

5. Conclusion and Recommendations

In this study, the effects of government spending on job creation in five major economic sectors in South Africa were explored. The expectation was that government spending creates, or at least stimulates, employment in different economic sectors as suggested by the literature. However, the results found no evidence supporting long-run relationships between government spending and employment in retail, construction, financial and manufacturing sectors. Government spending can only create long-term employment in the mining sector. This implies that the South African government should spend more on the mining sector than other sectors in order to create durable jobs. Short-run findings indicated government spending creates jobs in construction and manufacturing sectors. This means that government spending can assist in creating temporary jobs in construction and manufacturing sectors but such short-term employment would not lead to a permanent solution for the challenge of the high unemployment rate in South Africa. The South African government should consider job creation as one of its major priorities as job creation is considered to be an engine that generates economic growth and leads to a better standard of living. Although government might be spending more resources on employment creation, the results from this study show that the long-term effect of spending by government is minimal, even insignificant, in most sectors considered in this study. Therefore, it would be better if government officials and macroeconomic policy makers revise their spending strategies. Increased government spending on mining sector is therefore encouraged. Given that government spending encompasses two main components, namely consumption spending and investment spending, the South African government should focus more on investment spending to improve employment creation, as consumption spending does not create durable jobs. However, the role of consumption spending in creating short-term jobs, that can help people to survive while waiting for durable jobs, should also be considered.

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National Development Plan as an Entrepreneurial Mechanism for Rural Economic Development in South Africa

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Abstract: Chapter 6 of the National Development Plan (NDP) accentuates on the impact of an integrated and inclusive rural economy by proposing for the creation 643 000 direct jobs and 326 000 indirect jobs in the farming and non-farming sector by 2030. Discussion within the study reveals that, the NDP was also designed to stimulate rural economic development among other important dynamic economic factors of the country. However, five years into the implementation of the NDP, remnants of inequality, unemployment and poverty are still apparent amongst the rural population. This paper indicates that the success of NDP as an entrepreneurial mechanism is being underpinned by contestations which are emanating from under-financing, lack of entrepreneurial education and research culture, negative attitudes of the people, corruption and red tape. Through a qualitative research approach, the paper observes that, for NDP to be continuously coordinated as an economic initiative, financing of rural projects such as small businesses, cooperatives and other rural development projects should be the government's key priority. The study concludes that entrepreneurship has to be considered as a prime mover in rural economic development in South Africa since an entrepreneurial economy significantly differs from a non-entrepreneurial one, as evidenced by the economic vigour and sustainable development of its inhabitants.

Keywords: *National Development Plan, Entrepreneurship, Rural Economic Development, Poverty Alleviation, Empowerment*

1. Introduction

"No political democracy can survive and flourish if the mass of our people remain in poverty, without land, without tangible prospects for a better life. Attacking poverty and deprivation must therefore be the first priority of a democratic government." (The Reconstruction and Development Programme, 1994)

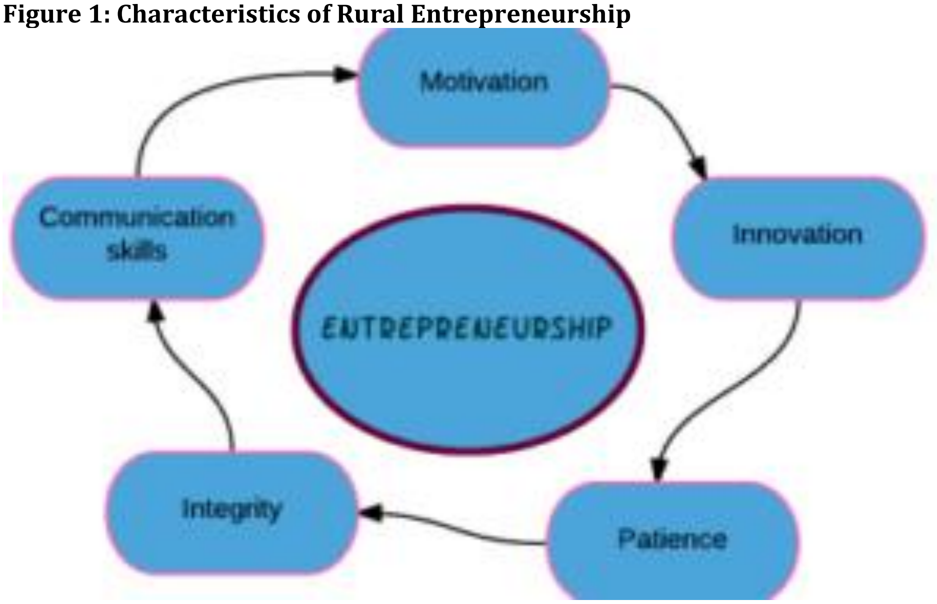
Following the infamous improvements made by the previous economic policies (Growth Employment & Redistribution (GEAR) and Reconstruction and Development Programme (RDP) (Asgisa, 2006), the South African government, in its launching of the National Development Plan 2011-2030, was aware of the challenges which may affect the successful implementation of the economic policy to regenerate employment and stimulate rural economic development. Unfortunately, the remnants of inequality and poverty, more than two decades into a democratic South Africa are still apparent. However, the aim of the National Development Plan (NDP) as adopted by the South African Government in 2012 is to eradicate poverty and decrease inequity by the year 2030 (National Planning Commission (NPC), 2012). South African Government Information (2012) advises that, the government of South Africa can only be able to comprehend the objectives of the NDP by harnessing the energies of the citizens in developing an all-encompassing entrepreneurial mechanism for rural economic development. This is against the background in which fragments of the pre-1994 era have constantly been determining the life opportunities for the cosmic mainstream rural inhabitants in South Africa (Hendriks, 2013). It is vital to note that, these colossal contestations underpinning rural economic development can only be addressed through a paradigmatic shift in the country's entrepreneurial performance.

Audretsch (2007) emphasises that entrepreneurship can either be defined from the innovation perspective or from the risk-taking perspective. Consequently, Petrin (1992) defines an entrepreneur as an individual who produces original permutations of production factors or as an individual who is eager to exploit market opportunities by disregarding market volatility. Ultimately, Young and Sexton (1997) affirm that, the entrepreneurial perspective to rural development assents that entrepreneurship is the keystone of economic growth whose absence leads to the dissolution of the other factors of production. When outlining entrepreneurship from a rural economic development perspective, the presence of an entrepreneurial environment conducive to sustain a healthy economy is a key factor (Wilken, 1979). Rural entrepreneurship is, therefore, gaining momentum as a force of economic change that must be present if the NDP is to reach its target in attaining an inclusive rural economy by 2030. Given this background, the significance of this paper lies in its essence to highlight the relationship between entrepreneurship and rural economic development and how the NDP, as a strategic tool, can be redirected as an entrepreneurial mechanism for accelerating rural economic development.

2. Literature Review

Characteristics of Rural Entrepreneurship: Over 15 million South Africans rely on social grants, and these grants play a significant role in alleviating poverty (South African Government Information, 2012); however, these grants are insufficient to completely lift people out of poverty. In addition, grant receivers are most vulnerable to commodity price increases since they lack the buying control to escape poverty (NPC, 2011). In these dynamics, low-income households, under-resourced farmers and previously deprived groups become exposed to poverty and inequality (Stats SA, 2012b).While the NDP emphasises on addressing rural economic development through job creation, not much progress is actually evident although entrepreneurship is the most effective strategy to sustainable rural livelihoods (Hendriks, 2013). This implies that there are certain factors that have to be present to ensure successful implementation of any entrepreneurial mechanism in achieving the mandates of the NDP by 2030. Petrin (1992) notes that entrepreneurship, as a rural economic development mechanism, demands an enabling environment in order to flourish as illustrated by the diagrammatic explanation below.

Figure 1: Characteristics of Rural Entrepreneurship



Source: (Petrin, 1992)

Types of Rural Entrepreneurship: Below are four types of rural entrepreneurship, and these are:

- **Individual Entrepreneurship:** It is single proprietorship of an enterprise in a rural community by an individual for poverty alleviation, profit-making, job creation and wealth accumulation;
- **Group Entrepreneurship:** This simply involves every enterprise which is formed through public, private partnerships in the rural community to create jobs and alleviate poverty;
- **Cluster Entrepreneurship:** This encompasses every networking amongst Non-Governmental Organisations, Community Based Organisations and Self Help Groups which form an enterprise for poverty alleviation and job creation; and
- **Cooperative Entrepreneurship:** This is an autonomous association of rural inhabitants who voluntarily unite for the collective objective of alleviating poverty by creating jobs (Casson, 2003).

The National Development Plan and Rural Entrepreneurial Development Nexus: StatsSA (2016) notes that, the fraction of South Africans living in rural areas has decreased by an average of 10% since 1994, and an average of 60% of this population lives in urban areas. A forecast from the global movements indicates that rural to urban migration is anticipated to increase by 2030, with an average of 70% of the population moving to the urban areas in South Africa (StatsSA, 2016). The *impasse* of rural-urban migration has witnessed the growth of population in urban areas which are presently succumbing to service delivery demands from the public, as evident in the recurring service delivery protests. The Bureau for Agricultural Policy (BFAP) (2011) denotes that, rural-urban migration and its effects *inter alia* can only be addressed through a holistic approach that will witness the flow of labour from urban areas back to the rural areas, through the implementation of sustainable entrepreneurial activities. BFAP (2011) further explains that, mainstream rural communities are sustained by farming although rural growth is being gradually allied to enterprise development, which includes other non-farming undertakings. Hence, one of the main objectives of the NDP is to integrate the country's rural areas through infrastructural development, job creation and poverty alleviation as sustained by the dynamic forces of entrepreneurship (Department of the Presidency, 2015).

Chapter 6 of the NDP advocates for an integrated and inclusive rural economy through the creation of 643 000 direct jobs and 326 000 indirect jobs in the agriculture and allied enterprise sectors by 2030 (Hendriks, 2013). Thus, for the NDP to realize these goals in integrating an inclusive rural economy, it should stimulate local entrepreneurial talent in creating jobs and adding economic value to the rural communities. Essentially, Casson (2003) upholds that in accelerating economic development in rural areas, it is obligatory to increase the supply of entrepreneurs, thus building up the critical mass of entrepreneurs. This is against the background that Tyson, Petrin and Rogers (1994) confirm that communities that actively promote rural entrepreneurial development evidently demonstrate high growth rates and advanced levels of economic development. To this end, therefore, entrepreneurship has to be considered as a prime mover in rural economic development in South Africa since an entrepreneurial economy significantly differs from a non-entrepreneurial one, by the economic vigour of its inhabitants (The Department of the Presidency, 2009).

Thus, the Department of the Presidency (2015) posits that, entrepreneurial orientation to rural development should actually be based on stimulating local entrepreneurial talent and nurturing the subsequent growth of indigenous companies. This can only be sustained through outspreading entrepreneurship skills development and offering technical support to the rural entrepreneurs in capacitating and enabling them to achieve the mandate of the NDP. This will ensure integrated and inclusive rural areas in 2030, in which inhabitants will be economically dynamic, through inclusive rural development which facilitates poverty alleviation, wealth creation and sustainable growth (Hendriks, 2013).

Theoretical Perspectives on Entrepreneurial Development

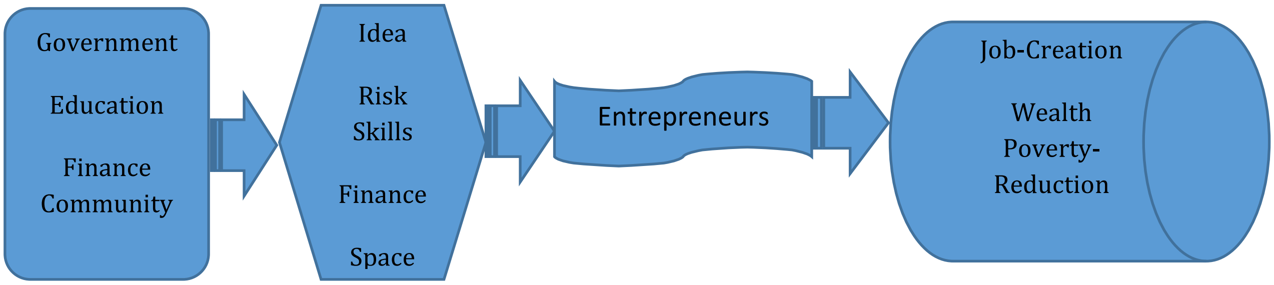
Knight's Theory: Knight's theory (1921; 1985) outlines uncertainty and risk as the basic building blocks in outlining what entrepreneurship is. McClelland (1961) maintains that, Knight's theory describes the most imperative physiognomies of the rural community by introducing uncertainty. Knight (1921/1985) discusses that if uncertainty is introduced into the economy; the execution of activities is secondary, since the primary factor is deciding what to do and how to do it, through entrepreneurial strategies. Wilken (1979) supports Knight's theory by confirming that commodities are primarily manufactured for the market not for the satisfaction of the producer's wants, hence manufacturing is done on a prediction basis of the market demand. Simply put, it is the sole responsibility of the manufacturer to project on the market demands and carry the risk of whether the commodities will be assimilated into the market. Young and Sexton (1997) argue that projecting over production is concerted upon a contracted portion of the producers whose aim is to enable a new economic functionary based on market demand. According to the Knight theory, the purpose of the rural entrepreneur is to project based on the market demand, carry the risk of loss and ultimately gain profit and forbear the risk of losing (Knight, 1921; 1985). This paper supports the Knight theory and its causal connection to the NDP's objectives of achieving an all-inclusive rural economy whose inhabitants are self-sufficient in taking risks in uncertain economies for sustainable entrepreneurial activities.

Schumpeterian Theory: Byrd (1987) notes that entrepreneurship is a broad concept incorporating an extensive range of activities, from the Schumpeterian model of innovation to simple job creation for wealth creation. Schumpeter (1996) defines an entrepreneur as the director of manufacturing and a catalyst of change termed "creative destruction". Therefore, the Schumpeterian entrepreneur is an innovator who compels economic growth through knowledge and competition (Schumpeter, 1934). For Schumpeter (1934), the entrepreneur's role is to rearrange available resources by breaking prevailing symmetries and injecting entrepreneurial innovations through the process of "creative destruction". Schumpeter (1996), guided by the Schumpeterian theory, affirms that there is necessity entrepreneurship and opportunity entrepreneurship.
The distinction between the two is that necessity entrepreneurship is driven by the absence of employment whilst opportunity entrepreneurship is driven by the active choice to own an enterprise based on opportunity and innovation (Schumpeter, 1996). Robeyns (2005) argue that necessity entrepreneurship is directly linked to poverty and does not create wealth since it is only for consumption. In contrast, opportunity entrepreneurship has long-term effects of economic growth since it involves creating innovative opportunities based on available resources. Resultantly, Audretsch (2007) defines entrepreneurship as the process of being innovative and developing an opportunity to create value without regard to either resources or the location of the entrepreneur. The Schumpeterian theory assumes that, the aim of rural entrepreneurship mechanisms is to support the ability of rural communities in embarking on pragmatic and innovative long-term approaches for economic development. In achieving the objectives of the NDP by 2030, the rural entrepreneur should not be deterred by geographical location or availability of resources. This is against the background of the Schumpeterian model which advocates for opportunity entrepreneurship in developing nations because it is driven by a high level of reactiveness to available opportunities in the existence of innovation and regardless of geographic location (Schumpeter, 1996).

Capability Approach: This paper supports that the NDP of 2012 is grounded in the Capability Approach**,** which accentuates on the autonomy of humans to have social adoptions and select what is of significance to them. This is against the background of the Capability Approach being the foundation of contemporary approaches of assessing human development, such as the Human Development Index (HDI) (UNDP, 2010). The HDI measures growth from the aspect of longevity from birth, adult literacy in terms of schooling and standard of living on per capita income basis. The Capability Approach advanced from Amartya Sen's reproach of dependence in welfare economics as the indicator of wealth (Sen, 2000). Sen (1985) defines capabilities in reference to a person's competencies in achieving a given operative which is valuable in making up a person's development.

Alkire (2005) maintains that human development requires that people not be passive recipients in their lives but that they should be proactive in realizing their goals. Hence, the Capabilities Approach provides a valuable point of departure in formalising the role of entrepreneurship in human development for rural inhabitants (Robeyns, 2005). This indicates that, entrepreneurship is not just a part of economic development, but a critical foundation of long-term economic development (Byrd, 1987). Rural entrepreneurship is, therefore, not only shaped by spatial features but also serves to transform the socio-economic development systems for rural communities. The graphical illustration below shows the close link between capabilities, opportunities and entrepreneurship on rural economic development. The diagram also reveals how the impact of effective governance and proactive citizenry can drive development in a socially cohesive rural environment.

Figure 2: Good governance & Rural Economic Development



Source: (Authors, 2017)

3. Methodology

The paper aims to assess the economic implications on National Development Plan 2012-2030 as an entrepreneurial mechanism for stimulating rural economic development in South Africa. It applied a qualitative research technique which has roots in the interpretive paradigm. This was achieved through various primary and secondary sources such as NDP Policy 2012-2030, National Planning Commission 2011-2012 reports, Global Entrepreneurship Monitoring (GEM) 2014, published and peer reviewed articles on rural economic development and entrepreneurship to collect data. This qualitative research method, as Denzin and Lincoln (2000) observe, is facing acceptance challenges due to academic and disciplinary resistance, although Neuman (1997) refutes the claims and credits the qualitative approach as a suitable technique for exploring data.

The paper formulated its themes from the following research questions: What is the nature of rural entrepreneurship in South Africa? Is the NDP succeeding in promoting rural economic development? What are the challenges facing NDP so far towards stimulating rural economic development? What other innovative solutions can be offered to the South African government to accelerate the implementation of NDP? Data collected from documents was analyzed qualitatively using thematic content analysis drawn from the research questions of this paper. Babbie (2001) supports thematic content analysis as essentially appropriate for arranging raw data into a standardized format to provide meaning. Ryan and Bernard (2000) endorse thematic content analysis as a fundamental technique for analysis and providing judgments based on the raw data collected by the researcher.

4. Results

The need to improve skills among rural entrepreneurs: The successful implementation of the National Development Plan in South Africa rests on the availability of skills to stimulate change. Literature from South Africa has shown that, marked improvements have been made in some sectors to conduct skills development programs. However, the majority of rural people still do not have the adequate skills to unlock the potential of entrepreneurship programs to improve their livelihoods. A study conducted by the Department of Trade and Industry in (2008) concurs with the findings; it endorses that skills shortage and limited entrepreneurship capacity constrain employment growth and decelerates the National Development Plan from championing rural economic development. There is a need for the government of South Africa to promote vocational education among young entrepreneurs since they carry the vision for advancing the economy of the country.

The need to unlock youth potential: The National Development Plan in South Africa was proposed with the aim of unlocking economic opportunities for the many jobless youths in the country. However, such youth appear to lack entrepreneurial minds or capacity to generate their own businesses, which is a set-back to NDP. A research conducted by the Global Entrepreneurship Monitor (GEM) (2014) corresponds with the above-mentioned findings when it indicates that for a developing nation like South Africa, the rate of entrepreneurship is relatively low in contrast to other Sub-Saharan countries. This is also contrary to what Lindiwe Zulu, the Minister of Small Business Development in South Africa, perceives when she projects South Africa as a prospective hub of entrepreneurship for the nation's job-seekers. A report by Stats SA (2014) further reveals lack of entrepreneurship among the economically active people, particularly women, who seem to be trapped in the patriarchal cloud that restricts women involvement in business. The report shows a reduction in young entrepreneurs from 609 000 in 2009 to 543 000 in 2014. Based on these assertions and statistics, there is a greater need for South African youth to embrace the NDP as it aims to re-invigorate local economies and improve rural livelihoods in particular. The challenge, however, remains for the rural youth to change their mindset and become employers rather employees. Such radical thinking can lead to improved rural economic development, as orchestrated in the NDP.

The need to revoke government bureaucracy: In South Africa, the National Development Plan was ushered in as a universal economic blueprint to benefit various sectors of life. However, successful implementation and sustainability of this policy depends on government bureaucracy and its ability to release funds to support entrepreneurial development. Global Entrepreneurship Monitor (2014) and the WEF 2014/15 Global Competitiveness Report support such findings when they reveal that, top down government bureaucracy acts as a barrier to the growth and expansion of entrepreneurship in South Africa. Many potential entrepreneurs are frustrated by the delays in securing business licenses. The drastic red tape on its own is a barrier which the government needs to address in order to achieve the objectives of NDP. The apparent lack of proper coordinating structures in government policy may discourage entrepreneurship and small businesses. The Department of Trade and Industry (DTI) (2005) laments the lack of inter-departmental cooperation which often weakens government efforts to promote entrepreneurship through proper planning and cooperation. Conflicts which often emerge in government entities are hindrances to the development of SMMEs. Critical scholarship condemns this lack of unity which culminates into duplication of programs to support the NDP.

The need to increase access to markets& credit facilities: Rural economic development in South Africa is mainly being orchestrated by cooperatives (women, agricultural, youth cooperatives) and SMMEs. However, due to low levels of education and technological inabilities, many rural entrepreneurs who rely on agricultural cooperatives, as entrepreneurial mechanisms for poverty reduction, often face challenges when locating appropriate markets for exporting their produce. Their inability to identify potential markets due to poor information dissemination is a hindrance to achieving the aims and objectives of the NDP. Rural economies in the NDP have been projected to be viable through government intervention with economic development programs; therefore, failure to have equitable access to markets can be a stumbling block to poverty alleviation and rural economic development. Notwithstanding their lack of collateral security to secure funding from credit institutions, rural entrepreneurs lack mentorship on how they can align the NDP to entrepreneurial development. These views were contrasted by Watson and Netswera (2009) in their study when they regarded urban entrepreneurs as better positioned for access to credit institutions and entrepreneurial education than their rural counterparts. Based on these assertions, rural economic development through other NDP can be a success when rural entrepreneurs in South Africa are assisted by relevant stakeholders to identify markets and given access to credit facilities to finance development projects.

The need to promote research culture and innovation: The National Development Plan in South Africa is hinged on the adoption of various latest technologies (telecommunications, biotechnology, microprocessors) introduced by globalization in the 21st century. These technologies are fundamental in advancing science and research, entrepreneurship as well as efficiency in the functioning of public sector. Nevertheless, since the inception of NDP in 2011, there has been a limited research and development capacity to advance entrepreneurship in South Africa. The economically active population which is expected to be the driver of entrepreneurship and small businesses development seems to be trapped in the technological inability dilemma. Unemployment in South Africa is escalating due to limited ability to embrace research on the use of technology, and this result in huge skills gap and declining rural economic development. Lack of innovativeness was supported by empirical findings from Booysen's (2011) study which shows that South Africa's SMMEs and entrepreneurs are less innovative compared to developed countries. To bridge this challenge and accelerate rural economic development, the GEM report (2014) offers innovative suggestions to the government to incentivize research and development as pre-requisites to enhance economic development. Such an initiative can be used to foster innovation, at the same time attracting foreign direct investment and creating linkages between domestic and local firms towards improve rural economic development.

Promoting entrepreneurial education and culture among rural citizens: Rural economic development, through the National Development Plan in South Africa, is being constrained by lack of entrepreneurial education and culture among the majority of rural populations. These findings augur well with a recent study conducted by the GEM (2016) on the growth of entrepreneurship. The study shows various reasons that hamper entrepreneurial growth which include lack of research, culture and social norms. In terms of entrepreneurial education, the study revealed that South Africa is at 42%, which is far below the expected standard envisioned by the NDP. Government efforts in promoting SME sector can be perceived as a direct move to strengthen entrepreneurship; however, various experts have criticized government policies as detrimental to the effective implementation of NDP to promote rural economic development. The GEM report indicates further that the rate of entrepreneurship in South Arica has actually declined as compared to 2010 whereby entrepreneurs account for 50-60% between ages of 24 and 44. A critical assessment on these results made Chetty (2016) to provide suggestions to government to provide entrepreneurial education starting from primary school level up to tertiary institutions to model Denmark and Israel. Fostering the culture of entrepreneurship can help future entrepreneurs to have their minds directed towards employment-creation and self-sustainability.

Curbing rampant corruption in rural economic development: It seems as if corruption is now acceptable in every development program in South Africa. Critics argue that corruption is the cancer which has ripped apart many private and, most importantly, public institutions due to the loss of moral code among upper echelons of government. The same cancer has been spreading, thereby creating devastating consequences on government efforts to generate employment and improve the lives of people in rural areas of South Africa. Through an extensive documentary review and analyses of other empirical studies, we argue that corruption has a massive impact on the economy and rural entrepreneurship. In many circumstances, money directed towards development initiatives is either abused or diverted to other programs, which results in the ineffectiveness of the NDP which seeks to reduce poverty in most impoverished communities of South Africa. The Transparency International Corruption Perceptions Index shows that South Africa is ranked 69th among 176 countries. The Corruption watch 2016 placed South Africa at 64th out of 176, which portrays a slight reduction in corruption levels.

These findings indicate low levels at which South Africa is, in terms of promoting rural entrepreneurship. Even though it has become a common norm to blame every failure on the effects of apartheid, Plaut (2012) affirms that poor mismanagement has been a root cause for failed economic policies. Across the socio-economic and political divide in South Africa, corruption is difficult to control although some experts argue that anti-corruption measures can be put into place to safeguard public funds. Rural economic development, as an NDP imperative, can be successful when there is will power and change of moral codes among accounting authorities who often abuse state funds for personal gain.

5. Conclusion and Recommendations

The paper attempts to assess the successes and failures of the National Development Plan so far, a South African government economic blueprint adopted in 2012 aimed to be fully functional by 2030. The economic framework was designed to stimulate rural economic development among other important things in the economy of the country. Evidence from the paper has reflected that NDP, as an entrepreneurial mechanism for job creation and rural economic development, is still facing numerous challenges emanating from under-financing, lack of entrepreneurial education and research culture, negative attitudes of the people, corruption, red tape and lack of innovation. These challenges are rampant among rural entrepreneurs in many provinces of South Africa. The NPC (2011) acknowledges these challenges and seeks to propose the way forward on how rural economic development can be channeled to ensure improved livelihoods of people of South Africa. Based on the results of the paper, for NDP to be continuously coordinated as an economic initiative, financing of rural projects such as small businesses, cooperatives and other rural development projects needs to be a government top priority.

There is a need to integrate entrepreneurial education in the academic curriculums in schools so that it becomes a core and not an elective subject, which is fundamental to the young and upcoming entrepreneurs. Entrepreneurship culture should be fostered through various entrepreneurial and capacity building workshops, training and development through vocational schools. The government of South Africa, through its designated departments (Department of Trade and Industry, Economic Development, Higher Education and Training), should place emphasis on the use of research and innovation hubs that promote individual or group research on the best ways to implement the NDP. Preconceived and ill-timed development offered by government toward rural entrepreneurs is often not grounded on the needs or what the rural entrepreneurs need to improve their lives. To this end, therefore, outsourcing of academics or other independent research institutes can assist in proposing innovative ways of improving NDP implementation towards rural economic development. Partnerships with BRICS countries such as India or Brazil can help foster knowledge-sharing since entrepreneurship in these countries contributes much to job creation and improvements in the growth domestic product.

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The Relationship between Household Debt and Consumption Spending in South Africa

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Abstract: Consumption has been and remains the main contributor to gross domestic product (GDP) growth in South Africa. Household debt on the other side has remained high over the years. These two economic indicators are a reflection of the well-being of an economy. This study thus examined the relationship between household debt and consumption spending, for the period between 1994 and 2013. The Johansen cointegration technique and the Vector error correction model (VECM) were utilised to test the long run and short run relationships between the variables. The Granger causality test was also employed to test the direction of causality between the variables. Results from this study have revealed that a relationship exists between household debt and consumption spending in South Africa and they have also showed that this relationship flows from household debt to consumption spending. The implications of these results are that consumption spending may be increased through other measures rather than through increasing debt. The study therefore recommends that policy makers avail more investment opportunities for households and to also create employment in a bid to increase the income of households which can then be used to increase household consumption rather than the use of debt.

Keywords: *Household debt, household consumption, Vector Error Correction Model, Granger Causality*

1. Introduction

Many countries both developed and developing have had phases and experiences of high household indebtedness (Barba & Pivetti, 2009). South African households' indebtedness has been trending upwards from the beginning of the new political dispensation to date where the country has seen household debt rising significantly over the years. This is demonstrated by the significant rise in household debt as a percentage of household income, from as low as below 55% in 2001 to an approximated 80% in the year 2009 and 79% in 2013 (StatsSA, 2010). Household consumption spending has been and remains a main contributor to GDP growth post-apartheid (Prinsloo, 2002; Hlala, 2014). Consumption spending was said to have contributed 59% to GDP growth on average from 1994 until 2012. This implies that a link between household debt and consumption spending would ultimately affect GDP growth (Hlala, 2014). Borrowing by South Africans has been unrelenting notwithstanding the National Credit Act of 2006 as well as the credit amendment bill of 2014, set forth as measures against reckless lending. New credit contracted increased by 6.77% as of the third quarter up till the fourth quarter in 2014 (National Credit Regulator, 2014). Factors that are foremost in increasing household debt consist of the structure of the credit policies in the country, such as the relaxation of lending conditions, growing credit facilities and low borrowing rates (Crawford & Faruqui, 2012). Bateman (2014) advocates that lending by microcredit institutions has also steered high household indebtedness in South Africa by raising credit accessibility. Moreover, anybody can have access to such credit even if they lack collateral and households are repeatedly enticed into resorting to such credit amenities to fund their consumption.

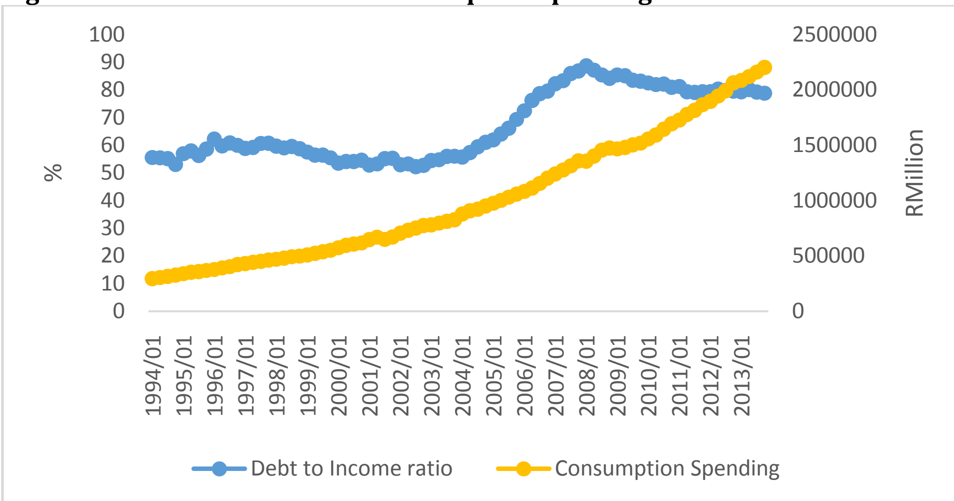
Regrettably, with high household debt emanates the debt servicing burden, thus highly indebted households will then be obliged to spend a share of their after tax income in reimbursing their debt plus the interest payments allied to it. Households would therefore cut on their consumption as they now have less disposable income. High indebtedness also unfits households for further credit and given that a sizeable number of them borrow for consumption, they will therefore be mandated to minimize their consumption. Some households have a tendency to borrow so as to be able to consume beyond their low income levels and consequently consumption spending is higher than the income levels for such households. As the disparity is financed through credit, household indebtedness has risen considerably (Keeton, 2013). Thus the requisite for spending on consumption drives the increased household debt. Concurrently, intensified credit accessibility which facilitates borrowing in the country fuels consumption spending (Prinsloo, 2002). The connection between these variables thus needs to be clarified. To that end, this paper aims to study and empirically establish whether a relationship exists between household debt and consumption spending in South Africa and the nature thereof. The rest of the paper is organised into a brief overview of South African household debt and consumption spending in the second section, literature review in the third section, methodology in the fourth section, presentation and interpretation of empirical findings in the fifth section, then conclusions and policy recommendations in the sixth and final section.

Overview of Household debt and Consumption spending: Household debt generally took an upward trend in South Africa from the beginning of the new political dispensation period in 1994 to date (Dykes, 2007). However, the country's household debt trends compare favourably with those of a number of developed countries such as the US, Canada and Australia which recorded high household debt levels especially in 2007 where the rate was 145% for Canada, 199% for Australia and 145% for the US while South Africa recorded a rate of 85% during this period This is despite the poor performance of South African households in terms of servicing their debt (Dykes, 2007). A comparison with other emerging economies indicates that household debt as a fraction of income in South Africa is similar although slightly higher than most of the countries with comparable per capita income levels and financial market sophistication (International Monetary Fund, 2004). Reasons for the slightly higher debt ratio for South Africa included the increase in unsecured lending which was an upshot of tighter lending conditions, a reduction in mortgage profitability, the declaration of the 2007 Credit Act, as well as the promotion of financial inclusion put in place to reduce borrowing after the financial crisis.

In terms of consumption spending, South Africa is ranked among the highest in Africa. In 2012, the country was ranked second after Egypt. Countries with the highest consumption expenditure are also the ones with highest GDP growth in Africa as consumption expenditure is the chief contributor to GDP for African countries. An analysis of South African consumption and GDP also confirms this. Consumption spending in South Africa has continued to grow since 1994. However, from the time of the global financial crisis, it started growing at a decreasing rate through to 2014 with a growth rate of 2.6% in 2013 and 2.1% in 2014 from 3.5% in 2012 (Loo & Swanepoel, 2015). This was as a result of the substantial and further weakening of the rand, coupled with higher interest rate levels and higher price inflation. A resultant of the increase in the repurchase rate by 50 basis points in January 2014 was household financial distress amid the high level of household indebtedness as this led to an increase in the amount that households allocated to the servicing of debt (Loo & Swanepoel, 2015). Thus, the combined forces of slow household disposable income growth, slower credit uptake, high interest rates and high inflation led to further declines in the growth rate of consumption expenditure (Bishop, 2014).

A look at the household debt (represented by the debt to income ratio in figure 1 below) and consumption spending trends in South Africa shows that although household debt generally fluctuates more than consumption spending, periods with significant fluctuations in household debt also have noticeable fluctuations in consumption spending. For example, during the periods 2001-2002 and 2007-2009, these variables would fluctuate in a similar pattern. Although consumption spending shows a continued upward trend, during periods of a fall in household debt, consumption spending would increase at a decreasing rate and during periods of a rise in household debt, the increase in consumption spending would be sharper. The two variables thus have a similar trend as the unfavourable conditions such as the global financial crisis that dampened household borrowing also had the effect of reducing spending. Factors that increased household debt such as relatively low inflation and interest rates, ease of access to credit, increases in real income, increases in asset and house prices and the creation of new employment opportunities also increased consumption spending. However households have a tendency to cut back on consumption when household debt has reached high levels as a debt management tool (Loo & Swanepoel, 2015).

Figure 1: Household debt and Consumption Spending Trends



Source: Author's Computation based on SARB Data

2. Literature Review

There exist a body of theories and models that have been put forward to explain household debt and consumption spending. Among the theories, there is the absolute income theory which suggests that only income determines consumption (Sloman, Wride, & Garratt, 2012). It thus leaves no room for borrowing to fund consumption. There is also the relative income theory which assumes that when higher consumption spending levels are attained, it is difficult for households to reduce them despite the economic conditions (Lipsey & Chrystal, 1995). It thus promotes the idea that households could actually opt for borrowing in order to sustain higher consumption spending. The permanent income and the life cycle theories give the impression that household debt will only affect consumption in so far as it affects permanent income and lifetime resources respectively. The intertemporal choice suggests that consumption is largely affected by interest rates which encourage people to either consume less and save more or consume more and save less (Lipsey & Chrystal, 1995). This model therefore suggests that people borrow for the purposes of consumption which would mean that high household indebtedness should be associated with high consumption spending. From a theoretical perspective, it is clear that the relationship between household debt and household consumption is influenced by such factors as income (defined either in terms of absolute income, relative income, permanent income or life time income) and interest rates.

Several empirical studies, such as Ogawa & Wan (2007), Gan (2010), Jauch & Watzka, (2012), Estrada et al. (2014), and Bunn and Rostom (2014), were conducted to analyse the relationship between household debt and consumption spending for a number of countries employing different time periods and different techniques. These studies all empirically established that it is household debt that affects consumption. Starting with the earlier study by Ogawa & Wan (2007), this study examined the influence of household debt on consumption in Japan during and after the bubble period. The study then found that the expenditure on non-durable, semi-durable and luxury goods was negatively affected by the debt to asset ratio. Gan (2010), also conducted a study to find out how housing wealth and credit card spending affects consumption using a panel of households in Hong Kong. From this study it was observed that households with numerous houses had higher consumption sensitivity. The study revealed that consumption sensitivity increased with a relaxation of credit constraints. It was also observed that most of these households relied on mortgage refinancing for increased consumption (Gan, 2010). This implied that for Hong Kong, there was a flow from household debt to consumption, thus in line with the finding for Japan.

Jauch and Watzka (2012) employed a cross country study of 18 countries in Europe as a basis in order to determine the effects of household debt on the aggregate demand level in Spain. The study also found that high household debt pressurized households to adjust their balance sheets thus forcing them to reduce their consumption expenditure. A similar study was carried out by Estrada et al. (2014) to investigate how developments in household debt affected private consumption in a sample of OECD countries. After holding constant the effects of interest rates, income and wealth, the researchers found that household debt accumulation led to increases in consumption and deleveraging led to decreases in aggregate consumption. On the other hand, a study by Bunn and Rostom (2014) used micro data to investigate the role of debt levels in the determination of the spending patterns of UK households over the 2008 recession. This study also found that highly indebted households cut their spending during the financial crisis and thus reducing aggregate private consumption and deepening the recession. Thus, the findings of the above stated studies are contrary to theories such as the relative income theory, the intertemporal choice model and the expectations view which suggest a flow from consumption to household debt. Such empirical evidence could mean a paradigm shift from the views of household debt-consumption theories most of which are primeval.

However, a few studies such as Bailliu et al. (2011-2012) and Mutezo (2014) have shown a significant negative relationship between consumption and household debt. These studies also came up with findings which implied a flow from consumption to household debt, thus negating the results of the earlier studies. Looking at the results by Bailliu et al. (2011-2012), the study observed a relationship between household debt accumulation and consumption spending and also spending on home renovation in Canada. It was found that home secured debt increases were the largest contributors to total household debt in Canada between 1999 and 2010. Furthermore, a significant portion of the home secured debt was used for consumption and home renovation by Canadian households. Similarly, Mutezo (2014) investigated the interaction between household debt and consumption spending in South Africa using an ARDL bounds modelling, and found that consumption spending drives high household debt through relaxed credit policies, higher disposable income and low interest rates. However, this study used household debt as a measure of consumption spending and the debt service ratio as a proxy for household debt. No justification was provided for such a variable specification. It is evident from the above review that the relationship between household debt and consumption spending has not been firmly established and thus justifies the need to further examine it in the South African context.

3. Methodology

This study adopted a Vector Auto Regression (VAR) model to establish the relationship between household debt and consumption spending. This is because the variables under study were thought to be simultaneously related and VARs are useful in summarizing dynamic relationships among variables (Kapingura & Ikhide, 2015). It therefore makes no theoretical sense to employ a single equation model when investigating the relationship between variables that are thought to have a simultaneous relationship. Disparate to the Ordinary Least Squares (OLS) method which takes a single exogenous variable to be explained by various explanatory or endogenous variables, the VAR technique allows all of its variables to be treated as explained variables and therefore every individual variable can be expressed in a linear function form. This study made use of a multivariate time series investigation to examine the presence of long run equilibrium and dynamic relations among the indices was employed. Hence, VAR is the most suitable model for this study. Assuming X_t is the n x 1 vector of variables, the intra-impulse transmission process to be captured by this study, the dimension of X_t {that is n} is 6, given the 6 variables of analysis. Using matrix algebra notations, a 6 variable structural dynamic economic model for this study can then be stated as:

$BX_t = \mu + \pi X_{t-1} + \varepsilon_t$ …………………………………………………. (4.1)

Where B is the matrix of variable coefficients

X_t is the 7 x 1 vector of observation at time t of the variables of the study, that is, vector X is defined as $X_t = (C_t, Y_t, D/Y_t, Dsr_t, W_t, RIR_t, Dummy)$ ………………………………..(4.2)

Also, μ is the vector of constants

π is a matrix polynomial of appropriate dimension

ε_t is a diagonal matrix of structural innovations that has zero means, constant variance and are individually serially uncorrelated, i.e.

$\varepsilon_t \sim (O, \Sigma)$

Where:

C_t is consumption spending;

Y_t is income;

D/Y_t is the debt to income ratio;

Dsr_t is the debt service ratio;
W_t is wealth;
RIR_t real interest rates;
Du_t is the dummy variable which is equal to 1 for the financial crisis period (2007-2009) and 0 for the non-financial crisis period (1994-2006 and 2010-2013).

Definition of terms and apriori expectations:

- C_t is the amount spent by households, be it on durable or non-durable goods. This variable is expected to be positively related to household debt to income and the debt service ratio as the need to consume causes people to borrow.
- Y_t refers to the income available to households after tax and price change adjustment. This is expected to have a positive relationship with C_t since an increase in income results in an increase in consumption according to the absolute income theory (Alimi, 2013). Y_t is expected to be negatively related to household debt since households with lower incomes are likely to borrow more.
- D/Y_t is the fraction of the consumer's income that is debt. This ratio is expected to be either negatively related to C_t or positively related to C_t. A higher debt to income ratio could mean more debt than income is used to fund consumption or higher debt than income could mean less income is available for consumption (Baker, 2014).
- Dsr_t refers to the percentage of the consumer's income that is required for debt payment. This rate is also expected to be negatively related to C_t since a high debt service ratio means that more of the income is required for debt payments (Baker, 2014).
- W_t refers to the assets owned by a household after all liability adjustments (Sloman et al., 2012). Wealth is expected to have a positive relationship with consumption as suggested by the life cycle hypothesis. It is also expected to be positively related to household debt since households with more assets have greater access to credit as they have collateral.
- RIR_t is real interest rate which is given by nominal interest rate divided by consumer price index. Real interest rate is expected to be negatively related to household debt because a higher rate discourages people from borrowing. It is also expected to be negatively related to consumption spending because higher rates encourage saving rather than spending as suggested by the intertemporal choice theory (Estrin et al., 2008).

The dummy variable captures the impact of the 2007-2009 global financial crises on household debt and consumption spending in South Africa. It is expected to have a negative effect on these variables.

Estimation Techniques: The study used time series data, therefore, formal tests for stationarity were carried out first to overcome the problem of spurious regressions resulting from non-stationary data. The formal tests were carried out using the Augmented Dickey Fuller (ADF) unit root test as well as the Phillips Perron (PP) test for each variable in the equation. The Phillips Perron test augments the ADF test hence results are more reliable with both tests used. To test the series for cointegration, the Johansen technique was employed as it allows for testing the hypotheses around the equilibrium relationships existing between the variables. This also helped determine the number of co-integrating vectors (Brooks, 2008). As the variables were found to be cointegrated, the Vector Error Correction Model was used for determining the short run and long run dynamics between the variables and to correct for disequilibrium. The Granger causality test was also being carried out to establish the direction of the causality. The stochastic properties of the model were tested through the diagnostic checks that were conducted and these include the residual normality, the autocorrelation and the heteroscedasticity tests. Quarterly time series data from 1994 to 2013 was used. This is because South African households were better able to make their borrowing and consumption decisions after the new political dispensation and also important policy changes affecting household borrowing and consumption such as credit acts were put in place post-apartheid.

4. Results

Unit Root Test results: For formal unit root checks, this study employed the Augmented Dickey Fuller (ADF) and the Phillips Perron tests (PP). These tests were carried out to find the variables' integration order.

Table 1: Augmented Dickey Fuller and Phillips Perron test results at level series

Variables	ADF Intercept	Trend and Intercept	None	PP Intercept	Trend and Intercept	None
LC1	-1.967403	-1.905136	17.40651***	-2.110459	-1.905136	16.91576***
LY	-2.224018	-2.073717	7.388128***	-2.348047	-3.123809	12.41546***
LD_Y	-0.705437	-1.176580	1.305031	-0.795255	-1.423103	1.136430
LDSR	-2.436167	-2.457498	-0.169802	-2.019911	-2.039892	-0.143371
LRIR	-0.354829	-3.069026	-1.132311	-0.626111	-2.780036	-1.022695
LW_Y	-1.209444	-2.815504	0.436399	-1.276407	-2.883202	0.417281

Source: Author's Computations.
* Stationary at 10% level of significance
** Stationary at 5% level of significance
*** Stationary at 1% level of significance

Table 2: Augmented Dickey Fuller and Phillips Perron test results at First Difference

Variables	ADF Intercept	Trend and Intercept	None	PP Intercept	Trend and Intercept	None
D_LC1	-7.269820***	-7.663637***	-1.442713	-7.945176***	-8.217859***	-2.600992***
D_LY	-8.731196***	-9.184427***	-2.298000**	-9.720239***	-10.42630***	-4.229613***
D_LD_Y	-7.054769***	-7.006994***	-6.891411***	-7.438834***	-7.398773***	-7.310666***
D_LDSR	-5.025126***	-5.009288***	-5.057832***	-5.042330***	-5.028001***	-5.074764***
D_LRIR	-6.998364***	- 7.026619***	-6.957045***	-7.028759***	- 7.058759***	-6.943174***
D_LW_Y	-7.989463***	-8.040689***	-8.018526***	-7.989463***	-8.040689***	-8.023585***

Source: Author's Computation

The unit root test outcomes from the ADF and also from the PP tests indicate that all individual variables are not stationary in their level form as shown in table 1 above. Two variables, logged consumption (LC1) and logged income (LY), are an exception as they have unit roots at level series but only under a model which has neither trend nor intercept. However, after first differencing, all individual variables show stationarity at 1 percent level of significance using both tests as shown in table 2 above. LCI is non-stationary under the model with no trend and no intercept when using the ADF test, it is however stationary under the intercept and also trend and intercept model. It is also stationary under all models when the Phillips Perron Test is employed, thus the researcher concludes that, like all the others, this variable is first difference stationary. Since all the variables are integrated of order one *I* (1), cointegration tests are then carried out to investigate and conclude as to the presence of a long-term association between household debt and consumption spending.

Cointegration-Optimal Lag Length Selection: From the outcomes of different selection criteria shown by Table 3, there seems to be conflicting lag length results as Schwarz Information Criterion (SC) and Hannan-Quinn criterion (HQ) suggest an optimal lag length of 1 while FPE and LR suggest 2 and AIC suggests 8. This study utilizes a lag length of 1 as per the Schwarz Information Criterion (SC) and Hannan-Quinn criterion (HQ). This is because these criteria have chosen the lag length that minimise their values and are generally preferred to the other criteria. Brooks (2008), also suggests that adding more lags results in an increased penalty for the degrees of freedom lost. The Johansen co-integration technique therefore makes use of 1 lag for the purposes of this study.

Choosing the appropriate specification of the deterministic term: The Pantula principle was used to decide on the model suitable for this study. As pointed out in the previous chapter, the Pantula principle estimates all three models and the outcomes are outlaid beginning with the most restrictive hypothesis all the way to least restraining premise, only stopping when our null is not rejected. Results are given in table 4 below.

Table 3: VAR Lag Order Selection Criteria Results

Lag	LogL	LR	FPE	AIC	SC	HQ
0	507.3795	NA	2.17e-15	-13.89943	-13.67809	-13.81131
1	1112.095	1075.051	4.32e-22	-29.33599	-27.56525*	-28.63105*
2	1169.954	91.60866*	3.50e-22*	-29.58204	-26.26191	-28.26029
3	1212.605	59.23741	4.61e-22	-29.40568	-24.53615	-27.46710
4	1249.666	44.26733	7.82e-22	-29.07404	-22.65511	-26.51865
5	1290.616	40.95066	1.39e-21	-28.85045	-20.88212	-25.67823
6	1354.817	51.71769	1.65e-21	-29.27271	-19.75498	-25.48367
7	1425.858	43.41394	2.39e-21	-29.88496	-18.81783	-25.47910
8	1576.129	62.61283	7.95e-22	-32.69804*	-20.08151	-27.67536

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion
Source: Author's Computation

Table 4: Pantula principle results

R	n-r	Model 2		Model 3		Model 4	
		Trace statistic	Critical value	Trace statistic	Critical value	Trace statistic	Critical value
0	6	249.1067	145.3981	201.2000	135.9732	295.3287	161.7185
1	5	217.4544	145.3981	172.2457	135.9732	248.9387	161.7185
2	4	176.9802	145.3981	151.1680	135.9732	224.8273	161.7185
3	3	171.6222	145.3981	143.1932	135.9732	194.1729	161.7185
4	2	174.4490	145.3981	134.6379	135.9732*		

* Null is not rejected

According to the Pantula Principle, model 3 was chosen as shown in table 4 above. The study therefore utilized model 3.

Johansen Cointegration: After choosing the suitable number of lags, the Johansen test for cointegration can be carried out. The model chosen for this study according to the Pantula principle is the linear deterministic trend model (intercept and trend in cointegrating equation plus no intercept in VAR). The test statistic of the Johansen cointegration technique tests the null hypothesis of r co-integrating equations against the alternative of n co-integrating vectors. Based on the results of the trace statistic as shown in Table 5 below, the null of no co-integrating relations is rejected because the test statistic of 181.384 is greater than the 5% critical value of 125.615. The same goes for the null hypotheses of at most 1 co-integrating equation as its test statistics of 111.817 is greater than the 5% critical values of 95.754. However, the null hypothesis of at most 2 co-integrating vectors cannot be rejected as the test statistic of 65.869 is less than the 5% critical value of 69.819. It can therefore be concluded that according to the trace statistic, there are 2 co-integrating equations.

The maximum eigenvalue statistic tests the view that there are r co-integrating equations against the alternate of r+1 co-integrating vectors. According to the outcomes from the maximum eigenvalue statistic, as shown in Table 6 below, the null hypotheses of no co-integrating relations and that of a maximum of 1 co-integrating equation are rejected because the test statistics of 69.567 and 45.948 are bigger than the 5% critical values of 46.231 and 40.078 respectively. However, the null hypothesis of at most 2 co-integrating vectors cannot be rejected as the test statistic of 27.185 is less than the 5% critical value of 33.877. It can therefore be concluded that according to the maximum eigenvalue statistic, there are 2 co-integrating equations.

Table 5: Johansen Cointegration Trace Results

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.590117	181.3843	125.6154	0.0000
At most 1 *	0.445163	111.8174	95.75366	0.0025
At most 2	0.294277	65.86916	69.81889	0.0992
At most 3	0.262610	38.68367	47.85613	0.2731
At most 4	0.101947	14.92191	29.79707	0.7851
At most 5	0.057988	6.534895	15.49471	0.6323
At most 6	0.023756	1.875350	3.841466	0.1709

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Source: Author's Computation

Table 6: Johansen Cointegration Maximum Eigen Values Results

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.590117	69.56687	46.23142	0.0000
At most 1 *	0.445163	45.94828	40.07757	0.0098
At most 2	0.294277	27.18549	33.87687	0.2536
At most 3	0.262610	23.76176cluden	27.58434	0.1433
At most 4	0.101947	8.387016	21.13162	0.8785
At most 5	0.057988	4.659545	14.26460	0.7840
At most 6	0.023756	1.875350	3.841466	0.1709

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Source: Author's Computation

According to Uddin (2009), where trace statistic and maximum eigenvalue statistic give conflicting outcomes, trace statistic results have to be prioritised. This is because it is said to hold more power than the maximum eigenvalue statistic since it takes into consideration all the smallest eigenvalues. Johansen and Juselius (1990) also advised that where the two statistics give contradictory results, the trace statistic results should be used. However, since both statistics give the same results, this study concludes that the model has 2 co-integrating equations and as such, a VECM is then estimated to examine variable relations.

Vector Error Correction Model-Long Run Relationship Analysis: The vector error correction model allows for the differentiation of the long run and short run dynamics between household debt and consumptions spending. Making use of the number of lags, the intercept and trend assumption as well as the number of co-integrating equations from the previous sections, a VECM is estimated and specified. Table 7 below gives the long run VECM results, with debt to income ratio (LD_Y) as the representative dependant variable. According to Ali (2013), when interpreting VECM results, the coefficient signs are reversed. Table 7 below gives the long run VECM results, with debt to income ratio (LD_Y) as the representative dependent variable and with the signs reversed. The long run cointegrating equation is therefore given by:

LD_Yt = -2.630236 - 3.615695LC1t + 0.083209LDSRt - 0.031172LRIRt + 3.716620LYt + 0.449650LW_Yt+ 0.018874Du+μt……………………………………………… (5.1)

From the results, the debt service ratio (LDSR), income (LY), wealth (LW_Y) and the dummy variable are positively interrelated with the debt to income ratio (LD_Y) while consumption (LC1) and real interest rate (LRIR) are negatively related to the debt to income ratio. Apart from LRIR and DU, all variables are important in explaining LD_Y in the long run.

The positive relationship between LD_Y and DSR is in line with a priori expectations as a growth in the debt service ratio suggests that more of the resources of the household are required for servicing debt, and thus increasing the debt. The negative relationship between LD_Yt and LRIR is in line with initial expectations which suggested that an increase in interest rates discourages borrowing thus reducing debt or it increases the income of savers which thus reduces their debt to income ratio. The negative influence of LC1 on LD_Y is not in line with a priori expectations which suggested that the need to increase consumption leads to an increase in borrowing. These results imply that South African households do not borrow for the purposes of funding consumption. The positive relationship between LD_Y and LY makes economic sense since a growth in income means an improvement in the creditworthiness of a household which increases their chances of borrowing. This also explains the positive relationship between LD_Y and LW_Y, since a growth in wealth implies an increment in collateral which then increases the borrowing opportunities.

Table 7: Long Run VECM Results with LD_Y as the representative dependant variable

Variable	Coefficient	Standard error	t-statistic
Constant	- 2.630236	-	-
LC1 (-1)	-3.615695	0.35657	-10.1403
LDSR (-1)	0.083209	0.02837	2.93341
LRIR (-1)	-0.031172	0.03150	-0.98943
LY(-1)	3.716620	0.36655	10.1395
LW_Y(-1)	0.449650	0.07492	6.00198
DU(-1)	0.018874	0.01319	1.43066

Table 8 below gives the long run VECM results, with consumption (LC1) as the representative dependent variable and with reversed signs. In this instance, the long run co-integrating equation would be given by:

LC1t= 1.472132 + 0.022699LD_Yt - 0.008410LDSRt + 0.005306LW_Yt + 0.078863LYt + 0.008800LRIR - 0.000351DU + μt……………………... (5.2)

From the results, the debt to income ratio (LD_Y), income (LY), wealth (LW_Y) and real interest rate (LRIR) are positively related to consumption (LC1) while the debt service ratio (LDSR) and the dummy variable (DU) are negatively interrelated with consumption (LC1). With the exception of LD_Y and DU, all variables are significant in explaining LC1 in the long run.

The positive influence of LD_Y on LC1 is not in sync with a priori expectation which stated that less income is available for consumption as households are forced to cut on consumption as a debt management tool when high debt levels are reached which then implies that as much as households do not borrow to finance consumption, portions of debt are still used for consumption. The negative influence of LDSR on LC1 is in line with a priori expectations as it implies that a debt service ratio increment increases the amount owed by households and thus reducing the amount available for consumption. These results could therefore imply that with an increase in the debt service ratio, households refrain from increasing their borrowing as they fear the increased cost of servicing and they also reduce their consumption. The positive effect of LRIR on LC1 is not in line with a priori expectations which suggested that there would be a negative relationship as increased interest rates encouraged saving rather than consumption. This implies that for South African households, the income effect is greater than the substitution effect hence higher interest rates are associated with increased income and thereby increased consumption as given by the intertemporal choice theory. The positive influence of LY and LW_Y on LC1 is in line with economic theory as consumption increases with increases in income and increases in wealth.

Table 8: Long Run VECM Results with LC1 as the representative dependant variable

Variable	Coefficient	Standard error	t-statistic
Constant	1.472132	-	-
LD_Y (-1)	0.022699	0.01391	1.63180
LDSR (-1)	-0.008410	0.00199	4.22521
LRIR (-1)	0.008800	0.00127	6.91308
LW_Y(-1)	0.005306	0.00221	2.39786
LY(-1)	0.078863	0.00043	181.644
DU(-1)	-0.000351	0.00037	-0.95545

Short Run Association Analysis: Short run VECM outcomes as shown in Tables 9 and 10 below reveal whether variables converge to their long run equilibrium (indicated by a negative coefficient), or any disequilibrium in the variable continues to grow (indicated by a positive coefficient). The results show that with the exception of LY, LW_Y and DU that have positive coefficients, all the variables have self-correcting mechanism, thus deviations from equilibrium in one quarter are corrected in the next quarter for these variables. However, for LY, LW_Y AND DU, any disequilibrium will continue to grow.

Table 9: Short Run Vector Error Correction Model Results with LD_Y as the representative dependant variable

Variable	Coefficient	Standard error	t-statistic
D(LD_Y) (-1)	-0.054746	0.01991	-2.74976
D(LDSR) (-1)	-0.533088	0.18869	-2.82523
D(LC1) (-1)	-0.091109	0.04745	-1.91991
D(LRIR)(-1)	-0.795824	0.33690	-2.36217
D(LY)(-1)	0.236590	0.06132	3.85843
D(LW_Y)(-1)	0.218170	0.14761	1.47801
D(DU)(-1)	1.270881	0.62907	2.02026

Source: Author's Computation

Table 10: Short Run Vector Error Correction Model Results with LC1 as the representative dependant variable

Variable	Coefficient	Standard error	t-statistic
D(LC1) (-1)	-0.171155	0.17276	-0.99070
D(LD_Y) (-1)	-2.552813	0.94958	-2.68837
D(LDSR) (-1)	-21.45370	9.12742	-2.35047
D(LRIR) (-1)	-13.51447	16.5769	-0.81526
D(LY)(-1)	12.27635	2.85081	4.30627
D(LW_Y)(-1)	6.543988	7.08203	0.92403
D(DU)(-1)	18.39756	30.7658	0.59799

Source: Author's Computation

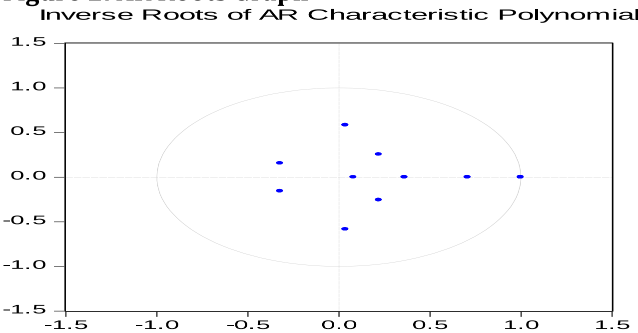
Table 11: Diagnostic Checks results

Test	Test statistic	p-Value	Conclusion
Jarque-Bera	16.06536	0.0245	Normality of residuals is observed at 1%
Breusch-Godfrey	55.88952	0.2320	There is no serial correlation
ARCH LM	496.4982	0.5857	Homoscedasticity is observed

Diagnostic Checks: Diagnostic checks were done to authenticate the efficiency of the Vector Error Correction Model (VECM) and to test the behaviour of the residuals since residuals that are not well behaved lead to biased parameter estimates. Diagnostic checks for the residuals included checks for normality, serial correlation and heteroscedasticity.

AR Roots Test: The AR roots test was carried out for the purposes of testing the strength of the Vector Autoregression (VAR) and the outcome is shown in Figure 2 below. If the VAR has instability, the impulse response standard error results are invalidated. According to the AR roots test, a VAR is seen as stationary if the modulus does not go beyond 1 for all its roots and thus lie within the unit circle. It therefore follows that the VAR model used in this study shows stability as all the roots are found in the unit circle as shown by Figure 2.

Figure 2: AR Roots Graph

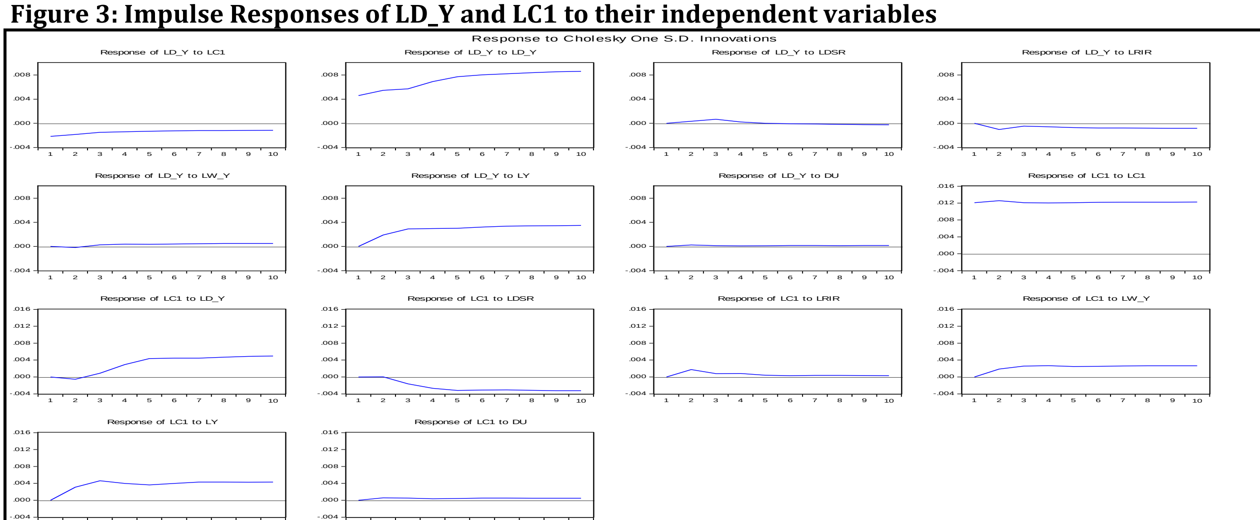


Source: Author's Computation

Since the diagnostic checks indicate that the residuals are well behaved, the results of the study are therefore reliable. Since it has been established that the VECM results are from an efficient model and that the residuals are well behaved, impulse response and variance decompositions are then carried out.

Impulse Response Analysis: The impulse response function traces the consequences of a standard deviation shock in a single variable to one of the advances on current and future values of the other variables. An estimation of impulse response functions for the variables of interest to innovation in each one of the other variables was made. Figure 3 is an extract of results showing the two variables of interest, household debt (LD_Y) and household consumption (LC1). The graphs show the impulse response of individual variables to shock waves in every one of the rest of the variables.

Figure 3: Impulse Responses of LD_Y and LC1 to their independent variables



Source: Author's Computation

According to the results, a standard deviation shock to LD_Y positively impacts on LD_Y. In like manner, standard deviation shocks to LY and LW_Y all have a positive impact on LD_Y. However, a shock experienced by LC1, LDSR, LRIR and DU indicate a negative but almost insignificant influence on LD_Y. A standard deviation shock to LC1, LD_Y, LRIR, LY and LW_Y impacts positively on LC1 while there is no significant impact on LC1 that is observed when the shock is applied to LDSR and DU.

Variance Decomposition: The relative significance of every single shock or innovation in influencing the changes of the variables in the VAR is deduced through variance decomposition. The deviation of each endogenous variable is thus separated into component shocks to the VAR. Table 12 below gives variance decomposition results for household debt (LD_Y) and household consumption (LC1) as these are the focal point of the study.

Table 12: Variance Decomposition Results

Variance decomposition: LD_Y

Period	S.E.	LD_Y	LC1	LDSR	LRIR	LW_Y	LY	DU
1	0.005119	100.0000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
2	0.007950	92.29425	0.117060	0.104141	1.307454	5.709458	0.448454	0.019185
3	0.010137	87.99611	0.103369	0.080695	1.064133	6.097532	1.564337	0.093825
4	0.012354	86.98812	0.170921	0.341126	1.055285	6.830126	2.453272	0.161146
5	0.014661	86.31499	0.318805	0.881050	1.091188	5.888013	3.305917	0.200042
6	0.016971	85.31564	0.454629	1.503607	1.167331	5.221341	4.116224	0.221224
7	0.019237	84.36688	0.576647	2.067330	1.247853	4.716172	4.793129	0.231993
8	0.021453	83.60767	0.696429	2.560044	1.331037	4.273557	5.296433	0.234831
9	0.023600	82.98468	0.808039	2.980545	1.409701	3.909871	5.673583	0.233577
10	0.025659	82.45815	0.904450	3.330792	1.479238	2.628087	5.968376	0.230904

Variance decomposition: LC1

Period	S.E.	LD_Y	LC1	LDSR	LRIR	LW_Y	LY	DU
1	0.000860	18.84016	81.15984	0.000000	0.000000	0.000000	0.000000	0.000000
2	0.001216	23.77119	70.46731	1.213571	1.506018	9.89E-06	1.952083	0.089818
3	0.001505	21.00352	64.74825	2.858988	1.257208	0.039764	5.789406	0.302864
4	0.001777	16.15245	62.25428	6.03559	0.992543	0.195172	8.997278	0.372681
5	0.002049	12.21375	60.54312	10.70213	0.746840	0.282339	11.13615	0.375677
6	0.002313	9.589658	59.08093	15.37500	0.596402	0.281203	12.71340	0.363411
7	0.002566	7.862638	57.83499	18.32528	0.510462	0.259592	13.85798	0.349058
8	0.002809	6.707408	56.80224	19.77497	0.461939	0.241166	14.67707	0.335206
9	0.003040	5.915137	55.93460	21.88707	0.435586	0.225453	15.27947	0.322690
10	0.003261	5.352401	55.20079	22.75598	0.421439	0.211011	15.74629	0.312089

Source: Author's Computation

Brooks (2008) purports that almost all of the variation in a variable in the first quarter is explained by its own shocks and this trend is observed from the results with LD_Y having 100% of its variation from shocks within and LC1 having about 81% of its variations due to its own shocks in the first quarter. For the 10 periods under observation, it can be deduced that in total, the major variations in the two variables LD_Y and LC1 were due to their own shocks. Shocks to the debt service ratio (LDSR) contributed approximately 14% in total to the variations in LD_Y, a contribution higher than that of shocks to LC1 which accounted for only about 4% meaning changes in the rate of servicing debt have a greater influence on how people borrow than does changes in consumption. Interestingly, shocks to income had a greater contribution of about 32% to the variation in LD_Y than did both LC1 and LDSR. This implies that income changes have a notable influence in the borrowing behaviour of individuals.

Shocks to LD_Y accounted for approximately 128% to the variations in LC1 over the 10 quarter period. It is also fascinating to observe that shocks to the debt service ratio (LDSR), contributed the third largest percentage of 119% after LC1 and LD_Y in the variation of LC1 over the 10 periods, a contribution which is more than that of shocks to income and wealth that each accounted for approximately 100% and 10% of the variations in LC1 respectively. This shows that the manner in which South African households consume is notably affected by changes to their borrowing behaviour denoted by LD_Y, as well as changes to the cost of debt represented by LDSR. Results also reveal that shocks to the dummy variable contributed more to the variation in LC1 than they did to the variation in LD_Y as the contribution to LC1 was 3% compared to the 1% contribution to LD_Y. This suggests that the global financial crisis affected more the way households consume than it did their borrowing behaviour.

Granger Causality Test: The focal point of this research is the association of household debt and consumption spending, it is thus important to find the causality amongst the two variables. The VAR Granger Causality/Block Exogeneity test was thus employed and summarized results are given in table 13 below. The initial hypothesis purports that the excluded endogenous variable does not "granger cause" the dependant variable. According to the findings, D(LD_Y), D(LDSR) and D(LRIR) granger cause D(LC1) as their p-values of 0.02, 0.04 and 0.03 respectively are less that the 5% p-value of 0.05, while D(LW_Y), D(LY) and DU do not granger cause D(LC1) as their p-values are greater than 0.05. The results also show that individually, D(LC1), D (LDSR), D(LRIR), D(LY), D (LW_Y) and D (DU) do not granger cause D(LD_Y), however, they collectively granger cause D(LD_Y) as the p-value of 0.04 is less than 0.05.

Table 13: VEC Granger Causality Test Results

Dependent variable: D(LC1)			
Excluded	**Chi-sq**	**Df**	**Prob.**
D(LD_Y)	5.111529	1	0.0238
D(LDSR)	4.218915	1	0.0400
D(LRIR)	4.576433	1	0.0324
D(LW_Y)	1.546233	1	0.2137
D(LY)	0.506394	1	0.4767
D(DU)	0.054390	1	0.8156
All	11.09501	6	0.0855
Dependent variable: D(LD_Y)			
Excluded	**Chi-sq**	**Df**	**Prob.**
D(LC1)	2.066827	1	0.1505
D(LDSR)	1.588947	1	0.2075
D(LRIR)	2.221119	1	0.1361
D(LW_Y)	0.161459	1sert	0.6878
D(LY)	1.281603	1	0.2576
D(DU)	0.027428	1	0.8685
All	12.72263	6	0.0477

Source: Author's Computation

These results indicate that for South African household, there is a flow from debt to consumption. The findings of this research contradict theories such as the relative income theory, the intertemporal choice model and the expectations view and also the findings of Mutezo (2010) which propose a direction from consumption to household debt. They are however similar to results obtained from studies such as that of Agarwal & Qian (2014) for Singapore a developing country, which found that people consume more as they are able to borrow. They are also in line with finding from a number of studies for developed countries, namely, a study by Jauch & Watzka, (2012), for Spain, which found that the level of household debt matters for individual and aggregate consumption. This was also the implication of the results from a study by Baker (2014) for the USA, which found that tightened borrowing constraints had the effect of reducing consumption. This could imply a paradigm shift from the views held by most theories. Results from this section are utilised for policy recommendations that are provided in the next section.

5. Conclusion and Policy Recommendations

According to the results of this study, South African households do not borrow to finance consumption but their consumption is positively affected by borrowing. However, debt induced consumption is not ideal for the South African economy which is still an emerging economy as debt induced consumption can only act as a bubble that would have adverse effects upon bursting. Since consumption remains the main contributor to GDP growth in South Africa, it therefore becomes important to engage in policies that will encourage consumption without increasing household debt. This implies that policies that discourage debt and encourage saving are thus recommended. Policy makers can use measures that eventually increase consumption without having to increase debt such as increasing the debt service ratio and increasing the interest rate level in general as this will make borrowing more expensive and less favourable while savings will then be more attractive. This would reduce the amount of income going towards debt payment as households engage in less borrowing and thus more income would be available for consumption. Concurrently, increased saving will increase household wealth which was found to positively impact on consumption.

It is also recommended for policy makers to devise policies that will reduce the different components of household debt. For example, instalment sales, open accounts and credit card sales could be reduced through setting an amount that will act as a ceiling for such forms of credit, and this amount can be controlled by policy makers as they see fit. This will limit household engagement in these forms of credit only to the set amount. Households that previously enjoyed buying on accounts and instalments will be forced to refrain from over-indulging in such activities at the discretion of the policy makers. Another option would be to encourage the buying of assets such as cars for cash rather than through credit. Households could be encouraged to open asset savings accounts that earn interest so that they would eventually buy their assets using these savings and avoid engaging in other forms of finance that will increase their debt. It would also be useful for policy makers to avail more investment opportunities for households and to also create employment in a bid to increase the income of households which can then be used to increase household consumption rather than the use of debt.

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