**RISK GOVERNANCE & CONTROL:
FINANCIAL MARKETS & INSTITUTIONS**

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Journal *Risk governance & control: financial markets & institutions* is published four times a year, in September-November, December-February, March-May and June-August, by Publishing House "Virtus Interpress", Gagarina Str. 9, office 311, Sumy, 40000, Ukraine.

Information for subscribers: New orders requests should be addressed to the Editor by e-mail. See the section "Subscription details".

Back issues: Single issues are available from the Editor. Details, including prices, are available upon request.

Advertising: For details, please, contact the Editor of the journal.

*Risk governance & control:
financial markets & institutions*

ISSN 2077-429X (printed version)
2077-4303 (online version)

RISK GOVERNANCE & CONTROL: Financial markets and institutions

VOLUME 6, ISSUE 4, FALL 2016, CONTINUED - 1

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FRAUD DIAMOND: DETECTION ANALYSIS ON THE FRAUDULENT FINANCIAL REPORTING

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Abstract

The accounting scandal became one of the reasons for analyzing financial statements in order to minimize fraud against the financial reporting. Therefore, companies use the services of a public accountant to audit the financial statements of companies that are expected to limit the fraudulent practices that increase the public's confidence in the company's financial statements. This study aims to detect fraud by using analysis of fraud diamond . This study takes banking companies listed on the Indonesian Stock Exchange in 2009-2014, with a total sample of 149 banks. Based on the results the external pressure, financial stability and capability have influence on fraudulent financial reporting. While target financial, ineffective monitoring and rationalization does not affect the fraudulent financial reporting.

Keywords: Fraud Diamond, Financial Reporting, Accounting Scandals, Fraudulent Reporting

1. INTRODUCTION

1.1. Background

The number of accounting scandals that occurred is one reason for the analysis of the financial statements in order to minimize fraud against the financial statements. Therefore, companies that use the services of a public accountant to audit financial is expected to limit the practice of fraudulent financial statement that is usually associated with earnings management, so it is expected to increase public confidence in the company's financial statements. The object of this study is a banking company. Banking companies have tighter regulation compared with other industries. In the banking world, despite the use of high technology remains vulnerable to fraud. Cases of fraud that occurred in the banking sector include the provision of credit to the documents and fictitious guarantees in bank, involving account officer bank. The total loss of IDR 3,6 billion. Besides the disbursement of deposits and savings run bank customers burglary involving five suspects, one of the bank's customer service. Modus is done by falsifying the signature on the withdrawal slip, then transferred to the account of the suspect. This case was reported with total losses of IDR 18 billion. Another event is the modus head teller bank withdraw cash with customers repeatedly IDR 1,9 billion and 110,000 US dollars. The increase in the various cases in the world of accounting scandals led to various parties speculate that the management of committing fraud in the financial statements. The existence of this phenomenon makes researchers interested in studying further these variables.

The concept was first used to detect the cause of the fraud was first developed by Cressey (1953) in Albrecht et al. (2010) with the name of fraud triangle which consists of three components, namely: pressure, opportunity, and rationalization. Fraud triangle concept adopted in SAS 99, with the aim to increase effectiveness in detecting fraud auditor to assess risk factors for enterprise fraud (Skousen et al, 2011). Fraud triangle model is then developed in a study conducted by Turner et al. (2003), Lou and Wang (2009) and Chen et al (2011) which explains that the occurrence of fraud in the financial statements can be caused by stress such as financial stability pressure, external pressure, personal financial needs and financial targets. SAS 99 classifying opportunities that may occur in fraudulent financial statements into three categories, namely the nature of the industry, ineffective monitoring, and organizational structure. While rationalization is the third part of the fraud triangle that is difficult to measure. In the process, discovered the theory to identify and assess fraud by adding the ability components. Fraud will not occur if corporate governance is implemented properly so that it can be used to regulate and control the enterprise in order to create added value for all stakeholders. Corporate governance can work well when applying the principles of transparency, accountability, fairness, and responsibility. Given these principles, the management of the company healthy and responsible can be achieved, so as to commit fraud takes people who have the ability to understand and exploit the accounting and internal control systems. Corporate governance is directed at reducing the information asymmetry between principal and agent, which in turn can reduce earnings management action. This theory successfully predicts correctly and showed a substantial increase compared to other fraud predictive models. Corporate governance can work well when applying the principles of transparency, accountability, fairness, and responsibility. Corporate governance is directed at reducing the information asymmetry between principal and agent, which in turn can reduce earnings management

action. In other words, to commit fraud takes people who have the ability to understand and exploit the accounting and internal control systems.

Fraud is one result of weak supervision so that the agent or the manager can perform earnings management. In particular, independent directors who are part of the commissioners was instrumental in minimizing the earnings management, which is one form of Fraudulent Financial Reporting committed by management. Skousen et al. (2011) found that the company has a high debt ratio are motivated to manipulate earnings. Companies would rather commit fraud in financial reporting when they have the opportunity to perform earnings management in order to make them look successful performance in front of the shareholders. Likewise Dorminey (2010) argues that companies that are in the condition of lower liquidity levels may motivate management to commit fraud on the financial statements. In carrying out its performance, the company's managers are also required to do the best performance in the achievement of planned targets, assess performance of managers in determining bonuses and wage increases. Therefore, the higher the ROA targeted company more vulnerable the company will perform earnings management, which is one form of financial statement fraud. ROA is a profitability ratio that is used to measure the effectiveness of the company in generating profits by exploiting its assets.

Dechow et al. (2012) explains that the company has weak corporate governance and dominated by insiders tend not to have an audit committee experience the highest incidence of fraud. This opinion is reinforced by Rasha and Andrew (2012) which concluded that fraud is more likely to occur when the concentration of power in the hands of insiders. If a firm ineffective monitoring conducted by the board of commissioners is less, then fraud can occur in the company due to lack of supervision In addition the study showed that the auditors at large KAP has a better ability to detect fraud because large KAP has a goal to provide rigorous external supervision of the financial reporting process to avoid a bad reputation. Every company that went public was also required to make the turn accountant and audit partner by the rules to prevent too deep auditor interact with clients that could interfere with their independence. Entities which often do little tendency to turn auditor does not perform fraudulent financial reporting.

This study draws on research Amara et al., (2013) by using debt, liquidity, ROA as a proxy of variable pressure, opportunity proxied by the quality of internal audit, rasionalization proxied by the change of auditors is based on research Skousen et al., (2009), as well as the ability of proxy with the independence of the board. As a measurement model, this study uses earnings management variables as the dependent variable. The purpose of this research is intended to detect and acquire empirical evidence of the effect of fraudulent financial reporting using fraud diamond analysis based on external pressure, financial stability, financial targets, ineffective monitoring, rationalization, as well as capability.

1.2. The Research Problem

The formulation of the problem posed in this study are as follows:

(1) Does the external pressure positive affect fraudulent financial reporting? (2) Does the financial stability negatively affect fraudulent financial reporting? (3) Does the financial targets negatively affect fraudulent financial reporting? (4) Does the ineffective mentoring negatively affect fraudulent financial reporting? (5) Does rationalization negatively affect fraudulent financial reporting? (6) Does the capability negatively affect fraudulent financial reporting?

2. LITERATURE REVIEW

2.1. Fraud Diamond Theory

Rasha and Andrew (2012) explains that there are four factors that underlie the existence of fraud, namely (1) Pressure, namely the existence of incentives to encourage people to commit fraud; (2) Opportunity, which is a situation that opens the opportunity to allow fraud to occur; (3) The rationalization, which is an attitude, a character that allows certain parties to commit acts of fraud; (4) Capability is the nature and the ability of individuals who have a big role which enable fraud. It is a development of the Fraud Triangle theory that has been developed previously by Cressey. Explanations related to fraud risk factors can be seen in Table 1.

Fraud will not happen without the individual's ability. In commit fraud, a person must have the ability to see the gap as an opportunity to commit fraud and take advantage. So fraud because of the opportunity to do so, pressure and rationalization that makes people want to do and the ability of individuals who are able to realize them. Therefore, companies use the services of a public accountant to audit the financial statements of the company, which is expected to limit the practice of fraud, so that is expected to increase public confidence in the company's financial statements.

2.2. Earning Management

Tahler and Lakhal (2010) defines earnings management as an intervention against external financial reporting process to gain some personal advantage. Obscurity management information generated will ultimately mislead the users of the report in the decision making process. The higher the information asymmetry between the manager (agent) with the owner (principal), encouraging earnings management action by management. In the end, it will trigger the higher cost of agency and showed a positive relationship between information asymmetry with earnings management. Profit is often used various parties as a means to predict the future growth rate of earnings and repayment rates. Management actions profit occurred because the manager of the company, which in running operasioal company is always monitored by the stakeholders, have strong incentives to practice earnings management. Earnings management action by management due to conflict of interest and asymmetric information with the owner is one form of financial statement fraud. Based on these

descriptions, it can be concluded that the agency problem between owners (principal) and management (agent) can cause fraudulent financial reporting are misleading and harmful.

Table 1. Fraud Risk Factor in a SAS 99 Relating to Fraud Financial Statements

Fraud Risk Factor	Category according to SAS 99	Definition and Examples of Risk Factors
Pressure	Financial Stability	Describes the state of stability in the financial condition of a company. The Company may undertake earnings manipulation when financial stability is threatened.
	External Pressure	Excessive pressure for management to meet the expectations of third parties to provide the best performance.
	Personal Financial Need	Financial state of companies that are affected by the financial condition of the company executives. Management compensation depends on the achievement of targets, results of operations, financial position, or cash flow management.
	Financial Targets	Excessive pressure on management to achieve the financial targets set by the board of directors or management. The Company may manipulating earnings to meet analysts' expectations as profit the previous year.
Opportunity	Nature Of Industry	The emergence of risk for the company which involves certain estimates and judgments.
	Ineffective Monitoring	The circumstances in which the company has no effective supervisory unit to monitor the performance of the company. Domination of management by a single person or a small group without compensating controls, ineffective oversight of the board of directors and the audit committee on the financial reporting process and internal controls.
	Organization Structure	Complex organizational structure, or the rotation of senior personnel of the company as managers or directors.
Rationalization	Rationalization	Attitude of board members, management, or employees that allow them to engage in and / or justify fraudulent financial reporting.
Capability	Capability	The nature and capabilities of the private person who has a big role which allows committing a fraud.

Source: Rasha & Andrew (2012)

2.3. Fraudulent Financial Reporting

Association of Certified Fraud Examiners (ACFE) is an organization of the world's largest anti-fraud and as a major provider of education and training anti-fraud. AFCE defines cheating (fraud) as an act of fraud or mistake made by a person or entity who knows that the error could result in some benefits that are not either to individuals or entities or any other party. Fraudulent financial reporting may cause a decrease in the integrity of financial information and may affect several parties. In addition to investors and creditors, auditors are victims of fraud financial statements as they may suffer losses and / or loss of reputation. Therefore, the auditor must understand the ways taken by certain parties in the fraud practice.

2.4. Research Model

The systhematic process of implementation this research can be described in the following scheme:

Figure 1. Research Model

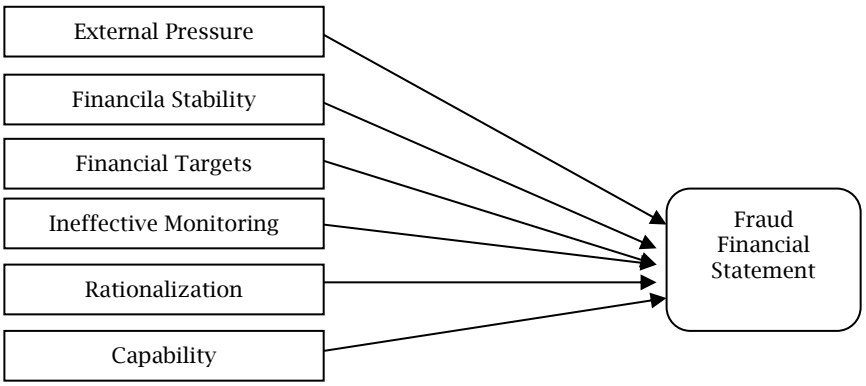

Figure 1 illustrates the research model. Fraud against the financial reporting made by the manager aims to show good performance and satisfactory for investors and creditors, despite the fact that the financial statements are often misleading. This study will detect fraud in financial reporting using fraud diamond analysis, which includes four general conditions in the case of fraud, namely: pressure (external pressure, financial stability, and financial targets), opportunities (ineffective monitoring), rationalization, and capability. In this study, the external pressure is proxied by debt, financial

stability is proxied by liquidity, and financial targets proxied by ROA. to ineffective monitoring proxied by the quality of the external audit. For rationalization proxied by the turn of the auditor, and to ability proxied by independent board. As for financial reporting fraud proxied by earnings management. This research is interesting because it uses variables that measure the ability of a person's capability to commit fraud. The practice of fraud is one of the effects of weak supervision so as to give an opportunity to the agent or manager for inappropriate behavior by performing earnings management. Independent commissioner was instrumental in minimizing the earnings management, which is one form of financial statement fraud committed by management.

2.5. Hypotheses Development

2.5.1. External pressure

Companies often experience a pressure from external parties. One of the pressures that are often experienced by the company's management is the need to obtain additional debt or external sources of funding in order to stay competitive, including financing research and development or capital expenditures. Companies that have a high debt ratio memanipuasi motivated for profit. Companies would rather commit fraud in financial reporting when they have the opportunity to perform earnings management in order to make them look successful performance in front of the shareholders. Managers can manipulate the financial statements because of their need to meet debt covenants. This shows that the higher level of debt can increase the likelihood of fraudulent financial statements. Research conducted by Dechow et al. (2012) and Amara et al. (2013) found a positive relationship between the level of debt and the possibility to commit fraud. this can be done in a way to shrink the debt ratio to achieve the interests of those who obtained loans again. Based on the description, the hypothesis in this study as follows:

H1: *Companies that have a large debt ratio would create the possibility for the occurrence of fraudulent financial reporting.*

2.5.2. Financial stability

According to SAS 99, managers face pressure to commit fraudulent financial reporting when financial stability is threatened by economic, industry, or entity operating situation (Skousen et al., 2011). One of them depicts the financial stability of the company's ability to resolve short-term liabilities. It can be calculated through current assets and liabilities. Liquidity in this study using a proxy loan to deposit ratio (LDR), which is the ratio of total credit granted to the funds received by the bank. LDR is healthy if it is at the limit of 78% - 100%. This ratio describes the ability of banks to attract depositors by relying on credit as a source of liquidity. The higher this ratio, the lower the ability of bank liquidity. Managers will act to perform a variety of ways when the company was in a state of not performing well in order to prove to the shareholders that the condition of a healthy and successful company, so managers will commit fraud in financial reporting. Albrecht (2010) also found that companies that have liquidity problems will have a lot more errors in the financial statements than other companies that do not have a liquidity problem. Based on the description, the hypothesis in this study as follows:

H2: *The low liquidity of the ability of a company can cause managers will commit fraud in financial reporting to show the condition of the company remains healthy and successful.*

2.5.3. Financial target

In carrying out its performance, the company's managers were asked to do the best performance in achieving the targets that have been planned. One of which is used to measure the effectiveness of the company in generating profits is by utilizing their assets (Skousen et al., 2011). Return On Assets (ROA) is a profitability ratio that is used in assessing the performance of managers and determine bonuses or wage increases. The higher the ROA targets, the company will make earnings management, which is one form of cheating. If the high ROA shows that the company has a good performance, so the company does not undertake earnings management. The lower the profit generated by the company will encourage companies to commit fraud by making misstatements in the financial statements. Results of the study Amara et al. (2013) states that companies with low performance levels will tend to commit fraud. Based on the description, the hypothesis in this study as follows:

H3: *Companies that have a high ROA indicates that the company has a good performance, so the trend of companies do not perform fraudulent financial reporting.*

2.5.4. Ineffective Monitoring

Quality audits carried out by people who are competent and independent. According to De Angelo (1998) both of these properties is only owned by a large accounting firm. According Smaili et al. (2009) and Lennox and Pittman (2010) showed that external auditors owned large KAP has a better ability to detect fraud. Large KAP has a goal to provide rigorous external supervision in the financial reporting process to avoid a bad reputation. The large KAP give fewer role in earning management. Based on the description, the hypothesis in this study as follows:

H4: *Quality audit will provide rigorous external supervision of the financial reporting process so as to minimize the form of fraudulent financial reporting.*

2.5.5. Rasionalization

Companies often make the turn auditors tend to commit fraud because of the change of auditors, corporate fraud will not be detected by the new auditor. Every publicly traded company is required to submit financial statements prepared in accordance with Financial Accounting Standards

(GAAP) and have been audited by a public accountant registered in the Capital Market Supervisory Agency (Bapepam). More and more companies are going public, the more the required audit services. Farber and Lee (2011) believes the company can change the auditor to reduce the possibility of detection of fraudulent financial statements by the auditor that indicates the existence of an audit failure-related events and an increase in litigation after the change of auditor. Therefore, an entity that often make the turn auditor has little tendency to not perform fraudulent financial reporting. Based on the description, the hypothesis in this study are:

H5: *Companies often make the turn auditor has little tendency to commit fraudulent financial reporting.*

2.5.6. Capability

Fraudulent practices or fraud can be minimized either by better supervision mechanism. Independent board is believed to improve the effectiveness of supervision of the company. Beasley (1996) concluded that the inclusion of commissioners who come from outside the company improve the effectiveness of the board in overseeing management to prevent fraudulent financial statements. Results were confirmed by research conducted Albrecht et al. (2010) which states that fraud is more common in smaller companies have external board members. Companies that have weak corporate governance and dominated by insiders tend not to have an audit committee experience the highest incidence of fraud. In general, the commissioner has the duty and responsibility to oversee the quality of the information contained in the financial statements. Bank Indonesia Regulation No. 8/4 / PBI / 2006 has been set for the proportion of independent board, which is at least 50% of the total number of board members. The proportion of the commissioners are expected to contribute effectively to the results of the company's financial reporting process quality or avoid fraudulent manipulation of financial statements. Research Amara et al. (2013) showed that the proportion of independent board members (IND) negatively affect the financial statement fraud. Based on the description, the hypothesis in this study as follows:

H6: *The commissioners who come from outside the company will increase the effectiveness of the board in overseeing management to prevent fraudulent financial statements.*

3. RESEARCH METHODOLOGY

3.1. Population and Samples

The population used in this study were banking companies listed in the Indonesia Stock Exchange (BEI) 2009-2014. The selection criteria for the sample as follows (1) The banking company listed on the Stock Exchange during 2009-2014, (2) The company's annual report and financial statements can not be accessed on the company's website, (3) The company's annual report and financial do not have the data associated with variables research. Based on the criteria of the sample used in this study, found that the observation study is 149 banks. Selection of the population in banking companies because the banking company is a company that has a significant contribution to state revenue and gets closer scrutiny from the government to the bank restructuring program in the framework of national economic stability. Oversight of the banking company so often commit fraud in financial reporting that the company's performance is considered good by external parties. While the data used in this research is secondary data in the form of annual financial statements on the company going public, especially in the banking sector in 2009-2014. The data source was obtained from ICMD (Indonesia Capital Market Directory), IDX (Indonesia Stock Exchange), and from the websites of each Banking company.

Tabel 2. Observation Research

No	Criteria	2009	2010	2011	2012	2013	2014	Total Observation
1	Banking companies listed in the Stock Exchange in 2009-2014.	29	31	31	32	36	38	197
2	The company's annual report and financial statements can not be accessed on the company's website.	(9)	(11)	(5)	(4)	(7)	(7)	(43)
3	The company's annual report and financial do not have the data associated with variables research.	(2)	(0)	(0)	(1)	(1)	(1)	(5)
Total Data		18	20	26	27	28	30	149

3.2. Operational Definition and Variables Measurement

1. Fraudulent Financial Reporting.

The fraud financial statement often begins with misstatements or earnings management of the financial statements. Therefore, earnings management is used as a proxy for fraudulent financial reporting in this study was measured by a special accrual models. $NDAit = \beta0 + \beta1COit + \beta2LOANit + \beta3NPAit + \beta4\Delta NPAit + 1 + \varepsilon it$ …(i) and $DAit = TAit - NDAit$ …..(ii).

2. Debt.

Manager will feel under pressure as a result of the need to obtain additional debt or equity financing to be able to compete. In this case the debt leverage is a proxy of external pressure that is measured by

comparing the total debt to total assets of the company (Amara et al., 2013).

3. Liquidity (LDR).

Financial Stability, which is proxied by Liquidity. Liquidity illustrates the company's ability to resolve short-term liabilities. Liquidity in this study using a proxy loan-deposit ratio. LDR is the ratio of the number of loans granted to the funds received by banks (Albrecht et al., 2010).

4. Return on assets (ROA).

Financial Targets, proxied by return on assets. Return on asset is a tool used to measure performance using effeciently indication assets can be used. ROA is often used to measure a manager's performance appraisal primarily related to an increase in bonus. ROA is measured by comparing the net income by total assets of the company (Skousen et al., 2011).

5. External Audit Quality (AUD).

Monitoring ineffective, proxied by the External Audit Quality. The users can use the firm's financial statements that are affiliated with the big four or the firm that is not affiliated with a non big four. Big four auditor is the auditor who has the expertise and reputation which is higher than the auditor nonbig four. Measurement with dummy variables, audit firm the big four in the given value of 1 and audit firm non big four rated 0 93ennox and Pittman., 2010).

6. Change of Auditor (AUDCHAN).

Rationalization, proxied by the change of Auditor. Every publicly traded company is required to submit financial statements prepared in accordance with Financial Accounting Standards (GAAP) and have been audited by a public accountant registered in the Capital Market Supervisory Agency (Bapepam). Variable measurement using a dummy variables, with 1 if the company does not make the turn auditor within 3 consecutive fiscal year and 0 if companies make the change of auditors in 3 consecutive fiscal year (Farber and Lee, 2011).

7. Independent Board of Commissioners (IND).

Capability, which is proxied by an independent Board of Commissioners. Independent board is a board member who does not have the financial, management, share ownership and / or family relationship with the other commissioners, directors and / or controlling shareholders or other relationship which could affect its ability to act independently (PBI No.8 / 4 / PBI / 2006). Independent board is measured by the percentage of the number of independent board to the total number of commissioners present in the composition of board of directors of the company.

4. THE EMPIRICAL RESULT

Adjusted determination coefficient R2 is to see how much the dependent variable explained by the independent variable. From the table 3 it can be seen that the value of Adjusted R Square of 0.459. This means that the independent variable capable of influencing the dependent variable by 45,9%.

Table 3 shows the results F statistics was 7.001 and p value 0.000 it means that the regression model can be used to predict the dependent variable.

Table 3. Regression Result

	Dependent	DA	
Variable	**Coefficient**	**P Value**	
Constant	-1.137	0.027**	
Log Debt	0.589	0.001*	Accepted
Log LDR	-0.533	0.002	Accepted
Log ROA	0.189	0.082	Rejected
AUD	-0.173	0.351	Rejected
AUDCHAN	0.037	0.030**	Rejected
Log IND	-2.166	0.000*	Accepted
F	7.001		
R^2 adjusted	0.459		

<1% , **<5% dan *<10%*

H1: *Companies that have a large debt ratio would create the possibility for the occurrence of fraudulent financial reporting.*

From Table 3 above it can be seen that the variable pressure is proxied by DEBT has coefficient parameter 0.589 and significance at p value 0.027. This demonstrates the company's ability to meet its obligations to have a positive influence on fnancial statement fraud, where a large company's ability to meet its obligations may result in companies doing fnancial statement fraud, so that H1 is accepted. When a company has a great ability to meet obligations would create the possibility of a financial statement fraud committed by directors and corporate management in a way to shrink their debt ratio in order to achieve their interests to obtain the loan back. Dechow et al. (2012) found that the company has a high debt ratio memanipuasi motivated for profit. Companies would rather commit fraud in financial reporting when they have the opportunity to perform earnings management in order to make them look successful performance in front of the shareholders. According Kirkos et al. (2014) high debt structure can increase the likelihood of fraudulent financial statement, because they shift the risk of capital owners and managers utuk debt holders. Managers can manipulate the financial statements because of their need to meet debt covenants.

H2: *The low liquidity of the ability of a company can cause managers will commit fraud in financial reporting to show the condition of the company remains healthy and successful.*

From Table 3 above it can be seen that the financial stability variables that proxy by LDR has coefficient parameter -0.533 and significance at p velue 0.001 . This shows that the negative effect on the liquidity of the company fraudulent financial reporting, so that H2 is accepted. When financial stability is threatened by the economic situation so that the difficulties the company's ability to settle obligations, managers will face pressure to commit

fraudulent financial statements (Skousen et al., 2011). Liquidity in this study using a proxy Loan to Deposit (LDR), which is the ratio of the number of loans granted to the funds received by banks. According to Bank Indonesia Regulation Number 12/19 / PBI / 2010, LDR can be measured from the ratio between the total number of loans granted to third party funds. The higher this ratio, the lower the ability of the bank's liquidity. Companies with lower liquidity level conditions will motivate the management to commit fraudulent financial reporting. Managers will conduct a variety of ways when the company was in a state of not performing well so as to prove to the shareholders that the condition of a healthy and successful company, the manager will commit fraud in financial reporting.

H3: *Companies that have a high ROA indicates that the company has a good performance, so the trend of companies do not perform fraudulent financial reporting.*

From Table 3 above it can be seen that the target financial variables proxied by the ROA has coefficient parameter 0.189 and significance at p value is 0.002 . This indicates that ROA positive effect on financial statement fraud, meaning H3 rejected. In carrying out its performance, the company's managers are required to do the best performance so as to achieve the financial targets that have been planned. Return on assets is a measure of operating performance that is widely used to indicate how efficiently the assets have been working (Skousen et al., 2011). ROA is often used in assessing the performance of managers and used as a proxy for financial variable targets. Therefore, the higher the ROA target company, the more vulnerable the company will make earnings management, which is one form of financial statement fraud. It supports research conducted by Farber and Lee (2011), which proves that the company has great earnings more likely to earnings management than companies that have a small profit.

H4: *Quality audit will provide rigorous external supervision of the financial reporting process so as to minimize the form of fraudulent financial reporting.*

Can be seen from Table 3 above the variable ineffective monitoring the proxied by the quality of the external audit has coefficient parameter -0.173 and significance at p value 0.082 . This shows that there is no influence on the quality of the external audit of financial statement fraud at significance level 0.05, so H4 rejected. Most people have the perception that large-scale KAP can deliver high quality audit results, but this perception may be less precise because KAP big four is not necessarily proven to address the earnings management practices. This is because the company wanted to show the financial performance look good in the eyes of investors to ignore the existence of the big four auditors and non big four. The results support the research results Luhgiatno (2008) which shows the result that the quality of the external audit of the company had no significant effect of fraudulent financial reporting.

H5: *Companies often make the turn auditor has little tendency to commit fraudulent financial reporting.*

Can be seen from Table 3 above the variable rationalization proxied by the turn of the auditor has coefficient parameter 0.037 and significance at p value 0.351. It showed no significant effect on the quality of the external audit of financial statement fraud, so that H5 is rejected. Companies often make the turn auditor has a tendency to commit fraud as to make the turn auditor, fraud committed company is expected to be detected by the new auditor. In this study the change of auditor was not shown to affect a company to perform financial statement fraud. This is because the change made by the company auditors only to meet the regulations governing the change of auditors at each company. Compliance with these principles of service providers by the auditor is not done with cheating. The results support the research results Molida (2011) which shows the result of that change of auditors of the company did not have a significant effect on the fraudulent financial reporting.

H6: *The commissioners who come from outside the company will increase the effectiveness of the board in overseeing management to prevent fraudulent financial reporting.*

Can be seen from Table 3 above the variable capability proxied by the percentage of the number of independent board has coefficient parameter -2.166 and significance at p value 0.003 . This suggests that the independent board negatively affect financial statement fraud, so that H6 is accepted. Fraudulent practices or fraud can be minimized with good oversight mechanism. Independent board is believed to improve the effectiveness of supervision of the company as it is considered to have a more independent oversight. The proportion of the commissioners to contribute effectively on the results of the company's financial reporting process quality or avoid fraudulent manipulation of financial statements, as the proportion of board of directors comprised of members from outside the company have a tendency to affect earnings management. Beasley (1996) concluded that the inclusion of commissioners who come from outside the company improve the effectiveness of the board in overseeing management to prevent fraudulent financial statements. The results support the research carried out by Lennox and Pittman (2010).

5. CONCLUSSION

Based on the results of the regression analysis can be concluded that (1) External pressure which is measured by comparing the amount of debt to total assets of the company have a positive influence on the financial reporting fraud. It means the company has a large debt ratio would create the possibility of fraudulent financial reporting. Instead of financial targets that are measured with a high ROA has a tendency to commit fraudulent financial reporting. (2) Financial stability as measured by the low liquidity of the company led to the tendency of managers to commit fraud in financial reporting because it wants to show the condition of the

company in order to remain healthy and successful. Likewise, the presence of the measured capability of independent directors will increase the effectiveness of the board in overseeing management to prevent fraudulent financial reporting. (3) ROA is indicator of company performance positively affect the financial reporting fraud that is agaisnt the proposed hypothesis. ROA is often used in assesing the performanc of managers, therefore the higher the ROA target company, the more vulnerable the company will make earning s management, whic is one form of finacial statement fraud (4) Ineffective monitoring as measured by the quality of audit and rationalization as measured by the change of auditor does not affect the financial reporting fraud. Most people have the perception that large-scale KAP can deliver high quality audit resultsx, but this perception may be less precise because KAP big four is not necessarrly proven to address the earning magament pratices. (5) rationalization proxied by auditor change does not affect the financial reporting fraud. Auditor change only to meet the regulation governing the changfe odf auditors at each company (6) capabilty proxied by the percentage of the number of indepedent board negatively affect financial statement fraud. Independent board is believed to improve the effectiveness of the supervision of tghe company as it considered to have a more independent oversight. Subsequent research could increase the number of samples and the study period to obtain better results. In the study can then use another proxy in accordance with current conditions of economic problems such as pressure to use personal financial needs, using the occasion variable nature of the industry, rationalization using TACC, the ability to use variable capability organizational structure.

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ESTIMATED FINANCIAL PERFORMANCE MODEL BASED ON SCALE BUSINESS COOPERATIVE (STUDY IN COOPERATIVES IN WEST JAVA)

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Abstract

Analyzing Financial Performance Estimating Model Based on Scale Cooperative require analysis relating to the survival of the cooperative. This study sampled 79 cooperatives Swamitra micro business BUKOPIN bank unit by observing the data for each variable related to capital structure, credit risk, social performance, financial performance and sustainability of cooperatives, during the period of 72 months in West Java Province. Research studies have shown that the assessment of financial performance and social performance is an approach that assesses the importance of sustainability, financial aspects and social aspects in an organization, it is mainly related to the perception of the capital structure, credit risk, social performance, and economies of scale in delivering small loans will very influential terhdadap sustainability of the organization. Cooperative will attract the attention of business people and financiers because it shows that the long-term sustainability will be very potential to be developed. Scale cooperative effort will greatly affect the financial performance and sustainability of cooperatives.

Keywords: Capital Structure, Credit Risk, Social Performance, Financial Performance, Sustainability of Cooperatives, the Scale of Business

1. INTRODUCTION

The first issue in this paper is to study the financial performance of cooperatives related to capital structure and credit risk, given the challenges of the cooperative today are more severe in view of the need for preparedness cooperative in the era of the ASEAN Economic Community in 2015 which is the ultimate goal of economic integration as envisioned in the ASEAN Vision 2020, with four main pillars, namely (a) Single Market and Production Base Regional (b) Competitive Region High (c) Areas with Equitable Economic Development, (d) Integration with the World Economy. In order to face the Society ASEAN economic co-operatives should be able to improve the efficiency, effectiveness and quality of production and creating a conducive business climate in order to increase competitiveness, expand the marketing network, improve the mastery of information and communication technology (Suhartati Joesron, 2013).

The expectations of all parties towards the role of Indonesia Cooperative Movement is the success of each organizational unit of cooperatives in improving the economic welfare of its members, so that the macro can act as a pillar of the people's economy. But, in fact, the practice of cooperatives in Indonesia has lost its identity as a means of driving the prosperity of society. The indications there are many cooperatives that develop as a company but tend not associated with increased economic welfare of its members

Second issues in this study is a review of social performance , it is based on factual conditions of cooperatives in Indonesia , there is a gap between the concept of cooperative and universal practice, as well as the necessary change efforts leading to the reorientation of the practice of cooperatives to be run in accordance with the basic objectives to improve the welfare of memberr and society

The third issue is to conduct studies that relate to the performance of the financial implications for the sustainability of cooperatives. Cooperative as a form of micro-finance institutions are expected to maximize operational efficiency, serving the society are many, and can benefit both financially and non-financially as a development tool that can provide a great social impact for the community (Muhammad Sayeedul Haque and Masahiro Yamao (2009)

Based on the literature on micro-finance and the perspective of the managers of microfinance institutions (Tanya Abramsky, Giulia Ferrari, James Hargreaves, Julia Kim, Linda Morison and Gogfrey Phetla, 2009), the approach of integrated services has the most potential to achieve a balance between improving the ability to obtain performance financial sustainability and to bring about an improvement in the standard of living, so that microfinance institutions can have a positive impact socially and financially. Cooperative as a microfinance institutions has a significant role in the growth of the Indonesian economy.

2. DISCUSSION

2.1. Microfinance Institutions Approach

Pim Engels (2010) distinguishes three functions which illustrates the effectiveness of microfinance. First, microfinance is provided for low-income communities in order to improve the ability to cope with life cycle such as education and improved quality of life.

Second, microfinance reduces the risk of individuals by increasing the ability to handle emergencies. Third, microfinance can provide the opportunity to invest in a business, land, or household assets lainnya.Layanan core of microfinance is the provision of microcredit, which is defined as:

"Small loans to very poor people for self-employment projects that generate income, allowing them to care for Themselves and their families". (Grameen Bank, 2009)

Microcredit can enhance the entrepreneurial skills of low-income communities, and aims to support small businesses or to increase the sources of family income.

Ledgerwood (2006) states that Microfinance is a term that can be divided into two components: Micro and Finance, who first emphasized the financial level involved (mainly composed of small loans), while the second relates to elements associated with financial discipline. Christoper Pollit (2001) defines microfinance as "the provision of financial services to the poor and those earning less than the national average income."

According to Pankaj (2010) microfinance is defined as an effort to improve accessibility with small loans and deposits for poor households that are difficult to access bank. According to Venkata Vijay (2011), micro credit is a credit program for small amounts to the poor to finance the project he's working on his own in order to generate revenue, which allows them to support themselves and their families, "Programmes extend small loans to very poor for self- employment projects that generate income, allowing them to care for Themselves and their family".

Previous studies have shown that the Micro Finance Institutions including cooperative play an important role in reducing poverty, especially by providing access to finance for the poor. To support this position, Michel Tucker (2002) defined as the technique was adopted to combat poverty. In addition to generating productive capital access for the poor, the cooperative also expected to provide the necessary training and education to the needy in order to increase their potential, so it can finally come out of the vicious circle of poverty.

2.2. Cooperative Approach

One form of microfinance institutions is a cooperative financial services. Is a cooperative financial services organization based, owned and controlled by their members. Financial cooperatives are mostly non-profit institutions. Non-governmental organizations (NGOs) has been a pioneer of the microfinance industry.

Cooperatives as an alternative financial service providers need to consider the sustainability of its business in order to provide optimum benefits for the poor and micro enterprises in the long term. This goal can only be achieved if financial services cooperatives according to time, place, type of economic activity, and the level of economic development of society. Cooperative internally also must begin to implement corporate governance standards in accordance with the development of its business.

Cooperatives have objectives that include two aspects, social and business aspects. Therefore, the lack of proper regulation and supervision if performed as applied to the bank under the Banking Act that already exists. However, on the one hand, the Cooperative has properties as a financial institution, it should be guaranteed a minimum of risk management within the framework of regulation and supervision.

The Newcastle on Tyne Co-operative (citied by Ann-Marie Wardand Donal McKillop, 2006) defines cooperatives are:

'Any society should be regarded as a cooperative roomates divided profits with labor, or trade, or both. "(Newcastle-on-Tyne Cooperative Congress)

This illustrates the principle of distributive justice gains for the parties involved, including consumers and employees, as well as commercial companies in general

Other definitions expressed by Maldentaz (1933), cited by Ferguson and McKillop (1997) that the cooperative is:

'Associations of persons, small producers or consumers, who have come together voluntarily to Achieve some common purpose by a reciprocal exchange of services through a collective economic enterprise working at their common risk and with resources Contribute to roomates all contribute'

While George Fauquest states "A cooperative Consist of two essential elements, a democratic association of persons separating economic enterprise.In Reviews These for the purposes of analysis, the essential is lost. It is the manner in the which the two are coordinated that forms the basicproblem of coopertives (Vitaliano, 1977, citied by Patrick Mooney, Thomas WGray, 2005) "

This definition is not solely focused on profit, but there is a shift in values towards achieving the broader goals. This illustrates that significantly there is a change to the definition of a cooperative. To determine the continual change of the definition and cooperative principles it is necessary to analyze the factors that contribute to the development of cooperatives.

According Fairbaim (1994) changes in the cooperative development will continue in view of the cooperative is an organization that is constantly changing in accordance with changes in human life. At this time The International Cooperative Alliace defines a cooperative as

"An autonomous association of persons united voluntarily to meet Their common economic, social, and cultural needs and Aspirations through a jointly-owned and democratically-controlled enterprise".

Cooperative principles that are internationally recognized, namely the principles of modern cooperative group that had begun in 1844. The group was established by 28 workers in Rochdale.

This launched seven cooperative principles, better known as the Rochdale Principles,, these principles are:

a. Voluntary and open membership
b. Democratic member control
c. Member economic participation
d. Autonomy and independence
e. Provision of education training and information
f. Cooperation Among Cooperatives; and concern for the community

Purpose cooperatives are not purely financial matters but also facilitate social and cultural aspirations so that the application of cooperative principles are things that need attention. Cooperative relatively unique character compared to other business entities (GF Ortman and BP King, 2007), a cooperative owned and controlled by members and are not controlled by the investor. Members also elect a democratic manner. Decisions are taken on the basis of the principle of one member one vote is not affected by the funds invested in the cooperative. Surplus cooperative distributed back to members in accordance participation of members in trasaksi. Not-for-profit cooperative, but provides services to member satisfaction.

Cooperative society is needed in order to strengthen competitiveness by maintaining access to the face of market competition, trying to be able to fund the possibility formation of new markets, making products and services based on competition, opening up opportunities to increase revenue, efficiency costs and manage risk.

2.3. Relationship between the Capital Structure Financial Performance

Performance (performance) of the company is a reflection of the success of the business enterprise performance measurement is an act of measurements made tehadap various activities in the value chain in the company, is used as feedback that will provide information on the achievements of the implementation of a plan and the point where companies require an adjustment to the activity planning and control Anthony, Banker, Kaplan, and Young (1997), Anderson and Clancy (1991). (Sony Yuwono, 2003)

There are several benchmarks for assessing the performance of the business, basically classified into two types: namely obyekif and subjective. Objective measures are usually related to the profitability of the sales of its products, the subjective indicators, the profitability is determined by the perception of managers tehadap profitability of their business activities (Zeller, Stanko and Cleverly, 1997).

Companies are often faced with the decision of the selection of capital sources, whether of himself or of capital sourced from pinjaman. Debt could be justified in so far as is expected to provide additional operating profit (Earning Before Interest and Tax) is greater than the interest paid. The use of debt is expected to increase the profitability of own capital (Return on Equity).

Pandey (1999) says that the company's capital structure refers to the relative level of debt to equity on the balance sheet, capital structure is the way a fund company assets through some combination of equity, debt or obligation.

2.4. The relationship between Credit Risk with Financial Performance

Risk is an integral part of the financial services. When financial institutions experiencing troubled loans, it means a risk of (Ronald Chua, Paul Mosley, 2000). Each institution conducting cash transactions or makes investments at risk for the loss of those funds. Development financial institutions do not have to avoid the risk of or ignore the risk. Like all financial institutions, the risks faced by microfinance institutions including cooperatives must be managed efficiently and effectively. If the cooperative does not manage risk properly, it will likely fail to meet the social and financial objectives. When the risk is not managed properly it will result in financial losses, thus, investors, lenders, borrowers and savers tend to lose confidence in the organization that will result in financial difficulties. When experiencing financial difficulties, the cooperative was not able to meet the goal sosianya in providing services to the poor and would be difficult to run the business.

Managing risk is a complex task for any financial organization. Business Financial institutions have stressed that risk management as an important element of long-term success. So that the organization should focus on the ability of organizations to identify and manage the risks of the future as the best predictor of long-term success.

Interest rate risk interact with the level of credit risk. Liquidity and interest rate risk occurs simultaneously when due and the inability to pay short-term obligations. Portfolio investment risk refers to the long-term decisions.

2.5. The relationship between Social Performance with Financial Performance

The combination of social and financial services is a more complex system than by the cooperative services that rely on a basic credit products.

Integrated service approach is very valuable as a means for profit and to the improvement of people's lives. "These new organizations are combining two previously separate logic: the logic that guided the construction of their mission to help the poor, and the logic of profit banks needed enough to support ongoing operations.

According to Fisher and Sriram (2002),

"The industry has Become dominated by a techno-managerial perspective, with a large number of technical manuals and courses on how to manage micro-financial services and sustainability, and how to Achieve outreach. In the process, the development impetus roomates first Gave rise to micro-finance is Often lost (except in the narrowest sense of outreach to poor people.) It is time to put development back into the provision of microfinancial service, and for this we need to go beyond micro-credit. "

Based on the fact the integration of cooperatives so many benefits that microfinance must seek a balance between financial sustainability and social impact.

2.6. The Relationship between Financial Performance with Sustainability

Performance is a specific measure which indicates the successful achievement of a party to the organizational task. The observation shows that the increase in performance will occur when implementing control and efficiency in the implementation of labor. At this time many people who pay attention to microfinance institutions perceived as a potential tool to reduce poverty. Microfinance is expected to reduce poverty, which is regarded as the most important development goal (World Bank, 2000).

Cooperative as a micro-finance institutions can be measured by financial and non-financial approaches. Assessment of financial performance is an approach that assesses the importance of the financial aspects of sustainability in an organization. Research studies have shown that it is mainly related to the risk perception microborrowers and creditworthiness, and diseconomies of scale in making small loans will greatly affect the sustainability terhdadap organization (Pankaj K, 2010). Microfinance attract businessmen and investors because it shows the sustainability and low cost of operations, so for the long term potential to be developed.

2.7. The relationship between Social Performance with Sustainability

Micol Pistelli of Microfinancing Information Exchange (MIX-2012) defines social performance as:

Social performance is the "effective translation of a microfinance organization's mission into practice in line with commonly accepted social values," such as creating benefits and serving clients in a sustainable manner, improving the quality of financial services, and the social responsibility of MFIs toward Reviews their clients.

Pistelli (2012) outlines four goals for the cooperative development of the performance, which includes the reduction of poverty, the growth of existing businesses, job creation, and gender equality and women's empowerment. Although cooperatives put various criteria as the mission of the organization, but the fact still difficult to fulfill, based on data from MIX 70% of Microfinance Institutions registered that include poverty reduction as their primary mission, it was only less than 20%, which can meet the objectives according to the criteria set.

Sustainability of microfinance institutions not only depend on welfare of the members, but also the investor and the institution itself. Jody Rasch (Moody's Analytics, 2012) noted that using indicators such as Moody Social Performance Assessment (SPA) not only uphold the investor's commitment to social responsibility, but it increases the financial benefits. Jody stated that no reputational risk involved when describing the welfare of members, which is not found in other financial institutions.

MIX and the Social Performance Task Force (SPTF) has developed 11 indicators used to measure the social performance of microfinance institutions, including cooperatives therein. Specific indicators used to collect data on the social performance of microfinance institutions around the world and provide a platform for benchmarking and main analisis.Tujuan mixs' is to increase transparency in the microfinance industry through data collection and analysis. Therefore, MIX focus on indicators that clearly and directly related to the results, has a quality that can be tested and compared, and can be easily validated by a third party.

2.8. The Relationship between Financial Performance and Social Performance to Sustainability Cooperative

Analyzing the microfinance model that integrates not a simple matter, because it will involve many factors, both quantitative and qualitative, and cooperatives often must be hybrid. Hybrid usually means that the organizational form mixing elements of public, private, and community in the provision of services, Hanan (2009) apply the label "hybrid" for integrated because this organization in a way acting as a private financial service providers while also trying to provide services that often provided by NGOs or non-financial public sector institutions.

In the opinion of Eva Orbuch (2011), integrated microfinance (Integrated Micro Finance) is more empowering communities, where additional services will better meet the needs of society and enable them further improve living standards.

Integrating social services culturally relevant in conjunction with the financial services increase the likelihood of achieving development goals, education and training can help people become more knowledgeable and gain skills, health care can make people more healthy and thus people are more productive, and financial services can make people more capable of economically

2.9. Estimation Results Financial Performance Model Based on Scale Business Cooperative

On the third regression equation above can be seen total debt to total assets in cooperative small size are negative, which indicates that the increase in total debt to total assets in cooperative small size will decrease the return on assets. In contrast to the micro and medium-size cooperative total debt to total assets is positive which indicates that the increase in total debt to total assets at the micro and medium-sized cooperatives will increase the return on assets.

Then the total debt to equity in the cooperative micro size are negative, which indicates that the increase in total debt to equity in the cooperative micro size will lower the return on assets. In contrast to small and medium sized cooperative total debt to equity is positive which indicates that the increase in total debt to equity in small and medium-sized cooperatives will increase the return on assets.

Table 1. Estimation Results Financial Performance Model Based on Scale Business Cooperative

Cooperative Type	Regression equation
Micro	Y= -0,985 + 0,578 X_1 - 0,226 X_2 + 0,038 X_3 - 10,536 X_4 + 6,282 X_5 *t*: -1,235 0,355 - 1,292 1,565 -2,949 2,509 *p*: 0,226 0,724 0,203 0,124 0,005 0,016 Adj.R^2 = 0,388; F_{stat} = 5,513 (*p*=0,000)
Small	Y= 0,036 - 0,004 X_1 + 0,0006 X_2 + 0,0007 X_3 - 0,097 X_4 - 0,073 X_5 *t*: 10,721 - 0,845 1,474 4,791 -11,047 - 8,299 *p*: 0,000 0,398 0,141 0,000 0,000 0,000 Adj.R^2 = 0,322; F_{stat} = 24,027 (*p*=0,000)
Medium	Y= 0,048 + 0,041 X_1 + 0,0002 X_2 + 0,001 X_3 - 0,201 X_4 - 0,015 X_5 *t*: 6,404 3,116 0,188 1,510 -12,868 - 0,722 *p*: 0,000 0,002 0,851 0,132 0,000 0,471 Adj.R^2 = 0,380; F_{stat} = 254,518 (*p*=0,000)

Where:
Y = *Return on assets*
X_1 = *Total debt to total asset*
X_2 = *Total debt to equity*
X_3 = *Loan to deposit ratio*
X_4 = *Bad debt losses*
X_5 = *Average loan size*

Loan to deposit ratio in the cooperative size of micro, small and medium-sized everything is positive which indicates that the increase in the loan to deposit ratio at the cooperative size of micro, small and medium will increase the return on assets. Likewise, bad debt losses in the cooperative size of micro, small and medium enterprises all are negative, which indicates that the increase in bad debt losses in the cooperative size of micro, small and medium enterprises will lower return on assets.

Lastly average loan size in cooperative micro size is positive which indicates that the increase in average loan size in cooperative micro size will increase the return on assets. In contrast to the cooperatives of small and medium size average loan size is negative which indicates that the increase in average loan size in cooperative small and medium size will decrease the return on assets.

The coefficient of determination (adj.R2) on micro cooperatives of 0.388 indicates that the micro cooperative capital structure, credit risk and social performance simultaneously impact of 38.8% on financial performance. In the small cooperative coefficient of determination (adj.R2) of 0.322 indicates that the small cooperative capital structure, credit risk and social performance simultaneously give 32.2% influence on financial performance. The last in the medium cooperatives coefficient of determination (adj.R2) of 0.380 indicates that the secondary cooperative capital structure, credit risk and social performance simultaneously giving the effect of 38.0% on financial performance.

At simultaneous testing fstat probability value can be seen in all three models less than 0.05 indicates that the cooperative micro, small cooperatives and medium-sized cooperative capital structure, credit risk and social performance simultaneously affect the financial performance.

Then the partial testing, total debt to total assets affect the financial performance in the medium cooperatives, while in cooperative micro and small cooperatives total debt to total assets has no effect on the financial performance. At cooperative micro, small cooperatives and cooperative medium-total debt to equity has no effect on the financial performance. Furthermore, the loan to deposit ratio effect on financial performance in small cooperatives, while in cooperative micro and medium-sized cooperative loan to deposit ratio has no effect on the financial performance. However, bad debt losses affect the financial performance of both the cooperative micro, small cooperatives and cooperative medium.

Average loan size has no effect on the financial performance in the medium cooperatives, while in cooperative micro and small cooperatives average loan size effect on financial performance.

2.10. The influence of Social Performance and Financial Performance to Sustainability Based on Scale Business Cooperative

In this section will be tested the influence of Social Performance and Financial Performance against Sustainability is based on the size of the company. Results Chow test shows that the fixed models is the right choice for a model of Cooperative Swamitra Business Unit Micro Bank BUKOPIN small scale, and the Cooperative Swamitra Business Unit Micro Bank BUKOPIN medium-scale enterprises, but at the Cooperative Business Unit Micro Bank BUKOPIN scale micro businesses pooled least square is the right choice. Then the results of Hausman test shows that the fixed effect model is the right choice for Micro Business Unit Swamitra Cooperative Bank BUKOPIN medium-scale enterprises and random effect model is the right choice for Micro Business Unit Swamitra Cooperative Bank BUKOPIN small scale. Furthermore, the classical assumption test results showed that the regression model in third normal size berdistibusi not cooperative and did not happen multikoliniertas among the independent variables. Later on heteroscedasticity test, found no symptoms Swamitra heteroskedastisity Cooperative Micro Business Unit of Bank Bukopin scale micro enterprises, cooperatives Swamitra Micro Business Unit of Bank Bukopin small scale or on a Micro Business Unit Swamitra Cooperative Bank BUKOPIN medium-scale enterprises. Finally the autocorrelation test, found the symptoms of autocorrelation in Swamitra Cooperative Micro Business Unit of Bank Bukopin small and medium-scale enterprises, but there were no symptoms of

autocorrelation in Swamitra Cooperative Micro Business Unit of Bank Bukopin scale micro enterprises. After testing the model and classical assumption then performed a regression analysis to examine the effect of Social Performance and Financial Performance against Sustainability.

Based on the results of data processing obtained regression equation for each size of the cooperative as shown in the following table.

Table 2. Estimation Results Sustainability Model Based on Cooperative Type

Cooperative Type	Regression Equation
Micro	Z= 0,623 + 0,136 Y - 0,741 X_5 *t*: 2,472 0,178 - 0,711 *p*: 0,017 0,859 0,480 Adj.R^2 = 0,000; F_{stat} = 0,067 (*p*=0,936)
Small	Z= 0,168 - 0,748 Y - 0,225 X_5 *t*: 2,121 -1,736 -0,516 *p*: 0,034 0,083 0,606 Adj.R^2 = 0,0001; F_{stat} = 1,163 (*p*=0,313)
Medium	Z= 0,047 + 0,045 Y - 0,045 X_5 *t*: 5,993 2,676 -0,922 *p*: 0,000 0,008 0,357 Adj.R^2 = 0,050; F_{stat} = 3,590 (*p*=0,000)

Where :
Z = Growth of Asset
Y = Return on assets
X_5 = Average loan size

From all regression equation above it can be seen return on assets in cooperative small size are negative, which indicates that an increase in return on assets in cooperative small size would decrease the asset. In contrast to the micro and medium-size cooperative return on assets is positive which indicates that the increase of return on assets in the micro and medium-sized cooperatives will increase the asset. Average loan size in the size of the cooperative micro, small and medium enterprises all are negative, which indicates that the increase in average loan size on the size of the cooperative micro, small and medium enterprises will decrease the asset.

The coefficient of determination (adj.R^2) on the Micro Business Unit Swamitra Cooperative Bank BUKOPIN scale micro enterprises of 0.000 indicates that the Micro Business Unit Swamitra Cooperative Bank BUKOPIN scale micro enterprises Social Performance and Financial Performance no effect on Sustainability. Cooperative Swamitra Micro Business Unit of Bank Bukopin small scale coefficient of determination (adj.R2) of 0.0001 indicates that the Cooperative Bank Swamitra Micro Business Unit BUKOPIN small scale Social Performance and Financial Performance simultaneously only effect of 0.01% on Financial Performance. Lastly Cooperative Bank Swamitra Micro Business Unit BUKOPIN medium-scale enterprises coefficient of determination (adj.R^2) of 0,050 shows that the Cooperative Bank Swamitra Micro Business Unit BUKOPIN medium-scale enterprises Social Performance and Financial Performance simultaneous effect of 5.0% on Performance finance.

At simultaneous testing can be seen the value of probability fstat on Swamitra Cooperative Micro Business Unit of Bank Bukopin small scale and micro cooperatives greater than 0.05 indicates that the Micro Business Unit Swamitra Cooperative Bank BUKOPIN micro-scale enterprises and cooperatives Swamitra Micro Business Unit of Bank Bukopin small scale Social Performance and Financial Performance simultaneously no effect on Sustainability. But at the Cooperative Bank Swamitra Micro Business Unit BUKOPIN medium-scale enterprises fstat probability value less than 0.05 indicates that the Micro Business Unit Swamitra Cooperative Bank BUKOPIN medium-scale enterprises Social Performance and Financial Performance simultaneously affect the Sustainability.

Then the partial examination, Social Performance Sustainability has no effect on either the Cooperative Bank Swamitra Micro Business Unit BUKOPIN scale micro enterprises, cooperatives Swamitra Micro Business Unit of Bank Bukopin small-scale enterprises and cooperatives Swamitra Micro Business Unit of Bank Bukopin medium-scale enterprises. Further Financial Performance Sustainability influence on the Micro Business Unit Swamitra Cooperative Bank BUKOPIN medium-scale enterprises.

3.CONCLUSION

3.1. Effect of Capital Structure, Credit Risk and Social Performance to Financial Performance Based on Scale Cooperative

a) On a scale of micro enterprises

Coefficient loan to debt ratio and average loan size is positive which indicates that the increase in loan-to-debt ratio and average loan size will increase the return on assets. While the total debt to total assets to equity, and the bad debt ratio shows the opposite. Simultaneously capital structure, credit risk and social performance affects 38.8% of financial performance, but the partial total debt to total assets, total debt to equity, loan to deposit ratio has no effect on the financial performance, while the bad debt ratio and average loan size effect on financial performance.

b) On a scale of small businesses

Coefficient of total debt to total assets, total debt to equity and a loan to deposit ratio is positive which indicates that the increase in total debt to total

assets of debt to equity and a loan to deposit ratio in cooperative small size will increase the return on assets. While the bad debt ratio and average loan size indicates otherwise. Simultaneously capital structure, credit risk and social performance affects 32.2% of financial performance, but the partial total debt to equity has no effect on the financial performance, while total debt to total assets, loan to deposit ratio, debt ratio and average bad loan size effect on financial performance.

c) In the medium-scale enterprises

Coefficient of total debt to total assets, total debt to equity and a loan to deposit ratio is positive which indicates that the increase in total debt to total assets, debt to equity, loan to deposit ratio at secondary cooperatives will increase the return on assets. While the bad debt ratio and average loan size indicates otherwise. Simultaneously capital structure, credit risk and social performance affects 38.0% of financial performance, but the partial total debt to equity, loan to deposit ratio and the average loan size has no effect on the financial performance, while total debt to total assets and bad debt ratio effect on financial performance.

3.2. Effect of Social Performance and Financial Performance to Sustainability Based on Business Scale Cooperative

a) In the Micro Scale

Coefficient of return on assets is positive which indicates that the increase of return on assets in cooperative micro-scale enterprises will enhance the growth of assets. Simultaneously, financial performance and social performance effect on sustainability, partial social performance has no effect on sustainability, while the effect on the financial performance of sustainability.

b) On the Small Scale

Coefficient of average loan size is negative which indicates that the increase in average loan size on a small scale cooperatives will reduce the growth of assets. Simultaneously, financial performance and social performance effect on sustainability, partial social performance has no effect on sustainability, while the effect on the financial performance of sustainability.

c) In the Medium Business Scale

Coefficient of return on assets is positive, which indicates an increase in return on assets will improve the growth of assets, average loan size is negative which indicates that the increase in average loan size in the cooperative medium-scale enterprises will decrease the growth of assets. Simultaneously and partial financial performance and social performance effect on sustainability.

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EXPLORING CORPORATE SOCIAL RESPONSIBILITY AND ORGANISATIONAL COMMITMENT WITHIN A RETAIL ORGANISATION

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Abstract

Organisations have difficulty retaining employees who have the necessary talent, skills and knowledge to give the company a competitive edge in a global market, thus emphasising the need for organisational commitment. The objective of the study was to explore the relationship between corporate social responsibility and organisational commitment within a South African retail organisation. Corporate social responsibility has a positive influence on consumer behaviour and can contribute to corporate success because CSR activities enhance an organisation's image. Research has indicated that corporate social responsibility is related to an employee's commitment. The Corporate Social Responsibility Scale and the Organisational Commitment Scale were administered to a non-probability sample of 171 employees from a population of 268 employees in the human resources department of a retail company. Person's correlation analysis was used to determine the relationship between corporate social responsibility and organisational commitment. This study provided insight into the corporate social responsibility of the organisation. Managers and practitioners in the human resources may use these findings for the development of corporate social responsibility policies and practices in order to build employee commitment.

Keywords: Corporate Social Responsibility (CSR), Social and Non-Social Stakeholders, Organisational Commitment

1. INTRODUCTION

Globalisation increases the speed of change as more suppliers of goods and services produce an intensely competitive economy, placing a high premium on innovation (Kanter, 2011). South African organisations are therefore required to compete within the national market and international markets to ensure success and survival in the economy (Wood & Glaister, 2008). Ali, Rehman, Ali, Yousaf and Zia (2010, p. 2796) state "the concept of increasing corporate wealth is now vanishing against the broader concept of organisational success". "Today the most important matter for corporations is sustainable growth, especially in the era of global recession" (Ali et al., 2010). Organisations constantly need to be aware of their long term survival, and it is suggested that survival will also depend on the organisation's capacity to confront environmental and community issues through their socially responsible behaviour (Collier & Rafael, 2007).

In recent years, the term corporate social responsibility (CSR) has emerged as an inclusive and global concept to embrace corporate social performance, responsiveness, and the entire spectrum of socially beneficial activities of businesses. Hence corporate social responsibility is becoming an increasingly important part of doing business around the world. Giuli and Kostovetsky (2014) indicate that globally companies are allocating significant portions of their expense budgets to CSR amounting to $28 billion on sustainability and 15 billion on corporate philanthropy.

In terms of the background of corporate social responsibility in South Africa, the 2002 World Summit on Sustainable Development held in Johannesburg challenged the business community to take cognisance of a plethora of environmental and social issues it overlooked. Freemantle and Rockey (2004) highlighted that the King II's corporate governance recommendations that business needs to implement social responsibility initiatives, encouraged business executives to put more effort in this area. Most South African companies have taken the lead in social responsibility programmes and in 2014 the total money spent on SCR initiatives amounted to R8,2 billion.

With the amount of money and attention that organisations locally and internationally are giving to CSR, it is important to understand the rationale for CSR. Jensen (2002) argues that spending on CSR may be financially profitable to organisation to its branding/reputation effects, customers, employees and investors. Numerous studies have investigated the link between CSR and financial performance through theoretical and empirical lenses (Collier & Rafael, 2007; Cheng, Ioannou & Serafeim, 2013).

Most research findings seem to confirm that CSR initiatives do have a positive impact on the financial performance of an organisation.

Despite this large amount of attention, a fundamental question remains unanswered: does CSR have an effect on employees' performance, attitudes and retention within the organisation? There is a gap in terms of the extant research available to give a definitive answer to this question in a South African context. In this paper the focus is therefore on the benefits of CSR initiatives in improving employees' attitudes towards their organisations, especially their commitment to the organisation. It is against this background that the quest of this article is to contribute to this emerging literature that investigates the relation between corporate social responsibility and organisational commitment in a South African retail organisation. Unlike prior studies that mainly focused only the financial performance of organisations with CSR initiatives.

2. LITERATURE REVIEW

2.1. Corporate Social Responsibility (CSR)

Recent research on corporate social responsibility (CSR) has persuaded organisations to assign substantial resources to the welfare of the community (Ali et al., 2010). Collier and Rafael (2007) argue that society and stakeholders of the organisation consider CSR to be important in alleviating social and environmental problems. CSR is beneficial for society since its fundamental actions are focused on creating positive social change such as ensuring the equality of employees within an organisation, reducing the organisation's negative impact on the environment, and supporting people or communities in need (Aguilera, Rupp, Williams & Ganapathi, 2007). CSR also shows that an economic advantage can be considered an important motivator (Turker, 2009a). Organisations which engage in CSR increase their competitive advantage, as their investments in CSR benefit them by attracting the best talent which, in turn, leads to the organisation's greater success (Orlitzky, Siegal & Waldman, 2011).

According to Aguilera et al. (2007), organisations should guarantee that the wealth they produce will be used to help the less fortunate in society. Collier and Rafael (2007) further explain that the employee's perceptions of CSR largely depend on the CSR being visibly socially responsible and ethical so as to achieve positive social outcomes. Following this reasoning, it seems plausible to suggest that if an employee is committed to an organisation, the employee will exert all efforts to match the organisation's values such as CSR. Then CSR investments will in turn be rewarded by organisational success, which, turning full circle, will provide rewards to the employee. CSR also has the influence to strengthen its relationships with different stakeholders, including investors, government, customers, suppliers, and employees (Turker, 2009b). While committed employees are critical for success, as they are the building blocks of any organisation, it is the perceptions of CSR held by stakeholders within the organisation that's could arguably be considered most relevant, since stakeholders will ultimately be affected by an organisation's CSR practices (Dawkins & Ngunjiri, 2008; Turker, 2009a). The stakeholder theory is utilised as a means through which organisations may identify the different groups that they are responsible to (Moir, 2001). Therefore the perceptions that employees have of the organisation's CSR are likely to affect the attitudes of those employees toward matters such as retention and organisational commitment. According to Turker (2009b), stakeholders of CSR can be grouped into four categories, namely social and non-social stakeholders, employees, customers, and government.

2.2. Organisational Commitment (OC)

Meyer and Allen's (1991, p. 67) attitudinal definition views organisational commitment as "a psychological state that (a) characterises the employee's relationship with the organisation, and (b) has implications for the decision to continue membership in the organisation". Porter, Steers, Mowday and Boulian (1974), as well as Rashid, Sambasivan and Johari (2003), support this view that organisational commitment is not just about a positive attitude which will result in greater effort being exerted by the employee on behalf of the organisation, but will also result in the employee wanting to remain at and be involved in that organisation.

Meyer and Herscovitch (2001) define commitment as a energy that connects an employee to an action plan that is important to achieving a particular goal. Commitment encourages related behaviours that will result in positive goal outcomes, the benefits of these outcomes will then come full circle to reinforce employee commitment to the organisation. Over the last decade, research on commitment has established two findings (a) that commitment can adopt various forms and (b) that commitment can be focussed towards various aims such as task, team, customer, etc. (Meyer et al., 2004).

Luthans (2008) concurs, stating that employees are committed to an organisation if they have a strong aspiration to stay on as a member of that specific organisation, a motivation to exert high levels of effort the organisation's behalf, a definite belief in, and acceptance of, the goals and values deemed important within the organisation. The common factors in the definition of organisational commitment are that it is an attitude which employees hold which affects their behaviour in the organisation. It can result in the acceptance of the organisation's goals, missions and values, which in turn make the employees want to exert effort in order to achieve those goals. Meyer and Allen's (1991) definition of organisational commitment was used as the basis for this study and identifies feelings of identification, attachment and loyalty to the organisation.

The model of organisational commitment is based on a definition which consists of affective, normative and continuance commitment (Meyer 1997). These three dimensions describe different ways in which organisational commitment develops, as well as the implications for employee behaviour. The model has received considerable empirical

support (Meyer, Stanley, Herscovitch & Topolnytsky, 2002). Affective commitment represents an employee's emotional attachment to, identification with and participation in the organisation (Meyer & Allen, 1997). Continuance commitment refers to the employee's awareness of the costs that are associated with leaving the organisation (Meyer & Allen, 1997). Normative commitment reflects the feeling of obligation to stay with an organisation (Meyer & Allen, 1997).

2.3. Theoretical Link Between Corporate Social Responsibility and Organisational Commitment

There appears to be a relationship between corporate social responsibility and organisational commitment in particular circumstances, and this study was conducted to establish if there is a relationship between corporate social responsibility and organisational commitment in a South African retail organisation. Sufficient research is available on the effects of corporate social responsibility on employee organisational commitment in South Africa (Ali et al., 2010).

The following discussion of the link between corporate social responsibility and commitment is based on international rather than local research. Research suggests that corporate social responsibility enhances employee commitment levels within the organisation, because CSR interventions include activities focusing on the welfare of employees and their families. Other studies, including those by Moskowitz (1972), Greening and Turban (2000), Peterson (2004), and Dawkins (2004), have established that corporate social involvement has a two-fold benefit firstly attracting motivated prospective employees and secondly improving the commitment level of existing employees. Brammer et al. (2007) argue that CSR increases employee organisational commitment. Showing that organisations can enhance their employees' organisational commitments by promoting social activities such as, working towards an improved environment, recognising the needs of the community and satisfying them, becoming concerned about employee welfare, providing and producing high quality service/products for customers, and complying with government policies and regulations whilst adhering to the legal framework (Brammer et al., 2007). According to the social identity theory, expectations may be placed on CSR to contribute confidently towards the recruitment, retention and motivation of employees, as employees identify strongly with positive organisational values (Peterson, 2004).

Organisational commitment can therefore be developed by perceptions from employees, and not exclusively by organisational objectives such as the corporate social performance. Knox and Maklan (2006) indicate that CSR initiatives decrease employee turnover and thus promote organisational commitment. The benefits of CSR and its impact on organisational commitment were marked in a study by Peterson (2004), which highlighted the fact that CSR and commitment are related. The relationship is considered to be more significant for employees who deem CSR to be important. It may be argued that turnover is the opposite of organisational commitment; therefore, high levels of commitment are associated with low turnover intention and, consequently, high intention to stay (Peterson, 2004).

The future holds many challenges for the overall retail industry as resource shortages, climate change, demographic change, new technologies, and systemic shifts in the global economy affect business, customers and the world in ways businesses find hard to anticipate, let alone prepare for (Anderson, 2010). Anderson (2010) states that all areas of energetic industries in the various regions will be affected, from suppliers of raw materials to manufacturers and even designers, and right through to big brands and niche retail outlets. These insightful changes will eventually question the well-known business models used by organisations (Anderson, 2010). While the retail industry supplies great benefits to consumers, going further than just fashion to express identity, create comfort, embrace creativity and connecting global shopping, reasonably every industry also has a negative impact; within retail particularly such as exploiting factory workers, generating cast-off fashion or even wasting resources and promoting unsustainable consumption (Anderson, 2010). Anderson (2010, p. 4) therefore challenges organisations "to look beyond immediate benefits and use their collective power to work to create the kind of positive world we'd all like to be living in by 2025".

The research objective of this study was to explore the relationship between corporate social responsibility and organisational commitment within a retail organisation. With the above considerations as a basis, this research study aims to add value not only to the South African retail organisation but to the international literature in this area as follows:

- Providing an exploratory view of the organisation's HR employees' commitments as well as their perceptions of the retail organisation corporate social responsibility initiatives.
- Using this information, to improve the retail organisation's development and implementation plans for motivating employees by driving its CSR programmes and thereby influencing organisational commitment for staff retention purposes.

3. RESEARCH DESIGN AND METHOD

3.1. Research Approach

A quantitative, cross-sectional survey design was used. A cross-sectional survey design gathers data at one point in time from one sample in order to represent the larger population (Hall, 2008).

3.2. Population and Sample

A sample of 286 HR professional employees, who are permanent staff members, was selected to participate in the online survey. The online survey link was personally administered via email at a retail organisation's head office in South Africa. A non-probability sample of 171 employees responded to the survey, yielding a response rate of 59.8%. The total population of this study consisted of 286 respondents in the HR department. The researcher belonged to this department in the retail organisation, therefore was able to obtain

permission to conduct the research with this specific group. Table 1 reflects the respondents' biographical details.

Descriptive data such as skewness was examined to determine whether the distribution is symmetrical or asymmetrical, while kurtosis was considered to examine the nature of the data (Huck, 2009). The data set was found to be valid within the given parameters of skewness and kurtosis of +1.00 and -1.00 (Huck, 2009). The sample consisted of 33.3% (n = 57) men and 66.7% (n = 114) women. Of the respondents, 35.7% (n = 61) consisted of black African respondents with coloured people representing 24.6% (n = 42); Indians 27.5% (n = 47), and 12.3% (n = 21) white respondents. Table 1 also indicates that most of the respondents, 77.8% (n = 133), were above 31 years of age; 17% (n = 30) were between the ages of 26 and 30 years; and 4.7% (n = 8) were between the ages of 18 and 25 years.

Table 1. Respondents' biographical details (n = 171)

Variable	N	%
Gender		
Male	57	33.3
Female	114	66.7
Ethnicity		
Black African	61	35.7
Coloured	42	24.6
Indian	47	27.5
White European	21	12.3
Age		
18–25 years	8	4.7
26–30 years	30	17.5
31 years plus	133	77.8
Tenure at Organisation		
Between 2–5 years	61	35.7
Less than 2 years	20	11.7
More than 5 years	90	52.6

Finally, Table 1 shows that 52.6% (n = 90) of the respondents had worked for the organisation from one to five years; 35.7% (n = 61) had two to five years working experience; and 11% (n = 20) had been with the organisation less than two years.

3.3. Research Questionnaires

The instrument to measure employees' perceptions of the CSR actions of the organisation was developed by Turker (2009b) and is called the Corporate Social Responsibility Scale (CSRS). The scale contains 17 items and includes almost every characteristic of CSR, including responsibility to social and non-social stakeholders, employees, customers, and government. The instrument is a five-point Likert scale (1 Strongly Disagree and 5 for Strongly Agree). Turker (2009b) developed the scale from multiple viewpoints including legal, environment, employee and ethics which has been adapted and applied in the data analysis. Turker (2009b) used an exploratory survey to create items for the CSR scale; these items were then refined through group discussion, and a second pilot survey was then utilised to observe the validity of the scale. Thus an adaptation of Turker's (2009b) scale is used as it presents a multidimensional representation of CSR, namely the organisation's stakeholders, and specifically its social and non-social stakeholders, employees, customers, and government.

Meyer and Allen's (1997) Organisational Commitment Scale (OCS) measures the three components of organisational commitment, namely affective, continuance and normative. OCS has 24 structured items or statements, with eight dimensions measuring each type of commitment. A seven-point Likert-type scale is used to measure the commitment dimensions. Meyer and Allen (1997) found the internal consistencies vary between 0.85 for affective, 0.79 for continuance and 0.73 for normative. The overall reliability exceeds 0.70 (Meyer & Allen, 1997). The construct validity of the OCS is based on the fact that the dimensions correlate as predicted with proposed antecedent variables, such as personality, experience and demographic factors, and situational variables such as task interdependence, job involvement and work group attachment (Meyer & Allen, 1997).

The organisation's Executive Manager of Learning & Organisational Effectiveness was consulted in order to obtain permission to conduct the study with the HR group. Further permission was obtained in writing from the HR executive to do the study with the HR group at the South African head office. Both questionnaires were administered in the form of an online survey. A survey link was then sent to each member of the HR group along with information about the purpose of the study, and also covered ethical considerations including confidentiality and anonymity of responses. Both the CSR and OCS are self-administered questionnaires and could therefore be completed online without supervision. An informed consent page was built into the online survey and respondents had to click "yes" to consent in order to start the survey.

3.4. Statistical Analysis

The reliability of the questionnaires used was assessed using Cronbach's alpha coefficient. The Cronbach's alpha coefficient measures internal consistency, which indicates the degree to which the measuring instrument items are consistent in the construct it is attempting to measure. Bryman and Bell (2007) propose that once Cronbach's alpha has been computed, it will produce a value that varies

between 1 (representing perfect internal reliability) and 0 (representing no internal consistency). The values 0.80 and 0.70 are typically used as a cut-off point for a good level of internal reliability. In this study, a score of 0.70 was used as a cut-off score. Descriptive statistics in the form of frequencies, means and standard deviations were used to analyse the data. The mean was identified for each dimension of the corporate social responsibility and organisational commitment questionnaires. According to Blanche, Durrheim and Painter (2007), the mean is the arithmetic average of all the numbers. A correlation analysis was done to determine any possible relationships between corporate social responsibility and organisational commitment.

This research study protects all the respondents involved as it does not indirectly or directly harm the respondents or researcher. The participation was voluntary and informed consent by all the respondents was established before the research began. Respondents were not asked to approve data or otherwise do anything beyond completion of the questionnaire. All the information collected remains anonymous, which protects the respondents' confidentiality, as assured during informed consent. There was no compulsion for a respondent to complete the survey, or if after reading the information page they did not wish to participate, this was accepted. Confidentially was retained throughout the study: the organisation's trading name and the respondents identities were not used in the research project, and nor were any names or details of the respondents released. Informed consent was obtained from the respondents and all data and results were handled confidentially. The online survey was sent directly to the respondents' work email addresses, and completion of each link was tracked anonymously. Only the sample group could therefore access and complete the questionnaire online, ensuring that the questionnaire was not re-distributed and was completed by the respondent.

Anonymity of the respondents was maintained as they were not asked to fill in any of their personal details on the questionnaire. The research study was solely conducted for the purpose of a master's degree research project. The results obtained were communicated to only the organisation from which the data was collected, and any recommendations made will be for the benefit of the organisation.

4. RESULTS

4.1. Reliability of Measuring Instruments

The reliability of the Corporate Social Responsibility Scale and the Organisational Commitment Scale was determined using Cronbach's alpha coefficient. The results of these measuring instruments are presented in Table 2 and Table 3 respectively.

From Table 2 it can be seen that the alpha coefficients of three subscales or factors range from 0.77 to 0.84, indicating internal consistencies within the recommended range. The overall reliability of the CSRS is 0, 78. CSR Social and Non-Social Stakeholders and CSR Government both had an equally high internal consistency. This indicates that the respondents answered most consistently in their responses for these two scales, giving evidence of their awareness, in the way they answered the questions, of their own confident perceptions of the organisation's CSR.

Table 2. Reliability of the Corporate Social Responsibility Scale (CSRS)

Subscale	Cronbach's alpha coefficient	N
CSR Social and Non-Social Stakeholders	0.84	6
CSR Employees	0.77	6
CSR Customers	0.69	3
CSR Government	0.84	2
OVERALL RELIABILITY	0.78	17

However the subscale CSR Customers appears to have a low reliability (0.69). This low value suggests that the items in this scale did not correlate strongly with other items; they therefore have low internal consistency. Considering that internal consistency measures the degree to which the measuring instrument items are consistent in the construct being measured, it can be determined that the respondents did not consistently answer questions relating to the organisation's CSR customers. Possibly some of the respondents were not aware of the CSR customer actions and were unsure when providing their responses, or they did not understand how to answer the questions. Consequently, the CSR Customer subscale was excluded from further analysis due to its low reliability score.

Table 3. Reliability of the Organisational Commitment Scales (OCS)

Subscale	Cronbach's alpha coefficient	N
Affective Commitment	0.91	8
Continuance Commitment	0.66	8
Normative Commitment	0.80	8
OVERALL RELIABILITY	0.79	17

In terms of Table 3 above, it can be seen that the alpha coefficients of the two dimensions or subscales ranges from 0.80 to 0.91, indicating internal consistencies within the recommended range. The overall reliability of the OCS is 0.79. Affective commitment produced the highest internal consistency; this indicates that the respondents answered most consistently at this level of

commitment. However, the subscale's Continuance Commitment appears to have a low reliability (0.66). This low value suggests that the items in these scales did not correlate strongly with other items and therefore has low internal consistency. This could possibly indicate that the respondents did not understand the question or how to respond to the continuance questions. Consequently, the continuance commitment scale was excluded from further analysis due to its low reliability score.

4.2. Descriptive Results of Corporate Social Responsibility and Organisational Commitment

This section discusses the descriptive statistics of the corporate social responsibility and organisational commitment measures. The statistics are presented in Table 4.

Table 4. Descriptive Statistics of Corporate Social Responsibility

Subscale	N	Mean	Std. Deviation	Skewness	Kurtosis
CSR Social and Non-Social Stakeholders	171	3.40	3.5	- 0.47	1.25
CSR Employees	171	3.30	3.9	- 0.27	0.27
CSR Government	171	4.01	1.4	- 0.36	- 0.24
OVERALL		3.57			

The mean was represented on a scale of 1 to 5, with 1 as low, 3 average and 5 high. From Table 4, taking into account the corporate social responsibility subscales that had an acceptable level of reliability, it can be seen that the overall mean score of 3.57 indicates a positive perception. The respondents perceive the organisation to be most socially responsible to government (mean = 4.01). The second highest positive perception of responsibility belongs to social and non-social stakeholders (mean = 3.40). This subscale is followed by employees (mean = 3.30), indicating a positive perception of the organisation's CSR towards employees. These results indicate that the employees perceived the organisation to be socially responsible in actions towards government, which represents the legal dimension of Carroll's (1991) model.

Table 5. Descriptive Statistics of Organisational Commitment

Subscale	N	Mean	Std. Deviation	Skewness	Kurtosis
Affective Commitment	171	3.20	7.1	- 0.38	- 0.35
Normative Commitment	171	3.04	5.4	- 0.20	- 0.68
OVERALL		3.12			

Based on the dimensions that had an acceptable level of reliability, it can be seen from Table 5 above that the overall mean score for organisational commitment in this organisation is 3.12. This score indicates a fairly positive perception, because the mean was represented on a scale of 1 to 5, with 1 as low, 3 average and 5 high.

The mean scores of the organisational commitment scale indicate that the respondents are committed to the organisation to a moderate level/degree. Their mean scores are interpreted to assume that the sample group of respondents seem to be more affectively committed (m = 3.20) than normative dimensions (m = 3.04). These results indicate that more employees are committed to the organisation because they desire this, instead of feeling an obligation to stay with the organisation.

Skewness is essential to determine if the distribution is symmetrical or asymmetrical, while kurtosis examines the nature of the distribution (Huck, 2009). The standard deviation for this research indicates the range of responses given by the respondents. While the negative skewness of the distribution indicates that the respondents responded more positively (agree) to the scale's questions (from a scale of 1–5, 1 being "strongly disagree" and 5 being "strongly agree"). The kurtosis shows that the distribution was not overly peaked but instead showed a flat shape in a range described as flat, wide or broad.

4.3. Correlation Between Corporate Social Responsibility and Organisational Commitment

The relationship between corporate social responsibilities and organisational commitments was determined using the Pearson moment correlations. Results of the relationship between these two variables are presented below in Table 6.

As indicated in Table 6, there seems to be a significant relation between corporate social responsibility and affective commitment. This shows that the employees who have a positive perception of CSR in the organisation seem to be affectively committed to the organisation. This implies that they are inclined to stay or remain employed by this organisation because they desire this. From this evidence Turker's (2009b) findings are supported. These findings show that an employee who is emotionally invested in an organisation that is deemed to be ethical and socially responsible will be proud to be associated with that organisation and will have a greater intention to stay.

Normative commitment shows significant relationships to CSR social and non-social stakeholders and CSR employees. This finding suggests that employees who felt obligated to stay with the organisation perceived their organisation to be very responsible in its approach to the environment and sustainability, as well as the welfare and benefit of its employees. However, there was no correlation between normative commitment and CSR government; signifying that the employees' obligation or duty to stay with the organisation is

not credited to the organisation's legal responsibility. In relation to these findings, Greenberg and Baron (2003) support the results, stating that normatively committed employees are concerned about maintaining a good impression with their organisation (stakeholders) and their colleagues, and would be worried about what their colleagues (employees) would think if they wanted to leave the organisation.

Table 6. Correlations: Corporate Social Responsibility and Organisational Commitment

Variable		CSRSNS	CSRE	CSRG	AC	NC
CSR Social & Non-Social Stakeholders (CSRSNS)	Person Correlation Sig. (2-tailed) N	1 171				
CSR Employees (CSRE)	Person Correlation Sig. (2-tailed) N	0.65** 171	1 171			
CSR Government (CSRG)	Person Correlation Sig. (2-tailed) N	0.35** 171	0.42**	1 171		
Affective Commitment (AC)	Person Correlation Sig. (2-tailed) N	0.39** 171	0.58**	0.39** 171	1 171	
Normative Commitment (NC)	Person Correlation Sig. (2-tailed) N	0.20** 171	0.19* 171	0.53 171	0.45** 171	1 171

***. Correlation is significant at the 0.01 level (2-tailed).*
**. Correlation is significant at the 0.05 level (2-tailed).*

5. DISCUSSION

The purpose of this study was to determine the relationship between corporate social responsibility (CSR) and organisational commitment. The results described above have reflected the correlations between CSR and organisational commitment. The results revealed that the measuring instruments used in this study were reliable, except for the CSR Customers subscale and the Continuance Commitment subscale, both of which appeared to have an unacceptably low reliability.

The respondents indicated the strongest CSR influence to be among social and non-social stakeholders, while the second highest perception belonged to CSR employees. Turker (2009b) describes the social and non-social stakeholder of the organisation as individuals who expect organisations to be responsible towards society, the natural environment, future generations and non-governmental organisations. The respondents therefore indicated by their replies that they deem the organisation to be actively exercising this CSR. Some of the item descriptions (Turker, 2009b) of the CSR social and non-social stakeholders give a clearer understanding of the respondents' perceptions of activities. The respondents indicated that they believe that the organisation participates in those activities which aim to protect and improve the quality of the natural environment. The respondents suggested that the organisation does implement special programmes to reduce its negative impact on the natural environment, and targets sustainable development taking into consideration the future generations and the environment.

These findings therefore relate to the sustainability initiatives adopted by the organisation, and links with Pitt's (2012) findings derived from the multiple regression suggesting that both internal and external CSR predicts organisational commitment (= 4.92, p < .0001; = 2.64, p = 0.0095 respectively). According to Pitt (2012), the perceptions of external CSR are concerned with the capability of organisational initiatives aimed at environmental sustainability and assisting communities in need, directly relating to Turker's (2009b) CSRS and the respondents' perceptions in this study.

The research findings also link to Turker's (2009b) study which revealed CSR to social and non-social stakeholders, customers and employees were the noteworthy predictors of organisational commitment. However, contradicting Turker's (2000b) findings, the respondents in this study did not indicate a strong perception of the organisations' social responsibility to its customers, but instead indicated a social responsibility to the government. According to Turker (2009b), a possible reason for his sample group not indicating that CSR government is important may be the fact that they considered compliance with legal requirements such as payment of taxes to be something already done by the organisation; they may therefore not have considered this to be a social responsibility, but rather, a necessity. It is important to note that Turker's (2009b) sample group came from Turkey, a Middle Eastern country, while the respondents in this study were from a South African organisation. It is relevant to this study that we take into consideration South Africa's history and changes in legislation that came into effect only in 1994 (Shongwe, 2008). This could explain why the organisation is actively working to promote CSR government responsibilities as a way to create equality and provide opportunities that had been previously disregarded. In addition, it is suggested that the employees in the survey perceive this to be significant in the organisation.

The dominant commitment expressed by the respondents was affective commitment. This finding relates to the social identity theory which suggests that the respondents' perceptions of the corporate image of the organisation play a significant role in shaping their identity (Turker, 2009a). The theory also agrees with Turker's (2009b) research which proposes that organisations need to engage in social

activities that are deemed ethical and beneficial to society, so that employees can be proud of their membership of the organisation (Turker, 2009a). These respondents therefore indicated that their commitment is based on their desire to stay with the organisation. Peterson (2004) provided a possible reason for these findings, when he suggested that organisations need to positively invest in attraction, retention and motivation of employees in order to gain corporate social performance, as employees identify strongly with positive organisational values. It is interesting to note that the respondents showed normative commitment to CSR social and non-social stakeholders and employees, while there was no relationship evident with CSR government. This implies that that the employees do not feel obligated to remain committed to the organisation based on the CSR government dimension.

With no relationship existing between continuance commitment and CSR, it could be suggested that the organisation does not effectively contribute to encouraging employees to stay by means of benefits and rewards. Turker (2009a) suggests that employee benefits are important to engage organisational commitment as they form part of Maslow's hierarchy needs, which are classified under the high-order needs of esteem and self-actualisation (Daft, 2003, cited in Turker, 2009b). Therefore, it can be argued that the fulfilment of these high-order needs can strongly affect the level of organisational commitment. Given this reasoning, it is possible that because the organisation is not offering rewards and benefits that appeal to employees, the employees do not feel obligated to stay with the organisation.

Finally, the respondents indicated that the organisation does not act in a socially responsible way towards its customers, which may constitute evidence of a non-existent organisational commitment for this CSR dimension. According to Turker (2009a), customers are considered important stakeholders as they contribute to the financial success of the organisation. Hence a healthy relationship must be maintained between the organisation (seller) and the customer (buyer). The consequence of this finding could be that the organisation is not contributing to its organisational success. This statement is supported by Turker (2009b), who emphasises that CSR with customers is significant and can be created by delivering high quality products at competitive prices, thus ensuring the loyalty of the customer to the product and having a constructive effect on the financial performance of the organisation.

According to Turker (2009a), if CSR activities encourage an organisation's image enhancement and create product and service rivalry with its competitors, this could lead to organisational commitment and organisational success. Membership at a favourable and reputable organisation can improve an employee's social identity and persuade affective commitment rather than continuance and normative commitments (Turker, 2009a). The reverse can therefore also be stated, that if an organisation does not invest in building customer social responsibility this could negatively affect the employee's social identity and the employee will not feel proud to be associated with the organisation. If employees do not feel committed to the organisation the end result will be a reduction in its organisational success.

CONCLUSIONS, IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Based on the results of the research, it can be concluded that there is a relationship between corporate social responsibility and organisational commitment within the retail organisation. This implies that when perceive the organisation to be socially responsible to its social and non-social stakeholders they tend to be committed. Hence CSR awareness training should be better promoted, and employee contributions should be strongly encouraged to further reinforce the employee's social identity with the organisation and to maintain affective commitment.

This study had several limitations. The first limitation was related to the population, sampling strategy, and sample group, as convenience sampling was used and all the respondents were from a single organisation. Consequently, the results could not be generalised to the wider population or other retail organisations. In addition to this, some of the scales in the corporate social responsibility scale did not yield reliable results and could not be used in determining the relationship between CSR and organisational commitment. Therefore, the present results are limited to the specific retail organisation and further research would be required in order to generalise to other populations. The survey used was a cross-sectional design, conducted at a single point in time, and therefore causal or longitudinal inferences cannot be made. Another limitation could be that the respondents/employees were not fully educated about CSR in totality or the CSR practices of the organisation. In spite of the limitations, this study made specific recommendations for the retail organisation to address, and for further research. The organisation should communicate the findings of the study to all employees in order to create awareness of corporate social responsibility and organisational commitment. The strengths of CSR social and non-social stakeholders and normative and affective commitment levels should be highlighted. The organisation should address the finding relating to the preferred CSR of social and non-social stakeholders and draw attention to what this means for the organisation.

Further research should be conducted on the relationship between CSR and organisational commitment within other South African consulting organisations to improve the generalisability of the results. Further research should also be conducted with a larger sample to assist in improving the reliability of the results. Moreover, the administration of the questionnaires should be conducted in person in order to ensure respondents understand the questions and the administrator can deal with any questions that may arise. A longitudinal study should be conducted over time to determine the effect of changing organisational culture on organisational commitment.

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COMPREHENSIBILITY AND TRANSPARENCY OF THE IMPAIRMENT TESTS IN CONTEXTS OF CRISIS

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Abstract

The application of Impairment Test on Goodwill is one of the most debated issues in the international arena, both in relation to the multiple profiles of subjectivity inherent in the valuation criteria set out in IAS 36 and in relation to the novelty that brings this procedure. For this reason, in our work we analyze Goodwill, Impairment Test and the international regulations governing them that are IAS 36 and IFRS 3. The Goodwill is an important asset for some companies, an intangible asset that arises as a result of the acquisition of one company by another for a premium value. Its assessment is, however, discretionary. Main objective of this paper is to analyze this discretionary and check whether the information resulting from the Impairment Test on Goodwill is in accordance with the provisions of IAS 36. The empirical analysis has been developed on a selected sample relative to utilities in Europe who had recorded higher Goodwill in 2012. The results show that disclosures do not always conform to the requirements of IAS 36; in particular, there is a reluctance of the company managements in providing quantitative information about the sensitivity analysis of the Impairment Test results. The practical implications lead to stress that the reader of the financial statements is not facilitated, not only he fails to assess the effects on the recoverability of the value but also to recognize the reliability of the estimates.

Keywords: Financial Reporting, Impairment Tests, Goodwill, Intangible Assets, Financial Crisis, IAS 36

1. INTRODUCTION

The information plays a fundamental role in the satisfaction of all stakeholders. Clear and effective disclosure is a prerequisite for setting up a solid and lasting relationship between the company and investors. The financial communication plays a vital role in improving the efficiency of the market.

The informational efficiency of the market is very important; in particular, for listed companies, as it is the most important prerequisite for obtaining the result of efficient allocation of capital (Fama, 1970; Gilson and Kraakman, 1984; Perrone, 2003; Avgouleas, 2005). Moreover, the presence of a clear and structured information environment can make the contractor confident in the company especially in a sector unrelated to his work, it helps to establish an ongoing and qualified relationship with investors and strengthen its strategic and operational credibility, attracts new resources such as managers and professionals to the company.

This paper, in order to analyze the importance of transparency in the corporate, looks at disclosures related to Impairment Tests on Goodwill and other intangible assets (IAS 38) with an indefinite useful life and recorded write-downs in general in the financial statements of European utilities in 2012.

The application of Impairment Test on Goodwill is one of the most debated issues in the international arena, both in relation to multiple profiles of subjectivity inherent in the valuation criteria set out in IAS 36 and in relation to the novelty that brings this procedure.

The aim of our work is to analyze the clarity and reliability of estimates in the application of these tests in order to comply with the regulations imposed by Italian legislation and European Union regulations. The national legislature, in fact, implementing Regulation 1606/02 of the European Community, has extended to all listed companies the adoption of IAS/IFRS and the opportunity for all other companies to do the same (OIC, 2007).

The Goodwill recorded in the financial statements of the utilities derived from business combination and purchasing of previous years where the economic and financial conditions were very different when compared with actual market conditions (Bianchi, 2008). After the failure of Lehman Brothers in September 2008[1], many noteworthy events shocked global capital markets during that unforgettable month. The starting crisis in subprime and financial statements had translated to the real economy, leading to a long recession phase in the economic system (Anderson, 2008 and White, 2008). The impact of the crisis has been reflected in financial statements, so that significant write-offs of assets have been recorded.

1 Lehman Brothers closed its bank dedicated to subprime loans, BNC Mortgage, eliminating 1,200 jobs in 23 locations and recorded a loss after tax of U.S. $ 25 million and a reduction of $ 27 million of Goodwill (Anderson, 2008; White, 2008)

There is a huge difference between the accounting rule on Goodwill in the International Financial Reporting Standards (IFRS) and the Italian Accounting Principles (Pozzoli, 2007). The IFRS does not record an amortization of Goodwill and other intangible assets with an indefinite useful life, but requires that the recoverability of the carrying amount is verified at least once a year (so-called 'Impairment Test').

The prolonged economic stagnation and forecasts for a future growth of the European economy have generated significant write-downs in the financial statements, because these factors have a strong influence in determining the Recoverable Amount of the assets recorded.

When directors of entities perform the Impairment Test, they are required to use the best estimate on the future, to consider historical results and external market conditions. The test requires a number of important estimates that are based on the future expectations of the business and the results of the measures taken.

Making predictions in a context of economic crisis can be a very complex exercise. The directors of entities have to predict future events in a very uncertain market environment, with a high risk of developing plans in the medium term based on erroneous assumptions.

Appropriate disclosures should allow users to evaluate the choices made by the directors in the determination of the recoverability of the carrying amounts. In particular, disclosures should make clear the main assumptions used for the determination of future cash flows, and the most important parameters, and describe the process of estimating these variables. Estimating future cash flows involve the prediction of future events, both with regard to their materialization and with regard to their extent and the timing of their expression, and such estimates could generate deviations between actual and forecast values, even if the events planned in the context of hypothetical assumptions, and used for the preparation of economic and financial projections, should take place. Disclosures should enable the user to understand the key risk factors and describe the level of uncertainty in the determination of the Recoverable Amounts. The Impairment Test requires that the cash generating units ("CGU") to which Goodwill from a previous business combination can be allocated are defined. An important point is that the method by which entities must perform the test is not defined, so that those preparing disclosures must define their method and apply it consistently. It is very important to have a clear disclosure because users have to understand the method and if it has been changed over time. IAS 36, which will be discussed later, permits a change in the method of performing the Impairment Test when a company has undergone a real change in structure or if a new method can improve on the old, but the line between an improvement in the method and opportunistic behavior is very fine.

In the first part of this paper, after the definition and interpretation of the main key words, we analyze the different treatment of Goodwill in Italian accounting standards (or some national accounting standards) and International Accounting Standards. The main difference is that the Italian accounting standards require the amortization of goodwill while the International Accounting Standards do not require the amortization of goodwill but they require performing an Impairment Test.

In paragraph 4, we discuss of information asymmetry between prepares and users of financial statements; in particular, we analyze the Agency Theory with a focus on the relationship created between shareholders/investors and managers.

Continuing in our research, in paragraph 5, we analyze in depth the requirements of International Accounting Standards (with specific reference to IAS 36) to perform an impairment test and the related disclosures.

In the final part, in paragraph 6, we perform an empirical analysis on the financial statements of companies that operate in energy sector, while, in paragraph 7, we discuss of final results and our conclusion on the performed research.

In these first elements, you can understand the importance of financial statements communication. Understandable and transparent disclosures allow a full assessment of the sustainability of the recognized amounts and the choices made by managements.

2. DEFINITIONS AND INTERPRETATION

For the purpose of this paper the following terms will have the meaning set forth below:

"Agency Theory" means the agency relationship created between shareholders / investors ("principal") and managers ("agent"), where the first, due to their high number and variety in particular public companies, cannot manage directly the company and delegate such function to the second (Jensen and Meckling, 1976).

"**Cash Generating Unit** or **CGU**" means the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or group of assets.

"Equity Book Value" means the net amount of funds invested in a business by its owners, plus any retained earnings. It also calculated as the difference between the total of all recorded assets and liabilities on an company's balance sheet.

"**Fair Value**" means the price that would be received to sell an asset or paid to transfer a liability in orderly transaction between market participants at the measurement date.

"**Goodwill**" means an intangible asset associated with a business combination. Goodwill is recorded when a company acquires (purchases) another company and the purchase price is greater than the combination or net of i) Fair Value of the identifiable tangible assets acquires; and ii) the liabilities that were assumed.

"Impairment Test" means a process to check the recoverability of non-current assets recorded in balance sheets of companies. It includes identifying impairment indicators (or trigger events), assessing or reassessing the cash flows, determining the discount rates, testing the reasonableness of the assumptions and benchmarking the assumptions with the market.

"**Market Capitalization**" means the total market value of a company's outstanding shares. It is calculated by multiplying a company's shares

outstanding by the current market price of one share.

"**Recoverable Amount**" means the higher of an asset's Fair Value less costs of disposal and its Value in Use.

"Value in Use" means the present value of the future cash flows expected to be derived from an asset or Cash Generating Unit.

3. THE DIFFERENT TREATMENT OF GOODWILL IN THE ITALIAN ACCOUNTING STANDARDS AND IFRS

The Italian accounting standards (Abate *et al.,* 2010, Iori, 2013), which take a revenue and expenses view, require the amortization of all intangible assets to or by defining specific criteria, such as start-up and for the cost of equipment and expansion, or generally providing for depreciation over the remaining useful life (Azzali, 2002). The IFRS (Aa.Vv., 2014, Bauer, 2007; Cavazzoni, 2007; Dezzani *et al.*, 2010, OIC, 2008), which take an asset and liability view, require that Goodwill and intangible assets with an indefinite useful life are not systematically amortized, because they do not exhaust their usefulness in a defined period of time. The International Accounting Standards, however, require that write-downs are highlighted, even on non-durable assets (Abate *et al.,* 2010; Godfrey *et al.,* 2007; OIC, 2005; Saita and Saracino, 2012).

Under the revenue and expenses view (OIC, 2005; Thornton, 2011), income is the difference between output (revenues) and input (expenses) during a given period. The accounting implementation of this approach often requires the allocation of inflows and expenditures over a number of accounting periods in order to produce a 'matching' of reported revenues and expenses over time (for example, the cost of a machine that is used in manufacturing a company's product is allocated over the useful life of the machine, resulting in a series of annual depreciation charges over those years).

Critics of such 'matching' and of the revenues and expenses view as a whole argue that these allocation are often, by necessity, arbitrary and not grounded in the underlying economics; that it results in inappropriate measures of certain assets and liabilities that are the result of these inter-period allocations and that render balance sheets less useful in portraying the current financial position of the reporting entity; and that it adds to the overall complexity of accounting procedures and hampers the understanding of financial reports (Hertz, 2013).

In contrast, under the asset and liability view (Thornton, 2011; EFRAG, 2013), income is a measure of the increase in the net resources of the entity during a certain period, defined primarily in terms of increases in assets and decreases in liabilities. This view is grounded in the economic theory of wealth over a period. Therefore, the accounting implementation of this approach starts with determining and measuring the assets and liabilities of an entity and the changes in its assets and liabilities over a period in order to determine the income for that period.

Critics of the asset and liability view argue that it places undue weight on determining current measurements of assets and liabilities, which can often be difficult and subjective; that it results in reported income that can be highly volatile due to changes in macroeconomic and market conditions; and that it makes the income statement less useful in understanding an entity's actual earnings during a particular reporting period.

Although much of accounting practice until the 1970s was based on the revenue and expenses view, since then, the IASB (International accounting body), the FASB (the United States accounting body), and other accounting standards have generally adopted the asset and liability view in their conceptual framework, seeing it as the conceptually correct and best way to develop standards that are coherent and internally consistent . However, many stakeholders in the reporting system, particularly those who prepare financial statements, do not agree, arguing that the revenue and expenses view is the more conceptually appropriate and practically viable approach. Some are also concerned that the asset and liability view presages the expansion of Fair Value measurements in financial statements, which, for a variety of reasons, they oppose.

3.1. IAS 36 – Impairment of Assets

The International Accounting Standard - IAS 36 *Impairment of Assets* identifies an impairment of an asset whenever the carrying amount exceeds its Recoverable Amount (IAS 36, par.8). In particular, the Recoverable Amount is defined as the higher of Fair Value less costs of disposal and Value in Use (IAS 36, par. 6). The constraint introduced by the standard involves the recognition of impairment when there is a loss of value resulting from conditions both external or internal to the company. Note the opportunity to demonstrate the recoverability of the value represented by the Fair Value or the Value in Use.

IAS 36 requires an assessment at each balance sheet date where there is any indication that an asset may have suffered a loss in value (IAS 36, par.9). Independently of indicators of impairment, the International Accounting Standards require that at least once a year companies assess the recoverability of the amounts recorded (IAS 36, par.10).

An Impairment Test, therefore, is nothing but a check if such a condition exists.

As mentioned above, when the company performs the Impairment Test can use the Value in Use, it can be defined as the discounted value expected to be derived from an asset or cash generating unit (IAS 36, par 6). The methods of calculating it are in line with those usually used in accordance with criteria for estimating the economic value of any asset. During the Impairment Test the following elements must be considered (IAS 36, par 30) when determining an asset's Value in Use:

- the estimate of future cash flows that the entity expects to derive from the asset;
- expectations with regard to a possible change in the amount of these cash flows and/or the time at which they will be realized;
- the time value, represented by the current risk-free market interest rate;
- the price for bearing the uncertainty inherent in the asset;

- other factors, such as illiquidity, which market actors would consider in determining the value which the entity expects to derive from the asset.
- Estimating a Value in Use entails a process of actualization of the future cash flows generated by the asset and thus includes the following steps (IAS 36, par 31):
- estimating cash flows that will be derived from the permanent use and final disposal of the asset;
- applying an appropriate discount rate to these cash flows.

4. INFORMATION ASYMMETRY: THE RELATIONSHIP BETWEEN PREPARERS AND USERS

Agency Theory studies the agency relationship created between shareholders / investors ("principal") and managers ("agent"), where the first, due to their high number and variety in particular public companies, cannot manage directly the company and delegate such function to the second (Jensen and Meckling, 1976). Agency Theory looks at the problems that arise because there is a divergence of interests between the two parties, imperfect information on the state of the nature and the behavior of actors, and an information asymmetry between the parties. From this, it follows that the agent usually has more information than the principal as regards the task at hand. The contract between the two parties can only be incomplete and the principal is unable to control fully the agent, and any attempt to increase the degree of control involves costs (Bamberg, Spremann and Ballwieser, 1989; Bowie and Freeman, 1992; Bolton e Dewatripont, 2005; Pitt, 2011).

Acting opportunistically, parties will seek to use information asymmetries to their advantage, creating two problems: adverse selection (so-called ex ante opportunism) and moral hazard (so-called ex post opportunism). In situations of adverse selection, the agent provides incomplete or inaccurate information. Moral hazard arises from the possibility that the agent will fail to meet his commitments in the execution of the contract and from the difficulty and cost of control by the principal. In general, adverse selection or opportunism ex ante relates to the possibility that the agent will not respect his commitments under the contract, in the presence of information asymmetry, which allows him to hide or manipulate information in order to deceive the other party. The selection is adverse because, in this situation, the transactions mainly relate to individuals, goods and services of poor quality. It also defines the moral hazard, or ex post opportunism, as the misbehavior in place by a person in the performance of its contractual obligations in the presence of asymmetric information, incomplete contract and the difficulty to establish also due to non-observability of shares, if the parties have complied with the terms of the contract.

Agency Theory assumes that both parties seek to maximize their utility and rationally anticipate the effects of the agency relationship on future results. Their interests are divergent and it is very unlikely that the agent operates in the interests of the principal, and this divergence of interests needs to be reduced through monitoring tools and, above all, systems of incentives to limit the effect of such opportunistic behavior on the part of the agent.

All this implies costs, monetary and otherwise, that are defined as agency costs and include:

- costs of monitoring and incentives needed to direct the conduct of the agent;
- costs incurred by the agent in assuring the principal that he will not adopt damaging behaviors and, if appropriate, to indemnify him;
- the residual part, which is the difference between the actual behavior of the agent and the behavior that would lead to the maximization of his utility to the principal. The problem that agency theory proposes to solve, then, is, given the characteristics of the principal-agent relationship, how one structures a contract that minimizes the agency costs (Jensen e Meckling 1976; Fama and Jensen, 1983; Pratt e Zeckhauser 1985; Bolton e Dewatripont, 2005).

On the basis of what has been reported emerges, on the one hand, the contractual nature of the relationships that bind the actors involved in the enterprise and, on the other hand, the context of information asymmetry that characterizes these parties with the management team in the position of advantage with respect to financial statement users who cannot directly observe the actual achievement of corporate performance.

In the perspective that is relevant here, the Agency Theory assumes that the problems of coordinating the behavior of economic actors can not be effectively addressed by a market report or a report of authority can be solved using the agency relationship, according to which a principal engages an agent to act in its interest using the degree of latitude which is recognized. This being aware of the fact that the two parties have different information and different bargaining power.

Compared to a coordination mechanism which relies on authority, the agency relationship is characterized by a kind of decentralization, with the principal that waiver of the rights of decision and control the Agent recognizing the right to choose the behavior to take into against the Principal.

The Agency Theory moves from those beliefs to focus attention on the many contractual relationships that are established in an undertaking between the different classes of interests between them and the manager: the relationships that develop within the entity between itself and the manager of the shareholders outside the it.

According to the Agency Theory, in fact, every economic subject that comes into contact with the company binds to the latter on the basis of a contract, in which he tries to use the space as possible to maximize their marginal utility. Any contractual relationship can therefore be interpreted in the context of the relationship between a principal delegating decision-making spaces more or less extensive the Agent.

The international standard setters are questioning the adequacy of disclosure in the notes. The financial statements have become very large, but the quality of the information given is not directly proportional to the proportions. There is a risk that the financial statements becomes a formality rather than an instrument of financial communication.

The managers responsible take great care in providing information. The 2012 financial statements consist of general information and details of minor detail, hardly able to find the information needed to understand the significant management events. This behavior can be attributed to the risk that clear and transparent information we could put the Regulators in a position to understand the accounting treatment applied and, where necessary, request the modification and the restatement of the financial statements (Hoogervost, 2013).

In this context, the Impairment Test will remain a key area for international Regulators, but here are some examples:

- the European Securities and Markets Authority ("ESMA") has included the Impairment Testing of non-financial assets in its "enforcement to priorities for 2013 financial statements", focusing on the effects of financial crises and the period of low economic growth in Europe, emphasizing those aspects that could generate cash flow lower than expected (ESMA, 2013);
- the United Kingdom's Financial Reporting Council ("FRC") reports in its "2013 annual report on corporate reporting" a number of problems, in particular, shows the assumptions of a rapid filming segments of loss-making activities (FRC, 2013);
- the Australian Securities & Investments Commission ("ASIC") underlines the importance of the reasonableness of the assumption used in performing the Impairment Test (in particular expressed doubts about the significant variations between actual results and future cash flows) and the importance of a 'appropriate definition of cash-generating units (ASIC, 2013);
- The Ontario Securities Commission ("OSC") has published observation on the quality of the information provided for the Impairment Test, identifying some areas for improvement in the description of the cash-generating units, the events and circumstances that contribute to a loss of value and the key assumptions made in determining the Recoverable Amount (OSC, 2013).

5. IAS 36 AND RELATED DISCLOSURES

IAS 36 deals with the reduction in value of assets. The International Accounting Standard IAS 38 is directly related to intangible assets. In the international accounting standards Goodwill, unlike some nationals GAAP, is not subject to amortization but is subject, at least once a year, to Impairment Testing.

The Impairment Test is characterized by the comparison between the book value and the recoverable value of an asset and requires special procedures and observations; in particular, the companies have to verify the recoverability of Goodwill and intangible and tangible assets (Alciatore, 2008).

Goodwill does not represent a specific activity giving rise to cash flows or an asset that can be sold separately, but must be analyzed and evaluated by reference to the value of the CGUs[2] or group of CGUs to which it refers.

These features require, as a first step, the identification of the CGUs to which it may, in a reasonable and demonstrable allocation of Goodwill, be awarded and, subsequently, the performance of the Impairment Test by comparing the carrying value of the CGUs and their Recoverable Amounts (Alciatore, 2010).

The identification of a CGU should refer to the manner in which management manages the activities of the company and decide on the continuation or transfer of individual business activities (Amaduzzi, 2014).

IAS 36 provides a sequential order in the Impairment Test of Goodwill such that, if the necessary conditions exist, before considering the entire CGU is necessary to verify that all intangible and tangible assets that relate to some specific trigger events have not undergone an impairment, in which case their write down will be necessary before testing for impairment of Goodwill.

The observation of the Fair Value of an asset assumes the existence of a market that permits the identification of selling price and the Value in Use, however, presupposes the existence of financial plans, as to identify future cash flows that will be generated by the CGU or groups of CGUs. It is not possible to determine the selling price, because there is no basis for making a reliable estimate, since there is no active market, or even recent transactions for similar assets within the same industry, to which reference can be made.

The Value in Use of an asset must be determined based on the cash flows expected from its use, which must be discounted.

IAS 36 requires that the method of determining the Value in Use requires the use of the principles of economic coherence for a correct use of the approach based on the expected value (IAS 36, par. 20) and credibility/provability of the estimated values.

The standard does not define a specific configuration of the value to be determined, but it does define requirements for the evaluation formulas and input data.

IAS 36 requires that, in determining the Value in Use, the following are considered:

- an estimate of the future cash flows that the entity expects to arise from the CGU;
- expectations about possible variations in the amount or timing of future cash flows;
- the time value of money, represented by the current interest rate risk-free;
- quantification of the relative risk to the CGU in question;
- other factors, such as illiquidity, that market participants would reflect on future cash flows.
- In addition, IAS 36 requires that the estimate of Value in Use provides for the following:
- determine the cash flows into and outflows to be derived from the operation of the CGU and the final disposal;
- determine the appropriate discount rate to be applied to future cash flows.

In order to minimize the potential subjectivity of the estimates, IAS 36 requires that the projections of future cash flows should be based on reasonable and supportable assumptions and that greater weight should be attributed to external data.

2 The cash-generating unit is the smallest group identifiable group of assets that generates cash entry

In this view, the flow forecasts should reflect:

- management's best estimates of the economic conditions that are expected to continue to exist over the useful life of the CGU;
- the historical trend of cash flows and the analysis of the factors that have led to significant deviations from predictions in previous plans;
- the latest projections approved by management, which must not exceed a five-year time- horizon, unless a greater interval can be justified;
- a growth rate beyond the horizon of the plan that does not exceed the average long-term growth of the sector or the economies of countries where the company operates, unless a higher value can be justified;
- a measure of operating cash flows, excluding any component of a financial nature;
- any provisions in regard to liabilities relating to operations which, in the event of the sale of the CGU, should be transferred (Riccomagno, 2005).

The IAS 36 requires that the discount rate is independent of the capital structure of a company and the way in which the firm decides to finance its activities, as the future cash flows expected to arise from the CGU do not depend on the financial structure in use. The discount rate should be linked with current market assessments at the balance sheet date. Estimating a discount rate based on market conditions at the valuation date means referring to the implicit rate for similar assets in the trading market or the weighted average cost of capital of comparable companies.

In obtaining a Recoverable Amount, the Impairment Test requires a comparison of the carrying amount of the CGU or group of CGUs and the Recoverable Amount.

The performance of the Impairment Test is a complex technical exercise that requires the use of significant estimates and choices in the use of observable market parameters. In addition to the normal complexity involved in predicting future events, the context of the current crisis makes it even more difficult to determine the Recoverable Amount of the assets recorded in the financial statements.

The current context of crisis, characterized by significant volatility of the main market and considerable uncertainty about economic expectations, makes it difficult to produce forecasts that can be considered, without any uncertainty, reliable.

The information provided in this verification is particularly relevant to all interested economic operators in order to understand properly the entire process of valuation of assets (the underlying assumptions, the methodology for estimating the parameters used, etc.), as well as to have an understanding of the results of these evaluations and in particular the reasons for the write-downs.

In this context, the financial statements become ever more important. Enabling the market to understand the risk factors in determining Recoverable Amounts would allow the determination of the real effects of the economic crisis that is affecting Europe. It is also reasonable to assume that a transparent and comprehensible disclosure could reduce uncertainty among economic agents about the real recoverability of assets and liabilities. In particular, the information provided in the notes to the financial statements should consider the peculiarities of the current context and highlight the differences arising in the measurements of the previous year.

IAS 36 requires that preparers provide the basis used to determine the Recoverable Amount (i.e. Value in Use or Fair Value less costs to sell).

If preparers are using Value in Use, the notes to the financial statements should report: i) a description of each key assumptions on which management has based its cash flow projections for the period covered by the plan/most recent forecasts; ii) a description of the management approach to determining the value assigned to each key assumption; iii) the period over which management has projected cash flows based on the latest plans/forecasts; and, iv) if it is used over a period longer than five years, an explanation of why that longer period is justified (IAS 36, par. 134, lett. d), No. (i), (ii) and (iii)).

Preparers must also provide: the discount rate applied to cash flow projections and the growth rate used to extrapolate cash flow projections beyond the period of the plan/most recent forecasts; and the justification for using any growth rate higher than the long-term growth rate of production/industry/country/target market for the estimated cash flows (IAS 36, par. 134, lett. d), No. (iv) e (v).).

If preparers are using the Fair Value less costs to sell, the IAS 36 requires that they provide a description of the approach used and every assumption on which the determination of Fair Value was founded.

An additional piece of information required by the IAS 36 is an analysis of the sensitivity of the results of the Impairment Test with respect to changes in the underlying assumptions that affect the value. In this regard, companies should pay particular attention when performing this analysis and provide all the information required by the International Standards. This information is even more important given the current volatility of the financial markets and uncertainty over future economic prospects.

6. THE FINANCIAL STATEMENTS OF UTILITIES IN EUROPE: AN EMPIRICAL ANALYSIS

6.1. Methodology

As previously indicated, the subject of the study are European listed utilities. We analyzed this sector because the operators had been subjected both to the financial crisis and to significant changes in technology. Utilities are considered 'defensive' companies, because their results are relatively stable across the different phases of the economic cycle. During the years of the economic crisis, the utilities have been experiencing a decrease in the demand for electricity, the natural gas market has been shocking by shale gas (technology revolution) and, in addition, renewables have been increasing significantly. The European energy strategies have led to a rapid and significant development of renewables energies, such situation, together with the significant reduction in demand of gas and electricity, mainly

due to the economic and financial crisis, has changed the competitive scenario quickly. Nevertheless, we have to remember that the cycle of the investment in this sector has a very long term (just remember that the average useful life of a thermoelectric or nuclear plant is 20-30 years). The quickly change in market scenario and the change in technology would have been had a strong impact in the financial statements of the utilities in Europe.

A public utility is an organization that maintains the infrastructure for a public service. Public utilities are subject to forms of public control and regulation ranging from local community-based groups to state-wide government monopolies.

On the supply side, these areas are characterized in most cases by the presence of the distribution networks of the service that are duplicated only facing enormous costs. Once implanted a distribution network, the cost of providing service to an additional user is in all these industries relatively low. On the demand side, the utilities services are often characterized by being among necessities.

The term utilities can also refer to the set of services provided by these organizations consumed by public, for example electricity generation, electricity retailing, electricity supplies, natural gas supplies, water supplies, sewage works and sewage systems.

The liberalization of public services, started a dozen years ago with the aim to get over the geographical fragmentation, reduces inefficiency and encourages the exploitation of economies of scale, has profoundly changed the Italian and European energy sector.

At the date of this paper, in Europe there are 29 utilities for a total amount of shareholder's Equity Book Value of € 351 billion.

We expect a similar impact in the energy sector as in the telecommunications sector, where improvements in technology have changed the market scenario and generated significant write-downs of intangible assets.

The sample consists of 9 companies operating in the energy sector with particular focus on the utilities companies. Overall, the amount of shareholders' Equity Book Value resulting from the analyzed consolidated financial statements as at December 31, 2012 amounted to € 236 billion for an average capitalization on the stock exchange in the month of April 2013 that amounted to € 209 billion. The sample was determined based on the significance of Goodwill and recorded write-downs during the year 2012.

In this complex scenario, we expect that the notes in the financial statements of utilities companies have the information required by the international standards and additional information to inform the stakeholders of the complexity to perform an Impairment Test in this scenario; in particular, we expect a full disclosure on:

- key assumptions of the management;
- quantitative analysis and stress tests;
- determination of Recoverable Amount;
- determination of growth rates;
- discount rate

The data used as a reference in this paper were obtained from published financial statements on the websites of the companies analyzed, whereas the listings were derived from the websites of electronic markets on which the shares are traded.

6.2. Ratio between the Market Capitalization and Equity Book Value

The relationship between Market Capitalization and shareholders' Equity Book Value is a synthetic indicator of the difference between the Fair Value of the company and its shareholders' equity. A result of 100% expresses a Market Capitalization equal to the Equity Book Value; while a value less than 100% expresses a Market Capitalization lower than the Equity Book Value.

Table 1. Ratio between Market Capitalization / Equity Book Value

A	B	C	D	E	F	G	H	I
67%	109%	78%	62%	84%	129%	53%	83%	60%

Table 2. Difference between Market Capitalization (B) and Equity Book Value (A)

	A	B	C	D	E	F	G	H	I
In Euros 000.000									
Equity Book Value (A)	7.055	25.858	34.957	62.931	36.771	55.472	2.846	1.255	9.059
Market Capitalization (B)	4.710	28.094	27.334	38.919	31.031	71.295	1.500	1.046	5.403
Difference (B-A)	*(2.345)*	*2.236*	*(7.623)*	*(24.012)*	*(5.740)*	*15.823*	*(1.346)*	*(209)*	*(3.656)*

In the event that the Market Capitalization is lower than the Equity Book Value, there is a presumption of impairment as measured by the difference between the Equity Book Value and Market Capitalization. In the analyzed sample, 78% of companies have a Market Capitalization of less than Equity Book Value. The presumption of impairment loss on the analyzed sample amounted to € 44.9 billion, the average value of the companies' amounts to € 6.4 billion. When the Market Capitalization is lower than the Equity Book Value of a company or when the Market Capitalization has recorded a strong decrease since the previous Impairment Test, the directors have to report in the notes of the financial statements a detailed analysis on these facts and circumstances that indicate an

impairment presumption. In particular, the notes should be reported how the directors have to consider these facts during the Impairment Test. The assumption is that the financial market can overstate the amount of the impairment, but it does not wrong the direction of the adjustments. It should be noted that the net assets already analyzed reflect the results of the Impairment Tests carried out in 2012.

6.3. General Information

The IAS 36 requires disclosures of the events and circumstances that led to the recognition of the impairment loss recognized during the period for an individual assets, including Goodwill, or a CGU.

During 2012, seven of the nine companies analyzed recorded write-downs. The 85% indicated the reasons for the loss of value but only 43% provided specific information on the reasons that led to the allocations.

The IAS 36 requires a description of the CGUs for each material loss recognized, disclosure of the amount of the impairment loss by reportable segment as well as a description of any changes to the aggregation of the assets of the CGUs.

As required by IAS 36, 100% of the company highlighted the allocation of Goodwill to the CGUs or group CGUs. None of the companies, however, described the allocation methodology used.

85% of companies with impairments described the CGU subject to impairment, and 71% of them showed the amount of write-downs by operating segment.

44% of the company was the subject of internal reorganization that resulted in aggregation of CGUs and the reallocation of recognized Goodwill. All companies involved in reorganization described the reasons for the redefinition, while only 25% of them showed the results of the Impairment Test in case they had not reallocated Goodwill.

6.4. Key Assumptions

IAS 36 require potentially extensive disclosures concerning key assumptions used in Value in Use calculations for each CGU for which the carrying amount of the Goodwill or intangible assets with indefinite useful lives allocated to that unit is significant. In addition, it requires a description of each key assumptions on which management has based its cash flows projections for the period covered by the most recent budgets/forecasts. Key assumptions are those to which the unit's Recoverable Amount is most sensitive.

The entity has to provide a description of management's approach to determining the values assigned to each key assumptions. In particular, this disclosure should state whether the values used reflect past experience or, if appropriate, are consistent with external sources of information and why they differ from past experience or external sources of information, if applicable.

The Standard requires similar disclosure concerning key assumptions used in Fair Value.

78% of the companies did not indicate the consistency of the assumptions used in the development of medium and long-term plans with the historical data. An additional important information that 44% of the sample reported in the notes to the financial statements is the connection between the plans used by the directors and the market consensus. Finally, only 56% of the companies indicated the key assumptions used to determine the Recoverable Amount.

6.5. Utilized Parameters in the Discounted Cash Flows

IAS 36 requires the disclosure of the basis on which the Recoverable Amount has been determined. In particular, the IAS 36 requires disclosing how the entity determines the Value in Use or the Fair Value.

All examined companies reported the method used to determine the Recoverable Amounts (i.e. 100% of the companies used the Value in Use, while 22% of the Fair Value).

Less comforted are the results obtained about the specific nature of the information reported on the determination of the Recoverable Amount, as only 22% exposed detailed information. This information is crucial to understand the Impairment Test performed, because the user should obtain a clear explanation of the risks and uncertainties in the process of estimating future cash flows. The lack of this information does not allow the users to analyze the choices made by directors.

6.6. Duration of the Explicit Cash Flows

IAS 36 requires the use of explicit flow forecasts for a period of 3 to 5 years, longer periods should be supporting by precise reasons.

44% of the companies used a specific period longer than 5 years; only 25% justifies the choice of using a longer period.

When directors use a period longer than 5 years, they increase the uncertainties of the Impairment Test; in particular, the Impairment Test is really challenging if the growth rates used exceed the levels of growth rates of the market/sector. The lack of this information does not allow the users to assess the appropriateness of the choices made by prepares.

6.7. Discounted Rate

The Standard requires disclosing the discount rate applied to the cash flow projection for each CGU with allocated a significant portion of Goodwill.

The cost of equity is often determined by using the Capital Asset Pricing Model ("CAPM"). Those who use this model should identify some key parameters as risk free, market premium and beta. Therefore, it is import to disclose this information, because the users can understand the parameters used by the Entity. An additional important information regard the parameters used the previous year, so that the users can evaluate the changing effect the Impairment Test during the time.

All companies reported the discount rate used, but 44% of them did not report the discount rate used for the individual cash generating units.

78% of companies used a discount rate after tax. The range of observed values lies between 4.8% and 17%, while the range of the pre-tax discount rate lies between 5.88% and 15.8%.

None of the companies in the sample reported the components of the discount rate used. Only 56% of companies reported the discount rates of the previous year.

6.8. Growth Rate of the Terminal Value

IAS 36 requires bringing the growth rate used in determining the terminal value. These rates may be assumed to be constant or declining and must not be higher than the growth rate for the products, sectors and countries in which the entity. Naturally, a zero or negative growth rate may be applied. So is also required justification of the use of growth rates

78% of companies reported growth rate following explicit flows used to determine the terminal value. The parameters used by the companies in the sample are:

- 33% using a growth rate of 0%;
- 33% using growth rates between 0 and 2%;
- 33% using growth rates exceeding 2%.
- 66% of firms with growth rates did not report the reasons.

Only 22% of the sample showed the growth rate used in the previous year.

In many cases, the main part of the Recoverable Amount is determined by the terminal value. The use of the growth rate more than zero should be explained accurately. In addition, the growth rate should be compared with the growth rate of the market/sector. The lack of the explanation to use a positive growth rate does not allow the users to evaluate the estimate performed by directors.

6.9. Sensitivity analysis

The IAS 36 requires disclosing the sensitivity analysis, if a reasonably possible change in a key assumption on which management has based its determination of the CGU Recoverable Amount would cause the carrying amount of the CGU to exceed its Recoverable Amount.

The sensitivity analysis of the plan relates to the assumption that alternatives are non-considered expressive than expected average conditions, but which are reasonable. These assumptions can be defined “sensitive” or “significant”; in particular:

- assumptions for which it is reasonable to expect a change that can significantly affect the results of the Impairment Test (sensitive assumption);
- assumptions concerning future conditions that are expected to be significantly different from those current and for which uncertainty is high (significant assumption).

Only 33% of the analyzed cases contained quantitative information about the possible effects on the results of the Impairment Tests in the case of possible changes of the key assumptions in order to mitigate this lack 45% of companies showed qualitative analyzes.

Energy markets are difficult to predict at the best of times and the natural gas supply shock is just one among many disruptive trends that utilities have to consider, including new sources of renewable energy, distributed generation, regulatory shifts and rising energy efficiency, coupled with declining consumer use. The results obtained show a significant lack of information, because in this uncertain market environment, prepares defined the long-term predictions, but in the most cases analyzed the sensitive assumption, significant assumption and related sensitivities analysis have not been disclosed. In this market environment is very important to inform the users of the financial statements about the results that you might have in the case that the assumptions used by prepares should be realized in a different way than estimated.

CONCLUSION

The sample is composed of nine companies, two only of which have a ratio of Market Capitalization and shareholders' Equity Book Value of over 100%. As previously reported, in the case where the ratio is less than 100%, there is a market presumption of impairment as measured by the difference between the net book value and Market Capitalization. In this situation, it is reasonable to expect a complete information about how the companies as performed the Impairment Test that allowed their managements to overcome the market presumption of write down. However, the results do not show a full compliance with the disclosure requirements in IAS 36 and, more generally, the provided information does not allow a full assessment of the performed tests as well as their riskiness.

The analysis shows that the disclosures are not always in compliance with IAS 36; in particular, there is a reluctance of the directors in providing quantitative information about the performed sensitivity analysis on sensitive data (as required by IAS 36).

The omission of such information do not allows the reader to assess the effects on the recoverability of the value in case the forecasts should not occur or should occur only in part. In addition, the quantitative analyzes were deficient of information such as the reasons for the write-downs, periods explicit or used comparative information.

In a market environment like the current one, it would be desirable to have understandable and transparent information (Chen *et al.,* 2008 and Costi 1998).

As indicated in the Agency Theory, there is a divergence of interests between prepares and users of financial statements, so that prepares did not provide a full disclosure on assumptions used. So prepares use information asymmetries to their advantage and the result is an incomplete disclosure. As evidenced by the results of the analysis in many cases there are not information needed by the users to evaluate the choices made by prepares. Only full disclosure in the financial statements would allow users and regulators an assessments of the estimates made by prepares.

The enforcement activities performed at European Level “Activity Report of the IFRS Enforcement activities in Europe 2012” confirm the results obtained by our analysis. ESMA highlights that IFRS enforcement activities at member States’ level have increased in 2012 compared to the previous year and European enforces reviewed more than 2,000 interim or annual IFRS financial statements and took around 500 enforcement actions. The conclusion of the enforcement activities shows that overall the quality of the IFRS financial statements continued to improve as a result of the significant experience gained by the prepares with

IFRS application since the first time application in 2005. Nevertheless, it was noted that there is still room for improvement in the quality of financial statements in certain areas. Examples of areas requiring additional effort from issuers in order to comply with IFRS include: application of the classification criteria for assets held for sale, determination of the discount rate for the calculation of defined benefit obligations, classification and measurement of financial instruments, assessment of Goodwill impairment, distinction between a change in an accounting policy and an accounting estimate and disclosures about the risks and uncertainties or judgments and estimates used in preparation of IFRS financial statements.

It will be interesting to analyze the next financial statements to see if the enforcements of European regulators have led the directors of the entities to improve the disclosure on the Impairment Tests.

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RISK AND OPPORTUNITIES CONNECTED TO THE CREDIT LEGISLATION ON MOVABLE PROPERTY: A CASE STUDY

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Abstract

The purpose of this paper is to determine to what extent should a lease of movable property fall within the ambits of the National Credit Act. The paper analyses the courts decisions regarding leases of movable properties, and further adds value to the existing scholarship. Courts are not ready to entertain extrinsic evidence in the cases where it contradicts the terms of an agreement. Parties should make sure that their contractual provisions are clear and unambiguous. Such provisions depict the notion that a lease of a movable property should fall within the ambits of the National Credit Act, hereinafter called NCA. And in such circumstances that qualifies it in terms of the Act ought to be met. In terms of section 8(4) of the NCA, a lease of movable property should by no means exclude the provision that ownership will pass to the lessee upon payment of the final rental instalment. Alternatively upon meeting certain conditions as determined by parties. One should therefore be able to differentiate leases in terms of the NCA and leases as defined by common law. Thus, one cannot try to qualify common law leases within the context of section 8(4) of the NCA where the original intention was an ordinary common law lease agreement. The Court in the case of ABSA Technology v Michael`s Bid House concluded that the NCA was not applicable to leases of movable property in certain circumstances. It is the findings of this paper that courts, recognize lease of movable property.

Keywords: Incidental Credit Agreement, Rental Agreement, National Credit Act (NCA), Lease of Movable Property

1. INTRODUCTION

The principal issue before the Appeal Court was whether the rental agreement between the parties was a lease. A lease as defined in the National Credit Act is the very anti-thesis of a lease. Thus, the Appeal Court indicated that rental agreements generally are leases. The issue to be further determined, *inter alia*, is whether extrinsic evidence can be invited to prove the original intentions of parties, in particular where parties have not complied with provisions of section 8(4). The provisions of section 8(4) determine which contracts constitute credit agreements including leases. It should be with regards to a movable lease contract that they might have intended that such leases should fall within the ambits of the National Credit Act. Should it be regarded as an incidental agreement simply because another party believed it was so without it having to comply with the pre-requisites of an incidental agreement in terms of the National Credit Act Thus, the paper purposed to analyse the *Michael Bid House case* in order to illustrate the way in which the Court addressed issues related to the lease of movable property.

The decision of *Absa Technology v Michael's Bid House*[3] was an appeal from the South Gauteng High Court in South Africa. The Appeal Court had to decide whether a lease of movable property was governed by the provisions of section 8(4) of the National Credit Act (hereinafter referred to as the NCA)[4] under certain circumstances. The High Court held that the agreement was a lease since the representative of the lessee believed that ownership of the machine hired would somehow pass to the lessee on termination of the lease agreement. And that the provisions of the NCA regulating notice to the defaulting lessee were operative. The Supreme Court overturned the High Court`s decision asserting that the provisions of a movable property lease agreement intended to be covered by the NCA, should comply with provisions of section 8(4). Further that such lease agreement should be apparent (*ex facie*) from the face of the contract itself.

2. RESEARCH METHODOLOGY

This research has adopted doctrinal legal research approach as a data collection method. This method is also known as the "black letter law". Pearce, Cambell and Harding (1999) define doctrinal legal research approach as a research which provides a systematic exposition of the rules governing a particular legal category, analysis of the relationship between rules and explains areas of difficult and

[3] (212/2012) [2013] ZASCA 10 (26 February 2013)

[4] National Credit Act 34 of 2005

perhaps predicts future developments. Therefore, doctrinal method basically means reading, interpreting and analysing of legal resource in details.

3. THE FACTS OF THE MICHAEL BID HOUSE CASE

The first respondent is Michael`s Bid House CC. The second respondent is Michael Rose, an estate agent who conducted a business through the first respondent. He intended to acquire a colour printing machine for the Close Corporation and also to print pamphlets for the other estate agents in the area of Randfontein, Gauteng, South Africa. The second respondent consulted with Mr Vosloo of Westrand Office Equipment who suggested two ways of financing the machine since the Close Corporation could not afford to purchase the machine. Rose elected the option of paying a monthly instalment of R2 878 to 'finance this machine with full maintenance and service and toner supplied for the full 36 month contract'. Furthermore Vosloo indicated in the written quotation that Westrand could arrange 'finance' through Sapor Rentals (Pty) Ltd. On 3 July 2008 both Sapor and Rose on behalf of the Close Corporation signed a 'master rental agreement in terms of which Rose was to pay the aforesaid amount of R2 878 per month for the period of three years. Rose also signed suretyship on behalf of the Close Corporation, hereinafter referred to as CC. The contract commenced on 3 July 2008 and the aforesaid machine was delivered to the CC and installed. On 8 July Sapor ceded its rights under the rental agreement to Absa technology Finance Solutions (Pty) Ltd and the copy was delivered to Rose on 28 July 2008. On 9 July 2008 the CC paid the first instalment to Sapor. On 28 July 2008 Rose indicated to Sapor that he was not satisfied with the printer and the failure to supply toner, that he had been misled into entering into rental agreement and that he was cancelling it. Rose paid the second and last instalment on 8 August 2008.

In November 2008 Absa Technology instituted an action at South Gauteng High Court of South Africa for payment of arrear and future rentals against the CC and Rose as surety in the amount of R111 533. Rose and the CC raised a number of defences in their plea. However, they did not plead rectification or that the rental agreement was simulated or that the contract had been induced by fraud. They only pleaded that Sapor was in breach of the agreement because Westrand failed to deliver toner for the machine, surprisingly not showing that Sapor was a Westrand agent in that regard. However, Westrand was liquidated.

3.1. The High Court`S Ruling

The Court per Beasley J held that prior discussion between Rose and Westrand were inadmissible in the face of written agreement. There was a clause in the rental agreement for the parol evidence rule. It should also be noted that the CC acknowledged that it was referred to Sapor by Westrand which bought the machine. The Court found that the agreement in issue was not a true sale, despite its written provisions to the contrary. And that it was a real agreement between the parties, further that it was a credit agreement for the purpose of the NCA. The Court further indicated that as such Absa Technology as a lessor had to give notice and proceed under section 129 and 130 of the NCA to the CC as lessee and Rose as a surety before enforcing the agreement. The High Court did not give judgment on merits. It held that Absa Technology should not set the matter down until complied with section 129 and 130. The High Court granted a leave to appeal against this decision.

3.2. The Supreme Court of Appeal`s Ruling

The Appeal Court invoked the decision of *Health Professions Council of South Africa v Emergency Medical Supplies and Trading CC t/a EMS*[5] in which it was stated that the Court will not entertain an appeal against part of an order even if it has disposed of a point of law. Accordingly the lease will not be disposed of until Absa Technology has complied with section 129 and 130 of the NCA because there might be further appeal on other aspects. Interestingly the counsel for Absa Technology convinced the Court that there was nothing further that the High Court could adjudicate on. And, further that if the appeal was heard, and turn to be successful it would be the end of the matter. However, if it is dismissed then Absa Technology would comply with section 129 and 130. Thereafter, the judgment would be granted against CC and Rose.

The Appeal Court was of the view that the judgment of the High Court affected many financial institutions and a class of contracts in respect of which the applicability of the NCA warrants clarification. The Court also held that in any event the time would be wasted if it declined to hear the appeal before compliance with section 129 and 130. Should it be decided on the appeal after judgment, that such compliance was unnecessary, it would therefore confirm that indeed time has been wasted. It is on this basis that the Appeal Court was willing to proceed to entertain the matter.

Section 8(4) determines which contracts constitute credit agreements including leases. The principal issue before the Appeal Court was whether the rental agreement between the parties was a lease. Thus the Appeal Court indicated that rental agreement generally are leases but a lease as defined in the NCA is the very anti-thesis of a lease. The Court went on to examine the meaning of lease in section 1 of the NCA:

"Lease" means an agreement in terms of which-

(a) temporary possession of any movable property is delivered to or at the direction of the consumer, or the right to use any such property is granted to or at the direction of the consumer;

(b) payment for the possession or use of that property is-

(i) Made on an agreed or determined periodic basis during the life of the agreement or

(ii) Deferred in whole or in part for any period during the life of the agreement;

(c) interest, fees or other charges are payable to the credit provider in respect of the agreement, or the amount that has been deferred; and

(d) at the end of the term of the agreement, ownership of that property either-

[5] 2010 (6) SA 469 (SCA)

(i) passes to the consumer absolutely; or

(ii) passes to the consumer upon satisfaction of the specific conditions set out in the agreement'.

The court was of the view that a true lease in which the lessee should return the property on the termination of the agreement and the relationship between the lessor and lessee is not governed by the definition of the credit agreement in the NCA.

Accordingly the Appeal Court had to adjudicate on the following three issues:

(a) Whether the rental agreement was governed by section 8(4)(e) of the NCA;

(b) Whether the rental agreement was governed by section 8(4)(f);

(c) Whether the rental agreement was an incidental credit agreement in terms of the NCA.

With regard to the first issue the High Court found that the agreement between the parties was lease in terms of the NCA. It relied on the evidence of Rose and Absa Technology's witnesses as to whether the ownership would pass to the CC on the termination of the agreement. The High Court confined itself to the question as to whether or not the rental agreement was a lease. In this regard the High Court admitted the evidence despite Absa technology objecting to that evidence to be led.

The Appeal Court went on to examine the relevant terms of the contract, which read as follows:

'Hirer [first Sapor and then by virtue of the cession Absa Technology] shall at all times be and remain the owner of the goods and neither User [the CC] nor any other person on his behalf shall at any stage before or after the expiry of this agreement or after termination thereof acquire ownership of the goods'

'Notwithstanding the provisions of this agreement should User in breach of its obligations fail to return the goods on termination of this agreement then in addition to any other claims that Hirer may have against User pursuant thereto, User shall be liable to continue to pay rentals to Hirer as if the agreement had not been so terminated'

'User shall, on termination of this agreement, return the goods together with all applicable documents to Hirer at user's cost and expense'.

The Appeal Court indicated that the requirement that ownership of the goods must pass at the end of the lease was not met as expressly stated in the definition of the lease in the NCA. The Appeal Court also questioned the basis upon which the High Court admitted extrinsic evidence that contradicted the terms of the agreement. The learned judge accepted an approach that if evidence was available to the true intention of the parties which is not reflected in the agreement then it was acceptable to vary its terms to bring it within the ambit of the NCA. According to the Appeal Court the High Court examined the decisions of *Absa technology Finance Solutions Ltd v Pabi's Guest CC*[6] and *Absa Technology Finance Solutions v Viljoen t/a Wonderhoek Enterprises*[7] wherein the court appeared to have considered 'extrinsic evidence as to what the lessees had intended in order to determine the nature of the transaction in issue'. In *Pabi* the court held that in the absence of evidence as to the content of the contract, the court could not go beyond the terms of the contract and that section 8(4)(f) applied in accordance with the content of the contract and not by virtue of its name. It should be noted that the court in *Pabi* also held that it 'must have regard to the substance of the contract, not merely its form'. The High Court referred to the decision of *Ticker v Ginsberg*[8] also *Bridgeway v Markham* wherein the court determined whether a contract fell within the provisions of section 8(4). In *Bridgeway* the court was of the view that when the court determine the nature of the contract, it 'must scrutinize the whole course of the parties dealings'.

The Appeal Court indicated that the reliance in *Padi's* and *Bridgeway* on *Tucker* is misplaced. The court said it would not admit evidence as to what the parties intended it to mean if that had the effect of altering the terms in which the parties agreed upon.

The Appeal Court said the correct approach to the admissibility of the parol evidence is the one stated by Harms DP in *KPMG Chartered Accountants SA v Securefin* Ltd.[9] The court in *Securefin* asserted the following: Firstly, if a document was intended to provide a complete memorial of a jural act, extrinsic evidence may not contradict, add to or modify its meaning (*Johnson v Leal*.[10] Secondly, interpretation is a matter of law and not of fact and accordingly interpretation is a matter for the court and not for witnesses (Hodge M Malek (ed) *Phipson) on evidence*.[11] Thirdly, rules of admissibility of evidence do not depend on the nature of document, whether statute, contract or patent (*Johnson & Johnson (Pty) Ltd v Kimberly-Clark Corporation and Kimberly-Clark of South Africa (Pty) Ltd*.[12] Fourthly, the extent in which evidence may be admissible to contextualise the document or for the purpose of identification 'one must use it as conservatively as possible, *Delmas Milling Co Ltd v Du Plessis*.[13]

The Appeal Court held that the High Court erred in allowing evidence as to the parties' understanding of the rental agreement particularly to the passing of ownership of the machine by *Absa Technology and Rose*. According to the Appeal Court, such evidence should have been ruled as being inadmissible. The Appeal Court on this issue concluded that the written agreement signed by both parties is a lease as it is understood in common law and not a lease for the purpose of section 8(4) of the NCA.

The court went on to adjudicate on the second issue as to whether rental agreement was governed by the provisions of section 8(4)(f) of the NCA. Section 8(4)(f) provides that an agreement irrespective of its form constitutes a credit transaction if it is any other agreement, other than a credit facility or credit guarantee, in terms of which payment of an amount owed by one person to another is deferred, and any charge, fee or interest is payable to the credit provider in respect of the agreement or the amount that has been deferred. In the High Court, Rose and CC argued that the credit agreement falls within the ambit of section 8(4)(f). The High Court rejected the argument by both Rose

[6] 2011 (6) SA 606 (FB)
[7] 2012 (3) SA 149 (GNP)
[8] 1962 (2) SA 58 (W) at 62F-H
[9] 2009 (4) SA 399 (SCA)
[10] 1980 (3) SA 927 (A) at 943B
[11] (Hodge M Malek (ed) Phipson on evidence (16 ed 2005) paras 33-64).
[12] 1985 BP 126 (A) [1985] ZASCA 132
[13] 1955 (3) SA 447 (A) at 455B-C

and CC and accepted the approach that was followed in *Absa Technology Finance Solutions v Viljoen t/a Wonderhoek Enterprises.*[14] The court in *Viljoen* indicated that in this type of rental agreement there was no question of deferral of the obligation to pay monthly rental because payment was not postponed. The Appeal Court agreed with the High Court when it referred to the decision of *Viljoen* that if the legislature indeed intended to bring such lease within the NCA as a credit transaction it could have easily done so by using plain and unambiguous language. The Appeal Court concluded that the rental agreement was not a credit agreement in terms of section 8(4)(f).

The Appeal Court went on to decide on the third issue, namely as to whether rental agreement was an incidental credit agreement in terms of the NCA. It was contended by Rose and CC that the agreement was an incidental credit agreement in terms of the NCA irrespective of its form over a period where either a fee, charge or interest become payable when the account has not been paid or where two prices are quoted for settlement of the account, the lower price being payable if the account is paid by a determined date and the higher price being payable if the price is not paid by that date. On this aspect the Appeal Court agreed with High Court. It held that rental agreement did not meet the test in the former case because no account or service was rendered. According to the Appeal Court rental had to be paid in terms of the agreement and no account was necessary. Thus, the court concluded that it would be strange to exclude common law leases from its ambit and bring them within the context of section 8(4)(f). The Appeal Court also stated that Absa technology was not required to comply with the provisions of section 129 and 130 of the NCA. It was therefore ordered that Rose and the CC were to pay an amount of R111 533.98.

CONCLUSION

The decision of *Absa Technology v Michael's Bid House* sets a president in the legal research pertaining to rental of movable properties. The court correctly entertained this appeal as it does affect many financial institutions and that the applicability of the NCA in this regards warrants much clarification. It is therefore important that one considers the reasoning by the Appeal Court. The Appeal Court clearly indicated that the High Court should not have allowed and relied on the evidence of Rose and Absa Technology witnesses to the effect that ownership of the machine would pass to the CC on termination of the agreement. That was the parties` understanding of the rental agreement and not exactly as in the terms of the contract. The High Court then erred in allowing such evidence despite Absa Technology objecting to that evidence to be led. Secondly, the pre-requisite in section 8(4) that ownership of the goods must pass in terms of the agreement to the lessee at the end of the lease was not met. The Appeal Court held that the approach followed in *Pabi's* and *Bridgeway* was not correct. In this regard the Appeal Court invoked the correct approach used by this court with regard to the admissibility of parole evidence. The Appeal Court concluded that the written agreement signed by both parties was a lease as it is understood in common law and not a lease for the purpose of section 8(4) of the NCA. On the second issue as to whether the rental agreement was governed by the provisions of section 8(4)(f) of the NCA, the Appeal Court correctly agreed with the High Court, referring to the decision of *Viljoen*, that if the legislature intended to bring such lease within the NCA as a credit transaction, it could easily have done so by using plain and unambiguous language. With regard to the third issue as to whether rental agreement was incidental credit agreement in terms of the NCA the Appeal Court concluded that it would be strange to exclude common law leases from its ambit and bring them with the context of section 8(4)(f). This paper clarifies the legal position relating to common law leases and rental agreements governed by the provisions of section 8(4)(f). It plays an important role for practitioners to take note of discrepancies relating to leases of movable properties.

ACKNOWLEDGEMENTS

The paper acknowledges Sibanda Mandhlaenkosi, an LLM Candidate at University of Venda, School of Law who made enormous contribution in gathering of relevant information for this research.

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[14] 2012 (3) SA 149 (GNP)

THE INFLUENCE OF INFORMATION AND COMMUNICATION TECHNOLOGIES ON ORGANIZATIONAL INNOVATION. A PERSPECTIVE OF MEXICAN SMES

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Abstract

The adoption of new organizational methods is essential for any firm to improve its ability to seize and create new knowledge, which is necessary to develop alternative types of innovations. Hence, the appropriate use of Information and Communication Technologies (ICTs) can substantially improve organizational innovation. In this sense, an empirical study of 288 manufacturing SMEs in the Guanajuato region, Mexico, was conducted to determine the influence of ICTs usage on organizational innovation in a developing country. The results obtained through the Structural Equation Modeling demonstrate that the use of ICTs substantially impacts on organizational innovation. Therefore, SMEs should use ICTs effectively and collaboratively with suppliers and customers to meet market trends and improve or innovate their products.

Keywords: Use of ICTs, Organizational Innovation, Collaboration, Manufacturing SMEs, Structural Equation Modeling

1. INTRODUCTION

By the end of the last century, the environment and high competence among organizations have pushed small and medium enterprises (SMEs) to establish their business strategies not only as a form to obtain new profits or to survive but to grow and produce new benefits. For that reason, decision makers in this kind of enterprises are forced to change its business perspective, which is fundamental to act with efficiency and to adequate the use of new technologies that will allow them to achieve success and sustainable growth in the market. In this sense, mainly due to the importance that this type of companies, SMEs, have to the economy of any country, it is fundamental for these to take advantage of resources and capabilities on which they count, in order to face the current business environment in more efficient manner. In the context of Mexico, Cuevas-Vargas et al. (2015) define that adopting Information and Communication Technologies (ICTs) is one of the strategies that SMEs have to implement in order to reduce the threats of globalization, mainly because these technology tools allow them to improve efficiency and competitiveness (Ongori and Migiro, 2010), by playing a central role, especially in this type of companies, to increase competitiveness.

At the same time, ICTs have an important impact on companies, both in developed and emerging countries, such as the case of Mexico. Manochehri et al. (2012) define that ICTs provide new opportunities to companies because it is possible to design and to delivery digital goods, which additionally increment margins and profits, since the access to international markets increase. Therefore, managers should consider ICTs as technologies that help managing and optimizing business processes, ensuring partial automatization of personnel activities, organizing human resources, improving quality and managing important information for decision-making (Rogers et al., 2011).

During the last years, a great deal or research in the area of ICTs have analysed the complementarity relationship between the adoption of ICTs and the adoption of various organizational innovations (Bresnahan et al., 2002; Hollenstein, 2004). For example, Melville et al. (2004) have differentiated the effects of ICTs on business processes from those on the company as a whole. The first type of effects from ICTs include all measurements taken to improve operational efficiency on the specific business processes, such as quality improvements on design processes, or improvements on the life cycle in inventories management processes.

Dewett and Jones (2001) classify the companies' improvements, which enhance innovation, into five categories: 1) coordination among workers, 2) capacity to codify knowledge of the company, 3) greater capacity to improve its business areas expanding old traditional boundaries of the company 4) processing of information and its effects on efficiency 5) improvement on collaboration and coordination.

However, in the literature review there are only few researches that analyse the ICTs types and its levels in which these allow organizational innovations (Mustafa, 2015; Spiezia, 2011); most of

the researches are focused only on the relationship between ICTs and business innovation (Brynjolfsson and Hitt, 2000; Cuevas-Vargas et al., 2016; Gago and Rubalcaba, 2007; Spiezia, 2011). Therefore, this paper presents two main contributions. The first is to provide empirical evidence about the existing relationship between ICTs and organizational innovation, in the context of manufacturing SMEs in a developing country, such is the case of Mexico. The second is about the application of a different methodology, which is different from previous researches, including a test of the theoretical model through the validation of constructs, using a Confirmatory Factor Analysis (CFA) and hypothesis testing by Structural Equations Modelling (SEM).

In this sense, the present research work proposed the objective to analyse the influence of ICTs usage on organizational innovation, in manufacturing SMEs in Guanajuato region, Mexico. In consequence, it is important that the researcher question if the use of ICT substantially improves organizational innovation in SMEs and what its implications are. From this, the paper presents an application of a survey to 288 manufacturing SMEs in the Guanajuato region, in México, from October to December 2014. This paper is organized in five sections. First, the introduction followed by the literature review and established hypothesis. Third, the research methodology is explained. Fourth, the results and discussion are offered. Fifth, conclusions, implications, research limitations and future research are presented.

2. LITERATURE REVIEW

This paper's research model is about the relationship of ICTs and organizational innovation in SMEs. In this section the theoretical and empirical arguments are explained that are the basis of this research hypothesis:

2.1. Relationship of the Use of ICTs with Organizational Innovation

ICTs are related to the use of hardware devices, software and telecommunications, to store, manipulate, convert, protect, send and receive information (Olifer and Olifer, 2006). Current research suggests that ICTs is a strategic resource that helps companies to find new opportunities in market, with low costs and high probability of success (Shin, 2007). The investigations of Diaz-Chao et al. (2015) propose that in order to SMEs improve its productivity these need public policies that integrally promote ICTs, organizational change, and training to workers and entrepreneurs.

In the current research, there is scientific evidence that indicates that ICTs significantly contribute to efficiency, productivity, and innovation on every company, because the use of ICTs allows production of products in a shorter time, mainly with the support of computing systems. At the same time, there is research defining ICTs' investments as good influences on workforce's productivity and economic growth (Oliner and Sichel, 2004).

Moreover, the OECD Oslo's manual (2005) considers organizational innovation as the application of new methods in a company, which can produce changes in working practices, on work places or on external relationships. Therefore, the adoption of new organizational methods can improve the attitude of the whole company, by adopting this new knowledge and therefore creating new knowledge that can be used to develop another type of innovations. In this sense, Damanpour (1991) defines organizational innovation as the adoption of a new idea or new action in a company. On the other hand, Alasoini (2001) states that organizational innovation not only includes changes in working structures, internal and external functions in the whole organization, but also in the interactions among them.

Therefore, the organizational structure of a company can influence efficiency of innovation activities mainly because the higher level of organizational integration can improve coordination, planning, and implementation of innovation strategies (OECD, 2005). Likewise, organizational innovation is also an important factor that influences quality and innovation strategies (OECD, 2005). Also, organizational innovation is an important factor that improves quality and innovation performance. Consequently, a more flexible company where workers are empowered for decision-making will be more efficient to generate radical innovations.

According to Chandler (1990) managers, workers and other companies' cooperation are the three internal factors considered as key aspects for SMEs' innovation, since a manager in a SME should prioritize the generation and development of new ideas. The human factor is also fundamental for the development of innovation in SMEs, since the more existing communication levels and the fewer formalization levels in general provide the better workers' autonomy. Therefore, compromise can be seen between the worker and the company, which facilitates creativity, and consequently, more participation in the development of innovation. Finally, the creation of collaboration agreements with other companies will allow SMEs to eliminate its barriers, namely, resources scarcity and non-specialized actives for innovation (Teece, 1986). Hence, cooperation among SMEs becomes a strategic weapon to generate collective networks of knowledge as basis to develop improvements to products, services or processes (Verhees and Meulenberg, 2004).

Based on Seguy et al. (2010) ICTs can affect all levels of the company and can produce changes in the environment of decision takers and actors, mainly through the acquisition and improvement of information, skills and experience, expansion areas of action, as well as, the possibility of distance work.

In terms of empirical evidence related to the use of ICTs with organizational innovation, there is a positive and significant relationship between these two. For instance, Papaioannou (2004) in his research, exploring the effects of ICTs on productivity and economic growth, in emerging and developed countries, identified that ICTs presented a positive and significant impact onto productivity and economic growth. Another investigation carried out by Polder et al. (2009) it was found that ICTs are important enhancers of innovation on both industries, manufacturing and services, and that Innovation and Development (I+D) has a positive effect on products innovation, in manufacturing

companies; highlighting that organizational innovation had stronger effects from productivity. Finally, there were identified positive effects from products and processes innovation when these were combined with organizational innovation. Whereas, Manochehri et al. (2012) on his research of 102 SMEs in Qatar, he identified, in this type of companies, that had important investment on ICTs because of their need to offer better and faster services to customers, to stay ahead with competence and to follow new management guidelines. Also, the benefits from adopting such ICTs have been reflected on its better relationships with customers and costs reductions. As a result, from this, it is possible to establish the following hypothesis.

H_1: *Greater use of ICTs, greater levels of organizational innovation.*

3. METHODOLOGY

3.1. Sample Design and Data Collection

An empirical research was performed using a quantitative approach of explanatory and cross sectional type through the statistical technique of Structural Equation Modeling (SEM). For the development of this research it was taken as a reference the database offered by the Business Information System of Mexico (2015), considering a sample of 288 SMEs from 1 to 250 employees in the manufacturing sector in Guanajuato, Mexico, with a confidence level of 95% and a margin of error of 5%. The survey was applied randomly and answered by the managers or owners of these kind of businesses during October-December 2014.

3.2. Measurement of Variables

To measure the use of ICTs, the scale used by Gonzálvez-Gallego et al. (2010) was adapted by adding it 2 items, to make a 16 items scale which was measured with a Likert-type scale of a 1 to 5 point range, which refer from low importance to high importance, and tested in other studies by Cuevas-Vargas et al. (2015). Regarding to the measurement of organizational innovation, an adapted scale proposed by Pinzón (2009) was considered, which is composed of 9 items, measured with a Likert-type scale of a 1 to 5 point range, which refer from total disagreement to total agreement.

3.3. Reliability and Validity

To evaluate the reliability and validity of the scales, a Confirmatory Factor Analysis (CFA) using the maximum likelihood method through the use of EQS 6.1 statistical software was performed, considering both latent variables as first order factors (Bentler, 2005; Brown, 2006; Byrne, 2006). From the obtained results, all values of the scales exceeded the recommended value of 0.7 for *Cronbach's Alpha* which provides evidence of reliability and justifies the internal reliability of the scales (Hair et al., 2010; Nunnally and Bernstein, 1994). The Composite Reliability (CRI) is greater than 0.70 (Fornell and Larcker, 1981), the Average Variance Extracted (AVE) was greater than 0.50 (Fornell and Larcker, 1981) in each and every one of the factors. Also robust statistical testing was used (Satorra and Bentler, 1988) in order to provide better evidence of statistical adjustments, as it can be seen in Table 1.

Table 1. Internal consistence and convergent validity of the theoretical model

Variable	Indicator	Factor Loading >0.6	Robust t-value	Cronbach's Alpha >0.7	CRI >0.7	AVE >0.5
Use of ICTs	IT2	0.808***	1.000[a]	0.973	0.973	0.722
	IT3	0.849***	31.266			
	IT4	0.859***	26.987			
	IT5	0.890***	22.802			
	IT6	0.833***	18.113			
	IT7	0.884***	23.577			
	IT8	0.824***	18.741			
	IT9	0.854***	20.758			
	IT10	0.846***	20.177			
	IT11	0.818***	18.139			
	IT13	0.878***	21.479			
	IT14	0.884***	23.360			
	IT15	0.843***	20.050			
	IT16	0.823***	18.510			
Organizational Innovation	ORI1	0.770***	1.000[a]	0.923	0.920	0.590
	ORI2	0.873***	17.558			
	ORI3	0.825***	15.283			
	ORI4	0.786***	14.683			
	ORI5	0.796***	15.321			
	ORI6	0.690***	10.932			
	ORI8	0.690***	11.438			
	ORI9	0.694***	10.671			
S-B X^2= 553.122 on 208 df; (S-B X^2/df)= 2.65; p= 0.000; RMSEA= 0.079; NFI= 0.912; NNFI= 0.937; CFI= 0.943						

*[a] = Parameters constrained to this value in the identification process; Significance level= *** = p < 0.001; ** = p < 0.05*
CRI= Composite Reliability Index; AVE= Average Variance Extracted

Therefore, it was found that the original model showed level adjustment problems, so it was necessary to eliminate three observable variables to the whole theoretical model, two observable

variables to the construct use of ICTs (IT1) and (IT12), and another one to the organizational innovation latent variable (ORI7), due to the fact that their factor loadings were under the value of 0.6 suggested by Bagozzi and Yi (1988), so that the model got a very good adjustment of the data taking into reference robust statistics, since the values of NFI, NNFI and CFI are higher than 0.90 (Bentler, 2005; Brown, 2006; Byrne, 2006; Hair et al., 2010); S-B X^2/df is lower than 3.0 (Hair et al., 2010); and RMSEA is less than 0.08, which are acceptable (Hair et al., 2010; Jöreskog and Sörbom, 1986), which can be seen in Table 1. Hence, as evidence of convergent validity, the results of CFA indicate that all the items of the related factors are significant ($p < 0.001$), the size of all the standardized factor loadings are greater than 0.60 (Bagozzi and Yi, 1988).

With regard to the evidence of discriminant validity, the results are presented in Table 2, where the measurement is provided in two forms, the first one with a 95% interval of reliability, below the diagonal numbers (in bold), none of the individual elements of the latent factors of the correlation matrix contains the value 1.0 (Anderson and Gerbing, 1988). Second, above the diagonal the extracted variance between the pair of constructs is lower than its corresponding AVE (Fornell and Larcker, 1981). Therefore, based on these criteria, it can be concluded that the different measurements in this study demonstrate sufficient evidence of reliability and convergent and discriminant validity of the adjusted theoretical model.

Table 2. Discriminant validity measuring of the theoretical model

Variables	Use of ICTs	Organizational Innovation
Use of ICTs	**0.722**	0.288
Organizational Innovation	0.594 , 0.950	**0.590**

4. RESULTS

For the statistical results of the research hypothesis, Structural Equation Modeling was performed using the statistical software EQS 6.1, from first order application of CFA (Bentler, 2005; Brown, 2006; Byrne, 2006), with the same variables to check the model structure and get the results that allow us to contrast the raised hypothesis presented in Table 3. Likewise, the nomological validity of the theoretical model was examined through the Chi-squared test, which consists on comparing the results obtained between the theoretical model and the measurement model, where results indicate that differences between these two models are not significant, which allows to define an explanation about the relationships between the two latent constructs (Anderson and Gerbing, 1988; Hatcher, 1994).

Table 3. Structural Equation Modeling results from the theoretical model

Hypothesis	Path	Standardized Path Coefficients	Robust t-value	R Square
H1: Greater use of ICTs, greater levels of organizational innovation	Use of ICTs → Organizational Innovation	0.620***	9.223	0.384
S-B X^2= 553.119; df= 208; (S-B X^2/df)= 2.65; p= 0.000; RMSEA= 0.079; NFI= 0.912; NNFI= 0.937; CFI= 0.943				

*Significance level: *** = $p < 0.001$; ** = $p < 0.05$; * = $p < 0.1$*

Thus, in regard to the hypothesis $\mathbf{H_1}$, the results presented in Table 3 ($\beta = 0.620$, $p < 0.001$), indicate that the use of ICTs has positive and significant impact on organizational innovation, since the use of ICTs impacts positively by 62% on organizational innovation, so that the $\mathbf{H_1}$ is accepted. Therefore, based on the results obtained through the SEM, we can infer that organizational innovation is explained in 38.4% by the use of ICTs, according to the obtained value of R-squared.

Hence, our results are consistent with findings from other empirical research, since it was found that there is a positive and significant impact of the use of ICTs on organizational innovation. Firstly, there is agreement with the findings of Papaioannou (2004) in their longitudinal study about developed and developing countries; they also confirm the findings by Polder et al. (2009) in their study in Netherlands; and finally, they corroborate the results obtained by Manochehri et al. (2012) in their study of SMEs in Qatar.

CONCLUSION

Based on the stated objective it is concluded that the use of ICTs impacts positively and significantly on organizational innovation in manufacturing SMEs in Guanajuato, therefore, the results obtained in this study are of great value to decision makers of these kind of businesses in a developing country, since the use of ICTs is a fundamental strategy should be considered within the business strategies of an organization, due to the fact that the use of ICTs substantially influence on organizational innovation. Also, it has been found that manufacturing SMEs in Guanajuato have given more importance to the use of ICTs in inventory management, control of production, and to place orders with their suppliers, which has impacted both on the relations with their suppliers, and on quality control of products with their suppliers; neglecting a bit the use of ICTs to exchange documents with customers and the quality of customer service.

For this reason, managers or owners of these businesses should pay special attention to these two variables, because if they take advantage of the use of ICTs to exchange documents (information) with their customers, they may have more contact with their clients, allowing them to meet their needs, requirements and preferences, and in this way to anticipate their needs by offering them innovative products and / or services that enable their firms to stay ahead in the market; likewise, managers should work more with their employees care and customer service, in order to increase the quality of customer service, which can be seen reflected in their

satisfaction and increased purchases, resulting in a good financial performance. In this sense managers are advised to have habits and continuous improvement programs, to focus on service delivery, using ICTs adequately, and have customer service (Cassivi et al., 2008).

Also, it has been found that the use of ICTs has impacted mainly on the following aspects of organizational innovation, namely the introduction of new practices to improve learning and knowledge sharing within the company; the introduction of new training courses and staff training issues that undoubtedly have enabled these organizations improve their organizational innovation. However, it has been found that manufacturing SMEs in Guanajuato, almost completely neglected collaboration with research organizations; and to a lesser extent they have neglected the development of new relationships with other companies or public institutions, as well as establishing new partnerships with suppliers. For this reason, managers should look within their strategies, the collaboration strategy as collaborative activities play an essential role in the development of innovation within SMEs, since collaboration with universities and research institutions (Cohen et al., 2002), suppliers and users of the products and / or services (Lundvall, 1988), and other competitors (Coombs et al., 1996), raises the growth and the chances of success of SMEs (Motohashi, 2008).

In conclusion, managers and owners of these businesses should incorporate the use of ICTs not only as a key element in their business strategies, but also as part of their daily activities. In this sense, depending on the level of implementation of the use of ICTs, this effect will be reflected in increasing their level of organizational innovation, by virtue of the use of ICTs is an enabler of innovation, it allows for better efficiency in organizing tasks and helps to reduce costs and delivery times for orders, brings them closer to their customers and allows them to keep up with the needs and trends of their customers, which can be seen reflected in product or service innovations, which allow these kind of firms to satisfy their customers, improve their sales and increase their profits.

Similarly, they should take special care in collaboration mainly with suppliers, since this type of agents has more information, knowledge and experience of the market, which can be shared with producing companies of goods and services, to improve or innovate products, and thereby generate higher performance in enterprises (Corsten and Felde, 2005).

Within the constraints, one can note that the surveys were answered from the point of view of the managers of manufacturing SMEs in Guanajuato, which may lend itself to subjectivity. It is recommended to replicate the model in other regions with a more representative sample of the different sectors of the economy considering companies with more than 10 and up to 250 workers in order to increase the validity of the model. Finally it is suggested to investigate what would be the effects of organizational innovation in the adoption of ICTs, and how much would improve company performance by incorporating the financing variable, and how the model would behave if we included control variables such as age and size of the company.

ACKNOWLEDGEMENT

The authors wish to thank the Editor and the referees for their valuable comments.

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RISKS CONNECTED TO THE WORK FORCE AT THE SMALL, MEDIUM AND MICRO ENTERPRISES

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Abstract

The aim of this paper is to report on, and examine the impacts of, a skills shortage as a constraint on entrepreneurial development in the townships, specifically that of Khayelitsha, and to identify tools that are essential for the Small, Medium and Micro enterprise (SMMEs) businesses, in Khayelitsha. These skills are critical for the future development of the area. The research design employed in data gathering for this study was both qualitative and quantitative, and the questionnaires used required participants to answer open and closed ended questions. The review reveals, among other factors, a lack of a skilled workforce facing these businesses, and the recommendations made could lead to an empowering tool necessary for business ventures and entrepreneurs to succeed.

Keywords: SMMEs, Skills Transfer, Training, Government, Education

1. INTRODUCTION

Small, Medium and Micro Enterprises (SMMEs) play an important role in creating employment in most countries. Business entrepreneurs in Khayelitsha tend to lack a variety of adequate business skills and capital to be able to operate and expand their businesses. However, this paper will only focus on the skills shortages experienced by SMMEs. It is therefore crucial to determine the kind of education level that entrepreneurs possess, and be able to identify the gap so as to empower them with necessary skills.

The South African Government and the City of Cape Town have a number of empowerment programmes in place to help SMMEs. However, those in Khayelitsha have, as yet, benefitted little from government initiatives and development in the area. As such, state institutions have an important role to play in terms of providing skills programmes. With these government programmes in place this should empower business owners with the necessary skills so as to bridge the skills-gap.

Evidence from a study by Ikejiaku (2009) on constraints to development indicates that South Africa is facing a high rate of unemployment and little is being done by the government to assist in development of SMMEs. Small businesses can address the challenges of skills strategies and job creation, and that could assist in Gross Domestic Product (GDP) growth of the South African economy (Golden Future, 2011). It is therefore important to have entrepreneurs who are able to tackle unemployment with the necessary skills and business acumen, and SMMEs could therefore play a crucial role in terms of economic development, and in the growth of the South African GDP (Tlhomola, 2010).

2. LITERATURE REVIEW

In apartheid South Africa, the majority of the black population lacked access to entrepreneurial opportunities because of their exclusion from appropriate teaching systems, and from the right of access to financial and other resources. Consequently, it is essential to recognise to what degree, and in what manner, previously disadvantaged individuals are now able to engage in business enterprises. The development of SMMEs has been a challenge that the new government has been required to face after the dissolution of the apartheid laws. However, the South African government still lacks adequate resources to sustain small businesses (Mboyane and Ladzani, 2011).

The previous white government also created a hostile education environment (in terms of which there were unsteady life relations, inadequate livelihood circumstances, and no jobs-provision), and failed to supply the expertise required by the South African economy. It is evident that this discriminatory system presented an unstructured small business sector with slight, or negative, investment opportunities in relation to human resources which the present government has yet to rectify (Hess and Rust, 2010).

Small businesses in Khayelitsha have, as yet, benefitted little from government initiatives and development in the area, and business entrepreneurs tend to lack adequate business skills and capital to be able to operate and expand their businesses. Such problems are further exacerbated by a lack of the available information, and sometimes a complete ignorance of government development initiatives, to promote small business entrepreneurial ventures.

The capacity to deliver sustainable business development, specifically in the area of small business support, has been proved to be insufficient (Ngxiza, 2011). The shortage of relevant skills

relating to the completion of forms for funding applications for micro enterprises, for example, poses a challenge, and still inhibits the on-going needs of SMMEs.

The Department of Trade and Industry (DTI) strategy document classifies direct empowerment as moves that must result in an increase in ownership and control of the economy by black persons and their participation in decision-making in boards, at executive management, and at operational levels. The indirect empowerment of black people through preferential treatment by the National Government, as well as by the private sector, promotes new enterprises. Such empowerment measures provide SMMEs with opportunities to expand their businesses. Enterprise development is an additional but important component of Broad Based Black Economic Empowerment (BBBEE). Such development may be achieved through investing in black-owned and black-empowered enterprises, and through participating in joint ventures with black-owned, and black-empowered enterprises, that is likely to result in skills transmission (South Africa. DTI, n.d).

The National Youth Development (NYDA), which was previously known as the Umsobomvu Youth Fund, was formed by the Government in 2001. It was assigned the task of promoting entrepreneurship, job creation, and skills development and transfer, especially among South Africans between the ages of 18 and 35 years, and women-owned enterprises irrespective of age (Mazwai, 2009). Furthermore, Local Economic Development (LED) is supported in two ways: through entrepreneurship education, including management and skills training, and entrepreneurship facilitation, which involves ensuring that the local communities participate fully in the local economic activity.

There are some institutions in place in Khayelitsha, such as Zenzele a Non-Government Organisation (NGO), where the key focus is on vocational skills training, and on small business development for unemployed people, especially the youth. To date (2015), the organisation has trained more than 9 000 people in woodwork, sewing, pottery, and welding skills. The organisation has assisted people either to become formally employed or to become self-employed (Zenzele, 2009). An additional NGO that uses training as a development tool for micro enterprise is Uthango. This organisation, which is particularly active in the Western Cape, collaborates with the wholesale and retail sectors to assist small businesses develop skills through training. This NGO had assisted over 150 SMMEs in Khayelitsha and Guguletu some years ago (Uthango, 2010).

Training in business skills is essential to prepare entrepreneurs for meeting daily challenges in the business. Entrepreneurs need to mastermind new technology in order to compete effectively in the global market. A lack of education and business acumen hampers the development of business development skills, which are required with regard to products, supplier price negotiations, and payroll management (Van Vuuren and Groenewald, 2007).

Kerimova (2008) states that education should be extended beyond skills training and that it should prepare individuals for change. Education in small business should be introduced at grassroots level, meaning that it should be introduced at primary school level to facilitate the nurturing, and grooming, of young people in business entrepreneurial ventures. In contrast, the researchers recommend entrepreneurship education to progress from primary school level, through secondary schools to tertiary education. According to Isaacs, Visser, Friedrick and Brijal. (2007) there appears to be no positive correlation between education and business creation in South Africa. The researchers agree that business education should be introduced at a primary level as a means of equipping learners with an understanding of the nature of a business. In addition, entrepreneurship education should be aligned with the demands of industry. (Isaacs et al., 2007) established that the key to instituting a custom of entrepreneurship in South Africa is learning that is based, in its entirety, on all stakeholders concerned, inclusive of the Ministries of Education and manpower, learners, and teachers.

The significance of entrepreneurial education as the driving strength behind the success of the businesses cannot be ignored as management skills play a major role in entrepreneurial success (Damiani and Ricci, 2013). In South Africa, post-school business education includes entrepreneurship education and guidance, which incorporates such supplementary themes as newness and risk-taking (Isaacs et al., 2007).

Kerimova (2008) states that the main focus of training in business should be on skills training, including technical and entrepreneurial skills, where the business skill training refers to formal training, which covers all aspects of predictable management. The technical skills-training deals with the capability to apply knowledge, or the technique of a particular discipline, to attain positive results in a business. According to Richards (2006), education plays a major role in any country, in terms of it boosting the gross domestic product of the Western Cape Province, and South Africa. The lack of higher education has also been shown to result in a lack of networking, and an inability to access resources, which are vital to sustain any small business. An inadequate education is exacerbated by geographic, cultural, or social inadequacies, by lack of access to free information through personal networking, and by the presence of relatively few resources.

The inability to complete forms for funding applications satisfactorily also poses a challenge, and inhibits the development of SMMEs. Tlhomola (2010) states that the level of education of the entrepreneur significantly affects the growth of an enterprise, and it can enhance the ability of entrepreneurs to solve problems related to the business. Isaacs et al. (2007) elaborates on education in business, by stating that entrepreneurial skills are essential.

To enable the learner to survive and thrive in the world of business, researchers generally agree that added emphasis should be placed on entrepreneurship education and training, as opposed to business education. Business and entrepreneurship education should form part of the school curriculum, as it would be advantageous to empower children at grassroots level, and to enable them to reflect like business owners at an early stage, while they are still at school.

Moreover, business skills, technical-and entrepreneurial training need to form part of the curriculum, so as to empower young and upcoming entrepreneurs. Tlhomola (2010) states that entrepreneurship training should be compulsory at all levels in universities. Entrepreneurs should be educated, and given the necessary training, as such education and training would help their business to succeed. With the high levels of unemployment in South Africa, achieving growth requires entrepreneurs who are creative and innovative, and who can develop.

3. RESEARCH DESIGN

The study adopted a mixed research methodology, using both quantitative and qualitative investigation. Because of the unknown population size of Khayelitsha, the target sample size for this study was set at n=70 for both questionnaire and interviews, and ultimately the sample consisted of n=57 business owners, as n=13 of the identified participants were unwilling to take part in the research. During the pilot study five interviews were done and two in-depth questionnaires. In terms of the main study the anticipated target for the questionnaire study was 50 and the responses were 39. The main study for the interviews and target responses was 20 and the responses were 18.

The data collection techniques utilised in this study were a questionnaire and interviews with formal and informal business persons. A pilot study was prepared as a pre-test for the main study. The data were collected during the first-phase pilot study, as well as during the second phase of the main study, through interviews and questionnaires. The data from the two techniques sources as married for the purposes for this article and presented below. The research questions were structured to establish the major challenges that are experienced in business in Khayelitsha. Likert scale questions (qualitative questionnaires) were posed to the respondents as a means of obtaining their opinions, which were indicated in bipolar adjective pairs (using a 5-point rating scale). Interviews were conducted to obtain more information, post the survey questionnaire exercise.

Figure 1 represents the gender profile of the sample concerned, which comprised 53.8% men and 46.2% women. It is clear from the statistical findings that the males dominated the sample, as is a fact in Khayelitsha confirmed during the interview sessions. The findings presented in Figure 1 contradict the findings of Chiloane-Tsoka (2013), who is of the opinion that, in a Uganda-based study, more women participated in the business sector, accounting for 90% of the total, and 10% of men. As women comprised a broader portion of the population at the time of the study, it is important that their participation in the business sector should be fully represented

4. RESULTS

Figure 1. Gender composition (n=39)

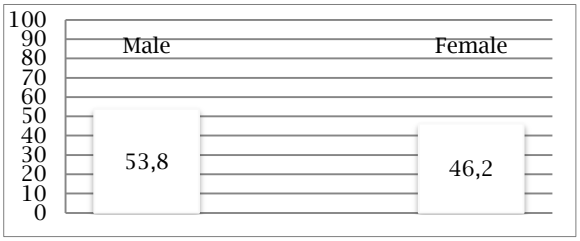
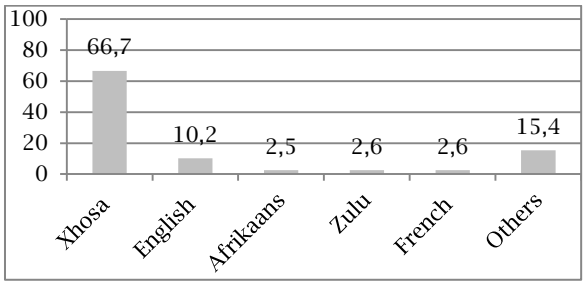


Table 1. Education background

Gender	No formal education	Grade1 -Grade11	Matric/Grade 12 completed	Undergraduat e degree	Postgraduate degree	Total
Males	1	6	4	7	2	20
Female	1	11	1	4	1	18
Total	2	17	5	11	3	38

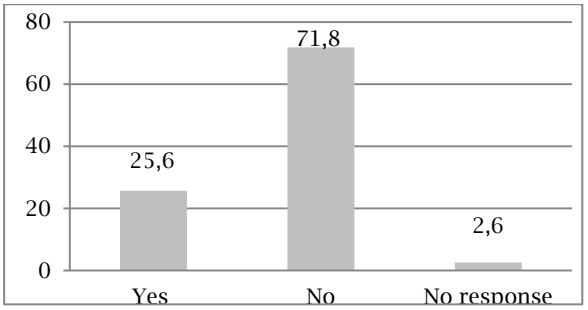
As part of the in-depth exploration of the gender and education profile, the distribution of men and women was examined by means of cross-tabulation on the variables. Table 1 indicates that in terms of education qualifications, only one woman had completed matric in comparison with four men; seven men had undergraduate degrees, compared to four women; and two men had a postgraduate degree, compared to one woman. This suggests that the majority of the women who took part in the study had inferior qualifications to the men, and that there was a high illiteracy level among the women, as compared with the men. The findings agree with those of Peters, Van Gensen, Issacs, Botha and Naicker (2014), who affirm that in comparison with female entrepreneurs, male entrepreneurs are more educated, and also tend to have business and managerial skills. This is, therefore, a concern, as the gender distribution implies that most female business owners have relatively low educational levels. Qualifications play a role in business as the better the entrepreneur is qualified, the more likely it is that they could be successful. Therefore there is, possibly, a strong correlation between education and business success.

Figure 2. Home language



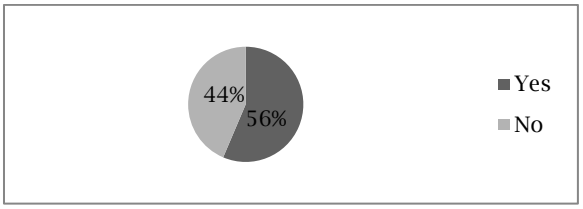
The data shown in Figure 2 indicates that isiXhosa is the dominant language in Khayelitsha, as it was spoken by 66.7% of the respondents, with those who were English-speaking being 10.2%, Afrikaans-speaking 2.5%, isiZulu-speaking 2.6%, French-speaking 2.6%, and other African language-speaking 15.4% of the participants. The City of Cape Town (CoCT) report reveals that the demographic profile for Khayelitsha represents 98.6% Black African, Coloured 0,6% , Asian 0.1% , White 0.1% and Other 0.6% (City of Cape Town, 2013:3), so the study profiles is consistent with the demo graphs of the area.

Figure 3. Knowledge that private businesses undertake skills transfer initiatives to assist the previously disadvantaged



The data in Figure 3 illustrates that 25.6% of the participants had skill transfers, either from attending courses or through practical applications whereas 71.8% had not and 2.6% did not respond. This implies that, even though there are government and private educational initiatives to assist small businesses, little is known about skills transfer, and therefore this reflects a gap in knowledge leading to the group concerned not benefiting therefrom. These findings agree with those of Bonté and Thévernard-Puthod (2013), who concur that skills transfer supports SMMEs, specifically in terms of subcontracting, and that skills transfer is facilitated through coaching and direct participation.

Figure 4. Business education and training crucial to knowing how to operate the businesses



The data in Figure 4 illustrates that 56% of the respondents agreed with the statement that business education and training is crucial to knowing how to operate a business, while 44% said that it was untrue. The findings are in line with Siemens' (2010) findings that training and education programmes for business owners should include the evaluation of the available resources so as to enhance the successful operation of the business. It was evident that there was a need to empower these entrepreneurs, as there was an indication of shortages in the area of management skills, which might be owing to the level of education that they had. In addition, business education is vital for these entrepreneurs so that they can excel in their businesses. This is highlighted in a study by Sharpe (2013), who found that education, training, and mentorship are basic principles for business development.

Peters et al., (2014) affirm that intervention in terms of training and business skills would empower these businesses. In spite of the fact that there were programmes in place to address such challenges, they were not known to these businesses at the time of the study. Training was identified as a serious need as there was a lack of the necessary management skills for operating a business. Such skills as business management and computer skills were identified as a need for the community surveyed.

Figure 5 illustrates that 22% of the respondents indicated that skills development could assist to empower people, 22% in the creation of job opportunities, and 18% for the need to receive government assistance. Another 18% of respondents indicated that they lacked skills, and that people needed to be empowered. The evidence suggests that human capital, job creation, and government support are the most vital aspects towards poverty alleviation. The findings concur with those of Bauchet and Morduch (2012), who are of the view that SMMEs can bring poverty relief and a reduction in unemployment, as well as the creation of additional jobs, especially link to SMME activities.

Figure 6 illustrates that 44% of the respondents said that in terms of reducing poverty their business could create job opportunities, with 11% indicating that participating in skills development would assist in creating jobs in the Khayelitsha community, and with another 11% indicating that they required training. A further 11% of the respondents indicated that having support programmes in place would assist the business, 6% required capital to grow the business, 6% required space and equipment, and 6% did not respond while the remaining 5% stated that obtaining support would assist the business. This confirms that the majority of businesses strongly believed that they could provide employment opportunities and reduce poverty levels given the necessary entrepreneurial skills to operate SMME businesses. The findings agree with those of Bauchet and Morduch (2012), who state that, through SMMEs, job creation can reduce existing levels of poverty.

Figure 5. Decrease the high rate of poverty in Khayelitsha

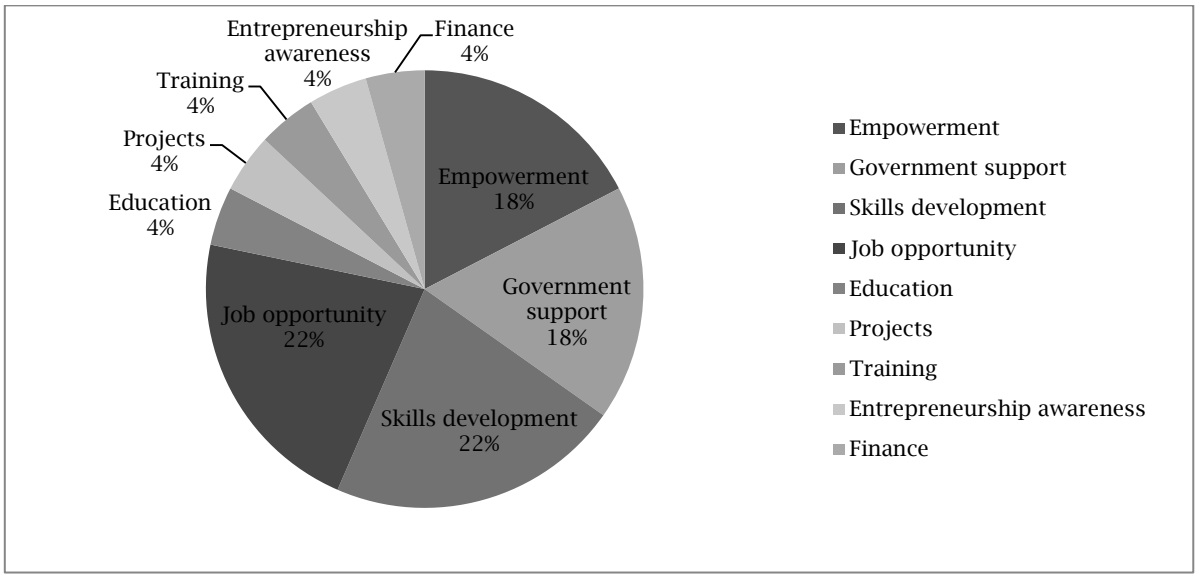
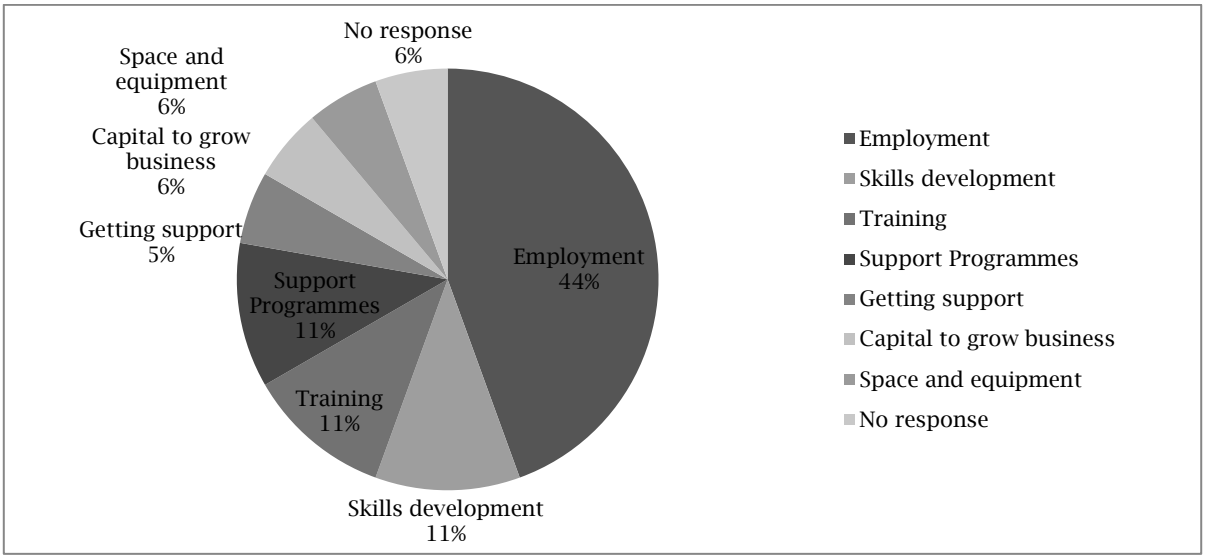


Figure 6. The ability of the business to reduce existing poverty levels



The findings reveal that there is a need to empower these businesses through skills development. Business education is vital for these business owners so that they are able to excel, as there is a suggestion of shortages of computer skills, owing to the level of education that the entrepreneurs have. Also ICT infrastructure has been identified as lacking, and it is clear that the businesses surveyed were not technologically advanced, due to the lack of ICT infrastructure and a shortage of computer skills, which was preventing them from taking advantage of e-commerce. The present environment certainly does not allow them to progress with technology.

CONCLUSION

In relation to skill shortages, there should be tangible development support programmes in place that are able to support SMMEs in order to stimulate empowerment by means of skills development directed at the sustainability of the business, and for mentoring and coaching purposes. The South African Government recognised more than twelve years ago that the training of trainers, and the improvement of business advisory and mentorship skills, is extremely important (SA. DTI, 2003). It is evident, therefore, that in terms of accessing any educational opportunities it is vital that such opportunities be brought to the communities where they are easily reachable, and where they are delivered within the communities, so that the business owners do not have to travel far to access them. Siemens (2010) agrees that education and training programmes for business owners should include an evaluation of the available resources, so as to enhance the successful operations of the businesses concerned. The skills shortages in businesses need to be addressed. Specifically black women's skills shortages need to be identified, due

to past discrimination and addressed. This matter can be addressed through the provision of skills development by the DTI, in the form of mentoring, coaching and skills development.

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ACCOUNTING BASES OF THEORY: WHY THEY MATTER

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Abstract

It is widely agreed that contemporary accounting practice is largely based on the application of professional accounting standards rather than on the application of sound, academic bases of theory. This has led to uncertainty within the field which has in turn inhibited the ability of accounting to develop into a more robust academic discipline. In conducting a thematic analysis of existing literature, this study will identify and expand on three key themes which will collectively establish the argument positing that a lacking basis of accounting theory has impaired the scholastic development of accounting practice worldwide. By introducing this argument to the academic community, this study will expose the economic risks associated with accounting's absent bases of theory and will consequently add value by highlighting the need for additional research into the development, clarification and refinement of accounting theories that will result in more useful accounting practices worldwide.

Keywords: Accounting Theory, Accounting Practice, Accounting Research, Accounting Education, IASB
JEL: A20, E16, G30, M41, M48

1. INTRODUCTION

A comprehensive theory of accounting has not to date been developed by accounting academics (Coetsee, 2010: 1). This has led to the development of uncertainty within the field which in turn has resulted in the emergence of challenges both in academia and in practice (Inanga & Schneider, 2005: 228). For instance, accounting academics are yet to reach consensus on what the academic status of the field currently holds despite the fact that accounting has been practised for centuries to date (Sterling, 1975: 28). In his work, Riahi-Belkaoui (2004: 40) describes accounting as a "full-fledged social science" in agreement with those who promote the recognition of accounting as a "social science discipline" (Inanga and Schneider; 2005: 242). Demski (2007: 153) however, categorically rejects this view and in so doing, questions the credibility of accounting as an academic discipline in light of the field's "overwhelming" focus on vocational training. In support, Fellingham (2006: 159) casts doubt upon the "academic sanctity" of accounting as an academic discipline given the disconnect that exists between research and education within the field. These classification arguments range between these two extremes, with some even viewing accounting to be neither a science nor an academic discipline, but rather an art instead (Sterling, 1975: 28).

Additionally, whilst accounting practice is afforded professional status in many countries, the legitimacy of accounting's claim to professionalism has been an area of debate for decades too (Burns and Haga, 1977; Gaffikin, 2008; Lotharius, 1962; West, 2003). Central to the issue of professionalism is the consideration of what the role and objective of accounting in society should be which has allowed for various interpretations across professional practice. A further challenge associated with the absent basis of accounting theory lies in the lead role that practitioners have taken in shaping the mould of what accounting theory is understood to be today. In the absence of academic progress within this area, practitioners and professional standard setters have taken the lead role in developing not only the practice of accounting, but the academic foundation of this practice as well (Biondi & Suzuki, 2007: 589; Coetsee, 2010: 1;).

These problems have at a central level, collectively impaired the effective development of the field which Sterling (1975: 34) for instance, attributes to the profession's "inability to resolve issues". In contemporary times this sentiment is echoed too with some scholars contesting that as an academic discipline, accounting has not developed significantly within the last 80 years (Fellingham, 2007: 159)

2. OBJECTIVES, SCOPE AND METHODOLOGY

The objective of this study is to build a grouping of arguments for the need to develop an academically sound basis of accounting theory and in so doing, highlight the deficiencies that its absence has raised over time within academia and in practice. To achieve this, the study makes reference to collections of thought on social construction literature within the field and identifies key themes of discussion. This thematic analysis then delineates the framework through which arguments are raised to achieve the study's objective. As such, the study is scoped within this context.

The study consequently adopts a qualitative, explorative research approach through which secondary data is used to build the argued positions. This methodology is commonly used in social

construction studies of this nature and is accordingly considered appropriate for achieving this study's objectives. Evidence of its use lies in other studies with similar objectives to those of this study (Biondi & Suzuki: 2007; Potter: 2005; Young: 2006 and Suzuki, 2003) where arguments are posited for subsequent analysis and engagement against the backdrop of "neglected background context" (Suzuki, 2003: 66). As described by Young (2006: 581), it is through social construction works of this nature that questions may be raised with all its "liberating potentialities". To maintain structure, the study is organised under the three key themes mentioned earlier being *the academic status of accounting*, *the professional status of accounting* and *developments within practice.* Through these three areas, arguments are raised within an international context with some reference being made to South African practice specifically.

3. RESEARCH FINDINGS AND INTERPRETATION

As mentioned previously, the objective of this study is to establish a collection of arguments that highlights the need to develop an academically sound basis of accounting theory. In doing so, the study structures the argument into three key thematic areas. In this section, these themes are identified and their constituent arguments are made.

3.1. Developments within Practice

The period between 2005 and 2006 saw the "largest accounting revolution in recent history" where the accounting standards prescribed by the International Accounting Standards Board (IASB) (namely International Accounting Standards (IASs)[15] and International Financial Reporting Standards (IFRSs)[1]) were adopted by over a hundred countries across the globe (Oberholster & Sacho, 2008: 117). This worldwide movement was largely stimulated by new regulations in Europe surrounding the European Commission's (EC) issue of Regulation 1606/2002 in July 2002, which required all publicly listed firms in European Union (EU) member states to adopt IFRSs for the financial years beginning on or after 1 January 2005. It was during this period that South Africa also adopted the standards of the IASB, subsequently bringing into rule that all domestically listed public companies on the JSE Limited (previously the Johannesburg Securities Exchange) (JSE) must comply with the requirements of the IFRS.

The global reach and authority over the academic foundations of accounting practice obtained by the IASB as a result, propelled in a sudden and abrupt power shift from academics to standard setters. In the years that followed, a number of challenges developed against the backdrop of development taking place through the dictates of the profession rather than through scholarly work. Professional standards rapidly developed in accordance with a central theme of "fair value" measurement (Biondi & Suzuki, 2007: 589) as a result. Notwithstanding the influence of the global financial crisis (that followed shortly after the "revolution") in somewhat restraining the strong views of the IASB on fair value accounting, this measurement basis raised widespread criticism from the academic community. For instance, in their study, Biondi and Suzuki (2007, 590) pointed out that according to the IASB, the "fair value" model derives its value from providing capital providers with relevant, up-to-date information which serves to facilitate better decision-making whilst Barth (2007, 11) posits that "fair value" measurement is considered to be "unbiased, and thus, neutral". However, Biondi and Suzuki (2007, 591) point out that fair value measurement promotes a sense of exclusivity by focusing squarely on the supposed information needs of capital providers. Consequently, this brings in to doubt the utility of the "fair value model" in providing information to users who are not capital providers. In examining the IASB definition of "fair value" as "the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction" (IASCF, 2010b: A1110). Schmidt (2009: 271) points out that the basic premise of the "fair value" model is flawed in two critical ways. Firstly, the model assumes that markets exist for all items that will be valued on this basis, and, secondly, that such markets are active. In reality, this is by no means the case, with the liquidity problems experienced during the financial crisis being a suitable case in point (Jaggi, Lee & Winder; 2010: 469). Whilst these discussions are not meant to provide a comprehensive discussion on the weaknesses of the "fair value" measurement model, they should highlight the manner in which practitioners have incorporated new ideologies into accounting standards arguably, without suitable counsel from the academic community. As such, it is not uncommon to find accounting standards regualrly change on an almost *ex-post facto* basis bringing with it significant consulting and compliance costs for corporations who are legally bound to adhere to them. Within this context, an academically sound theoretical basis for the practice of accounting is needed in order to avoid accounting academics delivering reactive criticism to accounting standard development. By having such a basis in place, standard setters would have to reasonably consider and justify their actions in accordance with a sound basis of theory which will in turn allow accounting academics a basis on which to rationally and impartially consider the credibility of their arguments.

The IASB is also in pursuit of a globally converged set of accounting standards (Biondi & Suzuki, 2007: 589) which has given rise to challenges in reconciling the cultural, political and regulatory practices of countries with the accounting practices required of IFRS (Rezaee, Smith & Szendi; 2010: 144). As pointed out by Oberholster and Sacho (2008, 128), the implications of enforcing a "one-size-fits-all" approach are potentially most damaging to developing economies. In territories where local, generally accepted accounting practice (GAAP) is in adoption, abruptly enforcing IFRS compliance could place undue pressure on such economies to modify legislation that may be in conflict with IFRS. In addition, the need to reform their education systems to accommodate IFRS training (not only for

15 IAS standards were issued between 1973 and 2001 by the then International Accounting Standards Committee (IASC). In April 2001 the IASB took over the roles of the IASC, adopted all IAS standards and continued standard development, calling the new standards IFRS standards. The terms "IAS" and "IFRS" are often used in an interchangeable way.

preparers, but for auditors as well) combined with the need to invest significant human capital in establishing and understanding reconciliatory calculations between taxation practices and IFRS practices, are also factors that could place pressure on such economies. Implementing such initiatives to accommodate the practice of IFRS is by no means a cheap exercise, and successfully implementing a system of IFRS into any territory will require significant time and funding.

As Biondi and Suzuki (2007: 592) state, "'standardisation' is an *ex post facto* phenomenon". Having a situation where significant time and costs are expended globally, to implement a system of accounting that later reveals itself to be one that fails to provide quite simply, the right information to the right users in the right way, is wasteful. The results of global convergence could be socially and economically disastrous in light of the time and cost investments territories would need to make in order to achieve IFRS compliance. Accordingly, embarking on a project of this scale brings with it a multitude of significant and intricately complex implications that require serious and well-structured academic discourse founded on a sound basis of theory. In the absence of such theory, as with the implementation of fair value accounting, a range of reactive discussions and criticisms may arise from academics on the dangers associated with the global convergence of accounting standards. An academically sound basis of theory is necessary to allow for rational, proactive discussion and analysis between academics and practitioners, thus facilitating a better understanding of the potential implications of such ambitious projects.

In taking the lead role in developing the principles that underlie the practice of accounting, the IASB has also prescribed a fundamental premise to the use of their standards, being that of "decision-usefulness". Under this premise, the IASB states that only information that is deemed to be useful to users must be reported. As pointed out by Inanga and Schneider (2005: 228), this premise of "decision-usefulness" is treated as an "accounting theorem", yet remains untested in relation to other established theories, for instance those within the psychological and behavioural sciences. In essence, they state that "decision-usefulness" is not a concept which research has demonstrated to have consistency and predictive value. In the first instance, there is no scientific backing to support what decisions are made by users of financial information, and, in the second, there is no scientific backing to support what types of information users find useful. The concept of decision-usefulness therefore remains a subjective concept based on assuming firstly, who the users of financial statements are and secondly, what their information needs entail. On this assumption, financial statements are prepared with the belief that the information contained therein is useful (Inanga & Schneider, 2005: 228). Through properly conducted academic research into developing a sound basis of theory for the practice of accounting, the subjectivity and apparent weaknesses in such theories can be identified proactively through empirical testing. Accordingly, through active collaboration between academics and practitioners, the time- consuming process of publishing research in reaction to decisions made by practitioners can be avoided.

In this section, developments in practice were discussed in relation to the challenges they have created through the absence of a sound theoretical basis of accounting theory. The prescription of fair value accounting has emerged of a central feature of IFRS compliance and engagement at an academic level has brought to the fore weaknesses in its application. In addition, the move towards a globalised set of accounting standards has also highlighted additional challenges of implementing global projects in the absence of sound theoretical considerations. The notion of "decision-usefulness" was also engaged with, unpacking the challenges it creates within practice.

3.2. The Academic Status of Accounting

In his study, Potter (2005) introduces useful context to the link between the absent basis of theory within accounting and how this phenomenon has historically inhibited the meaningful development of the field. He states that the inability of accounting theorists to reach a credible consensus on the academic status of accounting has in the past resulted in their research agendas being limited largely by the notion that development of the field equated to the development of technical practice. Consequently, the field of accounting had previously only been able to develop within a confined circle of accounting specialists and standard setters. In addition, research within the field had been confined to specialist accounting journals too which has led to a present-day phenomenon where the challenges accounting theorists face in developing the field of accounting are challenges known and appreciated by only a small group of scholars worldwide (Potter, 2005: 266).

Given the historically technical focus of accounting research, the field has in the present day developed a reputation for being dull and boring (Biondi & Suzuki, 2007: 587; Fowler & Malthus, 2007: 20). This has served as a disincentive for researchers from other fields of study to engage with aspects of accounting practice in a wider economic and social context thereby inhibiting the interdisciplinary development of the field. This is of particular relevance given the view that accounting is indeed interlinked with other fields (Suzuki, 1999; Suzuki, 2003). Whilst some accounting theorists do subscribe to the belief that accounting can be developed into a dynamic, multifaceted discipline of meaningful social and economic value (Fellingham, 2007; Gaffikin, 2008) the multidimensional relationship that accounting holds with other fields of study needs to be understood. In the absence of a sound academic basis from which these constructions can be explored, no consensus on its academic status can be reached. By extension, serious interdisciplinary research remains lacking.

This phenomenon is evidenced internationally where Inanga and Schneider (2005: 235) state that at many universities, the output of research in the discipline of accounting is minimal. They also state that internationally, it is common to find accounting education at the undergraduate level being heavily steeped in the training and practical elements of the discipline, aimed at equipping students for life in

practice. At a post-graduate level, the success and quality of a university's accounting department is then often assessed based on the performance of its students in professional examinations (Inanga & Schneider, 2005: 228).

In South Africa this is no different where the academic merit of South African accounting departments (that are accredited by the South African Institute of Chartered Accountants (SAICA)) is primarily assessed based on the performance of their students in Part 1 of the SAICA Qualifying Examination known as the Initial Test of Competence (ITC). This reality is echoed by Van der Schyf (2008a: 2) who, in relation to South African departments of accounting, states that "it is also common knowledge in South African academic accounting circles that the prestige of such academic departments is further enhanced by the performance of their alumni in Part 1 of SAICA's Qualifying Examination".

In an almost "matter-of-fact" sort of way, accounting students are prepared almost exclusively for life in practice resulting in them being ill-equipped to deal with the challenges of research and scholarly activity at advanced levels of enquiry, let alone within interdisciplinary context. As a result, a disincentive for professional accountants to later engage in research lies simply in the difficult nature of undertaking properly conducted research for which they are not suitably prepared. The absent basis of accounting theory further compounds this problem, making the goal of academic discovery within accounting seemingly more difficult to achieve, even for experienced academics within the field. In a study conducted by Nieuwoudt and Wilcocks (2005: 659) where insights into the attitudes and perceptions of accounting academics at South African (SAICA-accredited) universities towards research was obtained, 89% of respondents stated that the Chartered Accountant (South Africa) (CA (SA)) path that they had followed did not adequately prepare them for research. With regard to the absence of a theoretical base in accounting, and its implications for finding suitable research topics, 61% of respondents conceded that it is not easy to find such topics. Despite this, accounting academics in recent years, have come under pressure to improve upon their research output in the field (Van der Schyf, 2008a: 1).

Whilst development of the field through quality research is an international challenge, South African research output is a serious matter of concern (Nieuwoudt & Wilcocks, 2005; Van der Schyf, 2008a, 2008b; West, 2006), both in terms of quality and quantity. This has been widely acknowledged among South African academics who have accepted that the academic branch of accounting in South Africa has indeed fallen behind much of the world (Nieuwoudt & Wilcocks, 2005; West, 2006: 121). In a recent study conducted by Chan, Chen and Cheng (2007), countries were ranked based on the number of articles they published in 24 of the world's leading accounting journals. On research volume alone, South Africa ranked 33. This ranking did not assess the quality of articles published, where it is plausible that South Africa's ranking could have dropped further if this variable had been accounted for. As pointed out by West (2006: 122), surveys like these highlight the disproportionate match between the status of South African accounting practice versus that of South African accounting research. Both within South Africa and internationally, the CA (SA) designation is highly acclaimed (Wadee, 2010: 6; West, 2006: 121). In addition, South Africa has been ranked number one in the world by the World Economic Forum (WEF) for the quality of its auditing and reporting standards for the past 6 years since 2010 (WEF, 2010: 303; WEF, 2011: 323; WEF, 2012: 325; WEF, 2013: 347; WEF, 2014: 341 WEF, 2015: 327). Academically however, South African Chartered Accountants rank far behind the world's leaders. For instance, within South African accounting research circles, scholarly activity is largely entrenched in the "teaching and learning" spheres of the profession, with many other research studies being centred on understanding the "perceptions" of participants relating to various aspects of the profession. As part of the background to this research, a survey was conducted on one of South Africa's leading academic journals, *Meditari Accountancy Research,* to identify the extent to which research addressing fundamental conceptual areas of accounting is published. By analysing the published articles contained within the ten issues published between 2006 and 2010, a total number of 83 articles were analysed. Of these, 43 (52%) articles related to other disciplines including auditing, taxation and financial management. Articles across all disciplines that were centred on "teaching and learning" totalled 16 (19%), while articles centred on performing "surveys" or understanding "perceptions" totalled 10 (12%). Despite this journal primarily being an "accounting" journal, only 14 (17%) articles actually dealt with technical or conceptual accounting issues. As pointed out by Nieuwoudt and Wilcocks (2005: 54), according to Sterling (1975), disciplines other than accounting demonstrate a developmental relationship between research, education and practice as follows:

Sterling's model on the relationship between research, education and practice in fields of study other than Accounting

$$R(x) \rightarrow E(x) \rightarrow P(x)$$

The outcome of ***R(x),*** being research drives ***E(x),*** being what is taught (i.e. education) and what is taught (i.e. education) in turn drives ***P(x)***, being practice. Research remains the first and fundamental process to the development of knowledge within a field of study. However, within the practice of accounting, the relationship between research, education and practice operates differently as follows:

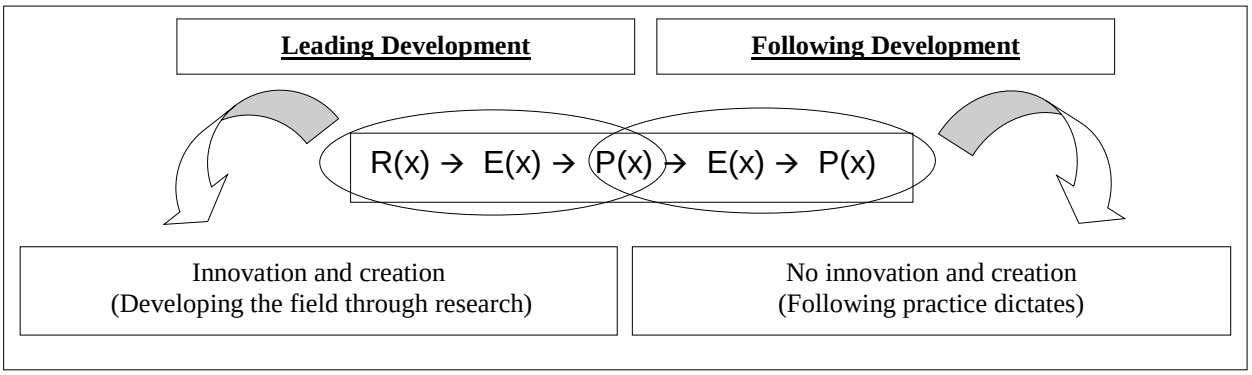
Sterling's model on the relationship between research, education and practice in the field of Accounting

$$P(x) \rightarrow E(x) \rightarrow P(x)$$

P(x), being practice, serves as the first and fundamental process to development and hence, drives ***E(x),*** being what is taught (which is governed by the syllabi prescribed by professional bodies) and what is taught (i.e. education) is then merely carried out by new entrants into the market in the form of repeated practice ***P(x)***.

Internationally, the profession has developed largely through the dictates of practitioners and academics who have accordingly directed their academic activities to fulfil the vocational requirements of these practitioners. To date, global academic research has not significantly influenced the development of accounting standards, and by using International Financial Reporting Standards (IFRS) as a basis for accounting education in South Africa, academicians have been able to remain technically relevant within practice. In the process however, they have become largely disconnected from the discourse surrounding the theoretical and by extension, the developmental dimensions of accounting thought. By merely participating in the IASB's standard development processes, many South African academics have developed a misplaced sense of belief that they are actively involved in the development of the field. In essence, academic activity surrounding IFRS application is merely reactive to the dictates passed down by the International Accounting Standards Board (IASB). By expanding upon the model of Sterling (1975), the reactive stance on academic development within accounting, in contrast to the active academic development through practitioners within the field can be represented as follows:

Figure 1. Leading development versus following development



The ***P(x) → E(x) → P(x)*** representation on the right-hand side of the figure depicts the reality of development within the field through academic efforts. As it currently stands, academics are not seen to lead discussions on the theoretical foundations of accounting practice and hence do not play a leading role in developing the discipline through academic research.

In contrast, the ***R(x) → E(x) → P(x)*** representation on the left-hand side of the figure reflects the state of accounting research by practitioners. The diagram highlights the developmental trajectory of the field which is largely driven by commercial dictates, rather than through appropriate, theoretical underpinnings.

In this section, it was argued that in the absence of a sound theoretic basis for the practice of accounting, dissent continues to exist in relation to the academic status of accounting. Against the backdrop of this uncertainty, the field has primarily developed within a technical context which has resulted in a deficit as far as interdisciplinary research within the field is concerned. The focus on technical accounting has meant that the socio-economic dimensions of accounting have not been adequately engaged with which has in turn impaired the development of the field as a meaningful area of academic and social influence. In addition, this has resulted in the field being largely developed by the dictates of profession-orientated and commercial goals thereby inhibiting the academic development of the field as a result.

3.2. The Professional Status of Accounting Practice

Accounting is viewed by many to be a disciplined practice focusing on depicting economic phenomena as they occur. As Potter (2005, 270) points out, accounting information is believed by many to be an "objective, faithful representation of the economic phenomena it describes". The IASB is an institution that subscribes to this school of thought, evidenced through its professional standard narrative. For instance, the revised conceptual framework of the IASB contains definitions relating to qualitative characteristics that are required to be present in a set of financial statements before the information contained therein can be considered to be "decision-useful". One such characteristic is "faithful representation" (International Accounting Standards Committee Foundation (IASCF), 2010a: A34), explained by the IASB as follows:

Financial reports represent economic phenomena in words and numbers. To be useful, financial information must not only represent relevant phenomena, but it must also faithfully represent the phenomena that it purports to represent.

In addition, the IASB's revised conceptual framework (IASCF, 2010a: A27), describes the objective of financial reporting as follows:

The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the

entity. Those decisions involve buying, selling or holding equity and debt instruments, and providing or settling loans and other forms of credit.

Accordingly, the need to "faithfully represent" financial information is indicative of the stance that the IASB has adopted in its view on the role and objective of financial information. In summary, they view the role of accounting as being to faithfully capture and depict economic phenomena as they occur and thereafter, to report details pertaining to them to users who have need of such information. In light of views such as these, Gaffikin (2008: 222) states that there are those who subscribe to the belief that accounting is merely meant to "objectively serve the practical interests of business and should not be involved in contributing to broader social goals and policies". He then goes on to explicitly state that if such a view of accounting holds true, then it quite frankly "flies in the face of claims to professionalism" (Gaffikin, 2008: 222).

In contrast to this school of thought, there is the view that accounting practice "creates" the macro-economic reality we observe through the practice of economics (Suzuki, 1999: 71) rather than it merely being a calculative practice that "depicts" economic reality. This understanding of accounting practice is further echoed in the work of Potter (2005: 267), who points out that it is the language that arises from the practice of accounting (through terms such as "income, expenses, assets and liabilities" etc.) that goes about creating the economic reality that we "observe" through the practice of economics. In essence, by observing economic phenomena and thereafter reducing their occurrence to understandable, consistent and identifiable concepts, the practice of accounting creates a reality that would otherwise, not have "existed". Suzuki (2003: 74) further supports this view by stating that through the use of "accounting rhetoric" economic reality is not "depicted", but instead "created".

Through analysing the foundations upon which IFRS-generated accounting information is prepared and presented, it is apparent that financial information consists of items to which values are assigned based on principles of "recognition" and "measurement" (with further supporting information often being provided in the form of additional "disclosure"). Accordingly, through the preparation of such financial information, certain economic realities are selectively not included. For instance, a strong management team, pleasant working conditions and positive staff morale are all examples of economic phenomena that exist in reality but are not depicted in accounting information. Hence, it can be concluded that accounting goes about "creating" a reality based on the representation of selected economic phenomena and by so doing, fails to accurately "depict" economic reality.

In summary, the role of accounting in society falls within one of two schools of thought. On the one hand, it is believed to play the role of "depicting" economic reality. By accepting this view as truth, the objective of accounting practice should be a neutral, passive one, merely used to facilitate economic activity through responsive decision-making. On the other hand, some scholars believe that accounting practice instead "creates" economic reality. By accepting this view, the objective of accounting practice should be to actively regulate the behaviour of economic participants by incentivising them to engage in certain economic practices and abstain from others.

In his book, Gaffikin (2008: 179) states that that dominant characteristic of any profession is its commitment to serving "the public interest". If one subscribes to the school of thought that portrays accounting practice as a neutral information-provider of pre-existing economic realities, the public interest is certainly not a dominant concern of accounting practice and as such, brings into question its professional credibility. In the absence of a sound basis of theory through which academicians shape accounting practice, the credibility of the profession remains questionable. By extension, the rights and privileges afforded to so-called "professional accountants" is cast into doubt as well.

In justifying professional status through serving "the public interest", the identity and information needs of financial statements users need to be considered (Côté, Durocher & Fortin, 2007; Inanga & Schneider, 2005; Young, 2005). For instance, Young (2005: 579) argues that the primary users of accounting information are almost taken for granted by practitioners to be current and potential investors, creditors and other capital providers. Albeit to a lesser extent, other stakeholders such as employees, government officials and revenue authorities are also assumed to be users of financial information, in an almost "matter-of-fact" sort of way. Contained within the initial Exposure Draft issued by the IASB on their Conceptual Framework Improvements Project, were details pertaining to their views on the objective of financial reporting. Among these was the belief that "present and potential capital providers" are the "primary user group" of financial statement information (IASCF, 2008: 27). On this premise, a revised conceptual framework was developed where the IASB termed the preparatory foundation of the development as being from the "entity perspective", where financial reports are envisioned to "reflect the perspective of the entity, rather than the perspective of the entity's equity investors" (IASCF, 2008: 15). The rationale behind this perspective was the belief that the entity has "substance of its own" (IASCF, 2008: 25), which is distinct from the substance of its owners.

According to this perspective, it is understood that in exchange for the provision of capital to the entity, the capital provider obtains a proportionate "claim" to the entity's resources and consequently, it is information on these resources and claims that needs to be provided to the grantors of these resources (who incidentally are also the owners of the "claims") (IASCF, 2008: 26). The abovementioned point serves to highlight the conspicuous absence of empirical data supporting the IASB's views on the users of financial statements: who they are, and what their information needs entail. As it currently stands, Young (2006: 591) further points out that properly conducted research into identifying the users of financial information and understanding their information needs has not been conducted by standard setters but instead, the identity and information needs of users are largely assumed. Inanga and Schneider (2005: 239) point out that the

result of these assumptions is that reported financial information often ends up in reality not even satisfying the information needs of capital providers. The fact that research into identifying users and their information needs is not properly conducted is also highlighted by Côté *et al.* (2007: 31), who point out that the extent of such research is limited merely to the so-called "consultative process" which standard setters engage in when developing new standards. This process however, is heavily skewed as highlighted in the comment made by Côté *et al.* (2007: 31) that states:

Preparers, as opposed to users, are more likely to participate because they are wealthier, less diversified (drawing income from few sources and being more vulnerable to any adverse economic effects associated with a proposed standard), and their economic interests are more homogeneous.

The abovementioned points are further supported by evidence obtained in a recent study conducted by Herz and Larson (2011) where 55 matters issued by the IASB for comment were analysed in relation to the responses that were received, focusing specifically on the split in responses between academics and practitioners. In summary, it was found that from all the responses received by the IASB only 2.7% of those were from academics. In addition, it was also noted that despite the application of IFRS and IAS being practised in over one hundred countries, responses were greatly dominated by traditional "Western" countries, where the United States, Canada, Australia, New Zealand, the United Kingdom and other European countries contributed to 80% of the responses received. From an African perspective, South Africa was the only country known to have responded to the IASB.

This highlights another important point. By developing theories that underlie accounting practices through processes that in reality consider only the views of certain interested parties, there is the danger that accounting practices may be developed through the dominant views of these very parties. As pointed out by Barth (2007: 7), academic research is "typically unbiased". Accordingly, by developing the field through the use of practitioner processes as opposed to objective academic processes, the risk of development directed at achieving the predetermined objectives of controlling interest groups remains present. This in turn brings to the fore the questionable nature of accounting practice as professional and one that indeed serves the public interest.

In this section, the need to develop an academic basis for accounting practice was discussed within the context of the professional status that practitioners within the field currently hold. In the absence of a sound academic basis of theory, the objective of accounting practice and those that professional bodies claim to serve comes into question. By reflecting on the objective of accounting practice as posited by the IASB, the nature of public interest service was discussed in relation thereto highlighting the need academic clarity through a sound theoretical basis for practice.

CONCLUSION

The objective of this study was to establish a collection of arguments to outlie the need for the establishment of a sound, academic basis of accounting theory. This was achieved through discussions around three key themes being *developments within practice*, *the academic status of accounting* and *the professional status of accounting*. In the absence of academics having developed a sound basis of theory, practitioners have taken the lead in developing accounting standards on which accounting practice is currently based. This has resulted in a number of challenges for the profession where for instance, debated ideologies such as fair value accounting (Barth, 2007; Biondi & Suzuki, 2007) and decision-usefulness theory (Inanga & Schneider, 2005) have been put into practice. Adding to this are the problems surrounding the assumptions on which these standards are based, for instance those relating to the identity and information needs of users. Given the inherent focus of financial reporting on meeting the information needs of financial statement users, it is recommended that updated research be conducted in both identifying these users and understanding their information needs. With the emergence of integrated reporting, greater levels of importance has been placed on stakeholder identification and engagement. In enhancing corporate efforts within this area, academic endeavours would do well to match in this regard.

Academically, the status of accounting among universities has been brought into question as a result, with development of the field through scholarly activity remaining as an area of particular challenge. The direction of the field's development has also brought into question the discipline's professional status owing to debates around the objective of financial reporting and whether this practice does indeed serve the public interest. In the absence of a sound basis of theory, this study posits that these areas of challenge will remain unchanged. As such, further research needs to be conducted to develop critical thinking in pursuit of an accounting basis of theory, largely through interdisciplinary endeavours of social construction.

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ENTERPRISE RISK MANAGEMENT: FACTORS ASSOCIATED WITH EFFECTIVE IMPLEMENTATION

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Abstract

Risk management is undergoing a great change, as organizations shift from the traditional and compartmental to an enterprise wide approach. Consequently, enterprise risk management (ERM) is gaining global attention among risk management professionals and academics. The demand for the adoption of ERM has led to several companies embracing it, yet its implementation has become challenging. Research shows that ERM approach emphasizes a holistic approach for assessing and evaluating the risks that an organization faces as against the "silo" approach of the traditional methods. The extant literature shows that through the reduction of the risk that an organization faces, ERM is capable of improving the performance and value. The study used a non-experimental correlational approach to explore the relationship between the presence of a chief risk officer (CRO) and an audit committee (AC), and the support of top management (TM) in relation to the implementation of ERM. A survey instrument was provided to self-identified risk-management professionals who are members of Survey Monkey Audience Service database. The target sample frame requested for analysis using a power of .95 was (n = 119). However, the final number analyzed was (n = 134). Frequencies and percentages were conducted on the demographic survey items and regression and correlational analyses were also performed. The study findings show that there was a significant relationship between the role of a CRO, the presence of an AC, and the support of TM and the level of ERM deployment. The study also found significant correlations between management support level and CRO, and AC. In addition, a much strong positive correlation was noted between the presence of a CRO and an AC.

Keywords: Enterprise Risk Management, Chief Risk Officer, Audit Committee, Top Management Support

1. INTRODUCTION

The current global financial crisis has seen the collapse of numerous international businesses due to inadequate or inappropriate risk management (Beasley, Branson, & Hancock, 2010; Brown, Steen, & Foreman, 2009; Power, 2009). Many organizational failures and financial disasters can be attributed to poor risk management (McConnell, 2009) and inadequate governance practices (Yeoh, 2009). Research indicates that, the percentage of business initiatives that are unsuccessful is remarkably high (e.g. Cozijnsen, Vrakking, & van Ijzerloo, 2000; Rizova, 2006; Wycoff, 2003). As a result, organizations have focused on remediating weaknesses in risk management systems to improve stakeholder protections (Bates, 2010; Paape & Speklé, 2012). Consistent with this, Berinato (2004, p. 48) observed that "balancing risk is becoming the only effective way to manage a corporation in a complex world."

Robust risk management has continued to be of great concern to practitioners, academics, and the business community because it augments organizational performance and creates value for shareholders (Dabari & Saidin, 2014). Inadequate risk management policies create adverse economic and social consequences for stakeholders as in Yamato Life Insurance, American International Group (AIG), Lehman Brothers, Fannie Mae, Freddy Mac, among others (Kerzner, 2009). Nocco and Stulz (2006) noted that poor risk management can result in large "dead weight" costs in organizations, which negatively affect organizational value. By reducing risk, a company can reduce the amount of expensive equity capital needed to support its operating risk cost.

Organizations are regularly confronted with issues of risk management as strategic decisions are made (Bromiley, McShane, Nair, & Rustambekov, 2014). Consequently, developing an institution-wide approach to proactively dealing with and optimizing emerging threats and opportunities cannot be over emphasized (Samanta, 2009). Effective risk management offers significant benefits to organizations, their projects, and their stakeholders (Didraga, 2013). Example effective risk management could potentially reduce variability in earnings and possibly minimize economic distress on an entity (Smith & Stulz, 1985). It also ensures that potential risks are identified, understood, and subsequently prioritized for better decision making which promotes the realization of strategic goals, lowers earnings volatility and subsequently increase

profitability (COSO, 2004; Gates, Nicholas, & Walker, 2012; Lin, Wen, & Yu, 2012).

As organizations expand, one of the keys to successful growth is steady risk management (Walker, Shenkir, & Barton, 2002). In order to yield benefits, risk management must be addressed and practiced at all levels of an organization (Hillson, 2005). For organizations to survive in this turbulent environment and gain competitive advantage, a holistic approach to handling risk needs to be adopted (Meagher & O'Neil, 2000; Stroh, 2005). Consistent with this, it's argued that holistic approach to risk management needs to be adopted (Stoke, 2004).

In the wake of increasing expectations that organizations employ successful risk management, a framework for managing risk called enterprise risk management (ERM) has been developed (Buchanan, 2004). This framework is gaining substantial momentum as a potentially effective response to managing risk and related challenges (Paape & Speklé, 2012). Regulators, professional associations, and rating firms are calling for the adoption of a consolidated risk management (Arena, Arnaboldi, & Azzone, 2010). This approach emphasizes a holistic and comprehensive approach for assessing and evaluating risks in an organization as opposed to the "silo" approach of traditional methods (Ai, Brockett, Cooper, & Golden, 2012; Arena et al., 2010; Bromiley et al., 2014).

While interest in enterprise wide risk management is high and several organizations have begun to utilize the framework, implementation has been challenging (Mikes, 2008; Power, 2009). In addition, there are few studies describing its successful implementations (Aabo, Fraser, & Simkins, 2005). Research examining the factors associated with its implementation in North America has largely focused on insurance and financial institutions (Beasley, Clune, & Hermanson, 2005; Bromiley, et al., 2014; Desender, 2011; Kraus & Lehner, 2012), with insufficient research in the management discipline (Bromiley et al., 2014). Similarly, in spite of the substantial interest in the holistic approach to managing risk on the part of academics and practitioners and the prevalence of collaborative risk management programs, there is limited empirical evidence regarding its impact on firm value (Hoyt & Liebenberg, 2011; Leech, 2002; Liebenberg & Hoyt, 2003).

In the literature, ERM has been used synonymously with integrated risk management, holistic risk management, enterprise-wide risk management, corporate risk management, and strategic risk management (Beasley et al., 2005; Committee of Sponsoring Organizations of the Treadway Commission [COSO], 2004; Gordon, Loeb, & Tseng, 2009; Liebenberg & Hoyt, 2003; Nocco & Stulz, 2006; Pagach & Warr, 2011). Holistic risk management is often equated with the objectives of ERM (Borker & Vyatkin, 2012; Fraser & Simkins, 2010).

1.1. Background of the Study

Risk management as a formal part of the decision-making processes within organizations is traceable to the late 1940s and early 1950s (Dickinson, 2001). Managing risk is a fundamental concern in today's turbulent global environment (Berinato, 2004). In support of this assertion, Wu and Olson (2010) indicated that establishing acceptable levels of risk has become a critical strategy to boost performance and profitability in today's environment.

There has been a growing interest over the last decade in risk management, and the expectation of stakeholders concerning risk management have been rising at a rapid rate especially after the recent (2008) financial crisis (Gephart, Van Maanen, & Oberlechner, 2009; Paape & Speklé, 2012; Power, 2007). The crisis has exposed the weakness in the risk management practices, and organizations are under continuous and significant pressure to improve their risk management systems and adopt appropriate actions that will improve stakeholder value protection (Paape & Speklé, 2012). This pressure has led to a paradigm shift regarding the way risk management is perceived (Gordon et al., 2009).

Instead of looking at risk management from a silo-based perspective, ERM takes a holistic view of risk management. For this reason, it has gained substantial momentum as a potentially effective response to risk management challenges (Paape & Speklé, 2012). A holistic approach to managing risk can enable organizations to deal with risks and opportunities more effectively, enhancing the organization's capability to create and preserve value for stakeholders (Beasley, Pagach, & Warr, 2008; COSO, 2004; Lam, 2003; Liebenberg & Hoyt, 2003; Nocco & Stulz, 2006).

A general theory emerging from the literature is that the implementation of such a system improves organizational performance (COSO, 2004; Hoyt & Liebenberg, 2009; Lam, 2003; Nocco & Stulz, 2006; Paape & Speklé, 2012; Stulz, 1996). Gordon et al. (2009) argued that one factor driving practical and scholarly interest in enterprise wide risk management is the belief that it offers organizations a more comprehensive approach to risk management than the traditional silo-based risk management perspective. By adopting a systematic and consistent approach to managing the risk confronting an organization, this approach is presumed to lower an organization's overall risk of failure and thereby increase performance and subsequently the value of the organization.

Effective risk management systems equip organizations to withstand adverse effects caused by various environmental risks resulting in a steady stream of business opportunities that could potentially reduce variability in corporate earnings (Torben, 2009). In addition to preventing losses, effective risk management enables identification, development, and exploitation of opportunities (Torben, 2009) leading to the successfully pursue of greater risk and the creation of better competitive advantage (Galloway & Funston, 2000). However, in spite of the attention that this approach has received, little is known about the stages of deployments or factors that affect its acceptance within an organization (Beasley et al. 2005; Paape & Speklé, 2012; Waweru & Kisaka, 2013).

The general perceived problem that supports a need for the present study is the inability of organizations to effectively and efficiently manage risk, resulting in both failures and losses. The specific problem the study will investigate is the

inadequacy of organizational risk management practices aimed at improving organizational performance and potentially reducing or preventing losses. This problem is particularly important as improved performance results in the creation of value for shareholders (Nocco & Stulz, 2006). This study could also contribute to emerging research on corporate-wide risk management implementation and to risk management literature. The purpose of this research therefore is to study the factors associated with the effective implementation of holistic approaches to risk management as applied to various industries of finance, manufacturing, IT and telecommunication, insurance, business services, transport and logistics, government or non-profit, healthcare, energy or oil and gas industries, and other industries in North America. Previous research was mainly focused on the financial and insurance institutions.

The purpose of this correlational study was to assess the relationship between the role of a Chief Risk Officer (CRO), the role of an Audit Committee (AC), Top Management (TM) support and the implementation of organizational wide risk management. Paape and Speklé (2012) noted that there have been very few studies examining how different industries implement it. The results of their findings suggested that firms in the financial industry have a higher level of its implementation (Kraus & Lehner, 2012; Paape & Speklé, 2012). Along with banking and insurance firms, Beasley et al. (2005) found the educational sector to have an equally developed risk management program in place.

Another concern regarding the literature on holistic risk management is that the majority of the studies examining multiple industries were conducted in Europe (Paape & Speklé, 2012). Thus, it is important to conduct similar research in other parts of the world and across different organizations to enhance the generalizability of earlier findings. Unlike previous research, which mainly focused on financial and insurance institutions, the present study intends to investigate its implementation across several industries and in organizations of various sizes. In addition, the sample for the present study will include private, public, for profit, and non-profit organizations, unlike earlier research conducted.

1.2. Rationale

Beasley et al. (2010) posited that during the recent economic crisis some organizations failed because there was less focus on identifying, assessing, and managing their most important emerging risk. Other organizations failed because their aggressive pursuit of returns overshadowed under lying risk. In some situations, however, organizational leaders were blindsided by unknown risks, due to the lack of sufficient infrastructure to identify, assess, and monitor emerging risk within their enterprises (Beasley et al., 2010). The recent economic failures have therefore brought to light the consequences of ineffective risk management (Kleffner, Lee, & McGannon, 2003; Lam, 2001).

Poor risk management results in adverse economic and social consequences for stakeholders (Kerzner, 2009). According to McCafferty (2010), in the U.S. alone, approximately $63 billion is spent annually on IT projects that fail. However, even when risk management processes appear to have been effectively employed, many projects fail to meet their goals and fall short of stakeholders' expectations. Nocco and Stulz (2006) noted that poor risk management could result in large dead weight costs on organizations resulting in long-term reduction of value. By properly managing risks, an organization can reduce the amount of expensive equity capital needed to support its operating risks (Nocco & Stulz, 2006).

Corporate risk management can benefit organizations in a variety of ways. Taking a holistic approach to risk management allows organizations to decrease the level of volatility in earnings and stock price, reduce external capital costs, increase capital efficiency, and create synergies between different risk management activities (Beasley et al., 2008; Lam, 2001; Meulbroek, 2002). Kleffner et al. (2003) noted that the adoption of a holistic risk management approach enables a coordinated and consistent approach to managing risk, resulting in lower costs and better communication across an organization. A coordinated approach can also lead to the avoidance of losses as there will be a better approach to handle the overall risks.

Enterprise-wide risk management approach provides organizations with a framework for discipline as it enables management to deal effectively with the uncertainty associated with risks and opportunities (Stroh, 2005). This approach also allows organizations to assess the variability of target-performance levels with the view to enhancing value and providing transparency to shareholders (Stroh, 2005). Nocco and Stulz (2006) observed that a holistic risk management approach creates value for organizations through its effects on both macro (organization-wide) and micro (business-unit) levels. At the macro level, it creates value by enabling senior management to quantify and manage the organization's risk-return trade off. Consequently, the organization is able to maintain access to the capital market and other resources necessary to implement its strategy and business plan. At the micro level, holistic risk management becomes a way of life for project team members, and managers and employees throughout the organization (Nocco & Stulz, 2006).

Through increased communication, the collaborative perspective leads to a broader understanding and recognition of risk throughout the organization. It also ensures that all risks are *owned* and risk-return tradeoffs are carefully evaluated by operating managers and employees throughout the organization (Bowling & Rieger, 2005; Nocco & Stulz, 2006). An effective and efficient risk management approach has the potential to reduce compliance cost, improve operational performance, enhance corporate governance and deliver increased shareholder value (Bowling & Rieger, 2005; Cumming & Hirtle, 2001; Lam, 2001). In today's economy, effective risk management is a critical component of any winning management strategy (Ingley & van der Walt, 2008; Stroh, 2005).

The need for improvement in organizational risk management has received substantial attention from both practitioners and the field of academia

(Ingley & van der Walt, 2008; Kleffner et al., 2003; Kraus & Lehner, 2012; Nocco & Stulz, 2006; Paape & Speklé, 2012; Stroh, 2005). This study contributes to and extends the emerging research on holistic risk management adoption and implementation by studying organizational factors associated with its implementation in organizations. The study could also potentially contribute to academic risk management literature and the related body of knowledge.

1.3. Significance of the Study

The 2008 financial crisis has led to the call for extensive risk management in organizations (Hoyt & Liebenberg, 2011). The increased importance of a robust organizational-wide risk management practice is also attributed to the dynamic business environment characterized by threats emanating from political, economic, natural, and technical resources (Wu & Olson, 2010). Inefficient risk management has adverse economic impact on organizations and their stakeholders (Kerzner, 2009; Nocco & Stulz, 2006). An organizational wide risk management system facilitates a coordinated and consistent approach to managing risk within an organization, and thereby increasing productivity and value (Kleffner et al., 2003). It advocates a comprehensive approach to risk management, aligning with the organization's strategy while involving employees at all levels (Liebenberg & Hoyt, 2003). Also it provides a solid framework for handling uncertainty and its associated risk, and for assessing variability around target performance levels (Stroh, 2005).

Through increased communication, ERM yields a broader understanding throughout the organization and ensures that all risks are owned (Bowling & Rieger, 2005; Nocco & Stulz, 2006). A holistic risk management approach has the potential to reduce compliance cost, improve operational performance, enhance corporate governance, and deliver greater shareholder value (Bowling & Rieger, 2005; Cumming & Hirtle, 2001; Lam, 2001). Consistent with this observation, Byrnes Williams, Kamat, and Gopalakrishnan (2012) observed that organizations that have adopted a proactive risk management approach are able to practically deal with uncertainty and associated risk and opportunity, subsequently promoting brand value and profitability.

This study extends emerging research on risk management by examining organizational factors such as audit committee (AC), top management (TM) support, and chief risk officer (CRO) associated with its implementation. As a result, this study could potentially contribute to the body of knowledge and literature in risk management. In addition, this study could potentially benefit Practitioners considering the implementation of robust risk management systems. Gates et al. (2012) however cautioned that the study of ERM could be challenging as organizations are not under obligation to disclose details of their corporate risk management processes and stages.

1.4. Nature of the Study

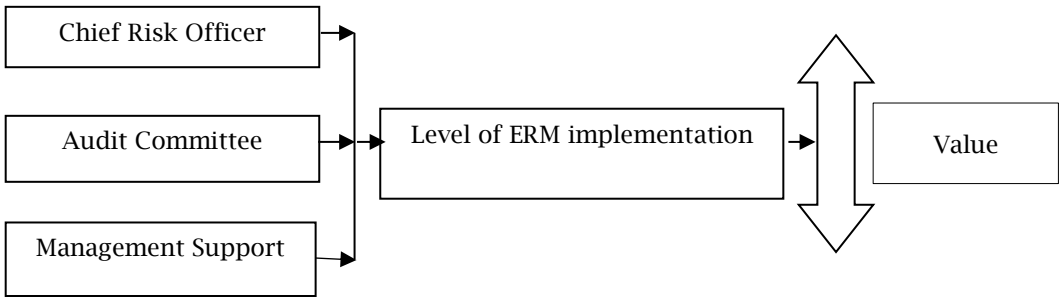
A correlational research approach was used to assess the relationship between the role of a chief risk officer (CRO), the role of an audit committee (AC), top management (TM) support and the implementation of enterprise risk management (ERM). According to Waweru and Kisaka (2013) several theories lend themselves for the study of holistic risk deployment. Examples include stakeholder theory, decision theory, agency theory, and contingency theory. This research was conducted from the organizational contingency model perspective. "Contingency theory is an approach to the study of organizational behavior in which explanations are given as to how contingent factors such as technology, culture and the external environment influence the design and function of organizations" (Islam & Hu, 2012, p.5159).

This theory suggests that an organization's effectiveness is dependent on its ability to adjust to the environment, and the need for congruency between environment and structure (Pennings, 1992). The main ideology of this theory is that there is no single best approach of doing things. The best and suitable approach is situation dependent (Alboali, Hamid, & Moosavi, 2013).

Similarly, a review of the extant literature on holistic risk management implementation in an organization revealed the use of various contingent variables (Daud & Yazid, 2009) such as firm size, industry type, TM support, presence of CRO, presence of AC, CG, auditor type, quality of the internal auditor, risk culture, board independence, ownership structure, board size, regulatory compliance, education and training, and cross-functional staff. Consistent with this observation, Gordon et al. (2009) noted that the determination of "key factors in contingency relations between a firm's ERM system and its performance is far from an exact science" (p. 303). Although, there is no common theoretical framework that determines the principal factors between an organizations strategic risk management system and performance, Gordon et al. observed that there is a general consensus that it is dependent on factors as indicated above. The characteristics of these variables however depend on the peculiarity of each location and their context (Dabari & Saidin, 2014).

In spite of the popularity of the contingency theory in research, critics are concerned about the adequacy of the underlying models employed (Moores & Chenhall, 1991). The goal was to explain how differences in contextual and structural dimensions are related. For effectiveness, Drazin and van de Ven (1985) and Islam and Hu (2012) maintained that context and structure must fit together. This study was based on this theory because, it continues to remain a dominant paradigm in management studies (Islam & Hu, 2012). Secondly, as indicated by Gordon et al. (2009), ERM has been studied from the contingency theory perspective by various authors (e.g. Chenhall, 2003; Gerdin & Greve, 2004, 2008; Gordon & Miller, 1976; Gordon & Narayanan, 1984; Mai & Chenhall, 1994; Otley, 1980; Waweru & Kisaka, 2013). Taking this approach, Figure 1 shows the expected relationship between factors influencing the level of its implementation.

Figure 1. The expected relationship between factors influencing the level of its implementation



The remainder of the research is organized as follows: The second section reviews the literature on enterprise wide risk management with a specific focus on implementation factors, benefits over traditional risk management, and relation to organizational performance. The third section provides a description of the research study and explores the variables. The data analysis and findings follows. Finally, the fifth section discusses the results in detail and presents the conclusions, recommendations, and the implications associated with the study.

2. LITERATURE REVIEW

2.1. Risk Management

Although risk can be viewed as the possibility of loss or exposure to loss, a hazard, an uncertainty, or an opportunity (Rosenberg & Schuermann, 2006), risk is ultimately a multilayered concept indicating that there is a great deal at stake for organizations (Smith & Mckeen, 2009). Risk is commonly measured on two scales: severity and frequency. Severity refers to the intensity or magnitude of loss or damage, whereas frequency is the likelihood of loss, damage, or a missed opportunity (Hampton, 2009). In this light, risk could be viewed as an opportunity or a threat. The management of risk and reward is challenging, as evidenced by the recent (2008 – 2009) economic crisis and its related uncertainty (Gordon et al., 2009).

The concept of organizational uncertainty has frequently been discussed in organizational theory, psychology, and economics (Petit & Hobbs, 2010). It has become more complex with a rise in the number and intensity, as a result, risk management is essential to organizational success (Ben-Amar, Boujenoui, & Zeghal, 2014). Risk management helps make the presence of risk in a firm's environment much clearer and more apparent, and management decides on the course of action based on the acceptability of each risk (Dia & Zéghal, 2008; McShane, Nair, & Rustambekov, 2011; Razali & Tahir, 2011). According to Ingley and van der Walt (2008), risk management is considered to be an integral part of an organization's strategic process and central to performance, competitive advantage, and shareholder and stakeholder value creation.

Risk management has been widely debated as firms and institutions adopt strategic risk management (McShane et al., 2011). In recent times, there have been significant changes in how risk is managed on an organizational level. Previously, it was managed in *silos*, where different organizational units handled risk independently (Lam, 2003). However, some practitioners believe that risks are interconnected and must be managed accordingly. Consequently, most failures associated with poor risk management can often be attributed to a convergence of multiple factors (Maingot, Quon, & Zeghal, 2013). There is not one correct approach for managing risk, but there appears to be some consensus about the need for the institutionalization of enterprise wide risk management (Bromiley et al., 2014; Maingot et al., 2013). Hence, it is emerging as a priority for most organizations (Altuntas, Berry-Stolze, & Hoyt, 2011).

2.2. The Portfolio Theory and Integrated Risk Management

he rationale behind a consideration of Portfolio theory before turning to ERM is based on the argument that Portfolio theory and holistic risk management are closely related. According to Alviniussen and Jankensgard (2009) it is believed that organizational-wide risk management is related to, and originated from the Portfolio theory proposed by Markowitz (1952) as they both suggest that risk should be managed on a portfolio basis. The goal of this theory is to minimize the overall impact of a given risk through a holistic management approach (Alviniussen & Jankensgard, 2009). Another proposition of this theory is that, the expected variance in the returns of a firm is best minimized by bringing the independent, non-interactive business units together (Rumelt, 1974 as noted by Lubatkim & Chatterjee, 1994).

The Portfolio Theory enables the determination of the highest return for a given level of risk (Sanchez, Benoit, & Pellerin, 2008). In other words, it enables the determination and selection of a portfolio with the lowest risk possible (Vaclavik & Jablonsky, 2012). The assumption of the modern Portfolio theory is based on the notion that, the effect of the overall risk in a portfolio is expected to be less than the impact of the individual risks (Markowitz, 1952). Consistent with this observation, Eckles, Hoyt, and Miller (2014) observed that by implementing an integrated risk management framework, an organization could combine its various risks into a risk portfolio resulting in an increased productivity and profitability through cost savings. Further developments and improvements of the Portfolio theory include; Postmodern Portfolio Theory, Stochastic Portfolio Theory, and Fuzzy Portfolio Theory (Vaclavik & Jablonsky, 2012).

2.3. Enterprise Risk Management

In the late 1980s, collaborative risk management emerged as an extension of hazard risk management, which posited that organizations must manage risk in a comprehensive, coordinated manner (Hampton, 2009). It is a complex concept that affects every major aspect of an organization (Hampton, 2009; Kimbrough & Componation, 2009). Dickhart (2008) asserted that for a risk management system to be effective, it must be able to coordinate the various sectors responsible for risks. According to Bowling and Rieger (2005), corporate risk management is the highest level of risk management in an organization, and it occurs when a holistic approach is adopted. At this level, related activities are linked to strategy and incorporated in daily business processes.

ERM is a new paradigm for dealing with organizational risk that allows policy makers to focus on ways to improve CG and general risk management (Beasley et al., 2005; Gordon et al., 2009). Global initiatives on CG, internal control, and risk management have driven the use of corporate wide risk management systems (Muralidhar, 2010). Consolidated risk management allows organizations to overcome limitations associated with traditional silo-based risk management practices (McShane et al., 2011). However, McShane et al. (2011) observed that in spite of its popularity, little is known about its effectiveness. Although, the extant literature suggests that ERM deployment leads to value creation, most of the systematic studies however failed to specifically indicate the components that lead to value creation (Kraus & Lehner, 2012). Similarly, although the findings in the literature suggest a correlation between ERM and value creation, Kraus and Lehner (2012) indicated that it is unclear which of these benefits are attributable to ERM or traditional risk management. In addition, Altuntas et al. (2011) posited that there was no consensus on a definition for it, involving specific management tools that make it more effective.

According to Power (2009, p. 853) "risk management designs like ERM are fundamentally unable to process and represent internal systematic risk issues, since this would require an imagination of externalities well beyond their design". Challenges associated with implementing holistic risk management systems include unsuitable organizational structures (OS), resistance to change, poor understanding of how to incorporate new risk management frameworks, and difficulty measuring risk (Kleffner et al., 2003). Beasley, Branson, and Hancock (2009) found that competing priorities, inadequate resources, an absence of TM support, and misconceptions that consolidated risk management complicates corporate bureaucracy result in low desire to implement it within organizations.

Consolidated risk management enables an organization to diligently work through a process of identifying and analyzing risks with the view to making informed decisions (Brown et al., 2009). It also facilitates open discussions of risks (Liebenberg & Hoyt, 2003) as they are effective in identifying, assessing, and monitoring organizational risk while ensuring effective communication (Beasley et al., 2009). Ben-Amar et al. (2014) noted that a collaborative risk management approach identifies, manages, and mitigates risk allowing organizations to capitalize on opportunities. A holistic risk management approach provides a framework for identifying circumstances that influence organizational objectives, evaluating risk prevalence, noting responses and strategies that attenuate risks, and establishing a process to monitor risks (Ben-Amar et al., 2014). Effective monitoring with an ERM system, enables organizations to detect, restrict, and rectify any discrepancies that would have affected its strategic decisions and for that matter its long term goals (Byrnes et al., 2012).

Holistic risk management can be viewed as a paradigm shift, in which senior executives and management realign organizational risk management (Gordon et al., 2009). Rochette (2009) maintained that due to the changing risk environment, any strategic risk management approach must cover a range of projects, processes, products, and services. Power (2009), however, argued that instead of focusing beyond the horizon and serving as a mechanism that challenges the way complex issues are assessed and managed by an organization, organizational wide risk management serves as a boundary perpetuating system of risk management.

ERM is usually described as comprehensive, integrated, complex, and cross-divisional (Liebenberg & Hoyt, 2003). Meagher and O'Neil (2000, p.10) described it as an "approach that is positive and proactive, value-based and broadly focused, embedded in processes, integrated in strategy and total operations, and continuous." A comprehensive risk management approach considers interdependencies as well as contradictory components of the risk management process (Borker & Vyatkin, 2012). It also identifies optimal objectives when dealing with internal issues (Kimbrough & Componation, 2009). The lack of a holistic risk theory has the potential to disrupt the development of an applied risk management system (Borker & Vyatkin, 2012).

According to Brown et al. (2009) ERM is the method and the process organizations use to management risk, seize opportunities, and achieve objectives. Stroh (2005) defined it as a way to identify risk factors in business, assess severity, quantify magnitude, and mitigate the downside exposure associated with risks while capitalizing on the upside opportunities. De Loach (2000) also defined it as a disciplined approach to align strategy, processes, people, technology, and knowledge, with the purpose of evaluating and managing uncertainty to create value. COSO (2004) noted that ERM is an approach for identifying and managing risk events, to be within an organizations risk appetite in order to provide reasonable assurance for achieving objectives. It is usually affected by board of directors (BOD), management, and other personnel in a strategic setting. Manab, Kassim, and Hussin (2010) referred to it as a rigorous system by which organizations can assess a number of variables simultaneously. In this study, COSO's (2004) definition will be adopted.

An integrated approach to managing risk demands commitment and support from leadership, requires all employees to be responsible for risk assessment and response, and utilizes a wide range

of tools and methodologies within a unifying framework (Manab et al., 2010). In collaborative risk management, risk is broadly defined to include any action that could prevent an organization from achieving its objectives. It reinforces employee involvement, with a focus on risk practices, and enables organizations to manage risks in an integrated, enterprise-wide fashion (Hoyt & Liebenberg, 2011). Gupta (2004) observed that this holistic approach of dealing with risk is rapidly emerging as a powerful approach to facilitate better decision-making as it provides a uniform approach to risk identification and measurement.

2.4. ERM versus Traditional Risk Management

Enterprise-wide risk management incorporates a comprehensive approach to risk management, aligning with the organization's strategy while involving employees at all levels (Liebenberg & Hoyt, 2000). Sobel and Reding (2004) argued that risk has holistic effects, creating the need for similar management. COSO's (2004) definition of organizational wide risk management addressed how risk is managed, providing a basis for application across organizations, industries, and different sectors. It also focused on achievement of objectives and provided a basis for defining its effectiveness.

According to Pagach and Warr (2011), this strategic approach of dealing with risk identifies and assesses risks an organization might encounter and examines potential control measures. Although these processes are consistent with a traditional risk management approach, certain variations exist. Managing risks separately as in the traditional approach, results in inefficiency due to the lack of coordination between departments. Advocates of institutional wide risk management find that by integrating decision-making across all risk types, organizations can avoid risk expenditure by exploiting natural hedges (Liebenberg & Hoyt, 2003). Hedging could be viewed as a traditional risk management activity that reduces the chances of financial distress on an organization (Smith & Stulz, 1985). Through the exploitation of natural hedges, holistic risk management reduces the extreme cost of capital and subsequently improves the performance and value of the organization (Nocco & Stulz, 2006). Separate risk- management activities can reduce earnings volatility from specific sources, but the holistic risk management aims to reduce volatility by preventing aggregation of risk across different entities (Hoyt & Liebenberg, 2011).

The traditional risk management approach is compartmentalized in organizations, whereas ERM usually involves a broader perspective, considering the various types of risk associated with organizational objectives (Borker & Vyatkin, 2012). It purports to gain a systemic perspective of the interdependence among risks (McShane et al., 2011). Instead of concentrating on a single risk, consideration is given to the risks that could impede a firm's objectives and value; it may not be possible to control all risks; however, sources of risk can be identified and managed in relation to the organization's overall objectives (Ben-Amar et al., 2014). Corporate risk management, unlike traditional risk management approaches (silo, department-by-department, or risk-by-risk approaches), requires an organizational-wide approach be taken in identifying, assessing, and managing risk (Kleffner et al., 2003). While the traditional approach to risk management mainly purports to protect an organization from financial losses, corporate risk management on the other hand considers risk management as a component of an organization's strategy, thereby allowing for better decision making (Liebenberg & Hoyt, 2003). The traditional approach has also caused excessive cost to organizations, and does not provide a clearer and comprehensive view of risk to management and BOD (Lam, 2000).

In addition, traditional approaches to risk management have not considered shareholder value and responsibilities to investors when making decisions (Meier, 2000). Collective risk management takes a much broader view of risk compared to the fragmented, silo-structured risk management at many organizations (Bowling & Rieger, 2005). An organizational wide approach of risk management also looks within and across organizational activities, in contrast to the silo approach to risk management (Bowling & Rieger, 2005). Whereas traditional risk management is largely concerned with protecting organizations against adverse financial effects, collaborative risk management allows for more wide-ranging risk-adjusted decisions that maximize shareholder value (Meulbroek, 2000).

Whereas individual risk management activities may reduce earnings volatility by reducing the probability of catastrophic losses, potential interdependencies between risks exist across activities that might go unnoticed in the traditional risk management model. Enterprise wide risk management, however, provides a structure that combines all risk management activities into one integrated framework enabling the identification of such interdependencies (Hoyt, & Liebenberg, 2011). Thus, whereas individual risk management activities limit earnings volatility from specific sources, an institutional wide strategy reduces volatility by preventing the aggregation of risk from different sources.

2.5. Antecedents of ERM Implementation

The implementation of strategic risk management is driven by a combination of external and internal factors (Kraus & Lehner, 2012; Lam, 2001; Liebenberg & Hoyt, 2003). The major external influences driving organizations to take a more holistic approach to risk management include a broader scope of risks associated with CG issues, institutional investor pressure, competitive advantage, technology advancement, increasing complexity of risk, and globalization (Miccolis & Shah, 2000; Rosen & Zenios, 2006), failures (Dickinson, 2001). Some internal drivers include maximization of shareholder wealth (Lam, 2001), market expectations, anticipated losses (Kraus & Lehner, 2012), BOD, ACs, internal audit, TM (Deloitte, 2008).

Other contributing factors are changes in investor regulations, heightened sensitivity to earnings volatility, and increased accountability by organizational boards (Kleffner et al., 2003). In addition, technological advancement in computer

software and increasingly sophisticated statistical and economic analytical models have made holistic risk management systems more viable (Green, 2001). Manab et al. (2010) maintained that CG and shareholder value are the motivational factors for corporate entities adopting and implementing it, and Miccolis and Shah (2000) identified the desire to maximize shareholder wealth as a primary external factor driving its implementation.

According to Kraus and Lehner (2012) the introduction of regulatory bodies and other frameworks such as Sarbanes Oxley Act (SOA) in 2002, Basel II in 2003, the Casualty Actuarial Society (CAS, 2003), the joint Australia/New Zealand Standard (AS/NZS, 2009), The New York Stock Exchange corporate governance rules (NYSE, 2009), the Dodd Frank Act (2010) have greatly influenced the adoption and implementation of a corporate wide risk management by organizations. Bowling and Rieger (2005) argued that the wide-spread implementation is increasing for two reasons. First, increased emphasis on CG and mounting compliance costs associated with the Sarbanes-Oxley Act of 2002 (SOA) are motivating factors. Second, the release of COSO's risk management framework has provided impetus for organizations by making its implementation easier. Galloway and Funston (2000) however opined that the two main drivers for the deployment of an ERM system are the creation of low risk management cost and the need to achieve competitive advantage.

Stroh (2005) noted that ERM is becoming an emerging standard, and based on these factors, it may well be the key to survival for many organizations. Increased global competition has created a shift in the emphasis of risk management from a defensive to a more strategic focus (Meulbroek, 2002). In this sense, effective risk management has become highly essential for all types of organizations (Manab et al., 2010). In spite of these driving factors, its implementation is usually faced with several challenges (Gates, 2006). According to Nocco and Stulz (2006), its implementation is not straight forward even though conceptually it appears to be. Altuntas et al. (2011) observed that, the success of an integrated risk management system is greatly depended on how efficiently it is implemented in an organization. Consistent with this observation, Nocco and Stulz (2006) observed that a major challenge in strategic risk management implementation is ensuring that both TM and business managers take proper account of risk return-tradeoff within an organization.

2.6. Adoption and Implementation of ERM

Byrnes et al. (2012) observed that the deployment of an ERM framework serve as a linkage between strategy, risk management, and corporate governance, consequently it is indispensable in the achievement of organizational goals. These authors therefore proposed that a proactive risk management system should;

- Incorporate risk management into business planning and decision making process
- Promote the identification of the various risk an organization faces and thereby establishing an appropriate risk management process.
- Perceive risk not just as a threat, but also as an opportunity and through that seek a balance between risk-reward tradeoffs.
- Promote the involvement of members of the entire organization
- Have an organizational-wide approach to risk monitoring and reporting, and corrections for the improvement of the risk management process.

It has been argued that a corporate risk management framework requires a top-down, holistic view of potentially critical risks that can undermine an organization's ability to achieve objectives (Beasley et al., 2009). Based on its holistic approach, it must be developed with stakeholders in mind, assessing the suitability of the approach for individual organizations (Bowling & Rieger, 2005). ERM has been discussed and debated for more than a decade, but implementation has been limited to only a few larger financial institutions (Bowling & Rieger, 2005; Paape & Speklé, 2012). Research on factors associated with its execution is limited (Beasley et al., 2005). Kleffner et al. (2003) noted that the poor adaptation rate of this new risk management paradigm could be due to uncertainty about how value is created, as well as how to optimize organizational goals and vision. As a result, Kleffner et al. noted that a strategic risk management system must be accompanied by a risk management culture to be successful.

Colquitt, Hoyt, and Lee (1997) found that enterprise wide risk management implementation depended on industry size and the individual(s) responsible for risk management. Liebenberg and Hoyt (2003) noted the presence of a risk office as driving the implementation of an integrated risk management framework in an organization. Kleffner et al. (2003) found that the risk officer, support of the BOD, and related regulations were key factors in the corporate inclusion of holistic risk management systems.

In 2005, Beasley et al. observed that ERM incorporation is positively related to the presence of a risk office, BOD independence, support of the Chief Executive Officer (CEO) and Chief Financial Officer (CFO), presence of auditors, entity size, and type of industry (banking, education, and insurance industries). Bowling (2005) observed that the implementation of such a system is usually initiated as a result of compliance issues (CG). Yazid, Razali, and Hussin (2012) also suggested that its implementation was largely dependent on variables related to an organization's risk champion, leverage, profitability, turnover, internal diversification, size, and shareholders.

In extending the work of Liebenberg and Hoyt (2003), Pagach and Warr (2011) noted that, the implementation of a holistic risk management framework was supported by larger organizational size, presence of more volatile cash flow, and riskier stock returns. Furthermore, Paape and Speklé (2012) found that the extent of institutional wide risk management use within an organization was influenced by the regulatory environment, internal factors, ownership structure, and organizational and industry-related characteristics. Eckles et al. (2014) in their study concluded that the adoption of a strategic risk management system was related to the diversified nature of the organization, organizational size, and the returns on stock

volatility. Based on this observation, Paape and Speklé concluded that the factors associated with its implementation are globally similar.

2.7. Benefits of Holistic and Effective Risk Management

Risk management is a key driver of organizational performance, competitive advantage, and shareholder and stakeholder value creation (Ingley & van de Walt, 2008). In emphasizing the importance of the structural approach to risk management, Gates et al. (2012) noted that strategic risk management enhances management and improves organizational performance by leading to consensus among management and strengthening decision making and accountability. Rochette (2009) observed that an effective risk management system serves as a link between compliance and performance in CG. Through an effective risk management frame work, an organization's TM and BOD address potential risks during strategic planning (Beasley et al., 2009). Apart from considering the different categories of risk, corporate risk management regards each risk as part of an organization's overall risk portfolio managed holistically (Liebenberg & Hoyt, 2003).

Enterprise wide risk management also increases risk awareness and subsequently increases knowledge that leads to sound decision making throughout the organization (Kleffner et al., 2003). With traditional risk management, important risks can elude the attention of TMs (Drew & Kendrick, 2005). Drew, Kelley, and Kendrick (2006) observed that without an enterprise-wide approach to risk management, organizations can have an acceptable risk level, yet have an unacceptable combination of risk aversion and risk seeking. Management's ability to control risk can result in an organizational growth and increased investor confidence (Meier, 2000).

The success of a business entity depends on effective risk management as risk has the potential to impact organizational value (Archer, 2002). Holistic risk management benefits organizations by decreasing volatility of earnings and stock prices, reducing external capital costs, increasing capital efficiency, and creating synergy between different risk management activities (Beasely, Pagach, & Warr, 2001; Lam, 2001; Meulbroek, 2002). Kleffner et al. (2003) noted that such an approach enables a coordinated approach to managing risk, resulting in lower cost and better communication. This leads to the avoidance of losses, as overall risk management improves.

Consolidated risk management also provides a disciplined framework enabling management to deal with uncertainty; this framework includes associating risks and opportunities to assess variability around target performance levels that enhance value and provide transparency for shareholders (Stroh, 2005). Nocco and Stulz (2006) similarly observed that it creates value for organizations through its effect on both macro (company-wide) and micro (business-unit) levels. At the macro level, it creates value by enabling TM to quantify and manage risk-return tradeoffs. Thus, organizations are able to maintain access to capital markets and other necessary resources to implement their strategies and business plans. At the micro level, such as system becomes a technique for managers and employees to address risks at all organizational levels.

By increasing communication, collective risk management leads to an improved understanding of risk throughout the organization (Bowling & Rieger, 2005). This ensures that individuals take responsibility for all risks and operating managers and employees carefully evaluate risk-return tradeoffs (Nocco & Stulz, 2006). This system can also reduce compliance costs, improve operational performance, enhance CG, and deliver greater shareholder value (Bowling & Rieger, 2005; Cumming & Hirtle, 2001; Lam, 2001). In addition, a collaborative risk system increases the chance that an organization will achieve its goals by ensuring that the risk managed is within the scope of stakeholders' risk appetite (Beasley & Frigo, 2007). However, Bowling and Rieger (2010) noted that while organizations can use it to focus on improving corporate compliance and shareholder value, only a few have fully achieved these objectives.

An effective risk management framework has numerous benefits. It ensures organizations encounter fewer surprises, allows for enhanced planning and performance, promotes information processing and communication, improves accountability, and protects organizational and individual reputations (Brown et al., 2009). This strategic risk management system even reduces global risk by addressing opportunities and threats associated with supply chain relationships (Anold, Benford, Hampton, & Sutton, 2012). Paape and Speklé (2012) argued that even though prominent frameworks (such as the COSO framework) claim to represent "best practices", there appears to be no theoretical or empirical evidence about such claims. These authors believe that the ability of these frameworks in advancing sound risk management still remains unanswered. Abrams et al. (2007) however observed that the optimization of organizational operations and the elimination of duplicate business functions is critical for making a robust risk management system rewarding. Consequently, Pagach and Warr (2011) cautioned that many of these benefits are still debatable, and further research is needed.

The growing empirical research on ERM is not without limitations. For example, according to Bromiley et al. (2014) the issue of endogeneity and other related issues, especially of methodology make it challenging to draw a general conclusion about ERM's effectiveness. In addition, the extant literature has not adequately addressed inter-firm differences in entity-wide approach to risk management. To better understand these variations, it is recommended that further research be conducted on a contingency theory of ERM implementation (Mikes & Kaplan, 2013). Although, ERM is believed to be a potential remedy to the myriad challenges faced by organizations, Power (2009, p. 850) argued that this approach to risk management could be misleading in design for three reasons;

1. "That the enterprise-wide view and related notion of a singular organization risk appetite are highly problematic".
2. "Sources of these impoverishment lie in the deep complicity of ERM in the expanded significance of a logic of auditability".

3. That "the resulting expensive narratives of risk accountability have proven to be incapable of articulating and comprehending critical risks, particularly those associated with interconnectedness".

2.8. Measuring the Levels or Stages of ERM Adoption and Implementation

The implementation of an institutional wide risk system is a multilevel or stage process (Beasley et al., 2005; Waweru & Kisaka, 2013). There is limited research on the strategies for measuring the level or stage of ERM implementation (Waweru & Kisaka, 2013). Most of the approaches developed were by consulting firms (e.g. Standard & Poor, Deloitte) which are however not suitable for measuring the level of implementation in an organization (Waweru & Kisaka, 2013). In 2005, Beasley et al. developed an approach for measuring the level or stage of its deployment. This approach, unlike some of the others, which basically assumed that, an ERM system was either in place or not, measured implementation level or stage using an ordinal variable ranging from stages 1 – 5 as follows:

- Stage 1 = no plans present regarding implementation (i.e., risk management is usually incident-driven);
- Stage 2 = investigating or considering ERM and making a decision (i.e., there is the active control of risk in specific areas, e.g., health and safety, financial and project risk);
- Stage 3 = planning to implement (i.e., there is the identification, assessment, and control of risk in specific areas);
- Stage 4 = partial ERM in place (i.e., there is the identification, assessment, and control of strategic, financial, operational, and compliance risks in the process of implementing a complete system), and
- Stage 5 = complete ERM in place (i.e., there is identification, assessment, and control of strategic, financial, operational, compliance risks as an integral part of the strategic planning and control cycle).

This approach of measurement introduces some degree of subjectivity, however, it could be employed in different organizations (Waweru & Kisaka, 2013). Consequently, it has been used in other studies (e.g. Beasley et al., 2009; Daud Yazid, & Hussin, 2010; Daud, Haron, & Ibrahim, 2011; Waweru & Kisaka, 2013). This approach of assessing the level or stage of deployment will be adopted for this study.

2.9. Contingency Theory a Theoretical Background

The origin of the Contingency theory in organizational study is traceable to the 1950s (Hanisch & Wald, 2012; Rejc, 2003). This theory is broad, varies in form and implementation, and is applicable to various disciplines (Hanisch & Wald, 2012). The Theory "may best be described as a loosely organized set of propositions which are committed to some form of multivariate analysis of the relationship between key organizational variables as a basis for organizational analysis, and which endorses the view that there are no universally valid rules of organizing and management" (Burrell & Morgan, 1979 as noted by Rejc, 2003, p. 246).

According to Hanisch and Wald (2012), the seminal works of Woodward (1958), Burns and Staker (1961), and Lawrence and Lorsch (1967) set forth the argument that there was no single best approach to managing and organizing. The basic tenets of the Contingency theory are a) that all processes must fit the environment, and b) not all environments are the same. Howell et al. (2010) observed that for effectiveness, the various external challenges that an organization is presented with requires the application of different organizational characteristic; and "an optimal fit may require different organizational characteristics to suit different external conditions" (p.257).

The classic work of Burns and Stalker (1961) proposed two basic organizational structures. The first, a mechanistic structure, is characterized by centralized features and formal decision making. Mechanistic structures also have strict rules and top-down communication. Decisions are made at the top, and employees have a narrow set of responsibilities. The second type of organizational structure identified by Burns and Stalker was an organic structure, characterized by flatter features, informal communication lines, and flexible roles. In an organization with an organic structure, decision making is decentralized, and responsibility and authority are not as critical. When the structure of an organization is in line with elements of its contextual environment, the organization or its work units are seen to be effective; this is the perspective of the contingency theory (Teasley & Robinson, 2005).

van Donk and Molloy (2008) approached the Contingency theory through an organizational design perspective. In relating to the work of Mintzberg (1979), van Donk and Molloy (2008) observed that, the structure of an organization is greatly influenced by the contingency factors which, in turn correlates to the design elements. Thompson (1967) observed that uncertainty was the principal challenge to organizations, with changes in technology and environments being the contingency factors. Thompson proposed appropriate strategies of interactions and organizational design as remedies for such challenges. Similarly, Burkhardt and Brass (1990) noted changes in technology as the principal source of uncertainty in organizations. They discussed remedies using social structures and power.

The goal of contingency theory is to explain how differences in contextual and structural dimensions are related. This does not look at universal principles applicable in all situations, but instead purports to explain how one attribute or characteristic is dependent upon another (Vecchio as cited by Mullins, 2005). Similarly, the level of strategic risk management implementation in an organization is affected by several contingent variables such as: board independence, firm size, ownership structure, growth rate, support of TM, the CRO, the AC, CG, effective communication, organization risk culture, regulation, and industry type. These variables support the use of contingency theory for this study. The presence of a risk officer, CG, and TM support were used for this research, and are discussed further in the literature review.

2.10. Review of Related Factors for ERM Implementation

The CRO and ERM Implementation

Collaborative risk management strategy requires an individual or group of individuals at the senior management level who coordinate various framework processes (Lam, 2001; Waweru & Kisaka, 2013). The role of managers is critical in the implementation of effective risk management within organizations (Waweru & Kisaka, 2013). For this reason, risk officers are important influencers when implementing a corporate wide risk system. The key benefit of a risk champion is the ability to expand risk management responsibilities throughout an organization's leadership structure (De La Rosa, 2007). Such an executive works with other managers to set up a risk management system and disseminates risk information throughout the organization (COSO, 2004; Saeidi, Sofian, Rasid, & Saeid, 2012). The presence of a CRO can also reduce risk-related information asymmetry between shareholders (Beasley et al., 2008). As they are ultimately responsible for uniting all the risk management activities across the organization, risk officers reduce the duplication of efforts across the various sectors within the organization and increase an organization's efficiency (De La Rosa, 2007). To ensure effectiveness, a risk champion must develop a strategic understanding of an organization's core activities in both products and services (Rochette, 2009).

Rochette (2009) also demonstrated that strong written and oral communication skills, the ability to adapt to various conditions, good interpersonal and leadership skills, the ability to negotiate, and team-building skills are essential for CROs to be effective. This supported the assertion by De La Rosa (2007) that an effective and efficient risk champion is a generalist who advocates for team work and effective communication. As a strategic controller and advisor, the risk champion advises TM about risk, performance, and how capital investments can be made (Mikes, 2008). For an organizational wide system to be value-based, the role of such a champion is critical (Rochette, 2009). Demidenko and McNutt (2010) observed that when the CRO does not report to the entire BOD, information discrepancy about risk priorities can result.

Researchers studying the influence of the CRO on holistic system of handling risk have noted that the presence of a risk officer was related to the adoption and implementation of an institutional wide approach of managing risk (Beasley et al., 2005; Hoyt & Liebenberg, 2008; Kleffner et al., 2003; Liebenberg, 2003; Liebenberg & Hoyt, 2003; Pagach & Warr, 2011; Waweru & Kisaka, 2013). Similarly, Daud et al. (2010) contended that the quality of the risk champion influenced collaborative risk management implementation and its related practices. Consistent with this assertion, Saeidi et al. (2012) observed that the presence and quality of the risk officer strongly correlated with enterprise risk management strategy. However, it should be understood that the risk officer is not the risk owner, but instead the facilitator of the risk system, so there is a need for the risk champion to coordinate with other risk specialists (Rochette, 2009). To do this, the risk champion establishes a risk management framework to determine how identified risks will be managed (Mikes, 2008). The risk officer must have an understanding of critical strategic uncertainties and be able to communicate that understanding to management (Mikes, 2008).

The presence and influence of the risk officer in an organization promotes the adoption and implementation of an effective risk management system (Beasley et al., 2005). The presence of such an executive also indicates an organization's serious desire to implement risk management strategies (Rochette, 2009). The risk champion is ultimately responsible for uniting all risk management activities across the organization and reducing the duplication of efforts across the various sectors within the organization (De La Rosa, 2007). Liebenberg and Hoyt (2003) observed that although the presence of a risk champion suggested enterprise wide risk management usage, the reverse however, did not suggest the absence of such a system. Liebenberg and Hoyt simply concluded that creating a risk champion's position signified the degree of commitment to organizational wide risk management. Pagach and Warr (2007) opined that organizations engaging a risk champion in the implementation of corporate risk management sometimes did so as a response to poor stock performance. They added that such organizations tend to be less opaque (more prone to stock price crushes) with fewer growth options. In other words, organizations "with more opaque assets and more" chances of expansion were less likely to engage a CRO (p. 3).

The CRO is an important proxy noted in the literature as being necessary for the deployment of a consolidated risk management system. However, the use of a CRO as a sole indication of the readiness for the deployment of a robust risk management system (e.g. Aabo et al., 2005; Beasley & Hoyt, 2003; Beasley, Pagach, & Warr, 2008; Liebenberg & Hoyt, 2003; Pagach & Warr, 2010) could be misleading and needs to be done with caution, as this could potentially result in the oversight of critical ERM activities such as idiosyncratic risks (Kraus & Lehner, 2012). Liebenberg and Hoyt (2003) observed that there was no agreement about the structure of the entity that should oversee the implementation of an ERM framework within an organization. While some proponents advocate having a risk champion, others recommend the use of risk management committees. Taking an alternative approach, Hanbenstock suggested that risk should be managed through a single organizational unit (as cited in Liebenberg & Hoyt, 2003).

Audit Committee (AC) and ERM Implementation

In an uncertain global environment, the AC is critical for organizational success (Lloyd & Fanning, 2007), and it plays a significant role in risk management (Livingston, 2005). Paape and Speklé (2012) indicated that ACs are essential in the oversight of risk management practices. Demidenko and McNutt (2010) clarified that ACs spend time assessing risk instead of monitoring the risk management process, and Carcello, Hermanson, and Ye (2011) noted that ACs and BODs internally monitor the financial

reporting from TM in order to mitigate potential financial risk.

The AC is responsible for issues related to the relationship between the organization and its auditors (Taher & Boubaker, 2013). According to the National Commission on Fraudulent Financial Reporting, ACs create a platform where directors, management, and auditors can coordinate issues pertaining to risk management and financial reporting (as cited in Turley & Zaman, 2004). The AC is able to influence the BOD to ensure that risk management processes are allotted attention and resources in order to be successful (Paape & Speklé, 2012). The AC is also instrumental in promoting CG principles to safeguard public interest (Szczepankowski, 2012; Vasile & Croitoru, 2013). Szczepankowski (2012) further observed that the formulation of effective management practices requires a congenial relationship between the AC, CG, shareholders, and management. Ho, Lai, and Lee (2013) asserted that ACs must be independent and financially knowledgeable; however, Brown et al. (2009) argued that ACs did not necessarily need to be knowledgeable in finance, as risk is not limited to that realm.

Organizational effectiveness can be enhanced by good CG and the AC process (Szczepankowski, 2012). The effectiveness of the AC is largely dependent on the BOD, and it is vital for organizations to maintain sound controls and ensure the strong presence of independent auditors (Cohen, Krishnamoorthy, & Wright, 2007). Hundal (2013) observed that the AC has an important responsibility to review financial information on a continuous basis to promote reliability and ensure organizations maintain strong control mechanisms. Beasley et al. (2005) suggested that organizations with high-quality auditors might be more devoted to effective risk management. Others have argued that auditors can be persuasive in encouraging clients to improve their risk management practices (Paape & Speklé, 2012).

It is sometimes difficult for the AC to be independent and unbiased, especially in instances where committee selection is based on the influence of management or members of the BOD (Beaseley, Carcello, Hermanson, & Neal, 2009). In view of this, ACs might not satisfy the interest of shareholders (Cohen, Gaynor, Krishnamoorthy & Wright, 2011). García, Barbadillo, and Parez (2012) observed that ACs composed of independent, external members were more likely to be accountable and transparent as autonomy reduces or prevents potential interference and manipulation from TM.

For effectiveness of the AC, Brown et al. (2009) suggested the establishment of a risk management committee separate from the AC as well as an interface between the AC and the BOD. The risk management committee is responsible for reporting to both the BOD and the AC. According to Brown et al. (2009), members of the risk management committee could be individuals from various departments including finance, compliance, human resources management, logistics, quality control and assurance, research and development, or production.

An effective AC can be influential in resolving disputes, as they tend to be unbiased towards the shareholder and supportive towards the auditor (Cohen et al., 2011). The CEO's influence on an auditor's judgment depends on AC effectiveness, and the effectiveness of the AC is influenced by the frequency of meetings (Garcia et al., 2012). These and many other roles of the AC require their independence (Szczepankowski, 2012).

Brown et al. (2009) observed that the AC could be limited in its risk management oversight for several reasons including but not limited to:

- Being overburdened with several responsibilities,
- Focusing on the oversight of financial reporting and other compliance issues instead of on a wider scope of risk management
- Having to deal with the presence of discrepancies in the requirements of the AC
- The risk factors an organization faces being better understood by members of an organization rather than outsiders.

It has been suggested that the AC has significant influence on external and internal controls (Turley & Zaman, 2004). Turley and Zaman (2004) found that ACs were responsible for overseeing management's assessment of business risk as well as management's capability of both identification and assessment of potential risk. Bostrom (2003) recommended that the BOD regularly receive reports from the AC and assess identified risks and recommendations (as cited in Ingley and van de Walt, 2008). In addition, ACs can influence an organization's financial reporting systems, the extent of the organization's disclosures, and the organization's adherence to policies and practices (Turley & Zaman, 2004). AC independence also improves accounting information and market value of an organization (Hundal, 2013).

The presence of an AC can potentially improve performance through enhancement of appropriate management and governance structures (Turley & Zaman, 2004). Menon and Williams argued that the existence of an AC does not necessarily indicate effectiveness, nor does it suggest that the BOD rely on the AC to enhance effective monitoring (as cited in Turley & Zaman, 2004). In addressing this point, Szczepankowski (2012) cited Kajola observation that the presence of an AC does not contribute positively to firm development. Turley and Zaman (2004) argued that the presence of an AC can reduce weaknesses in governance but that there is no relationship between the presence of an AC and achievement of specific governance effects. Similarly, Cohen et al. (2004) argued that ACs are ineffective and lack the power to ensure governance mechanisms.

Larger ACs may be ineffective in executing their duties when compared to smaller committees (Garcia et al., 2012). Szczepankowski (2012) noted that a small AC can improve the effectiveness of an organization versus a larger one. It has been suggested that larger ACs could result in poor communication and poor decision-making, and could be difficult to control. When discussing AC effectiveness, Lipton and Lorsch (1992) recommended seven to nine individuals as ideal. However, Buchalter and Yokomoto (2003) contended that an effective AC must be made up of an average of three to five members. According to Szczepankowski (2012), research has indicated a positive correlation between the size of the AC and

performance; however, Yermack (1996) noted a negative correlation between AC size and the profitability of an organization.

TM Support and ERM

Felekoglu and Moultrie (2014) observed that TM involvement and support are often used interchangeably. Similarly, TM and senior management are also used interchangeably, so for the purpose of consistency in this study, TM support will be used. Enterprise wide risk management implementation can encounter setbacks and even fail. De La Rosa (2007) identified some potential causes of setbacks as a lack of buy-in from TM and oversight committees such as the AC, a lack of theoretical risk knowledge, a poorly customized approach, a poorly defined language, an inappropriate oversight structure, insufficient resources, insufficient supervision, the inability to maintain the momentum of the implementation, and a poor tone at the top.

In the wake of the 2008 economic crisis, risk management has become a major concern of TM (Schneider, Sheikh, & Simione, 2012). Consistent with this, Beasley et al. (2009) observed that there has been a significant increase in the requests for TM to fortify oversight in risk management. According to Jarvenpaa and Ives, TM support involves the participation of executives or TM (as cited in Komala, 2012). Felekoglu and Moultries (2014) argued that TM support is vital as TM hold the primary decision-making responsibilities within an organization. TM are influential because of their authority, and they are more likely to overcome potential resistance (Keen, 1981). TM support could result in the availability of appropriate resources for the execution of new projects (Rodriguez, Perez, Juan, & Gutierrez, 2008). Scholars agree that effective risk management initiatives cannot succeed without TM support (Beasley et al., 2008; Walker et al., 2002). Davenport observed that with strong TM commitment, many endeavors could be successful (as cited in Ifinedo, 2008).

TM can influence knowledge sharing and learning through the creation of appropriate climate, culture, and resources (Lin, 2007). Lin (2007) explained that through knowledge donation and collection, an organization is able to enhance its innovation abilities. Effective TM support influences the setting of organizational values and encourages the development of appropriate management styles in order to enhance the performance of an organization (Chen & Paulraj, 2004). Pringle and Kroll asserted that TM's implementation of new programs usually signals the importance of the programs, which can promote team commitment (as cited in Salomo, Keinschmidt, & De Brentani, 2010).

The effectiveness of a management system is closely related to the integrity and ethical values of TM (Demidenko & MuNutt, 2010). Andrews and Beynon (2011) observed that the processes and environment within an organization influence TM's ability to achieve their goals. Cohen, Krishnamoorthy, and Wright (2004) asserted that an effective AC requires a strong organizational charter, as well as TM cooperation and support. TM support greatly enhances organizational performance (Khan, Lederer, & Mirchandani, 2013). In short, TM support is critical for organizational success (Ragu-Nathan, Aigian, Ragu-Nathan, & Tu, 2004).

Enterprise-wide risk management is strategic and thus cannot succeed without TM support (Bowling & Rieger, 2005). Andriole (2009) argued that in the absence of TM support, opportunities can be missed and projects can fail. According to Tiller (2012), strong leadership and management support creates success for most strategies, and organizations that satisfy stakeholders and maintain profitability must promote it. Consequently, TM must participate in the early stages of implementing a collaborative risk management system (Bowling & Rieger, 2005). Zwikael (2008) cautioned, however, that the effectiveness of TM support may vary across industries and organizations.

According to Ingley and van de Walt (2008), organizational boards and TM must ensure that mechanisms enhance standards of cost, codes of conduct, and other required policies. Management impacts the CG mechanism through influence on board appointments and information shared with members (Cohen et al., 2007). The effectiveness of a CG structure for achieving objectives requires support of TM and leadership (Vasile & Croitoru, 2013).

Sharma and Yetton (2003) ascribed that in the context of low task interdependence, TM support regarding collective risk management implementation success was low, while conversely, TM support had a significant impact on implementation success with high task interdependence. TM perception about risk could influence cooperation, trust, and commitment in terms of performance (Rodriguez et al., 2008). Rodriguez et al. explained that a favorable TM attitude towards risk encourages various departments to undertake more tasks. Beasley et al. (2008) observed that TM played a critical role in the success of any effective risk management system. TM support facilitates the integration of risk management philosophy and strategy across the organization. Finally, the nature, scope, and impact of corporate risk management must have strong support from TM in order to be successful (Walker et al., 2002). Employees of an organization are likely to accept and adopt an enterprise wide risk management system when it is noted that TM and BOD are supportive and actively involved in the risk management process (Brown et al., 2009). Hence, for any collaborative risk management framework to succeed, it is critical that the entire organization gets involved.

3. METHODOLOGY

3.1. Research Design

A non-experimental (correlational) approach was used to explore the presence of a chief risk officer (CRO) and an audit committee (AC), and the support of top management (TM) in relation to the implementation of enterprise risk management (ERM). This was used to assess the relationship among variables (Creswell, 2012). The use of the non-experimental approach is consistent with the works of researchers such as Arnold, Benford, Hampton, and Sutton (2012); Beasley et al. (2005);

Beasley et al. (2007); Gordon et al. (2009); Hoyt and Liebenberg (2011); McShane et al. (2011); Paape and Speklé (2012); Pagach and Warr (2010); Tahir and Razali (2011), and Waweru and Kisaka (2013).

The correlational research approach placed emphasis on methodology, procedure, and statistical measures of validity, as such a method depends on both measurement and analysis of statistical data to produce quantifiable deductions and conclusions (Eldabi, Irani, Paul, & Love, 2002). A survey instrument was provided to pre-screened self-identified risk-management and other related professionals (e.g., CFOs, CROs) who are members of SurveyMonkey Audience Service database and met the inclusion criteria. Survey Monkey Audience Service was chosen because it provides a random sample which increases generalizability of the results (Creswell, 2009).

The survey instrument was used to obtain data on the level of agreement or disagreement about ERM elements. The data collected was imported into statistical package for social sciences (SPSS) software for further analysis to determine any possible statistical relationship between the independent and depend variables.

Descriptive frequencies and chi–square tests were used in this study. In addition, logistic regression was used for further analysis of the data as it was suitable for describing and testing hypotheses about the relationships between the categorical outcome variable and the predictor variables (LaValley, 2008; Peng, Lee, & Ingersoll, 2002). "Logistic regression is a multiple regression but with an outcome variable that is a categorical variable and a predictor variable that is continuous or categorical" (Field, 2009, p. 265). Logistic regression, unlike other forms of regression allows the prediction of categorical outcomes based on predictor variables (Field, 2009).

This study involved a categorical outcome variable and three predictors which were also categorical, making logistic regression an appropriate model for addressing the research questions. Also, because the categorical outcome variable was of ordinal measurement, logistic regression appeared to be appropriate. In logistic regression, if the outcome variable has more than two categories as in this study, it is known as multinomial logistic regression (MLR). A great benefit to the use of MLR is that it does not assume a linear relationship between the variables (Tabachnick, Fidell, & Osterlind, 2001). MLR is capable of generating more suitable findings with respect to model fit and correctness of the analysis irrespective of any assumption (Das & Gope, 2014).

For each null hypothesis, a regression analysis was used to determine the relationship, if any, between the dependent and independent variable. A correlational analysis was also conducted to determine the strength and direction of the relationship between theses variables. Using a probability (p) value of .05, a null hypothesis was either rejected or accepted. It was accepted if p was greater than .05 (i.e. $p > .05$) while it was rejected if p value was less than .05 (i.e. $p < .05$). In addition, correlations were performed to assess the relationship between the independent variables using a p value of .01.

3.2. Sample

The population for this study consisted of risk management and risk related professionals from various sectors (e.g. finance, manufacturing, IT and telecommunication, insurance, business services, transport and logistics, government or non-profit, healthcare, energy or oil and gas industries, and other industries) in North America. The sample frame were self-identified risk management and risk related professionals within the SurveyMonkey Audience data base. The inclusion criteria were professional engaged in risk management and risk related activities. Respondents were also required to able to read and comprehend English and were 18 years of age or above.

The process of recruiting and sampling for this study was undertaken by SurveyMonkey Audience who sent out invitations to respondents who met the inclusion criteria to voluntarily participate. Self-administered surveys were used for quick and reliable feedback (Cooper & Schindler, 2006). A random sampling method was used, giving each member of the sample frame an equal and independent chance of being selected (Bartlett, 2005). The use of SurveyMonkey Audience Service was expected to result in the randomness required for rigorous data collection. The purpose of seeking a random sample was to obtain a representative sample (Trochim, 2001; Orcher, 2005). This made the responses statistically valid and representative subset of the target population (Kitchenham & Pfleeger, 2002; Leedy & Ormond, 2009). To minimize sampling errors, the following were done; a good sample frame was selected; a large sample was selected; an instrument with clear and straight forward questions was employed; and rigorous survey administration procedure was adopted (Creswell, 2012). In the determination of the needed sample size, the present research, adopted the G*Power 3 approach, as it was a stand-alone analysis program used in numerous research studies (Faul et al., 2009).

3.3. Data Collection

The Survey Monkey audience service was used to obtain a sample of the target population. The survey link included informed consent information and participants were informed of their right to opt-out of the study. The survey was administered on the internet using Survey Monkey, and completion of the survey was used as confirmation of participant consent. The duration of the data collection period was two weeks, after which time the response rate had declined and the minimum study sample was reached. The data was subsequently downloaded from the Survey Monkey web site for analysis onto a secure computer and processed with Predictive Analytics Software (PASW) Statistics 18 software that was purchased from SPSS, Inc.

Through SurveyMonkey Audience Service, a total of 134 valid responses were received. This was more than the minimum of 119 needed for the study. The questionnaire gathered information about ERM adoption and implementation in participants' organizations. The response data was downloaded to an excel spread sheet, and coded

appropriately in preparation for analysis using the SPSS software tool.

3.4. Data Analysis

The statistical package for social sciences (SPSS) was used to analyze the data collected. Descriptive statistics were used to display results. This included percentages, frequencies, *z*-tests, chi–square tests, and independent *t*-tests. In addition, logistic regression was used for further analysis of the data as it was suitable for describing and testing hypotheses about the relationships between the categorical outcome variable and the predictor variables (LaValley, 2008; Peng, Lee, & Ingersoll, 2002). This approach was consistent with previous research (e.g. Beasley et al., 2005; Beasley et al., 2007; Gordon et al., 2009; Tahir & Razali, 2011; Waweru & Kisaka, 2013).

Secondly, it does not violate any assumptions involved in regression for a categorical dependent variable (Vogt, 2007). In this current study, the dependent variable (extent of ERM implementation/ STAGE) was measured on an ordinal scale, and the independent variables were categorical, hence logistic regression was deemed appropriate for hypotheses testing and was subsequently used to answer the research questions.

Prior to analysis, the scores of the outcome variables were typically transformed using natural logs of odds (Vogt, 2007). Cronbach's alpha was used to analyze the survey constructs for internal consistency and reliability. In addition, extreme responses (e.g., outliers) from the data analysis were excluded (Cohen, Manion, & Morrison, 2007).

For Research Question 1, regression analysis was used to determine the relationship, if any, between the presence of a Chief Risk Officer (CRO) and the implementation of ERM. A correlational analysis was also conducted to determine the strength and direction of the relationship between the presence of a CRO and the stage of ERM implementation.

For Research Question 2, a regression analysis was conducted to examine the extent to which the presence of an Audit Committee (AC) influenced the implementation of ERM. A correlational analysis was conducted to determine the strength and direction of the relationship between the presence of an AC and the stage of ERM implementation.

For Research Question 3, regression analysis was conducted to determine the extent to which, Top Management (TM) support predicted the stage of ERM implementation. Similarly, a correlational analysis was conducted to determine the strength and direction of the relationship between the presence of Top Management and the stage of ERM implementation. Statistical analyses that were used for the research questions are shown in Table 2 below.

Table 1. Variables and statistics for Research Questions

Research question	Variables	Analysis
R_1. What is the relationship, if any, between the presence of a Chief Risk Officer (CRO) and the implementation of ERM?	Independent variable: Presence of CRO Dependent variable: Stage of ERM implementation	Logistic regression, Correlation
R_2. What is the relationship, if any, between the presence of an Audit Committee (AC) and the implementation of ERM?	Independent variable: Presence of AC Dependent variable: Stage of ERM implementation	Logistic regression, Correlation
R_3. What is the relationship, if any, between Top Management (TM) support and the implementation of ERM?	Independent variable: TM support (Level of management support) Dependent variable: Stage of ERM implementation	Logistic regression, Correlation

3.5. Validity and Reliability

In order to address internal consistency in this study, Cronbach's Alpha was determined using SPSS and subsequently used as a measure for assessing the quality of the data collected. For this study, the Cronbach's Alpha values were .70 for CRO, .70 for AC, and .73 for TM. These values suggested that a reliable measurement was used (Nunnally, 1978; Vogt, 2007).

4. RESULTS

The purpose of this study was to assess the relationship between the role of a Chief Risk Officer (CRO), the role of an Audit Committee (AC), Top Management (TM) support and the implementation of organizational wide risk management. The following primary research questions were addressed in this study:

RQ1 What is the relationship, if any, between the presence of a Chief Risk Officer (CRO) and the implementation of enterprise risk management (ERM)?

RQ2 What is the relationship, if any, between the presence of an Audit Committee (AC) and the implementation of enterprise risk management (ERM)?

RQ3. What is the relationship, if any, between Top Management (TM) support and the implementation of (enterprise risk management) ERM?

The target sample frame requested for analysis prior to the survey using a power of .95 was (n = 119). However, the final number analyzed from random respondents generated from SurveyMonkey Audience Service was (n = 134). Initially, a total of 159 responses were collected, of which 25 were removed from the data because they were incomplete, resulting in a total of 134 responses.

Table 2 displays participants' industry of employment which varied across the demographic for the sample.

Table 2. Participants' industry of employment

Industry	Response frequency(n)	Percentage (%)
Insurance	10	7.5
Transport & logistics	2	1.5
Manufacturing	14	10.5
Business services	28	20.9
Information technology(IT)	15	11.2
Energy/Oil & gas	4	2.9
Healthcare	9	6.7
Government	8	5.9
Not for profit	9	6.7
Education	7	5.2
Hospitality	1	0.8
Defense	3	2.2
Banking and finance	12	8.9
Legal	1	0.8
Construction	4	2.9
Engineering	5	3.7
Real estate	1	0.8
Utilities	1	0.8
Total	134	100.0

The survey results indicated that the business services group were the majority (n = 28, 20.0 %) and hospitality, legal, real estate, and utilities were the minority (n = 1, 0.8%) each. Two respondents (1.5%) were in the transport and logistic industry. Defense had three (2.2%) participants, energy/oil & gas and construction sector each had four participants (2.9%), engineering five (3.7%) respondents, education seven (5.2%) participants, government eight (5.9%), not for profit and healthcare groups both had the same representation (n = 9, 6.7%) and the insurance sector ten (7.5%). The rest were the banking and finance sector represented by 12 (8.9%) participants, manufacturing 14 (10.5%) and the information technology sector 15 (11.2%). Table 3 represents the various categories of respondents' job function or position.

Table 3. Participants Job Function/Position

Job function/position	Response frequency(n)	Percentage (%)
Chief executive officer (CEO)	7	5.2
Chief financial officer (CFO)	3	2.2
Executive management team	39	29.1
Internal auditor	9	6.7
Chief risk officer (CRO)	4	3.0
Staff	48	35.8
Other	24	17.9
Total	134	99.9

Majority of the respondents were regular staff members (n = 48, 35.8%) and the minority were CFOs (n = 3, 2.2%). The remaining respondents were CRO (n = 4, 3.0%), CEO (n = 7, 6.7%), other (n = 24, 17.9%). This group was diversified comprising job functions such as: analysts, business development managers, process engineers, and educators.

Table 4. Presence of a Chief Risk Office

Presence of CRO	Response frequency (n)	Percentage (%)
Yes	78	58.2
No	56	41.8
Total	134	100.0

Seventy-eight (58.2%) participants noted their organization had a CRO, while 56 (41.8%) indicated there was no CRO. Table 5 shows the presence of an AC in participants' organization.

Table 5. Presence of an audit committee

Presence of AC	Response frequency (n)	Percentage (%)
Yes	89	66.4
No	45	33.6
Total	134	100.0

Eighty-nine (66.4%) respondents indicated an AC was present in their organization, while 45 (33.6%) noted there was none in their organization. Table 6 displays management support for risk management.

Table 6. Management communicating about being in control of risk

Response	Response frequency (*n*)	Percentage (%)
No, no such statements	46	34.3
Yes, in the field of financial reporting	47	35.1
Yes, on all risk areas (such as; strategic, operational, financial reporting, and compliance)	41	30.6
Total	134	100.0

Forty-one (30.6%) of the participants indicated management supported and communicated about the need of being in control of all categories of risk in their organization. Forty-seven (35.1%) also indicated management was supportive, but communicated mainly about financial reporting. Forty-six (34.3%) however noted management was not supportive and there was no communication about risk management.

Table 7. Stage of ERM implementation

ERM implementation stage/level	Response frequency (n)	Percentage (%)
Stage 1	28	20.9
Stage 2	37	27.6
Stage 3	40	29.9
Stage 4	15	11.2
Stage 5	14	10.5
Total	134	100.0

Table 8. Organizational Stage of ERM deployment

Sector	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Total Respondents (n)
Insurance	7.1% n = 2	0.0% n = 0	7.5% n = 3	13.3% n = 2	21.4% n = 3	10
Transport & Logistics	0.0% n = 0	0.0% n = 0	5.0% n = 2	0.0% n = 0	0.0% n = 0	2
Manufacturing	10.7% n = 3	13.5% n = 5	7.5% n = 3	13.3% n = 2	7.1% n = 1	14
Business services	25.0% n = 7	21.6% n = 8	22.5% n = 9	13.3% n = 2	14. 3% n = 2	28
IT	7.1% n = 2	13.5% n = 5	15.0% n = 6	13.3% n = 2	0.0% n = 0	15
Energy/Oil & gas	3.6% n = 1	2.7% n = 1	0.0% n = 0	6.7% n = 1	7.1% n = 1	4
Health	3.6% n = 1	10.8% n = 4	2.5% n = 1	6.7% n = 1	14.3% n = 2	9
Sector	**Stage 1**	**Stage 2**	**Stage 3**	**Stage 4**	**Stage 5**	**Total Respondents (n)**
Government	0.0% n = 0	13.5% n = 5	5.0% n = 2	0.0% n = 0	7.1% n = 1	8
Not for profit	7.1% n = 2	2.7% n = 1	12.5% n = 5	6.7% n = 1	0.0% n = 0	9
Utilities	3.6% n = 1	0.0% n = 0	0.0% n = 0	0.0% n = 0	0.0% n = 0	1
Education	0.0% n = 0	0.0% n = 0	12.5% n = 5	6.7% n = 1	7.1% n = 1	7
Hospitality	0.0% n = 0	0.0% n = 0	2.5% n = 1	0.0% n= 0	0.0% n = 0	1
Defense	3.6% n = 1	0.0% n = 0	2.5% n = 1	6.7% n = 1	0.0% n = 0	3
Banking and finance	10.7% n = 3	10.8% n = 4	5.0% n = 2	6.7% n = 1	14.3% n = 2	12
Legal	3.6% n = 1	0.0% n = 0	0.0% n = 0	0.0% n = 0	0.0% n = 0	1
Construction	7.1% n = 2	5.4% n = 2	0.0% n = 0	0.0% n = 0	0.0% n = 0	4
Engineering	3.6% n = 1	5.4% n = 2	0.0% n = 0	6.7% n = 1	7.1% n = 1	5
Real estate	3.6% n = 1	0.0% n = 0	0.0% n = 0	0.0% n = 0	0.0% n = 0	1
Total	20.9%, n = 28	27.6% n = 37	29.9% n = 40	11.2% n = 15	10.5% n = 14	134

A greater number of the respondents (n = 40, 29.9%), indicated their ERM system were in stage 3, while the minority 14 (10.5%) participants were at stage 5 of implementation. Thirty-seven (27.6%) were in stage 2, 28 (20.1%) were in stage 1, 15 (11.2%) respondents were in stage 4. Table 8 displays organizational stage of ERM deployment.

Results regarding stage of ERM deployment indicate the transport and logistics, education, hospitality and government sectors had no respondents for Stage 1 of ERM deployment. The majority (n = 7, 25.0%) belonged to the business services group. In between were health (n = 1, 3.6%), IT, insurance, and not for profit making up 7.1% (n = 2) each, manufacturing (n = 3, 10.7%), and business services (n = 7, 25.0%). For Stage 2, the insurance, utilities, education, hospitality, defense, legal, real estate, and transport and logistics sectors had no respondents. The energy/oil & gas, and not for profit organizations had one respondent each (2.7%). The construction and engineering sectors consisted of two (5.4%) participants each. The manufacturing, IT, and government sectors had five respondents (13.5%) each. The banking and finance and health sectors had four (10.8%) respondents each. The majority (n = 8, 21.6%) were in the business services sector.

At stage 3 of deployment, where there was a plan in place to implement a holistic risk management system, most of the respondents were in the business services (n = 9, 22.5%). The minority were in energy/oil and gas, utilities, legal, construction, engineering, and real estate industries (n = 0, 0.0%). Health, hospitality, and defense consisted of one participant (2.5%) each. Two participants (5.0%) each were noted to be in transport and communication, government, and banking and finance. The insurance and manufacturing industries comprised three (7.5%) respondents each. The rest are; not for profit and education consisting of five (12.5%) participants each, and the IT industries represented with six (15%) participants.

At stage 4, where all the organizational risks were assessed and managed, the transport and logistics and government sectors had no respondents. The majority however were the insurance, manufacturing, business services, and the IT industries (n = 2, 13.3%). This was followed by energy/oil and gas, health, not for profit, education, defense, banking and finance, and engineering (n = 1, 6.7%) each. The minority in this stage of implementation were transport and logistic, government, utilities, hospitality, legal, construction, and the real estate sectors with no representation each. Stage 5, the highest level of deployment where ERM forms an integral component of the organizational planning and control mechanism, IT, not for profit, education, utilities, hospitality, defense, legal, construction, real estate, and the transport and logistics sectors had no fully developed ERM in place. Most of the respondents (n = 3, 21.4%) were in the insurance industries. This was followed by the Business services, banking and finance, and health which had the same number of respondents (n = 2, 14.3%). Manufacturing, government, education, engineering, and energy/oil & gas sectors were next (n = 1, 7.1%).

4.1. Details of Analysis and Results

The study utilized multinomial logistic regression to explore the relationship between the dependent and independent variables. The dependent variable here was ERM (enterprise risk management), which had five stages; from stage 1 to stage 5. Stage 1 is the lowest level of ERM implementation while stage 5 is the best stage. In this analysis, Audit committee (AC), presence of chief risk officer (CRO) and Top management (TM) support levels were the independent variables. Based on these variables, for each stage of ERM there was one regression and this depicted the relations between the dependent and independent variables in comparisons with the reference category in terms of odds ratio as shown in Table 9. This table presents the multinomial logistic regression model parameter estimation.

With regards to exp.(B) or odds ratio, for TM support, the largest value (1.479) was noted at stage 4 of deployment of ERM, followed by exp. (B) = 1.418 at stage 2, exp. (B) = 1.191 at stage 3 and exp.(B) = 1,130 at stage 5. For CRO, the largest value exp. (B) = 6.592 was at stage 4, followed by exp. (B) = 5.048 at stage 2, exp. (B) = 4.381 at stage 5 and exp. (B) = 1.172 at stage 3. For AC, the highest value exp. (B) = 3.756 was realized at stage 5, and the least exp. (B) = 1.139 at stage 4. Between these were exp. (B) = 2.146 for stage 3 and exp. (B) = 1.728 at stage 2.

In terms of p-values, for TM support, the highest value (p = .503) was at stage 5 and the least (p = .023) at stage 2. Between these were stage 3 (p = .170) and stage 4 (p = .064). For CRO, the highest value (p = .796) was noted at stage 4 followed by (p = .090) at stage 5. At stage 4, p = .033 and at stage 2, p = .016. For AC, the highest (p = .877) was observed at stage 4, followed by stage 2 (p = .418), stage 3 (p = .202), and stage 5 (p = .173).

Concerning the logistic coefficient (B), for TM support, stage 3 was noted with the highest (B = 1.75) followed by stage 4 (B = .391). Stage 2 was next (B = .349) and stage 5 the least (B = .122). For the presence of CRO, stage 4 had the largest value (B = 1.886) and stage 3 realized the least (B = 1.477). In between were stages 2 (B = 1.619) and stage 5 (B = 1.477). For AC, the least was in stage 4 (B = .130) and the highest in stage 5 (B = 1.323). Stage 2 was B = .547 and stage 3, B = .763. Table 10 illustrates the Pseudo Model R-squared.

Table 9. Multinomial logistic regression model parameter estimation

ERM[a]		*B*	Std. Error	Wald	df.	Sig. [*P*-value]	Exp.(*B*) / Odd ratio
Stage 2: Risks are assessed and preventatively managed for certain areas/parts of the organization like security, finance, etc	Intercept	-2.064	.657	9.863	1	.002	
	Management Support level	.349	.153	5.184	1	.023	1.418
	[CRO= Yes]	1.619	.672	5.802	1	.016	5.048
	[CRO= No]	0[b]	.	.	0	.	.
	[Audit committee= Yes]	.547	.675	.657	1	.418	1.728
	[Audit committee = No]	0[b]	.	.	0	.	.
Stage 3: Risks are proactively assessed and managed for certain areas/parts of the organization	Intercept	-.587	.459	1.638	1	.201	
	Management Support level	.175	.128	1.884	1	.170	1.191
	[CRO= Yes]	.159	.614	.067	1	.796	1.172
	[CRO= No]	0[b]	.	.	0	.	.
	[Audit committee= Yes]	.763	.599	1.625	1	.202	2.146
	[Audit committee= No]	0[b]	.	.	0	.	.
Stage 4: We are implementing an ERM	Intercept	-3.033	.957	10.038	1	.002	
	Management Support level	.391	.212	3.421	1	.064	1.479
	[CRO= Yes]	1.886	.883	4.560	1	.033	6.592
	[CRO= No]	0[b]	.	.	0	.	.
	[Audit committee= Yes]	.130	.841	.024	1	.877	1.139
	[Audit committee= No]	0[b]	.	.	0	.	.
Stage 5: Objectives and risks are aligned and an ERM is implemented and is an integral part of our strategic planning & control cycle	Intercept	-2.715	.896	9.192	1	.002	
	Management Support level	.122	.182	.449	1	.503	1.130
	[CRO= Yes]	1.477	.872	2.868	1	.090	4.381
	[CRO= No]	0[b]	.	.	0	.	.
	[Audit committee= Yes]	1.323	.972	1.854	1	.173	3.756
	[Audit committee= No]	0[b]	.	.	0	.	.

a. The reference category is: Stage 1: No attempts to develop an ERM
b. This parameter is set to zero because it is redundant.

Table 10. Model Pseudo R-Square (strength of association)

Model Pseudo *R*-Square	
Nagelkerke's Pseudo R-Squared	.251

From the table above, Nagelkerke *R*-squared was .251(ranges from 0 – 1) and shows that the model can explain 25% of the relationship between dependent and independent variables. Table 11 presents the model fitting information.

Table 11. Model Fitting Information

Model	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood	Chi-Square	*df*	Sig. [*P*-value]
Intercept Only	174.588			
Final	137.953	36.636	12	.000

The 2 Log likelihood value was 137.953 and Chi-Square 36.636 at a 12-degree freedom. It shows that the model is statistically significant (Chi-square = 36.63, $p < .05$) to establish the relationship between the dependent and independent variables.

Research Question 1

Research Question 1 asked, what is the relationship, if any, between the presence of a Chief Risk Officer and the implementation of ERM?

To address Research Question 1, a regression analysis was used to determine the relationship, if any, between the presence of a CRO and the implementation of ERM. A correlational analysis was also conducted to determine the strength and direction of the relationship. From Table 19, Stage 1 of ERM implementation is the reference category; all other stages are computed in reference to stage 1. For Stage 2 of ERM implementation, there was a significant positive relation between the presence of CRO and ERM ($B = 1.691$, $p < .05$). Compared to No-CRO, the organizations with Yes-CRO had a better ERM implemented for this stage. The odd ratio in this case shows, for one No-CRO organization there would be five organizations with Yes-CRO for stage two compared to stage one (which is the lower stage). All these indicate that, with better ERM there would be more CRO for the organizations, in other words the presence of CRO would better the ERM (stage 2).

Furthermore, for stage three of ERM implementation there was a positive relation between ERM and presence of a CRO, despite the fact that this relation was not statistically significant ($B = 1.59$, $p = .796$). However, for stage four, there was a statistically significant relationship between ERM and CRO ($B = 1.886$, $p < .05$), here the odd ratio shows, for each company with No-CRO there would

be around six companies for Yes-CRO (Odd ratio = 6.5).

Research Question 2

Research Question 2 asked, what is the relationship, if any, between the presence of an Audit Committee and the implementation of enterprise risk management?

To address Research Question 2, a regression analysis was used to determine the relationship, if any, between the presence of an AC and the implementation of ERM. A correlational analysis was also conducted to determine the strength and direction of the relationship. For stage 2, the study found a positive relation between the presence of an AC and ERM deployment. This relation was however not statistically significant (B = .547, p = .418). For stage three of ERM implementation, there was a positive relation between ERM and presence of an AC, although this relation was not statistically significant (B =. 763, p = .202). Similarly, for stage 4, there was a positive relation between ERM and presence of an AC, but this relation was not statistically significant (B =. 130, p = .877). At stage 5 of deployment, a positive relationship was noted between the presence of an AC and ERM although, this was not statistically significant (B = 1.323, p = .173).

Research Question 3

Research Question 3 asked, what is the relationship, if any, between Top Management support and the implementation of enterprise risk management?

To address Research Question 3, a regression analysis was used to determine the relationship, if any, between TM support and the implementation of ERM. A correlational analysis was also conducted to determine the strength and direction of the relationship. Again from Table 19, for stage 2, there is a positive and significant relationship between ERM and Management Support level (B = .349, p <.05). This indicated for stage 2 of ERM, one-unit increase in management level or better management level would have positive impact on ERM by 1.418 times. Thus, higher management support level would increase the higher level of ERM (Stage 2) compared to lower ERM (Stage 1).

In addition, for stage 3 of ERM there was a positive relation between ERM and Management Support level, despite the fact that this relation was not statistically significant (B = .175, p = .170). For stage 4 of ERM implementation, although there was a positive relation between ERM and TM support, this relation was not statistically significant (B =. 391, p = .064). Again for stage 5 of ERM, there was a positive relation which was not statistically significant (B = .122, p = .503).

Furthermore, to make judgment about the relationship between ERM and CRO, ERM and AC, a non-parametric (Spearman's rho) correlation was conducted.

ERM and CRO Correlation Analysis

Table 12 illustrates the correlation between CRO and ERM for the respondents in the survey.

Table 12. Correlation between ERM and CRO

Correlation between ERM and CRO				
			ERM	**CRO**
Spearman's rho	ERM	Correlation Coefficient	1.000	.206*
		Sig. (2-tailed)	.	.017
		N	134	134
	CRO	Correlation Coefficient	.206*	1.000
		Sig. (2-tailed)	.017	.
		N	134	134

**. Correlation is significant at the .05 level (2-tailed).*

As per the correlation value in Table 12 above, there is a positive and weak correlation between CRO and ERM, the correlation is statistically significant at .05. This relationship shows, as CRO increased from No-CRO to Yes-CRO, there would be higher ERM (from lower stage to higher stage). This indicates, as CRO is present in a company, it would have better ERM.

ERM and Audit Committee Correlation Analysis

Table 13 presents the correlation between ERM and Audit committee (AC).

Table 13. Correlation between ERM and Audit committee

Correlation between ERM and Audit committee				
			ERM	**Audit committee**
Spearman's rho	ERM	Correlation Coefficient	1.000	.215*
		Sig. (2-tailed)	.	.013
		N	134	134
	Audit committee	Correlation Coefficient	.215*	1.000
		Sig. (2-tailed)	.013	.
		N	134	134

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

As provided in Table 13, there is a positive and weak correlation between ERM and presence of AC. This correlation is also statistically significant. This shows, if there is an increase in AC, from No - AC to Yes - AC, there would be better ERM (as positive relationship). Thus, with the presence of ACs, organizations have better ERM performance level.

Relationship between CRO and Implementation of an ERM

$H1_0$: There is no significant relationship, if any, between the presence of a CRO and the implementation of an ERM.

$H1_A$: There is a significant relationship between the presence of a CRO and the implementation of an ERM.

Based on the regression and correlation analysis, the null hypothesis has been rejected and the alternative has been accepted. Thus, it is indicative that, there is a significant relationship between the presence of a CRO and the implementation of an ERM. Here, the relationship between presence of a CRO and the implementation of an ERM is positive as shown in Table 22.

Relationship between the Presence of an Audit Committee and the Implementation of an ERM

$H2_0$: There is no significant relationship if any, between the presence of an Audit Committee and the implementation of an ERM.

$H2_A$: There is a significant relationship between the presence of an Audit Committee and the implementation of an ERM.

The regression result and the correlation analysis suggested that there is a significant relationship between the presence of an AC and the implementation of an ERM. Thus the null hypothesis has been rejected here and the alternative has been accepted. The correlation also found a positive relationship between the presence of an Audit Committee and the implementation of an ERM displayed in Table 13.

Relationship between the Support of Top Management and the Implementation of an ERM

$H3_0$: There is no significant relationship, if any, between the support of Top Management and the implementation of an ERM.

$H3_A$: There is a significant relationship between the support of Top Management and the implementation of an ERM.

As per the regression analysis the null hypothesis has been rejected and the alternative has been accepted, which ensures, there is a significant relationship between the support of Top Management and the implementation of an ERM. This relationship is also positive, thus with the increase of management support the implementation of ERM would be more effective.

Relationship among the Independent Variables (CRO, AC and Management Support Level)

Table 14 shows the correlations between the independent variables.

Table 14. Correlations between the independent variables

Correlations between the independent variables					
			Management Support level	CRO	Audit committee
Spearman's rho	Management Support level	Correlation Coefficient	1.000		
	CRO	Correlation Coefficient	.263**	1.000	
	Audit committee	Correlation Coefficient	.308**	.519**	1.000

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

From the table above, it shows there are positive correlations between management support level and CRO (r = .263, p < .01) as well as AC (r = .308, p < .01). These indicate as management support increase so does the presence of CRO and AC and vice versa. Moreover, there is a strong positive correlation between presence of CRO and AC (r = .519, p <.01), this relation shows the presence of CRO would be higher with the presence of an Audit Committee and vice versa.

5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

This section provides a summary and discussion of the study's findings related to the three research questions, implications for researchers and practitioners, limitations of the research, recommendations for further research, and conclusions that can be drawn from the study. The purpose of this study was to examine the impact of Chief Risk Officers (CRO), Audit Committees (AC), and Top Management (TM) as well as the implementation of enterprise risk management (ERM). This study investigated the inadequacy of organizational risk management practices aimed at improving performance and reducing or preventing losses. This problem was particularly important as improved performance creates value for shareholders (Nocco & Stulz, 2006). This study contributed to emerging research on organization-wide risk management implementation and the body of risk management literature. This study examined factors associated with the effective implementation of holistic approaches to risk management as applied to financial institutions, manufacturing, insurance companies, business services, healthcare industries, government, not for profit organizations, information technology (IT), and the oil and gas industries in North America.

The study used a non-experimental, correlational approach to explore the relationship between the presence of a CRO and an AC and the support of TM in relation to the implementation of ERM. A survey instrument was administered to a group of self-identified risk-management professionals who were members of Survey Monkey Audience Service database. The survey instrument was used to obtain data on the level of agreement or disagreement about ERM elements. The use of the non-experimental approach is consistent with previous research (e.g., Arnold et al., 2012; Beasley et al., 2005; Beasley et al., 2007; Gordon et al., 2009; Hoyt & Liebenberg, 2011; McShane et al., 2011; Paape & Speklé, 2012; Pagach & Warr, 2010; Tahir & Razali, 2011; Waweru & Kisaka, 2013).

5.1. Discussion of the Results

The results of the statistical analysis demonstrated that there was a statistically significant relationship between the three independent variables (CRO, AC, and TM support) and the implementation of ERM. Consequently, the three null hypotheses tested in this study were rejected.

Research Question 1

RQ1. What is the relationship, if any, between the presence of a Chief Risk Officer (CRO) and the implementation of ERM?

Based on the regression and correlation analysis for Research Question 1, the null hypothesis has been rejected. Thus, it was indicative that, there was a significant positive relationship between the presence of a CRO and the implementation of ERM.

Research Question 2

RQ2. What is the relationship, if any, between the presence of an Audit Committee and the implementation of ERM?

The regression result and the correlation analysis for Research Question 2 suggested there was a positive and significant relationship between the presence of an AC and the deployment of an ERM system. Thus, the null hypothesis was rejected.

Research Question 3

RQ3. What is the relationship, if any, between Top Management support and the implementation of ERM?

For Research Question 3, the regression analysis led to the rejection of the null hypothesis, as a significant positive relationship was observed between the support of TM and the implementation of an ERM. These are further elaborated in this chapter.

The CRO and ERM Deployment

Researchers studying the influence of the CRO on an integrated system of handling risk have noted that the presence of a risk champion was related to the adoption and implementation of an institutional wide approach of managing risk (Beasley et al., 2005; Daud et al., 2010; Hoyt & Liebenberg, 2008; Kleffner et al., 2003; Liebenberg, 2003; Liebenberg & Hoyt, 2003; Pagach & Warr, 2011; Waweru & Kisaka, 2013). Although the presence and quality of the risk officer strongly correlated with enterprise risk management strategy (Saeidi et al., 2012), Liebenberg and Hoyt (2003) argued that the reverse however, did not suggest the absence of such a system.

Based on the results of the regression and correlational analyses, a significant positive correlation was noted between presence of CRO and ERM at Stage 2 of the implementation process (B = 1.691, P < .05). According to the odd ratio, at Stage 2 of the ERM implementation process, for each organization without a CRO, there were five organizations that had a CRO. This demonstrates that the presence of CRO is linked to ERM deployment (at Stage 2).

At Stage 3 of ERM implementation, there was positive correlation between ERM and CRO, but the relationship was not statistically significant (B = 1.59, p = .796). However, at Stage 4 of ERM implementation, there was a positive and statistically significant relationship between ERM and CRO (B = 1.886, p < .05). This implies that, at Stage 4 of ERM implementation, more companies have a CRO, and thus, their ERM is stronger or well advanced. At Stage 5 of ERM implementation, there was also a positive correlation between ERM and CRO; however, the relationship was not statistically significant (B = 1.477, p = .090).

Based on the correlational analysis (Table 22), there was a weak, positive correlation between CRO and ERM deployment. Correlations were considered statistically significant at .05. This relationship shows, as the presence of CROs increased, organizations demonstrated higher levels of ERM implementation (based on lower and higher stages). This indicated that the presence of a CRO in an organization is linked to an organization having a better ERM system.

Based on these analyses, this study found a positive relationship between the level of ERM deployment and the presence of a CRO. This result was expected, and was consistent with previous research (e.g., Baxter, Bedard, Hoitash, & Yezegel, 2013; Beasley et al., 2005; Kleffner et al., 2003; Liebenberg & Hoyt, 2003; Paape & Speklé, 2012; Pagach & Warr, 2011; Wan Daud et al., 2010; Waweru & Kisaka, 2013). These researchers observed a significant positive relationship between the presence of a senior management role such as a CRO or its equivalent and the effective deployment of organization-wide risk management systems.

The presence, influence, and role of the CRO are important in the promotion and implementation of an ERM system (Beasley et al., 2005; Kleffner et al., 2003; Lam, 1999). The study by Liebenberg and Hoyt (2003) found that the relationship between ERM implementation and appointment of a CRO could be viewed as a strong signal for its use. In addition, Beasley et al. (2005) in investigating the relationship between the presence of a CRO and ERM implementation, found that the presence of a CRO significantly increased the organization's level of ERM implementation.

The AC and ERM Deployment

With the exception of Paape and Speklé (2012) most of the extant literature reviewed during this study did not employ the AC as a variable during the deployment of an ERM systems. This is consistent with the contingency theory which endorses the view that there are no universally valid rules of organizing and management" (Burrell & Morgan, 1979 as noted by Rejc, 2003, p. 246). This does not look at universal principles applicable in all situations, but instead purports to explain how one attribute or characteristic is dependent upon another (Vecchio as cited by Mullins, 2005).

The analyses further revealed that for stage 2, a positive correlation existed between the presence of an AC and ERM deployment. This relation was however not statistically significant (B = .547, p = .418). For stage three of ERM implementation, there was a positive relation between ERM and presence of an AC, although this relation was not statistically significant (B = .763, p = .202). Similarly, for stage 4, there was a positive relation between ERM and presence of an AC, but this relation was not statistically significant (B = .130, p = .877). At stage 5 of deployment, a positive relationship was noted between the presence of an AC and ERM although, this was not statistically significant (B = 1.323, p = .173). The data analysis demonstrated a weak positive correlation between the presence of AC and ERM implementation. This correlation was statistically significant. This implied that organizations with an AC would have better ERM implementation and performance.

The correlation analysis also found a positive relationship between the presence of an AC and an organization's level of ERM implementation. This outcome was expected and consistent with observation made by Paape and Speklé (2012). The present study also found a strong positive correlation between presence of an AC and CRO (r = .519, p < .01). This relationship demonstrated that the presence of an AC would be higher with the presence of CRO and vice versa.

TM Support and ERM Deployment

It was observed that for Stage 2, there was a significant positive relationship between ERM and TM support level (B = .349, p < .05). At Stage 2 of ERM deployment, a one-unit increase in TM support level had a positive impact on ERM by a factor of 1.418. Thus, higher TM support was reflected in an increase in the level of ERM implemented (for example Stage 1 vs. Stage 2). At Stage 3 of ERM implementation, a positive correlation between ERM and TM support was observed; however, this relationship was not statistically significant (B = .175, p = .170). Stage 4 of deployment demonstrated a positive correlation between ERM and TM support even though this relation was not statistically significant (B = .391, p = .064). At Stage 5 of ERM implementation, there was a positive correlation between ERM and TM support despite the fact this relation was not statistically significant (B = .122, p = .503).

The regression analysis also demonstrated a significant positive relationship between TM support and ERM implementation. Therefore, as the support of senior management increases, the quality and effectiveness of ERM implementation increased. The study also found positive correlations between TM support level and the presence of a CRO (r = .263, p < .01) as well as AC (r = .308, p < .01). These outcomes suggest that TM support increased with the presence of a CRO and AC and vice versa. Based on the findings of the data analysis, the support of TM and the presence of a CRO and an AC are related to successful ERM deployment.

Beasley et al. (2005) observed that the existence of a CRO, managerial involvement, and auditor type were associated with more advanced stages of ERM adoption. Lam (1999) noted that the role of TM was critical for the success of an ERM endeavor, as TM defines what acceptable risks are and establishes the needed organizational structures and frameworks for effective performance. In addition, TMs provide vision, goals, and strategy for risk management and models for the desired behaviors (Drew et al., 2006).

In the present study, a majority of the respondents (n = 65, 48.5%) affirmed the absence of an integrated risk management system within their organizations (suggesting risks were assessed and managed reactively or assessed and preventatively managed for certain areas of the organization). A total of 40 respondents (29.9%) indicated their organizations had planned the deployment of an ERM system and that certain risks were proactively assessed and managed. Twenty-nine respondents (21.7%) indicated their organization had fully implemented an organizational wide risk management system (where all strategic, financial, operational, project, and compliance risks were proactively assessed and managed). Nearly half of these respondents (10.5% of the total population, n = 14) noted their organizations were in Stage 5 (the highest level) of the implementation process, while the remainder of the respondents (11.2% of the total study population, n = 15) indicated their organizations were in Stage 4 of the deployment process. At stage 5 of deployment, ERM becomes an integral part of the organization's strategic planning and control cycle. The low percentage of organizations in stage 5 (10.5%, n = 14) suggests that ERM deployment remains immature. This finding is consistent with observations made by previous researchers (e.g., Beasley et al., 2005; Paape & Speklé, 2012; Waweru & Kisaka, 2013).

Studying the ERM and organizational oversight in 2010, Beasley, Branson, and Hancock noted that 28% of respondents indicated their ERM deployment was effective and efficient, while 60% acknowledged their systems were under developed and risk management was unsystematic. Wan Daud, Yazid & Hussain, (2010) in their study involving publicly listed Malaysian firms found that 43% of respondents noted that their organizations had a complete ERM mechanism in place, 38% indicated their ERM was partially developed, 5% were planning to adopt an ERM system, whereas 14% were still considering adoption options. Paape and Speklé (2012) found that only 11% of respondents in their study had fully functional ERM system in place, another 12.5% were in the implementing process, 23.5% were planning to implement an ERM mechanism, 38.9% were also considering the deployment of such a system, and 14% did not have a robust risk management system. Waweru and

Kisaka (2013) found that 27% of respondents had ERM systems in place in their organizations, while 36% had not implemented any ERM. Based on the findings of other researchers in combination with the present study's data analysis, it appears as though organizations have been slow to adopt a holistic approach to risk assessment and management. The low adoption rates could indicate that ERM remains immature a noted earlier (Beasley et al., 2010; Waweru & Kisaka, 2013). Despite the fact that ERM is still in the early stages of development, organizations that have implemented it are assumed to be managing their risks holistically and strategically (Kleffner, Lee, & McGannon, 2007).

5.2. Implication of the Study Results

The results of the study revealed that, there was a significant positive relationship between the presence of a chief risk officer (CRO) and the implementation of enterprise risk management (ERM). The null hypothesis was rejected and the alternative accepted. This implies that organizations wanting to improve the efficiency of their risk management systems need to engage a CRO during implementation. The key benefit of the presence of a risk champion is the ability to expand risk management responsibilities throughout an organization's leadership structure (De La Rosa, 2007). Such an executive works with other managers to set up a risk management system and disseminates risk information throughout the organization (COSO, 2004; Saeidi, Sofian, Rasid, & Saeid, 2012). The CRO can also reduce risk-related information asymmetry between shareholders (Beasley et al., 2008). As they are ultimately responsible for uniting all the risk management activities across the organization, risk officers reduce the duplication of efforts across the various sectors within the organization and increase an organization's efficiency (De La Rosa, 2007).

The regression result and the correlation analysis suggested there was a positive and significant relationship between the presence of an audit committee (AC) and the deployment of an ERM system; leading to the null hypothesis being rejected and the alternative accepted. This suggests that the inclusion of ACs during the implementation of an entity-wide risk management system is critical. ACs play critical roles in the oversight of risk management practices (Livingston, 2005; Paape & Speklé, 2012). The AC is responsible for issues related to the relationship between the organization and its auditors (Taher & Boubaker, 2013). According to the National Commission on Fraudulent Financial Reporting, ACs create a platform where directors, management, and auditors can coordinate issues pertaining to risk management and financial reporting (as cited in Turley & Zaman, 2004). The AC is able to influence the board of directors (BODs) to ensure that risk management processes are allotted attention and resources in order to be successful (Paape & Speklé, 2012). The AC is also instrumental in promoting CG principles to safeguard public interest (Szczepankowski, 2012; Vasile & Croitoru, 2013). Menon and Williams argued that the existence of an AC does not necessarily indicate effectiveness (as cited in Turley & Zaman, 2004).

In addition, it was observed that there are positive correlations between support levels of top management (TM) and the implementation of an ERM. This implies that the inclusion of TM and leadership support is instrumental to the successful deployment of an ERM management system. TM can influence knowledge sharing and learning through the creation of appropriate climate, culture, and resources (Lin, 2007). Lin (2007) further explained that through knowledge donation and collection, an organization is able to enhance its innovation abilities. Effective TM support influences the setting of organizational values and encourages the development of appropriate management styles in order to enhance the performance of an organization (Chen & Paulraj, 2004).

Enterprise-wide risk management is strategic and thus cannot succeed without TM support (Bowling & Rieger, 2005). Andriole (2009) argued that in the absence of TM support, opportunities can be missed and projects can fail. According to Tiller (2012), strong leadership and management support creates success for most strategies, and organizations that satisfy stakeholders and maintain profitability must promote it. Consequently, TM must participate in the early stages of implementing a collaborative risk management system (Bowling & Rieger, 2005).

TM played a critical role in the success of any effective risk management system (Beasley et al., 2008). TM support facilitates the integration of risk management philosophy and strategy across the organization. The nature, scope, and impact of corporate risk management must have strong support from TM in order to be successful (Walker et al., 2002). Employees of an organization are likely to accept and adopt an enterprise wide risk management system when it is noted that TM and BODs are supportive and actively involved in the risk management process (Brown et al., 2009). Hence, for any collaborative risk management framework to succeed, it is critical that the entire organization gets involved.

The research model accounted for 25% of the relationship between dependent and independent variables, indicating there could have been other contingent organizational features or variables of ERM deployment which were not considered in this study, an assertion corroborated by Beasley et al. (2005). However, the model was statistically significant (Chi-square = 36.63, $p < 0.05$) to establish the relationship between the dependent and independent variables.

Consistent with the contingency theory, this study found that the presence and role of a CRO, an AC, and TM support significantly influenced the deployment of an ERM system. The contingency theory endorses the view that there are no universally valid rules of organizing and management" (Burrell & Morgan, 1979 as noted by Rejc, 2003, p. 246). The augment is that there was no single best approach to managing and organizing (Hanisch & Wald, 2012; Burns & Staker, 1961; Lawrence & Lorsch, 1967). Howell et al. (2010) observed that for effectiveness, the various external challenges that an organization is presented with requires the application of different organizational characteristic; and "an optimal fit may require

different organizational characteristics to suit different external conditions" (p.257).

The outcome of this study is useful when assessing factors related to an organization's ERM deployment. Based on the present research findings and evidence in the scholarly literature, when implementing an ERM system, it is important for an organization to engage a CRO, form an AC, and enlist the support of TM. By so doing, organizations can enhance effective risk management and thereby increase shareholder value (Baxter et al. 2013; Beasley et al. 2005; Bowling & Rieger, 2005; Cumming & Hirtle, 2001; Lam, 2001). These measures also allow organizations to deploy systems that can better facilitate a well-coordinated and consistent approach to managing risk, thereby increasing productivity and profitability (Bowling & Rieger, 2005; Kleffner et al., 2003; Nocco & Stulz, 2006). With a consolidated mechanism in place, a comprehensive approach to risk management in alignment with the organization's strategy, can be realized (Liebenberg & Hoyt, 2003; Stroh, 2005).

Previous studies have only examined organizations with ERM or drawn samples exclusively from publicly traded firms. The present study, however, expanded the research sample to include professionals from various sectors of finance, manufacturing, IT and telecommunication, insurance, business services, transport and logistics, government or non-profit, healthcare, and energy/oil and gas industries in North America. In terms of industry type, this study found that organizations in the financial, banking, insurance, and educational sectors had better developed ERM programs in place. This observation was consistent with previous findings of Beasley et al. (2005) and Paape and Speklé (2012). The study also noted that organizations in the manufacturing, healthcare, automotive, government, not for profit, engineering, utilities, energy/oil & gas and utilities also had ERM systems in place.

5.3. Limitations

There were several limitations with this study. The reluctance of firms to disclose information about their risk management strategies makes it difficult to locate organizations implementing enterprise risk management (ERM). As a result, there could be crucial organizational features of ERM deployment that might not have been considered in this study (Beasley et al., 2005). Some of these variables may have impacted the outcome of this study.

Secondly, given that the model was statistically significant to establish the relationship between the variables used in the study (Chi-square = 36.63, $p < .05$), although the results of the detailed statistical analysis indicated the model could explain 25% of the relationship between dependent and independent variables. The remaining 75% could be the contributions of other variables not considered in this study. These could include those mentioned in the literature such as BOD independence, presence of auditors, entity size, and type of industry (Beasley, 2005); compliance issues (Bowling, 2005); organizational leverage, profitability, turnover, internal diversification, and shareholders (Yazid, Razali, & Hussin, 2012); presence of more volatile cash flow, and riskier stock returns (Pagach & Warr, 2011); regulatory environment, internal factors, ownership structure, and organizational and industry-related characteristics (Paape & Speklé, 2012); the diversified nature of the organization, and the returns on stock volatility (Eckles et al., 2014). Such a wide range of potential factors suggest the level of strategic risk management implementation in an organization is affected by several contingent variables.

The levels of ERM implementation in participants' organizations were self-reported, which may not have accurately reflected the reality of the ERM maturity level. Similarly, the effectiveness of organizational risk management systems were self-reported and based on participants' perceived judgment, which could potentially led to the introduction of bias resulting from inaccurate observations. Also, some participants were not directly involved in the ERM deployment, and as a result, they may have lacked first-hand knowledge of the entire process (Beasley et al., 2005).

In addition, the research method may not have been able to account for the complexities related to an organizational risk management implementation process. The study assumed that survey data would be obtained from individuals involved in managing risk and that there would be a sufficient number of participants who were involved in and knowledgeable of enterprise risk management. Unfortunately, 20.9% of the participants (n = 28) worked in organizations that had no such systems in place while 27.6% of participants (n = 37) worked in organizations considering ERM implementation.

5.4. Recommendations for Further Research

The results of this research have implications for practice and future research in the field of risk management. To better understand the factors that influence the deployment of an integrated risk management system, it is suggested that the influence of organizational structure on the effectiveness of risk management be investigated. Similarly, the ability of a holistic risk management system to effectively manage organizational risk should be investigated. In relating risk to organizational structure, it is recommended that further research should assess how organizational hierarchy impacts ERM implementation.

In addition, through the use of contingency theory, further research should investigate whether additional factors such as board independence, firm size, ownership structure, growth rate, regulation, industry type, corporate governance, effective communication, and organization risk culture could impact the effective implementation of organizational wide risk management. Although, this study did not directly explore the role of ERM in value creation, it's suggested that the impact of the various level of deployment and their related contributions towards value creation be explored. Such a study could potentially elucidate if any, and how a collaborative approach to risk management influences stakeholder value creation (Kraus et al., 2012). Finally, an experimental research approach could be used to establish a possible cause and effect relationship between variables.

5.5. Conclusion

This study extends emerging research on enterprise risk management by examining organizational factors (such as the role of a Chief Risk Officer (CRO), the role of an Audit Committee (AC), and Top Management (TM) support) associated with its implementation. The major findings indicated a positive and significant relationship between the deployment of an ERM system and the presence of; a CRO, an AC, and TM support. An indication that the presence and role of a CRO, AC, and TM support influenced the deployment of an enterprise wide risk management system. In addition, the study found that as TM support increased so did the presence of the CRO, and AC and vice versa. Moreover, there was a strong positive correlation between the presence of a CRO and an AC, suggesting that organizations with a CRO were more likely to also have an AC and vice versa.

Although the extant literature presents ERM as an effective risk management mechanism, this study noted a minority of respondents (n = 14, 10.5%) as having a fully developed ERM tool in place. These findings indicate that ERM is still in the developmental stages, which corroborates earlier studies. In addition, the findings suggest organizational risk management requires more advancement (Paape & Speklé, 2012).

The study findings are important for decision makers in organizations implementing strategic risk management, as they suggest that organizations need to engage a CRO, an AC, and enlist the support of TM in the deployment of effective risk management policies and mechanisms. For organizations to harness the potential benefits of implementing ERM, a CRO and an AC should be in place and TM support should be high. This study adds to the body of knowledge by suggesting that the implementation of an ERM system is not only limited to the financial or insurance industries but also extends to various sectors such as; education, business services, government, manufacturing, legal, not for profit, engineering, utilities, energy/oil & gas and healthcare.

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RISK, OPPORTUNITIES AND REASONS OF THE HOUSEHOLD DEBT CHANGES: THE CASE OF AN EMERGING ECONOMY

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Abstract

In the past decades, household debt in both developed and developing countries have been increasing. With an increase in the standard of living, household debt is also bound to increase. This paper examines the cointergation and causal link among household disposable income, household savings, debt service ratio, lending interest rate, consumer price index and household debt in South Africa. An Autoregressive Distributed Lag and Granger causality techniques was used to analyse data collected from the South African Reserve Bank and Quantec from 1984 to 2014. The results of Autoregressive Distributed Lag test revealed cointegrating relationships between household debt and debt service ratio as well as household debt and lending interest rate. However, there is no long run cointegrating relationship between household disposable income, household savings and consumer price index with household debt. The Granger causality results revealed that household disposable income, household savings, debt service ratio, lending interest rate, consumer price index do Granger cause household debt in South Africa. Policy makers should thus target these variables in order to reduce household debt in South Africa.

Keywords: Household Debt, Household Disposable Income, ARDL Model, South Africa
JEL Classification: H31, C22, E21

1. INTRODUCTION

In the twentieth century, household debt has been increasing in most countries around the world, including South Africa. Morgan and Duncan (1982) assert that "If your outgo exceeds your income, your upkeep will be your downfall." Historically, being able to set financial goals and working towards achieving them has generally been the favoured method for ensuring that people had a savings safety net and emergency funds in place to bridge provisional drops in income. Even so, modern consumerism encourages immediate consumption placing greater emphasis on spending and less on saving (Roberts, Struwig, Gordon, Viljoen and Wentzel, 2012).

Borrowing has been made more attractive and accessible by low interest rates and the overall easing of credit constraints. These favourable conditions will best serve households by lowering their debt service cost, increase wealth and disposable income. An increase in debt can be expected in a greater financial inclusion market and a thriving economy. An increase in the supply of money for household loans is through the number of banks entering the credit market and competing for new consumers. Households now borrow for their day-to-day consumption, because of the low credit requirements (Chen Chen and Chivakul, 2008). Credit instruments range from long-term loans such as mortgages, overdraft facilities, credit cards and unsecured loans. Consumer borrowing in the form of unsecured loans has been growing rapidly over the years fueling growth in household debt. Unsecured loans are commonly referred to as "easy cash" because they are easier to obtain. According to the National Credit Regulator (NCR) (2012), there has been a growth of more than 53% in unsecured loans between 2010 & 2011. Policy makers are concerned that unsecured loans continue to rise faster than household disposable income (Mutero, 2014).

Increasing borrowing to finance consumption is often viewed in the press and on Wall Street as a negative factor that will curtail spending and decrease economic growth in the long run. Available research suggests quite the opposite: Growth in credit consumption intends to be linked with a positive growth in consumption, ultimately stimulating economic growth (Rajan and Zingales, 2003). Consumption expenditure has been the key driver of South Africa's economic growth contributing nearly 60% of gross domestic product (GDP) (Stanlib, 2010).

Household debt reached elevated heights relative to disposable income during the global financial crisis in 2008, household debt to disposable income stood at 86.4%. In 2011, household debt stood at 79.8% and in 2015, it was 78% (South African Reserve Bank, 2016). Household debt to disposable income ratio is still too high since more than 78% of the disposable income has to be used to pay debts. The consequences of indebtedness are high interest rates and high principal repayments which could impinge on the ability of households to cover living expenses, leading to a decrease in the standard of living and ultimately reduce consumer spending, in turn slowing down economic growth (Schmitt, 2000). Household finance has been attracting a lot of attention for quite a while, due to the elevated height of debt and the subsequent decrease in savings. Taking after an accommodative monetary

policy stance, the South African Reserve Bank has cut down the repo rate, as a policy approach to help reduce debt rather than start further consumer spending (Hoosain, 2012).

Ferguson (2008) maintains that the Old Testament in the Bible speaks about the year of jubilee, where every 50 years, all debts would be cancelled. Sadly enough, this utopia is no longer relevant and does not exist anymore. Therefore, it is imperative that households apply the necessary financial skills and knowledge to avoid the misuse of credit as the points of advantages can quickly diminish. According to Piprek, Dlamini and Coetzee (2004), lack of financial literacy leads to poor financial decisions that have dire consequences and irreversible effects to already indebted households. Adequate financial management skills will help households to ease the effects of shocks in interest rates and income.

The high levels of household debt highlight how important the implementation of the National Credit Act (NCA) (No. 34 of 2005) was in South Africa and it was definitely implemented at the right time. The NCA was passed into law to provide consumers with the required skills and knowledge to understand the ever-changing financial market, protect already over-indebted households and prevent reckless credit granting (NCA, 2005). Hurwitz and Luiz (2007) state that financial service providers are required to conduct a comprehensive analysis of consumer's affordability and understanding of the terms and conditions of debt contracts.

The high debt levels in South Africa could mean that household debt has surpassed other indicators such as income, net savings and wealth. The purpose of this study is to analyse the relationship and the direction of causality of the debt levels of South African households. This study strives to determine the long run cointegrating relationship between household debt and household disposable income, debt service ratio, household savings, interest rate and consumer price index (CPI) in South Africa from 1984-2014 using Autoregressive Distributed Lag (ARDL) Bounds testing model, and causality (using Granger causality) to estimate the direction of causality among variables.

The section above has provided a brief introduction of the study. Section 2 provides a review of literature relating to the relationship between household debt and its explanatory variables. The methodology used in the study is discussed in section 3. Section 4 presents interpretation of results and section 5 is a summary of the paper.

2. LITERATURE REVIEW AND THEORITICAL FRAMEWORK

In a study conducted by Jappelli (2010), it was found that out of the 50 countries surveyed, South Africa has the lowest number of economic literate people and the country is also the second lowest in terms of financial literacy. These results are alarming and highlight how South African households lack the necessary skills and knowledge to manage their finances adequately and to comprehend the ever-changing financial market. As a result, South African households have excessive debts and inadequate savings, and these have detrimental impacts not only on households but on financial entities and the economy as well.

Financial literacy has been a concern for financial entities and the government. Several initiatives and programmes have been undertaken to foster good borrowing behaviour and financial security. The National Credit Regulator (NCR) took an initiative to post educational messages on the pay slips of public sector employees on how to avoid debt and if already indebted, where to get assistance. Furthermore, other approaches such as television programmes were used to educate citizens on how to make wise financial choices (NCR, 2012). However, the NCR has been criticised for not being able to offer the needed training. Realistically, the NCR, on its own, cannot in any possible way, provide the necessary financial training to all South Africans. All industry stakeholders need to come together and assist and households need to take responsibility and put efforts to get necessary skills and knowledge to manage their finances adequately.

Training can take place in schools where the importance of good financial management can be stressed out at an early age before debt happens. The Banking Association of South Africa, together with the South African Savings Institute (SASI), launched a school-based programme called Teach Children to Save South Africa (TCTS SA). The main aim of the programme is to teach the importance of money and foster a culture of saving. The programme is for grade 4-7 learners and it is included in Economic and Management Sciences (EMS), (Messy and Monticone, 2012). Another method of training is workplace programmes. Such programmes only benefit those who are employed and this is only done when the company decides to provide assistance to employees. However, this is not always the case for Small, Medium and Micro-sized Enterprises (SMMEs). Unfortunately, these methods do not reach rural regions where poor households are increasingly falling into debt traps (Piprek *et al.,* 2004).

Piprek *et al.* (2004) also indicate that an effective and efficient financial literacy programme should be able to keep up with the evolving lifestyle of households and the ever-changing financial markets. Programmes will differ based on the purpose and target groups. A student will have a different financial literacy programme to that of an older household member who is closer to retirement. It is also important that financial literacy programmes be continuous rather than a once off session, and should be designed to create long-term effects to benefit generations come. Financial literacy programmes still have a long way to go in terms of changing the mindset and behaviour of South African households. Programmes targeting leaners at school will hopefully bear fruits later in the form of financially savvy adults. Financial literacy plays a substantial role in debt management.

The end of apartheid in South Africa brought many opportunities for households, financial institutions and the economy at large. Financial institutions are now able to cater for previously marginalised households and have the opportunity to increase their market share and revenue, thus kick-starting economic growth. However, the pitfall is that the more credit granted to households, the more bad debts and this ultimately leads to household delinquencies and insolvencies. Thus, the abnormal state of over-indebtedness by households in recent years is not only associated to changes in interest rates but also to the structural shift from the apartheid regime to a democratic government (Hurwitz and Luiz, 2007).

This study follows Keynes' (1936) absolute income theory, which is the most influential theory of current consumption and supported by Modigliani's (1975) life cycle hypothesis (LCH). The Keynesian theory maintains that current household consumption depends on current disposable income. According to Cronje (2009), the theory makes use of consumption of current income and disregards potential future income. Household consumption remains grounded on "Fundamental psychological law" and proclaims that an increase in income will result in an average person to increase consumption expenditure. Nowadays, consumption of households is said to be dependent on future potential income rather than current income as it was in the past (Mutero, 2014). Keynesian (1939) postulates that households spending decision depends on household's current income, future potential income and wealth, to ensure the same level of consumption over the years to come.

According to Modigliani (1975), the Modigliani's LCH maintains that household decision to spend relies upon resources availability in relation to the distribution of wealth over a lifetime. The theory boosts the principle of maximisation of utility (Dwivedi, 2010). Modigliani's input to the life cycle income hypothesis is based on the fact that consumption depends on current income and wealth (Saad, 2011). Saad (2011) further states that the Modigliani's LCH maintains that households consider their whole lifespanbefore deciding to spend, with the aim to smooth consumption in times of fluctuating income subsequent to age.

Below is a review of empirical studies for both developed and developing countries in relation to household debt. Using a panel of 7 OECD countries, Jappelli and Pagano (1994) assessed the effect of liquidity constraints on savings and growth. The results revealed that countries with lower borrowing have higher excess sensitivity (where capital market inadequacies are more imperative). Given such situation, credit availability may influence consumption. Chrystal and Mizen (2001) researched on household consumption in Britain using variables such as money, consumption expenditure and unsecured borrowing. The results revealed that unsecured debt and consumption are negatively correlated in the long-run, whereas the short run unconventionalities of consumption from its long-run equilibrium has a positive effect on lending.

Martinez-Carrascal and Del Rio (2004) used the Vector Error Correction Model (VECM) to analyse the effects of household borrowing and consumption in Spain. The results revealed that in the long run, interest rate has a negative impact on both consumption and lending, whereas wealth and labour income affects consumption and lending positively. Analysing the relationship between debt service ratio (DSR) and consumption using time series data of the US economy from 1992-2005, Johnson and Li (2007) found that changes in income is less sensitive to consumption of household with low liquid asset and more sensitive to consumption of household with high debt service ratio.

Using South Africa's dataset, Prinsloo (2002) examined the trends in household debt, wealth and savings between 1975 and 2001. The study found that material and social needs, fashion, taste, cultural and traditional beliefs, current debt to income ratio, cost and standard of living are some of the factors that determine spending and saving behaviour. Chipeta and Mbululu (2012) studied the effects of the National Credit Act (NCA) and the global financial crisis on domestic extension in South Africa. According to the authors, there was an upsurge in credit lending to consumers following the implementation of NCA.

Aregbeshola (2014) analysed time series data of South Africa's economy for 2001 to 2012 in order to investigate the true effects of financial deregulation on credit consumption and economic growth. The empirical outcomes of the revealed that economic growth increases in relation to an increase in credit consumption. Using South Africa's dataset for the period 1986 to 2013, Mutero (2014) used ADRL-bounds testing approach to analyse the relationship between household debt and consumption spending. The author found a short run relationship between household debt and disposable income, net wealth and inflation and that household debt and interest rate and inflation had a long run relationship.

During times of recession, households struggle to maintain high debt levels. Policy makers are concerned about consumer behaviour, which have a significant contribution to South Africa's GDP. The Reserve Bank is cleverly controlling interest rates in cases of high inflation rates to prevent high debt burden that will result in households not being able to pay back their debts, a situation experienced by the Greeks (Mutero, 2014). South African households are motivated to spend less and save more.

3. METHODOLOGY

This study relies on autoregressive-distributed lag (ARDL) – bounds testing approach by Pesaran, Shin, and Smith (2001), in an attempt to determine the existence of long run cointegration association between household debt and its explanatory variables. Annual time series data from 1984-2014 (30 observations) for South Africa was obtained from the South African Reserve Bank (SARB) and Quantec.

Household debt which measures the total amount of money owed by households to financial service providers served as the dependent variable. It comprises of consumer debt and mortgage loans. Household disposable incomes, debt service ratio, household saving were the explanatory variables. Another set of explanatory variables namely; cost of financing is proxied by normal interest rate and inflation rate are included as control variables in the system because they are deemed to have an effect on credit up-take by households.

Table 1. Description of variables and expected signs

Variables	Description of variables	Expected signs
HDI	Household disposable income	+ (positive)
DSR	Debt service ratio	+ (positive)
SAV	Household savings	-(negative)
INT	Lending interest rate	+ (positive)
CPI	Consumer price index	+ (positive)

Source: Own table of expected signs adapted from empirical literature

Ardl Model Specification

The model is theorized as follows:

$$HD_t = \beta_0 + \beta_1 HDI_t + \beta_2 DSR_t + \beta_3 SAV_t + \beta_4 INT_t + \beta_5 CPI_t + \varepsilon_t \quad (1)$$

β_0 to β_5 are the coefficients elucidating the elasticities of explanatory variables. ε_t is the error term. To examine the long-term and short-term dynamics, equation (1) is transformed into an ARDL specification reparameterized as an ECM. The ARDL model is identified as:

$$\begin{aligned}\Delta HD_t = {} & \beta_0 + \sum_{i=1}^{n} \beta_{1i} \Delta HD_{t-i} + \sum_{i=1}^{n} \beta_{2i} \Delta HDI_{t-i} + \sum_{i=1}^{n} \beta_{3i} \Delta DSR_{t-i} + \sum_{i=1}^{n} \beta_{4i} \Delta SAV_{t-i} \\ & + \sum_{i=1}^{n} \beta_{5i} \Delta INT_{t-i} + \sum_{i=1}^{n} \beta_{6i} \Delta CPI_{t-i} + \alpha_1 HD_{t-1} + \alpha_2 HDI_{t-1} + \alpha_3 DSR_{t-1} + \alpha_4 SAV_{t-1} \\ & + \alpha_5 INT_{t-1} + \alpha_6 CPI_{t-1} + \varepsilon_t\end{aligned} \quad (2)$$

where Δ is the first difference operator, β_0 is a constant and ε_t is a white noise disturbance. The long-run relationship is symbolized by coefficient $(\alpha_1 - \alpha_6)$ while the short-run dynamics of the model are denoted by $(\beta_1 - \beta_6)$. Following Hendry (1995), equation (2) is reparameterised as ECM to yield:

$$\begin{aligned}\Delta HD_t = {} & \beta_0 + \sum_{i=1}^{n} \beta_{1i} \Delta HD_{t-i} + \sum_{i=1}^{n} \beta_{2i} \Delta HDI_{t-i} + \sum_{i=1}^{n} \beta_{3i} \Delta DSR_{t-i} + \sum_{i=1}^{n} \beta_{4i} \Delta SAV_{t-i} \\ & + \sum_{i=1}^{n} \beta_{5i} \Delta INT_{t-i} + \sum_{i=1}^{n} \beta_{6i} \Delta CPI_{t-i} + \lambda EC_{t-1} + \varepsilon_t\end{aligned} \quad (3)$$

whereby, the speed of adjustment is denoted by λ and EC represents residuals obtained from the estimated cointegration model of equation (2). EC (Error correction term) is defined as

$$EC_t = HD_t - \gamma_1 HDI_t - \gamma_2 DSR_t - \gamma_3 SAV_t - \gamma_4 INT_t - \gamma_5 CPI_t \quad (4)$$

where $\gamma_1 = -(\alpha_2 / \alpha_1), \gamma_2 = -(\alpha_3 / \alpha_1), \gamma_3 = -(\alpha_4 / \alpha_1), \gamma_4 = -(\alpha_5 / \alpha_1), \gamma_5 = -(\alpha_6 / \alpha_1)$ are Ordinary Least Square (OLS) estimates variables which provide short run dynamics of the model covering the equilibrium path. The error correction coefficient (λ) is expected to be less than zero meaning a negative number, which implies cointegration relation.

Estimation Techniques

Unit Root Tests

Even though unit root tests is not required in ARDL modeling approach, it is still imperative to test for unit root or stationarity status of variables in order to ensure that the variables are integrated of order I (0) or I (1) or even the combination of both I (0) and I (1), and to make sure that there are no I (2) variables in the system to avoid a problem of spurious results otherwise the model can ultimately crash (Ouattara, 2004). To test for unit root or stationarity of variables, Augmented Dickey–Fuller (ADF) tests developed by Dickey and Fuller (1981) were used because they can handle a small sample size. According to Eita and Du Toit (2009), non-stationary variables are corrected in the short-run error correction model (ECM).

Cointegration Test – Ardl-Bounds Testing Approach

The bounds testing approach adopted in this study has some econometric advantages over other cointegration techniques such as Johansen (1991), Johansen and Juselius (1990) the maximum likelihood based approach and Engle-Granger (1987). Firstly, the bounds test is used for its simplicity of the cointegration test. Secondly, the ARDL model is distinctive in a manner that it does not need the same order of integration of variables. According to Pesaran and Pesaran (1997), the variables can either be integrated of order I (0) or I (1) or mutually integrated. Unlike the Johansen and Juselius (1990) cointegration method and others, the bounds testing approach allows for cointegration analysis to be assessed by OLS once the lag order of the model is known. Pesaran and Shin (1999) further state that problems of serial correlation and endogeneity are avoided when modeling ARDL bounds test with the appropriate lag. Lastly, the bounds test is more efficient in small sample sizes or few observations, especially for developing countries, just like the case in this study.

The test has some shortcomings as well. The bounds test cannot handle variables that are integrated of order I (2) or higher. When variables are integrated of order I (2), the computed F-statistics given by Pesaran *et al.* (2001) are not valid for the reason that the bounds test assumes that variables are either I (0) or I (1) or even the combination of both I (0) and I (1). Furthermore, the method cannot model more than one cointegrating vector.

Before testing for bounds test of cointegration, the order of lags on the first differenced variables in equation (2) have to be examined using the Akaike Information Criterion (AIC) or the Schwartz Bayesian Criterion (SBC) or even a combination of both. We choose the best model, that is, the one with the lowest AIC and SBC. The Schwartz Bayesian Criterion (SBC) was used in this study.

To determine the long run cointegration relationship between household debt and the independent variables, the bounds F-test is applied to equation (2) by OLS. The F-statistics tests joint null hypothesis that the coefficients of the lagged

levels of the variables are zero, that is, the null hypothesis: $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$ (no long run relationship exits) against the alternative: $\beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq 0$. We reject the null hypothesis of no long-run relationship if the calculated F-statistic is above the upper critical value I (1) at 5% level of significance regardless of the orders of integration for the time series. In opposition, if the computed test statistic is lower than the critical value I (0), we cannot reject the null hypothesis. Lastly, the results are regarded inconclusive if the calculated F-statistic is within the lower and upper critical values. The critical values for the F-test are obtained from Pesaran and Pesaran (1997).

When there is evidence of cointegration, there is a need to proceed with the error correction model. The error correction coefficient (ECM) is expected to be less than zero, which implies cointegration relation. The model will be tested for robustness by employing various diagnostic tests such as normality test, serial correlation and heteroscedasticity. The CUSUM and Ramsey RESET tests to the residuals of equation will be applied in order to test the model's stability. For the stability of the long-run and short-run coefficients, the plot of the CUSUM statistics must stay within the 5 % significant level.

Granger Causality Test

In order to determine the causal link between the variables studied, a Granger causality test was conducted. The standard Granger causality tests, whether the joint past value of both Y and X, explains the current change in X better than the past values of X alone will do. When the null hypothesis is not rejected, it is concluded that Y Granger causes X. A repeat of this process is done interchangeably for Y and X. The relationships could be unidirectional, bidirectional or no causality. The Granger causality test results are sensitive to lag lengths. To determine the optimal lag length for each series, the Schwartz Information Criterion (SIC) is used and an equation of an autoregressive is estimated by selecting a lag with the lowest SIC. Granger causality tests the direction of causation and knowing the direction of causation policy makers will know which variable to target first.

4. ESTIMATION RESULTS

Unit Root Tests

The first step before we proceed with the bounds test is to determine the order of integration by conducting the unit root tests. Results of the unit root test confirm that after differencing data, all variables become stationary and integrated of order I (1). The hypothesis that household debt, household disposable income, debt service ratio, household savings, interest rate and inflation have unit root can be rejected.

Table 2. Augmented Dickey-Fuller (ADF) test in levels and first difference

Variables	*Model specification*	*ADF*	
		Levels	*First difference*
HD	Intercept	-1.776618	-3.292065**
	Trend and intercept	-3.886942**	-3.119599
	None	0.833202	-3.096155***
HDI	Intercept	-4.111024***	-6.152479***
	Trend and intercept	-4.291691***	-6.028504***
	None	-2.610971***	-6.274006***
DSR	Intercept	-4.113948***	-5.176458***
	Trend and intercept	-4.435294***	-5.173880***
	None	0.042052	-5.259976***
SAV	Intercept	0.102938	-5.107683***
	Trend and intercept	-3.194555	-4.456583***
	None	-1.291228	-7.051674***
INT	Intercept	-0.556144	-6.457633***
	Trend and intercept	-4.473275***	-6.532815***
	None	-0.757307	-6.556606***
CPI	Intercept	-1.373129	-4.725418***
	Trend and intercept	-0.696599	-4.902510***
	None	-2.100758**	-2.240277**

*Note: ***, **, *, denotes 1%, 5% and 10% level of significance. Results obtained from EViews*

Bounds Test For Cointegration

The initial step in ARDL analysis entails selection of the order of lags on the first differenced variables in equation (2). Results of the Schwartz Bayesian Criterion (SBC) suggest that the optimum lag for HD and HDI is 1, HD and DSR is 1, HD and SAV is 6, HD and INT is 1, HD and CPI is 6. The second step requires applying the bounds F-test to equation (2) to determine the existence of cointegration or long run relationship between household debt and explanatory variables. The F-statistics tests the joint

null hypotheses that the coefficients of the lagged level variables are zero, that there is no long run cointegrating relationship against the alternative that variables are not zero (i.e there is existence of long run relationship). The results of the calculated F-statistics with critical values as suggested by Pesaran *et al.* (2001) are reported in Table 3 below.

Table 3. Bounds F-test for cointegration

Function	F-test statistic	Probability value	Conclusion
DHD(DHDI)	2.319431	0.1200	No Cointegration
DHD(DDSR)	6.525579	0.0055***	Cointegration
DHD(DSAV)	2.617601	0.1270	No cointegration
DHD(DINT)	13.07653	0.0001***	Cointegration
DHD(DCPI)	0.439369	0.6576	No cointegration

Notes: The critical values of bounds are in Pesaran et al. (2001), presented in Table 7 in the appendix.

The calculated F-statistic is greater than the upper bound I (1) critical value (5.73) at 5% level of significance; the null hypothesis of no cointegration can thus be rejected. Conversely, if the F- test statistic is lower than the critical value I (0) (4.94), we cannot reject the null hypothesis. Finally, if the statistic falls within the lower and upper critical values, the results are inadequate. Based on the results, it is evident that debt service ratio and interest rate have a long-run relationship with household debt consistent with the results of Kim, Setterfield and Mei (2014). However, household disposable income, household savings and inflation rate have no cointergrating relationship with household debt. It can be concluded that the abnormal state of over-indebtedness by households in recent years is not only associated to changes in interest rates, low net savings and higher disposable income but also the structural shift from the apartheid regime to a democratic government (Hurwitz and Luiz, 2007). Since there is evidence of cointegration, there is a need to proceed with the error correction model. Hence, the stability of the long run model for household debt in South Africa for the period 1984 to 2014 can be tested.

ERROR CORRECTION MODEL (ECM)

Table 4. Error Correction Model

Variable	Coefficient	Probability
D(HD(-1))	0.902092	0.0005
D(HDI)	0.036617	0.8621
D(HDI(-1))	0.196191	0.2181
D(DSR)	1.345584	0.1326
D(DSR(-1))	-1.377228	0.1371
D(SAV)	-1.192804	0.0059
D(SAV(-1))	0.127785	0.7199
D(INT)	-0.437595	0.3064
D(INT(-1))	0.291606	0.4837
D(CPI)	-0.251264	0.2339
D(CPI(-1))	0.071339	0.6707
ECT(-1)	-0.319907	0.0373
C	-0.511829	0.2016
R-squared 0.894683 **Adjusted R-squared 0.815695**		

The results of SBC suggest that the optimum lag length of the entire model selected is 1. According to Moroke *et al.* (2014), when the coefficient of the Error Correction Term (ECT) is less than zero (-0.319907) and the probability is statistically significant (0.0373), this means the model has a speed of adjustment that is adequate in both short run and long run. This is a confirmation that the short run dynamics of the model are adjusted to the long-run equilibrium path rather than depraving from it. The model has an R-squared of 89.4 percent and Adjusted R-squared of 81.6 per cent which is an indication that the model is correctly fitted. This implies that every year, 81.6 per cent of disequilibrium was corrected.

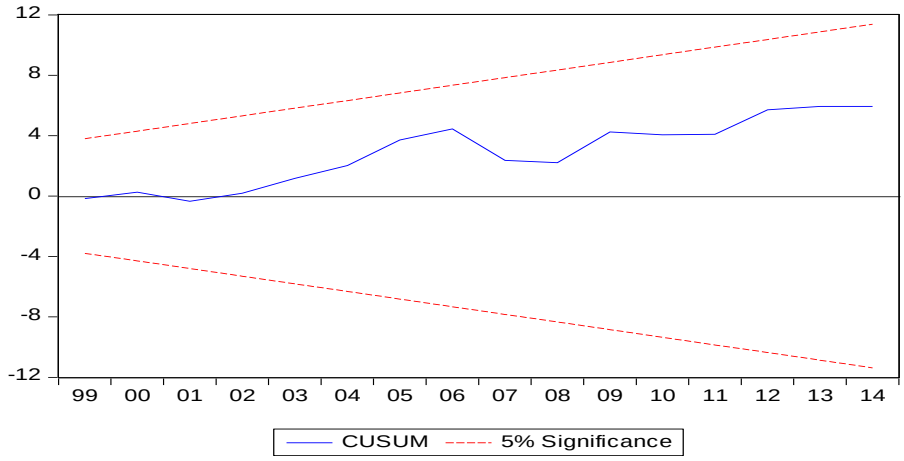
In a short run, HDI is found to have a positive effect on HD. However, the probability value of 0.2181 is insignificant. The coefficient shows that a 1 percent increase in HDI can lead to an increase in HD by 19.6 per cent. The results further show that, no significant relationship exists between household debt and debt service ratio, household savings, interest rate and inflation rate.

Diagnostic Tests

Table 5. Diagnostic Statistics

Diagnostic test	*Null hypothesis*	*Statistic*		*Probability*	*Conclusion*
Normality test	Residuals are normally distributed	JB-statistic Skewness Kurtosis	1.963495 0.635200 2.894908	0.374656	Residuals are normally distributed
Serial Correlation: Breusch-Godfrey Serial Correlation LM Test	No serial correlation	Obs*R^2	3.175018	0.0748	There is no serial correlation
Heteroskedasticity: Breusch-Pagan Godfrey	No Heteroskedasticity	Obs*R^2	17.27999	0.1394	There is no heteroskedasti-city
Specification Error: Ramsey RESET Test	Linear model is correctly specified	LR-statistic	0.188390	0.6643	There is no specification error

Figure 1. Plot of CUSUM for coefficients stability for ECM model



The line that represents the cumulative sum of residuals is contained within the 5% critical lines, which serves as evidence that the estimated household debt model is stable as shown above.

Results Of Granger Causality

Table 6. Results of Granger causality

Null hypothesis	*Obs*	*F-statistic*	*Probability*	*Conclusion*
HDI does not Granger cause HD		19.6737	0.0001	Reject , causality exists
HD does not Granger cause HDI	30	0.02810	0.8681	Fail to reject, no causality exists
DSR does not Granger cause HD		5.51541	0.0264	Reject, causality exists
HD does not Granger cause DSR	30	0.88175	0.3560	Fail to reject, no causality exists
SAV does not Granger cause HD		4.34480	0.0467	Reject, causality exists
HD does not Granger cause SAV	30	0.48636	0.4915	Fail to reject, no causality exists
INT does not Granger cause HD		4.84096	0.0365	Reject, causality exists
HD does not Granger cause INT	30	2.33717	0.1380	Fail to reject, no causality exists
CPI does not Granger cause HD		6.53722	0.0165	Reject, causality exists
HD does not Granger cause CPI	30	0.07852	0.7815	Fail to reject, no causality exists
DSR does not Granger cause HDI		5.65208	0.248	Accept, no causality exists
HDI does not Granger cause DSR	30	16.9899	0.0003	Fail to reject, causality exists
SAV does not Granger cause HDI		1.32498	0.2598	Accept, no causality exists
HDI does not Granger cause SAV	30	0.27442	0.6047	Fail to reject, no causality exists
INT does not Granger cause HDI		8.77112	0.0063	Reject, causality exists
HDI does not Granger cause INT	30	9.32906	0.0005	Reject, causality exists
CPI does not Granger cause HDI		4.92324	0.0351	Reject, causality exists
HDI does not Granger cause CPI	30	3.37603	0.0772	Fail to reject, no causality exists
SAV does not Granger cause DSR		1.70892	0.2021	Fail to reject, no causality exists
DSR does not Granger cause SAV	30	0.64550	0.4287	Fail to reject, no causality exists
INT does not Granger cause DSR		0.42969	0.5177	Fail to reject, no causality exists
DSR does not Granger cause INT	30	2.02737	0.1659	Fail to reject, no causality exists
CPI does not Granger cause DSR		1.09054	0.3056	Fail to reject, no causality exists
DSR does not Granger cause CPI	30	1.10478	0.3025	Fail to reject, no causality exists
IN T does not Granger cause SAV		3.07632	0.0908	Fail to reject, no causality exists
SAV does not Granger cause INT	30	0.79231	0.3813	Fail to reject, no causality exists
CPI does not Granger cause SAV		5.17659	0.0310	Reject, causality exists
SAV does not Granger cause CPI	30	0.34723	0.5606	Fail to reject, no causality exists
CPI does not Granger cause INT		0.07743	0.7829	Fail to reject, no causality exists
INT does not Granger cause CPI	30	0.40930	0.5277	Fail to reject, no causality exists

From Table 6, the results reveal that HDE, DSR, SAV, INT, CPI, DRS do Granger cause HD while HD does not Granger cause any of the variables in this study. This implies that if policy implemented targets HDE, DSR, SAV, INT, CPI, DRS first, it will have an effect on HD but if HD is targeted first, it will not have any effect on the independent variables.

CONCLUSION

The bounds testing (ARDL) approach to cointegration has been used to test the long run and short run relationships between household debt, disposable income and debt service ratio, net savings, interest rate and CPI using South Africa as a case study. The bounds test suggest that variables of interest are bound together in the long run except

for household disposable income, household savings and CPI. In the short run, no significant relationship exists between household debt and the explanatory variables. The associated equilibrium correction was also significant confirming the existence of long run relationships. The equilibrium correction is fairly fast and is restored every year. From the results of Granger causality, it is concluded that household disposable income, debt service ratio, household savings, interest rate, consumer price index jointly do Granger cause household debt.

The literature confirms that lack of financial literate consumers contributes to risk of being indebted. A positive correlation between financial literacy and savings was also noted in the study as it is evident that they are low. Therefore, South African consumers are encouraged to spend less and save more in order to lower debt. Unfortunately, the debt problem experienced by South African households cannot be solved overnight. It is imperative that households have the necessary financial skills to avoid misusing credit as its advantage can decrease quickly. In the long run, the National Credit Regulator will also combat the debt problem.

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APPENDIX

Critical value of bounds for the F-statistic

Table 7. Case III with unrestricted intercept and no trend

	90%		95%		97.5%		99%		mean		variance	
K	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
0	6.58	6.58	8.21	8.21	9.80	9.80	11.79	11.79	3.05	3.05	7.07	7.07
1	4.04	4.78	4.94	5.73	577	6.68	6.84	7.84	2.03	2.52	2.28	2.89
2	3.17	4.14	3.79	4.85	4.41	5.52	5.15	6.36	1.69	2.35	1.23	1.77
3	2.72	3.77	3.23	4.35	3.69	4.89	4.29	5.61	1.51	2.26	0.82	1.27
4	2.45	3.52	2.86	4.01	3.25	4.49	3.74	5.06	1.41	2.21	0.60	0.98
5	2.26	3.35	2.62	3.79	2.96	4.18	3.41	4.68	1.34	2.17	0.48	0.79
6	2.12	3.23	2.45	3.61	2.75	3.99	3.15	4.43	1.29	2.14	0.39	0.66
7	2.03	3.13	2.32	3.50	2.60	3.84	2.96	4.26	1.26	2.13	0.33	0.58
8	1.95	3.06	2.22	3.39	2.48	3.70	2.79	4.104	1.23	2.12	0.29	0.51
9	1.88	2.99	2.14	3.30	2.37	3.60	2.65	3.97	1.21	2.10	0.25	0.045
10	1.83	2.94	2.06	3.24	2.28	3.50	2.54	3.86	1.19	2.09	0.23	0.41

RETAIL BANKING SERVICE QUALITY: A CLIENT PERCEPTION STUDY

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Abstract

The retail banking sector in South Africa is predominantly characterised by a high face to face interaction and constant product and pricing differentiation. In order for a bank to distinguish itself from other banks in the banking industry, it uses excellence in its service quality to stand out against its competitors. In the study, the researchers adapted the SERVQUAL model to the banking industry. A probability sampling technique was employed for the study. Simple random sampling was employed to test MBA students' perceptions towards service quality in the banking industry. The findings in the empirical study revealed that MBA students at the university were dissatisfied with the quality of service offerings provided by the retail banks in South Africa. There were quality gaps revealed in tangibles, reliability, empathy, responsiveness and reliability aspects of the service encounters.

Keywords: Servqual Model, Service Quality, Student Expectations, Student Perceptions

1. INTRODUCTION

The concept of service quality within the service industry world-wide have been a key driver for organisations that aspire to differentiate themselves and to gain a larger market share. In this era of contemporary marketing service quality is a fundamental catalyst that can attract, retain and command respect in a very competitive industry such as retail banking.

Within the banking industry, banks that display high levels of service quality have maintained a competitive edge over their rivals. Maintaining an acceptable service quality within the retail banking sector, has resulted in banks increasing their levels of client acquisition as well as retaining their existing clientele.

The postgraduate market, young professionals as well as senior professionals have been introduced to an array of banking and financial products that are structured to suit their lifestyle and spending power. In the economic lifecycle of a bank, the young professionals are regarded as a lucrative market segment because of the banking offerings available to them. Banks are customer orientated. They constantly monitor their client's perceptions and expectations towards their service quality.

By conducting such research surveys banks keep abreast of the needs of their clients. By understanding their customers service quality attributes towards their service offering, banks can build a formidable competitive advantage in the market place.

2. RESEARCH OBJECTIVES

The study focused on the following objectives:

- To examine and report on service quality gaps with respect to tangibles, reliability, responsiveness, assurance and empathy for MBA students at different levels of study towards retail banks in South Africa.
- To examine and report on service quality gaps with respect to tangibles, reliability, responsiveness, assurance and empathy for MBA students who are clients at different retail banks in South Africa.
- To introduce approaches to improve quality of service and banking experience for Postgraduate (MBA) students.

3. CONCEPTUALIZING SERVICE QUALITY

Service quality in organisations has transformed itself into a critical competitive differentiator within the service industry. Banks are also part of the service industry. To remain a formidable contender in the banking industry, banks in South Africa have to realign their competitive advantage by using service quality to distinguish themselves in the market place.

The literature reviewed indicates that excellent service quality if managed holistically within the banking sector can contribute to banks offering excellent products, retaining and acquiring clients and producing competitive sales revenues. Al-hawari (2015:4) argues that the value attached to quality service and customer satisfaction is a global concern and a key positioning for organisations to compete in the national and international playground of service offerings. The literature review has provided a holistic overview of service quality, Servqual model and trends in the retail banking industry.

3.1. Service Quality

Naidoo (2015:63) argued that service quality is an abstract concept that is often difficult to define and quantify as it is context specific and means different things to different people. In the banking industry

each stakeholder within the industry would have a different view on service quality.

The term "service quality" was recognised as the difference between the customers' expectations of a service that is to be received and the perceptions of the service that is yet to be actually received Grönroos (1984:34-40) and Parasuraman, Zeithmal and Berry (1988:12-40). Perception, in this case, is interpreted as the customer/client's 'experienced service' and expectations are viewed as the desires/wants of the consumer about the service (Khan, Tabassum & Jahan 2014:4). In his work Grönroos (1984:34-44) outlined technical and functional quality which depict the above named two prime categories of service quality.

Technical quality was reliant on the outcome of the service process and what the consumer received, whereas functional quality was focused on the service process of the service provider and was concerned with the manner in which the service was delivered to the customer (Jones & Shandiz 2015:5).

The concept of service quality has evolved over the years and this is highlighted by researchers such as Al-hawari (2015:41-57) and Narteh (2013:153-169) who have defined service quality as three-dimensional qualities. The first being physical quality, followed by interactive quality and lastly corporate quality. Khan et al (2014: 6) regarded the tangibility of service quality as the physical and interactive quality emerging from the form of service interaction between the customer and the service provider whereas corporate quality only related to the appearance of the service provider.

Fisk, Grove and John (2004:153) posit that the from customer's perspective, service quality means how well the service meets or exceeds expectations. Lovelock and Wirtz (2011:404) argued that that marketing's interest in service quality is obvious; poor quality places a firm at a competitive disadvantage, driving away dissatisfied customers.

Lovelock and Wittz (2011:411) argue that the word 'quality' can be explained from a variety of viewpoints. A number of researchers argue that service quality affords a transcendent view. Others say it is a manufacture based approach. Some researcher's argue service quality is user based, whilst another stance taken by researchers is that it is value based. The differing views of quality can cause conflict between management and staff within the service organisation. Naidoo(2013:15) adds that the concept of service quality therefore has different meanings and this creates debate on the area of service quality research.

For this study, service quality should be interpreted from the customer's perspective as the customer is the only person who can outline whether the service has either met or exceeded his/her expectations.

3.2. The Servqual Model

The Servqual model was developed by Berry, Zeithmal and Parasuraman (1985:41-50) in the early eighties. The model is an instrument that is used by service industries to measure as well as to evaluate the satisfaction of customers in the service sector and includes a pre – customer' expectation and compares this expectation with a post service perception to summarise the customers' satisfaction.

Servqual is based on the perception gap between the received service quality and the expected service quality, and has been widely adopted for explaining consumer perception of service quality. Originally ten dimensions of service quality were proposed (reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer and tangibles. Later these were reduced to five variables (reliability, responsiveness, assurance, empathy and tangibles (Ravichandran, Prabhakaran and Kumar 2010:148).

The objectives of the SERVQUAL model provide a strategic link to the identified service quality gaps and the following paragraph will allow for a more detailed analysis of the importance and the value of the SERVQUAL model.

The Servqual dimensions are discussed by different theorists as follows:

Reliability – Reliability is considered as the key dimension of perceptions of standard quality among United States customers' and reliability relates to the company delivering on its promises (Jones and Shandiz 2015: 52). Coetzee, Van Zyl and Tait (2013:10) emphasises that the reliability dimension refers to the ability of a bank to deliver all services as promised in a dependable and accurate manner.

Responsiveness – Responsiveness represents the willingness by banking staff to assist clients and provide prompt services (Lau, Cheung, Lam and Chu 2013:267). Bennette, Bove, Dann, Drennan, Frazer, Gabbott, Hill, Lawley, Matear, Perry, Sparks, Summers, Sweeney, Ward and White (2003:86) add that to increase responsiveness the service should be individualised or customised as much as possible.

Assurance – Assurance is the knowledge and courtesy of employees and their ability to inspire trust and confidence. Bank commitments are important, as customers may save a large sum of money in banks (Lau *et al.* 2013:267).

Empathy – Empathy is defined through the personalisation of services, whereby customers are made to feel unique and special because their service needs are understood and met (Coetzee *et al.* 2013:10).

Tangibles – this variable represents physical facilities, equipment and appearance of personnel. Examples of the tangible factor related to banks include comfortable store designs, up-to-date equipment for customer use and sufficient staff to provide service (Lau *et al.* 2013:266).

The Servqual model is a very popular instrument used to test service quality in various service industries. According to Ladhari (2008:66) the Servqual model has been used to measure service quality in various service industries, including health care, banking, fast food, telecommunications, information systems, retail chains, health-care industry and library services.

3.3. Retail Banking Industry Trends

The study is based on the retail banking industry. In the discussion that follows a brief overview of the retail banking industry in South Africa will be highlighted. Dhurup, Surajlal and Redda (2014:587-594) outlines that South Africa has one of the most

sound banking and regulatory infrastructures compared to the rest of Africa with the four major commercial banks being Standard Bank, Amalgamated Bank of South Africa (ABSA), First National Bank (FNB) and Nedbank.

According to Redlinghuis and Rensleigh (2010:445) indicate that the banks in South Africa are regulated in accordance with the principles set by the Basel Committee on banking supervision and comply with international best practice. Over the past few years, South African banking customers have gained access to online, real-time and national wide access to banking products and services, twenty four hours a day throughout the year.

The banking landscape has changed over the years as the top four major commercial banks have seen the addition of Investec into the country's top banking portfolio (Du Toit 2014:1). These banks have remained as the pioneers of banking in the South African industry despite adverse economic conditions, stricter regulations and negative perceptions regarding reckless lending and service quality.

Retail banks operate in a very volatile market. They are constantly being pulled and pushed due to inflation, interest rate hikes, the rand dollar exchange rates (foreign exchange rate fluctuation) to name but a few variables that cause havoc in the bank industry's market. Their excellence in service quality can be a key ingredient in their continued sustainability in the volatile market place. Banks have come to accept the view that it is their service quality that distinguishes them from their competitors in the long run. Zhou, Zhang and Xu (2002:14-15) argue that in addition to upgrading service facilities, most domestic banks appear to have recognised the importance of providing quality services to maintaining completive advantage. It is not difficult to convince them that superior financial products can be easily imitated by competitors, and thus are not enough to ensure competitive advantage.

According to Muyeed (2012:116) commercial banks are assaulted by pressures from globalisation, competition from non-banking financial institutions and volatile market dynamics are constantly seeking new ways to add value to their services. To keep up with their competitors' banks have come up with an array of products to suit the needs of their different clients. Dhurup et al (2014:2) adds that the banking arena has become infiltrated with constant product differentiation, technological advancements as well as aggressive marketing campaigns to acquire and retain clients. Narteh (2013:163) in his study indicated that within the banking industry the ability to value, understand and address the financial needs of the student market is now a critical marketing reality.

4. RESEARCH METHODOLOGY

The study utilised probability sampling, more specifically simple random sampling. The questionnaires were distributed to the study population during lectures. Each participant received the same questions and was allocated the same length of time for completion of the questionnaire.

The target population comprised of MBA students from first year to third year who are students at the University of KwaZulu-Natal. According to Sekaran and Bougie's (2010:295) sample tables, the sample size for a population of 450 registered MBA students at the University of Kwa-Zulu Natal would be 226 respondents. A total of 165 MBA students completed the self-administered anonymous questionnaire. A good response rate of 73% was achieved.

The questionnaire was designed using a five-point Likert scale. Hair, Wolfinbarger, Ortinau and Bush (2008:155) argue that the LIKERT scale is best suited to a research design that is used in self-administrated surveys. A structured questionnaire was the instrument used to collect data from the respondents. The researchers used closed-ended questionnaires in the design of their questionnaire. Aaker, Kumar and Day (2001:309) stated that the advantage of using closed-ended questions is that they are easier and faster for the respondents to complete.

In the study the researchers adapted the Servqual model to test tangibles, reliability, responsiveness, assurance and empathy in the retail banking industry. The questionnaire consisted of 22 items (statements) from expectations section as well as 22 items from the perceptions section in the questionnaire, which made a total of 44 items (statements).

Data collected in the study was analysed using both descriptive and inferential statistical techniques. A Normality test was first conducted by the researchers to ascertain whether parametric or non-parametric tests should be used. The test Sample Kolmogorov Smirnov indicated that the data did not follow a normal distribution therefore non-parametric statistics such as the Kruskal-Wallis test was employed in the study. The reliability analysis indicated that the data were very reliable as the Cronbach's alpha value was 0.92.

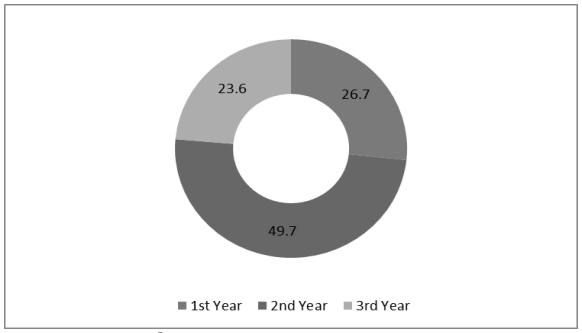
5. FINDINGS AND IMPLICATIONS

In this section both descriptive and inferential statistics that emanated from the study will be displayed and discussed.

5.1. Descriptive Statistics

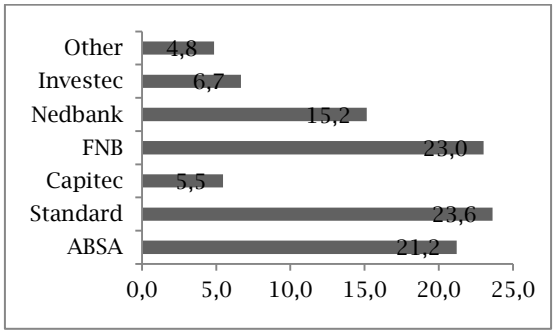
The descriptive statistics indicates respondents' year of study in the MBA program and respondents bank.

Figure 5.1. Year of study of the respondents



Source: Bhengu 2015:63

Figure 5.2. Respondents current bank



Source: Bhengu 2015:63

The results revealed that majority of the students were from MBA second year of study (49.7%).

When participants were asked who they bank with, 24% indicated that they bank with Standard bank followed by FNB (23%), ABSA (21%), Nedbank (15.2%), Investec (6.7%), Capitec (5.5%) and Others (4.8%).

5.2. Inferential Statistics

The Kruskal Wallis tests for the respondent's year of study and respondents retail banks in respect of their quality perceptions relating to reliability, responsiveness, empathy, tangibles and assurance will be presented and discussed below.

Table 5.1. Kruskal – Wallis test – service quality gap score for year of study

Sections	Year of MBA study (rank)			Z value	p-value
	1st year	2nd year	3rd year		
Tangibility	3750	6341	3605	2.767	0.2507
Reliability	4200	6260	3235	4.575	0.1015
Responsiveness	3735	6640	3320	0.293	0.8636
Empathy	3992	6403	3301	2.064	0.3564
Assurance	3900	6003	3793	7.532	0.0231

Source: Bhengu 2015:72

The results of the study revealed that there was no statistically significant difference for the gap scores for tangibility, reliability, responsiveness and empathy dimensions ($p > 0.05$). However, there was a statistically significant difference in the gap scores for year of study in the assurance dimension from 1st years to 3rd year of study ($p < 0.05$). In Roche's (2014:1-18) study, assurance was rated as the second most important service dimension after empathy and it was concluded that assurance given by the banking staff was vital for convincing customers' to utilize internet banking.

The service quality gap identified for the 'assurance' service dimension correlates to previous research conducted by Ozretic-Dosen and Zizak in their study (2015:98-117) which revealed, that the students' perceptions of physical, financial security as well as assurance fell short of their expectations.

MBA students in this study felt that there was room for improvement in terms of professionalism in the branches and establishing deeper relationship in terms of the personalized interaction with the banking staff.

Table 5.2. Kruskal – Wallis test – gap scores for respondents' bank

Sections	Which bank are you banking with? (rank)							Z value	p-value
	ABSA	Standard Bank	Capitec Bank	First National Bank	Nedbank	Investec	Other		
Tangibility	3323	3308	666	2477	2341	874	707	9.243	0.1604
Reliability	2903	2803	705	2985	2264	1074	962	9.051	0.1707
Responsiveness	2857	3126	615	3442	2099	882	676	2.026	0.9173
Empathy	2872	2514	800	3240	2555	1193	522	14.381	0.0257
Assurance	2753	3106	799	3387	2143	796	712	1.991	0.9205

Source: Bhengu 2015:73

The results revealed that there was no statistically significant difference for the gap scores for tangibles, reliability, responsiveness and assurance amongst the different banks ($p>0.05$).However, there was a statistically significant difference towards the empathy dimension ($p<0.05$). The service quality gap concerning 'empathy' was also highlighted in the research study conducted by

Li and Suomi (2009:1-10) who outlined that empathy was a significant indicator of customer satisfaction in retail banks.

The results obtained in this study had the opposite results to the study carried out by Ladhari, Ladhari & Morales (2011:41-57) and Choudry (2013:259-543) who outlined in their research that the most important service quality dimensions amongst banking students were reliability, responsiveness and assurance. Students in this study felt that across all the retail banks in South Africa, the empathy dimension was not being fulfilled.

In comparison, Coetzee *et al.* (2013:1-22) found in their study that 'empathy' was a prime service differentiator and that the customers' felt that their banking staff provided empathetic services towards them as customers. In contrast, in this study, the MBA students felt that their respective banks were not doing enough to understand their needs as clients.

6. RECOMMENDATIONS

The researchers outlined short and medium term recommendations to close the service quality gaps. Thereafter long term strategies were presented.

6.1. Short and medium term recommendation

In conjunction with what the above findings revealed, the quality largest gaps were recorded in assurance and empathy. To close these gaps the following recommendations were put forward:

6.1.1. Assurance

To close the assurance gaps the following recommendations were put forward:

- The management team of the retail banks (Branch managers, team leaders/Area managers) should encourage and motivate the retail branch staff by providing constant training at least twice a month on product training and branch processes to keep the staff constantly aware on industry happenings.
- The management team as well as the branch staff need to constantly communicate with the clients' on branch safety and being vigilant when making transactions near ATMS. There should be less reliance on mere advertising, but a more focused approach towards making client safety and security in the branch a form of normal communication. A special focus should be centred on communicating the benefits and advantages of digital banking with the Postgraduate student market as they are well known to conduct their banking online on their Ipads or laptops.
- The branch staff can have fortnightly campaigns for clients on safety and security through telemarketing or regular client interactions within the branch. Portal sms's or emails can be sent to the Postgraduate student market, only if the retail branch has gained confirmation from the select clients.
- The Management team must implement and drive personal behaviour for branch retail staff. Important factors such as a friendly smile and standing up to greet the client should be included in the service – sales processes of the branches. In addition, the retail branch staff must be measured on such sales processes and on the complementary behaviour that is required to provide customer service that is excellent.
- The management team should ensure that the retail branch staff have the relevant training and development in place to be able to answer difficult questions or legislative and regulatory related questions.

6.1.2. Empathy

To close the empathy gaps the following recommendations were put forward:

- The products that are designed for the postgraduate market/MBA students should be personalised and specifically designed for a one on one interaction. Therefore, it is important that the branch staff as well as the management team engage in data mining regarding their clients' reports in order to promote the idea of private banking to the Postgraduate student market. Private banking will offer a more personalised and exclusive one on one interaction with the student market, who value the idea of personalisation in the banking retail sector.
- Retail Banks should maintain their operating hours that serve extended hours. The Postgraduate market/MBA students are working professionals who would value extended banking hours in order to perform their banking transactions or communicate about specific enquiries with their bankers.
- Retail branch staff should continue to analyse the student market's specific banking needs by being consistent in completing mandatory forms such as the financial needs analysis. The needs analysis will uncover critical financial portfolio details such as credit affordability and current credit risk exposure, income and future financial goals. The student market will benefit from this because of the opportunity to cross sell and upsell by the retail branch staff as well as the opportunity for the banks to create new products that would cater for this market.
- Regular communication as well as complementary emails or simple reminders to do their taxes annually, birthday greetings, innovate ways to spend money or even suggestion boxes can aid the retail branch staff to maintain and create enduring relationships with the student market.

6.2. Long Term Recommendations

The following long term recommendations were put forward to close the service quality gaps experiencing by MBA students:

6.2.1. Introduce a culture of service quality and service excellence within the bank

The retail branch staff should be constantly motivated by the management team to portray a culture and image that is a representation of the bank. The theme of maintaining high levels of service quality can lead to service excellence that should be communicated to the retail branch staff. Incentivisation methods such as extended time off, shopping vouchers or even holiday packages can be

introduced by Human resource management and implemented in the branch space in an attempt to encourage and reward employees to perform and attract MBA students as well as retain existing clients.

6.2.2. Develop job profiling for retail branch staff

The job profiling that would be developed for the retail branch staff will mean that all the branch staff will be responsible for certain service quality dimensions and these jobs can rotate on a monthly basis. i.e. a small team of employees will be responsible for the tangibility of the branch (general housekeeping rules) and another small group of individuals will be responsible for the maintenance and security checks of error – free records. Essentially speaking, it would be important for the retail branch staff to be held responsible for the cleanliness of the branch in order to maintain the branch look and feel.

6.2.3. Identify and build strategic stakeholder relationships

The retail banks should integrate with their internal marketing department to co - ordinate networking sessions, gala dinners, presence at universities and employer inductions in an attempt to form relationships with key corporate companies, prominent and reputable public sessions to encourage new stakeholder relations for long term relationships.

6.2.4. Develop and maintain a customer relationship management system

The retail banks should have a database that is well maintained to include the total number of students in the retail bank as well as the total number of potential student clients that can be gained externally from leads/referrals.

CONCLUSION

In implementing new and innovative ways to attract and retain the MBA student market would prove to be beneficial for all the stakeholders involved as well. The sustainability in the retail banking industry is based on targeting niche markets. Some of these niche markets can be MBA students as their valued patronage adds to the continued financial viability of the bank.

By improving the service quality of retail banks in South Africa will attract and retain the student market, which is a profitable and crucial market to attract in a bid to sustain and increase the financial viability and profitability of the banking sector. Investigating the expectations as well as the perceptions of such a niche market will allow the retail branches to be creative in product differentiation and pricing strategies in order to remain competitive in this aggressive industry.

Innovation, branding and customer service excellence can be used by banks to improve their overall level of service quality. Service quality is a factor in business that can uncover numerous issues that have hindered productivity as well as potential factors that have caused numerous businesses to fail. Through a thorough investigation of perceptions and expectations, retail banks will hopefully, in the future, eliminate or minimise client complaints and potential discrepancies that can hinder fruitful relationships between stakeholders and clients. The research presented will hopefully create, or motivate, a banking experience for the MBA student niche market that is fixated on client – centricity, deep and meaningful financial relationships as well as a strong level of trust between new and existing clients. At the end of the day retail banks operate on trust and their clients need to be assured of this trust and honesty to sustain continued client relationships.

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PARTICIPATIVE MANAGEMENT: CONCEPT AND APPLICATION IN CONSUMER GOODS COMPANIES

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Abstract

This paper attempts to ascertain the impact of participative management on workflows, its influence on sales output and how well the concept is practised by consumer goods companies in Nigeria. Study adopted the survey design; questionnaires were used to collect necessary data from sales personnel across 10 states in South-Ssouth and South East Nigeria. Respondents rated the concept and application of participative management as it affects their work environment and sales output of the company. Statistical results of the study showed that 92.08% of the respondents believe that there are benefits derivable from participative management and that these benefits improve both sales output and workflow. 48% believe that participative management is practised in firms. Hypotheses tested using the chi-square test statistic revealed that: Consumer goods companies benefit from practising participative management, Participative management has effect on sales output of consumer goods companies, and the concept of participative management is not fully practised by consumer goods companies in Nigeria. These findings indicate that participative management principles need to be inculcated fully in the running of sales organisations so as to increase sales volume and ultimately boost the profit of consumer goods companies.

Keywords: Participative Management, Consumer Goods Companies, Concept, Sales Output, Workflows

1. INTRODUCTION

Modern management proposes that organizations should be made less formal by giving room to more subordinate participation in decision making. This marked the birth of the concept, participative management also called consultative management. According to Boyarkova (2012:3), the stability of a team depends primarily on such factors as employees' involvement and gratification, as well as friendly communication between colleagues. Being part of a team is an art that every person in a company should learn. A great role in this process lies on the shoulders of the team manager.

A manager's task is to make projects and professional activities attractive to each employee. His duty is to identify correctly each employee's profile, determine the certain abilities and talents of every team member. It is widely known that if the employee carries out a function that he does not like, the efficiency level decreases threefold and the employee quits the company sooner or later (Kanter, 1991:32).

The scope of participative style of management depends on the organization, its nature, function and processes. Though, associating employees at every stage of decision–making is not possible, still regular exchange of information, ideas, consultations, thoughts, decision and negotiation between employer and the employees definitely is a boost to the organization.

Few of the world's biggest organization like Toyota, HSBC (Hong Kong and Shanghai Banking Corporation), British Airways, Satyam, British Gas and Nokia Cellular have achieved considerable profits and value creation by implementing the most amazing ideas of their employees. Their success witnesses to the importance of workers' participation in the process of decision making. The scope of workers' involvement in managerial decision-making may extend to social, economic and personnel decision making depending upon the requirements of the organization. But opinions differ on the extent to which employees can participate in managerial decision-making process.

Underlying the entire discussion of participative management and employee and stakeholder involvement is the dominance of the bureaucratic, hierarchical organization model and management approach (Bartlett and Ghosal 1991:23). In earlier times (before the nineties) participative management strategies and employee and stakeholder involvement were approached as modifications of or supplements to the traditional, bureaucratic, hierarchical model, undertaken to achieve particular goals or address particular problems.

Recently, however, participative management has been discussed as a comprehensive governance system that could, and is, replacing the traditional bureaucratic, hierarchical system for the new organic, networked organizational forms emerging in the late 1990s. Conversion into a participative organization is seen as a way for an organization to build key capabilities essential for success in the

complicated and dynamic contemporary organizational environment (Mclager and Nell, 1995).

To set up a competitive and profitable fast moving consumer goods (FMCG) business in Africa is challenging. From strategic decisions such as mode of operation, identifying suitable vendors, to packaging, to branding and communication–local expertise is required from planning to execution stages (Octave, 2011).

The consumer goods industry is one of the fastest growing segments of the market. Supermarket shelves are filled with products which must be tracked in bulk, sales statistics monitored and business tactics changed in very short periods. No department in a consumer goods company relies on team work for positive results as much as the sales department (Caridas, 2014:9).

The human side of work has changed and is still changing- any manager will admit to this fact. A century ago, it was taken for granted by consumer goods companies as they focused on money making which they believed was the overriding purpose of any commercial enterprise. But today this has changed as they have recognised that they have two main goals to perform: their economic function of producing consumables as efficiently as possible and their social function of providing satisfactory conditions of employment, meaningful work and maximum opportunity for self-fulfilment to its workforce. The later function incorporates participative management as there would be no self-fulfilment and job satisfaction if workers are not allowed to contribute in matters that concern them in their work place (Nnadi, 2008).

Based on this background, this study is poised to research the extent to which the concept of participative management affects the sales output of consumer goods companies. This study is exploratory and conclusions reached would not, in any way, reflect the situation from the North for example owing to the Boko haram crisis being suffered in the region at present. Over the period of 6 months, we were able to extract information from sales personnel of one of the well-known consumer goods companies in Nigeria-PZ Cussons Plc- using copies of administered questionnaires. We do not claim the data generated are adequate enough to reflect for all firms but rather should be an opening to be built upon.

1.1. Objectives of the Study

1. To ascertain the influence of participative management on sales output and workflows
2. To ascertain whether there are benefits derivable from participative management.
3. To ascertain the extent to which participative management is practised in consumer goods companies in Nigeria.

1.2. Research Questions

1. What is the influence of participative management on sales output and workflows?

2. Are there benefits derivable from participative management?

3. To what extent is participative management practised in consumer goods companies in Nigeria?

2. LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK OF THE STUDY

2.1. The concept of Participative Management

Participative management, otherwise known as employee involvement or participative decision making is a system in which employees of a business organization take an active role in the decision-making process as it relates to the way the business operates. The style of management encourages the involvement of stakeholders at all levels of an organisation in the analysis of problems, development of strategies and implementation of solutions. Employees are invited to share in the decision making process of the firm by participating in activities such as setting goals, determining work schedules, and making suggestions. In participative management, the designated manager(s) still have the final responsibility of making decisions and answering for them, but members of the staff who are affected by those decisions are actively sought to provide observations, analysis, suggestions and recommendations in the executive decision making process (Bartle, 2009).

There are various approaches to the level of participatory management a business may engage in. Some examples are self-managed work teams, professional enrichment opportunities, increasing levels of responsibility for employees and even employee owned business ventures.

2.2. Participative Management Benefits

A participative management style offers various benefits at all levels of the organisation. By creating a sense of ownership in the company, participative management instils a sense of pride and motivates employees to increase productivity in order to achieve their goals. Employees who participate in the decision making feel like they are part of a team with a common goal, and find their sense of self esteem and creative fulfilment heightened (McMillan, 2014).

Managers who use the participative management style find that are employees are more receptive to change than in situation in which they have no voice. Participative management keeps employees informed of upcoming events so they will be aware of potential changes. The organisation can then place itself in a proactive mode rather than a reactive one.

Participative management helps employees gain a wider view of the organisation. Through training, development opportunities and information sharing, employees can acquire the conceptual skills required to become effective managers or top executives. It also increases the commitment of employees to the organisation and the decision they make.

Creativity and innovation are two key benefits of participative management. By allowing a diverse group of employees to have input into decisions, the organisation benefits from the synergy that comes with a wider choice of options. When all employees, instead of just managers or top executives, are given the opportunity to participate, the chances are increased that a valid and unique idea will be suggested (Jensen, 2011). Kanter (1989) pointed out that a participative work environment is

theoretically more effective at enhancing innovations than the bureaucratic structures.

2.3. Concept of Sales Output

Output generally is the amount of energy, work, goods, or services produced by a machine, factory, company, or an individual in a period. In management terms, it is simply the total quantity of goods and services produced as a result of input transformation by a firm or industry. Organisations concentrate primarily on converting inputs into output, not for their own consumption but for the purpose of generating revenue through sales. Sales output is very important for organisational survival. The stability of a firm depends on the level of its sales output. Some managers and marketing practitioners are appraised in terms of the level of sales output they are able to generate.

2.4. Concept of Workflow

The Workflow Management Coalition (1996) published a glossary of all useful terms related to workflow. It defines workflow as the automation of a business process, in whole or part, during which documents, information or tasks are passed from one participant to another for action (activities), according to a set of procedural rules. A participant as published in the glossary may be a person or an automated process in the local or remote separate organisation. Subsequently in this research paper, efforts will be made in relating participative management to sales output and workflows.

2.5. Effects of Participative Management on Sales Output and Workflows

In order to improve the smoothness of workflow and increase the level of sales output of an organisation, managers usually concentrate on creating organisational harmony as well as boosting the morale of employees by engaging them in the decision making process. Sharma (1987) posits that the first step towards ensuring harmony between labour and management is to associate workers with the decision-making process of the enterprise. He further states that this system enhances productivity and efficiency and fosters industrial harmony and human personality.

The Labour participation and workplace mutuality are linked to improved organisational performance through the effects they have on employees' satisfaction, commitment, motivation, and morale (Kearney and Hays, 1994; Davis and Lansbury, 1996; Black and Gregersen, 1997). Again, the objectives of participative management as perceived by the Government of India include resolving industrial disputes, establishing industrial peace and harmony, and increasing productivity (Michael, 1979).

Participative management enhances free workflow by creating a harmonious work environment. It also increases organisational performance measured by the level of sales output.

2.6. Application of the Concept of Participatory Management

Going through the responses from the respondents and the findings from the review of related literature, we were able to discover and identify that indeed the concept of participative management is known in most fast moving consumer goods companies though it is not practised as expected.

Analysis of the findings shows that 37.62% of the respondents believe major decisions are made by the management committee/leadership team, 27.72% believe the managing director makes the most decisions. Another 27.27% say it is the general manager while 6.93% opined it is the company's chairman.

However, not a single respondent is of the opinion that employees make major decisions in the organization. 83.17% are consulted by their boss during decision making while 16.83% say they are not.

Contrasting the responses, we are of the opinion that indeed employees are from time to time consulted on pertinent issues relating to the job but the extent to which decisions from these consultations are implemented is inadequate.

3. RESEARCH METHODOLOGY

The study was conducted using the survey approach. Two sources of data were utilized in the study: they included primary and secondary sources. The primary source was the administration of copies of designed questionnaire. Simple percentage (%), chisquare (x^2) and correlation were used in analysis of the data and in testing the hypothesis.

4. PRESENTATION OF DATA

Table 4.1. Responses on the influence of participative management on sales output and workflows

Responses	
Encourages ownership of agreed sales objectives	Motivates one to deliver expected results
Increased growth and productivity in the long run	Increases one's knowledge (as one takes learning from others)
Increased sense of belonging and pride/morale booster	

Source: Field Survey, 2015

Table 4.2. Responses on whether there are benefits derivable from participative management

Option	No of responses	Frequency (%)
YES	93	92.08
NO	8	7.92
Total	101	100

Source: Field Survey, 2015

The table above shows that 92.08% of the respondents agreed that there are benefits derivable from participative management while 7.92% of the respondents maintained otherwise.

Table 4.3. Responses on the rate to which employees are allowed to participate in decision making

Option	No of responses	Frequency (%)
Adequate	43	42.57
Inadequate	58	57.43
Total	101	100

Source: Field Survey, 2015

The table above shows that 42.57% of the respondents agreed that the level of employee participation is adequate while 57.43% of the respondents maintained otherwise.

Table 4.4. Responses on who makes majority of the decisions that affect sales output

Options	No of responses	Percentage (%)
Chairman of the company	7	6.93
Managing director	28	27.72
General manager	28	27.72
Management committee	38	37.62
Employees	0	---
Total	101	100

Source: Field Survey, 2015

5. DISCUSSION OF FINDINGS

It was found that participative management influences sales output and workflows as none of the respondents had a contrary idea. 92% of sales employees agree there are benefits to be derived from practice of participative management while only about 8% maintained otherwise. Analysis of the findings shows that 37.62% of the respondents believe major decisions are made by the management committee/leadership team, 27.72% believe the managing director makes the most decisions. Another 27.27% say it is the general manager while 6.93% opined it is the company's chairman. However, not a single respondent is of the opinion that employees make major decisions in the organization.

6. CONCLUSION AND RECOMMENDATIONS

Many companies have experienced the positive effects of participative management. Employees are more committed and experience more job satisfaction when they are allowed to participate in decision making. Organizations have reported that productivity improved significantly when managers used a participative style. Based on the above assertions and in line with the major findings of this study, we conclude that the concept and application of participative management affect work flows and sales output in consumer goods companies. Also, this concept is well known in the sales departments of firms but not being applied to the extent to which it ought to. Based on the above conclusions, we recommend that managers at all levels should ensure that their chosen styles of management have at least the major elements of participative management so that the they can reap the benefits derivable from engaging employees in the process of decision making.

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DETERMINANTS OF CAPITAL STRUCTURE: A LITERATURE REVIEW

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Abstract

The financing decision is one of the most important imperative in corporate finance. Financial directors have to grapple with question—what is the optimum level of debt versus equity to employ in order to fund the operations of a firm? The present article seeks to unravel the evolution of capital structure theory from both theoretical and empirical perspectives. The major contending theories of capital structure as well as their predictions are considered. It is demonstrated that there are reliably important firm level attributes that determine the capital structures of firms. The article also compares and contrasts the findings of empirical studies on capital structure that have been conducted in developing countries to those that have been conducted in the developed world. Arguably, developing countries' financial markets lack sophistication and this might curtail the companies from adjusting to their desired target debt ratios. In the final analysis it is demonstrated that the similarities in financing patterns between the developed countries and the emerging markets far outweigh the disparities.

Keywords: Capital Structure, Firm Level, Speed of Adjustment, Debt-to-Equity, Leverage

1. INTRODUCTION

The financing decision is a critical concept in corporate finance. This article purposes to trace the evolution of the capital structure concept from theoretical as well as empirical perspectives. In essence the issues that are discussed in detail are the factors that a company takes into account when making its financing decision. The capital structure theory is firmly founded upon the pioneering work of Modigliani and Miller (1958:268). They posit that in a frictionless efficient markets' world with no taxes or bankruptcy, the value of the firm is invariant to its capital structure. Put in other words, what they meant is that the value of the firm is not influenced by its financing decision, that is, its selection of debt and equity mix. However, what is implausible about their theory is the existence of a "frictionless market". Such a market is only an ideal environment and does not exist. Suffice to say that, the environment that characterises the financial markets is one where the risk of bankruptcy is a reality and also firms have to pay corporate taxes. As such, in the absence of a "frictionless market", the capital structure choices might have an influence on firm value and Modigliani and Millers' (MM) propositions will no longer hold.

Modigliani and Miller (1963:438) later relaxed the proposition of perfect markets and incorporated corporate tax in their models. The rationale for doing so was the realisation that debt is tax-deductible and thus, a firm that utilises debt is bound to enjoy an interest tax shield. As such, as increasingly more debt is used, the market value of the firm would increase by the present value of the interest tax shield. However they would also caution that notwithstanding the existence of a tax advantage for debt financing, does not necessarily mean that corporations should at all times seek to use the maximum possible amount of debt in their capital structures. For one thing, other forms of financing, notably retained earnings, may in some circumstances be cheaper still when the tax status of investors under the personal income tax is taken into account (Modigliani and Miller, 1963:442).

In the real word scenario, their propositions hardly hold and have subsequently been challenged by several scholars. Subsequent departures have proven that such an ideal world does not exist and there are imperfections such as taxes, costs of financial distress and especially regulation in the case of financial institutions (See for instance Smith and Stulz, 1985; Berger *et al*, 1995; DeMarzo and Duffie, 1995; Miller, 1995; Froot and Stein, 1998). Amongst the early scholars, Robichek and Myers (1966:2) conjecture that, on one hand, in the absence of taxes, the value of the firm will not change for moderate amounts of leverage but will decline with high degrees of leverage, and on the other, in the presence of taxes, an optimal degree of leverage will exist.

Borch (1969:1) demonstrates that the earnings of a firm are represented by a discrete stochastic process, in which the terms can take negative values. As such, earnings can be added to the firm's working capital, or paid out as dividends. If a firm has debt, part of the earnings must be set aside to service the debt. As a consequence, a firm is ruined and has to cease its operations if the working capital becomes negative. This is contrary to the MM irrelevance proposition. In the present article it would be demonstrated that firm specific factors have a direct bearing on their capital structure choices. Furthermore it would be demonstrated that firms seek "optimality" in their financing and will

gravitate towards the attainment of a target capital structure. In this article we made use of the Atlas-ti software to analyse and synthesize the literature review of the extant studies of capital structure that have been conducted during the period 1950-2015.

The rest of this paper is arranged as follows: Section 2 considers the firm level determinants of capital structure. Section 3 reviews the empirical literature on the determinants of capital structure. Section 4 concludes the paper.

2. THE FIRM LEVEL DETERMINANTS OF CAPITAL STRUCTURE

There are reliably important firm level determinants that usually turn up in extant literature and have a demonstrable effect on the capital structure choices of firms. In this section we shall consider these firm level determinants with view to providing an insight on what the major theories of capital structure predict about them.

2.1. Size

It is expected that as firms grow, they become more profitable and also accumulate more tangible assets along their growth trajectory. As a consequence thereof, it would seem as if such firms will have a lot of free cash flows. The *a priori* expectation from a pecking order theory perspective is that, as firms grow they generate more profits and hence can make use of internal generated resources as opposed to seeking recourse from the debt market. As such, large firms are expected to be lowly geared as opposed to small firms. Contrary to this prediction by the pecking order theory, the expectation from both the trade-off and market timing models is that large firms should be highly levered as compared to small firms by reason of the ensuing debt-interest tax shields they stand to enjoy. Moreover the dictates of the free-cash flow theory is that, the use of debt will mitigate the agency costs brought about by the abundance of free cash flows in large firms. Further, arguably firm size is an inverse proxy of the probability of bankruptcy (Rajan and Zingales, 1995: 1456; Antoniou *et al*, 2008:64; Frank and Goyal, 2009:8). As such, due to lower information asymmetry, larger firms are likely to have easier access to debt markets and hence be able to borrow at lower cost.

In synch with the above foregoing, the empirical evidence is mixed. Notwithstanding, by and large the scale tilts in favour of the positive association between leverage and firm size prediction. The empirical evidence to support the positive leverage-firm size nexus prediction can be found in Antoniou *et al* (2008:73); Ahmed *et al* (2010:9); Al-Najjar and Hussainey (2011:334); Lim (2012:197); Bartoloni (2013:142), and Lemma and Negash (2014:81) amongst others.

To the contrary, Titman and Wessels (1988:6) lend support to the inverse leverage-firm size relationship. They contend that the cost of issuing debt and equity securities is also related to firm size. In particular, small firms pay much more than large firms to issue new equity and also somewhat more to issue long-term debt. This suggests that small firms may be more leveraged than large firms and may prefer to borrow short term (through bank loans) rather than issue long-term debt because of the lower fixed costs associated with this alternative.

However Rajan and Zingales (1995:1451) aptly observe that the effect of size on equilibrium leverage is more ambiguous. Larger firms tend to be more diversified and fail less often, so size (computed as the logarithm of net sales) may be an inverse proxy for the probability of bankruptcy. If so, size should have a positive impact on the supply of debt. However, size may also be a proxy for the information outside investors have, which should increase their preference for equity relative to debt. This aberrant behaviour of firms is evidenced in Faulkender and Petersen (2006:58). They conjecture that larger firms are less risky and more diversified, and therefore the probability of distress and the expected costs of financial distress are lower. They may also have lower issue costs (owing to economies of scale) which would suggest that they have higher leverage. However in their study they find that larger firms are less levered, and the magnitude of this effect is not small.

To surmise the empirical evidence, it would seem that large firms are more inclined to issue debt as opposed to small firms. Notwithstanding this prediction, it could be conjectured that, capital structure decisions are not cast in stone. As such, the aberration in the behaviour of large firms in crafting their financing policy can be explicable in terms of the abundance of capital structure choices they find themselves with.

2.2. Asset tangibility

As companies grow, they accumulate more and more tangible assets. Tangible assets, such as property, plant, and equipment, are easier for outsiders to value than intangibles, such as the value of goodwill from an acquisition—this lowers expected distress costs (Frank and Goyal, 2009:9). Further, according to Rajan and Zingales (1995: 1451) if a large fraction of a firm's assets are tangible, then assets should serve as collateral, diminishing the risk of the lender suffering the agency costs of debt (like risk shifting). Assets should also retain more value in liquidation. Therefore, the greater the proportion of tangible assets on the balance sheet (fixed assets divided by total assets), the more willing should lenders be to supply loans, and leverage should be higher. In addition, tangibility makes it difficult for shareholders to substitute high-risk assets for low-risk ones. The lower expected costs of distress and fewer debt-related agency problems predict a positive relation between tangibility and leverage. Moreover these tangible assets can be pledged as collateral when borrowing from financial institutions.

As such, it is expected from a trade-off theory perspective that as companies grow they will borrow more by dint of having more tangible assets to pledge as collateral, in-order to enjoy the debt-interest tax shield. This view is espoused by Antoniou *et al* (2008:63), who contend that in the case of bankruptcy, tangible assets are more likely to have a market value, while intangible assets will lose their value. Therefore, the risk of lending to firms with higher tangible assets is lower and, hence, lenders will demand a lower risk premium. Thus there is presumed to be a positive relationship

between leverage and asset tangibility. Also, Harris and Raviv (1990: 323) contend that firms with higher liquidation value, e.g., those with tangible assets, will have more debt, will have higher yield debt, will be more likely to default, but will have higher market value than similar firms with lower liquidation value. Whereas the pecking order theory predicts an inverse relationship between firm leverage and asset tangibility. This can be attributed to low information asymmetry associated with tangible assets making equity issuances less costly. Thus, leverage ratios should be lower for firms with higher tangibility (Frank and Goyal, 2009:9).

On the one hand, the positive firm leverage-asset tangibility prediction finds empirical support from Faulkender and Petersen (2006:57); Antoniou *et al* (2008:73) amongst others. On the other hand, Bradley *et al* (1984:874); Ahmad and Abbas (2011:208); Al-Najjar and Hussainey (2011:333) report an inverse relationship between firm leverage and asset tangibility. The dichotomy in the predictions can be perhaps be explained by the observation that the determination of the capital structure of a firm is as a result of the interplay of many factors that are not necessarily mutually exclusive.

2.3. Profitability

From the pecking order theory vantage point, highly profitable firms are expected to employ more and more internal resources to finance the firm at the expense of using debt or floating shares. Profitability is associated with the availability of internal funds and thus may be associated with less leverage under the pecking order theory (Baker and Wurgler, 2002:7). Thus, firm leverage is negatively associated with profitability.

Bartoloni (2013) finds evidence to lend credence to the inverse firm leverage-profitability nexus. He finds that more profitable firms tend to use internal finance more, as implied by the negative relationship linking a firm's debt ratio and return on sales. Further he reasons that, the role of a firm's profitability in reducing the need for external finance characterises all firms, regardless of size as measured by employment, although large firms show a lower sensitivity of leverage to profit variations. This prediction is also supported by the empirical evidence found by Rajan and Zingales (1995: 1457); Booth *et al* (2001:117); Hovakimian *et al* (2001:3); Faulkender and Petersen (2006:57); Utrero-González (2007:22); Antoniou *et al* (2008:67); Frank and Goyal (2009:26); Ahmed *et al* (2010:10); Ahmad and Abbas (2011:209); Al-Najjar and Hussainey (2011:334) and Lemma and Negash (2014:81) amongst others.

Contrarily the trade-off theory predicts a positive relationship between firm leverage and profitability. From the trade-off vantage point, highly profitable firms are expected to make use of more and more debt, inorder to benefit from the debt-interest tax shield and maximise value of the firm. According to Hovakimian *et al* (2004:523), the positive firm leverage-profitability association may arise for a number of reasons. For example, other things equal, higher profitability implies potentially higher tax savings from debt, lower probability of bankruptcy, and potentially higher overinvestment, all of which imply a higher target debt ratio. This view is buttressed by Myers (2001: 89) who asserts that high profitability means that the firm has more taxable income to shield and that the firm can service more debt without risking financial distress.

Notwithstanding the above foregoing, it is plausible to conjecture that both predictions of the pecking order and trade-off theories are admissible as they have been supported by empirical findings by equal measure. However it is instructive to posit that the predictions complement rather than outwit each other. This was perhaps demonstrable in Hovakimian *et al* (2004:534) who suggest that their results on profitability could be reflecting an interaction of trade-off and pecking order considerations. They go on to observe that specifically, if firms have target debt ratios but also prefer internal funds to external financing, then the tendency to issue debt when operating performance is high, as implied by the target leverage hypothesis, will be tempered by the preference for (and availability of) internal financing. The tendency to issue equity when operating performance is poor will be reinforced by the lack of internal funds, forcing the firm to seek external equity financing.

2.4. Growth

Frank and Goyal (2009:8) contend that, growth increases costs of financial distress, reduces free cash flow problems, and exacerbates debt-related agency problems. Growing firms place a greater value on stakeholder coinvestment. Thus, the trade-off theory predicts that growth reduces leverage. Further Antoniou *et al* (2008:62) posit that a negative relation is expected between growth opportunities and leverage for two main reasons. First, according to the trade-off theory, the cost of financial distress increases with expected growth forcing managers to reduce the debt in their capital structure. Second, in the presence of information asymmetries, firms issue equity instead of debt when overvaluation leads to higher expected growth. They go on to observe that however internal resources of growing firms may not be sufficient to finance their positive NPV investment opportunities and, hence, they may have to raise external capital. In essence if firms require external finance, they issue debt before equity according to the pecking order theory. Thus, growth opportunities and leverage are positively related under the pecking order theory.

We find empirical support in favour of the negative firm leverage-growth prediction from Rajan and Zingales (1995:1455); Hovakimian *et al* (2001:22); Barclay and Smith (2005:13) and Antoniou *et al* (2008:86) amongst others. On the other hand we find empirical support for the positive firm leverage-growth prediction from Ahmed *et al* (2010:10); Ahmad and Abbas (2011: 208) and Al-Najjar and Hussainey (2011:333).

2.5. Debt-tax-shield

Taxes and the costs of financial distress were the first major frictions considered in determining optimal capital ratios (Berger *et al*, 1995:395). They also contend that since interest payments are tax deductible, but dividends are not, substituting debt for equity enables firms to pass greater returns to

investors by reducing payments to the government. The trade-off theory predicts a positive relationship between firm leverage and effective tax rate. As such, high tax rates increase the interest tax benefits of debt. The trade-off theory predicts that to take advantage of higher interest tax shields, firms will issue more debt when tax rates are higher (Frank and Goyal, 2009:9). Debt is advantageous for tax reasons. The net tax advantage of debt is the difference between the corporate tax advantage of debt (interest is corporate tax deductible) and the personal tax disadvantage of debt (Dangl and Zechner, 2004: 184)

According to Rasiah and Kim (2011:154) the most significant reason that prompt firms to raise debts are due to the tax shield that results from the tax savings generated by making interest payments on debt. They go on to suggest that as a result, by using debt, estimated tax liability of firms could be deducted and thus increase its after-tax cash flow, causing more lucrative business to utilise higher level of debt for the sake of increasing their debt tax shield. The firm's tax shield from debt is the present value of tax savings created by paying tax-deductible interest payment on debt instead of dividend payments made to shareholders. As such, Faulkender and Petersen (2006:60) argue that firms with higher marginal tax rates prior to the deduction of interest expenditures should have higher interest tax shields and thus have more leverage.

From the pecking order theory vantage point, a negative relationship is expected to subsist between firm-leverage and the effective tax rate. All things being equal, a higher effective tax rate also reduce the internal funds of profitable firms, and subsequently increase its cost of capital (Rasiah and Kim 2011:157). As a result, an expectation for the negative relationship between the effective tax rate and leverage ratio is created within the framework of pecking order model.

The empirical evidence that lends credence to the positive firm leverage-effective tax rate prediction can be found in Booth *et al* (2001:97) amongst others. However Fama and French (1998:841) do no find evidence that debt has any net tax advantage. Further, Faulkender and Petersen (2006: 60) results are unambiguous. They conjecture that firms with higher marginal tax rates before the deduction of interest expenditures should have higher interest tax shields and thus have more leverage. Notwithstanding when they included the simulated marginal (pre-interest income) tax rates, they found a negative and not a positive coefficient. They reason that this could be as a result of employing a different proxy for the debt ratio. For instance when they changed to make use of the long-term debt-to- market value of assets, the coefficient becomes positive. Suffice to highlight that the empirical results may not conform to *a priori* expectations as a result of the sensitivity of the regression to the proxy chosen to represent either the debt or tax variables.

2.6. Non-debt-tax Shield

The non-debt-tax shield prediction is principally a departure from the trade-off theory world view of firm leverage. It was advanced by DeAngelo and Masulis (1980:27) based on the model advanced by Miller (1977) which incorporated personal income tax as a determinant of capital structure. They conjecture that tax deductions for depreciation and investment tax credits can be considered as substitutes for the tax benefits of debt financing. These features can lead to market equilibrium, where each firm has an interior optimal leverage (Antoniou *et al*, 2008:64). Thus it seems that firm leverage is also determined by intangible assets such as depreciation which substitute the benefits derived from debt-interest tax shield.

The *a priori* expectation from a trade-off theory premise therefore is that, firm-leverage is inversely associated with non-debt tax shield. Nondebt tax shield proxies—that is, net operating loss carry forwards, depreciation expense, and investment tax credits—should be negatively related to leverage (Frank and Goyal, 2009: 9). Accordingly, firms with higher amounts of non-debt tax shields will have lower debt levels. Moreover it would seem that higher corporate tax levels tend to favour the use of debt, while non-debt tax shields such as depreciation deductions can be used as substitutes for debt tax advantage and therefore reduce the leverage level of firms (Utrero-González, 2007:483). Therefore, a firm's motivation to borrow declines with an increase in non-debt tax shields (Antoniou *et al*, 2008:64).

The empirical results is support of the inverse, firm leverage-non-debt tax shield prediction are somewhat mixed. We find empirical support for this prediction from Antoniou *et al*, (2008:80) and Lim (2012:198) amongst others. To the contrary, according to Barclay and Smith (2005:15) studies that examine the effect of non-debt tax shields (depreciation, tax-loss carry forwards, and investment tax credits) on corporate leverage have found that companies with more non-debt tax shields appear to have, if anything, more debt in their capital structures. For instance such anomalous behaviour of firms is reported by Bradley *et al* (1984:877). They find evidence of a strong direct relation between firm leverage and the relative amount of non-debt tax shields. This contradicts the theory that focuses on the substitutability between non-debt and debt tax shields. Further they reason that, a possible explanation is that non-debt tax shields are an instrumental variable for the securability of the firm's assets, with more securable assets leading to higher leverage ratios.

2.7. Age

Age is one of the most important factors that determine the capital structure of firms. The age of a firm is intricately linked to other determinants of capital structure as well. For instance, on one hand older firms are expected to be profitable and hence have more internal resources at their disposal. The dictate would therefore to follow the financial hierarchy and finance out of retained earnings first. On the other hand, older firms are expected to have generated a reputation in the debt market and hence can be evaluated favourably. Notwithstanding the abundance of free cash flow, conventional wisdom dictates that older firms seek financing from the debt markets first. Thus the prediction is that firm leverage is positively related to age.

The proponents of the "reputational view" include Harris and Raviv (1991:305). They assert that, the longer the firm's history of repaying its debt, the better is its reputation, and the lower is its borrowing cost older, more established firms find it optimal to choose the safe project, that is, not engage in asset substitution to avoid losing a valuable reputation. Young firms with little reputation may choose the risky project. If they survive without a default, they will eventually switch to the safe project. As a result, firms with long track records will have lower default rates and lower costs of debt than firms with brief histories.

Ramjee and Gwatidzo (2012:61) espouse the above foregoing. They contend that there is no agreement on the impact of age on leverage in the literature. For example, age can be used as a proxy for reputation. In this reputational role, older firms tend to have acquired sufficient reputation to access debt markets; thus one would expect a positive relationship between age and leverage. However, it may also be the case that firms that survive are those that are more profitable. In line with the pecking order theory, older, more profitable firms tend to use internal funds rather than debt; thus in this case one can expect a negative relationship between age and leverage.

We are inclined to posit that the empirical evidence regarding the firm leverage-age prediction is mixed. Amongst others, Johnson (1997:58) results conform to the *a priori* expectation of a positive relationship between firm leverage and the age variable. To the contrary amongst others, Ahmed *et al* (2010:10); Huynh and Petrunia (2010:1007) and Ramjee and Gwatidzo (2012:61) report a negative relationship.

2.8. Risk

In finance parlance, risk is defined as the probability of a loss occurring resulting in the impairment of earnings. In the context of firm financing, risk measures the volatility of cash flows or earning prospects of a firm. The trade-off theory predicts a negative relationship between firm-leverage and risk. In other words a firm that has highly volatile cash flows must avoid debt financing. The intuition behind is that, highly volatile cash-flows could result in financial distress. As such to avoid going bankrupt, firms with high levels of volatile cash-flows must desist from debt financing.

According to Antoniou *et al* (2008:64), firms with high earnings volatility carry a risk of the earnings level dropping below their debt servicing commitments. Such an eventuality may result in rearranging the funds at a high cost or facing bankruptcy risk. Therefore, firms with highly volatile earnings should have lower debt capital. This view is bolstered by Frank and Goyal (2009:9). They postulate that firms with more volatile cash flows face higher expected costs of financial distress and should use less debt. More volatile cash flows reduce the probability that tax shields will be fully utilised.

Whereas the pecking order theory predicts a positive relationship between firm leverage and risk. This ought to be premised on the notion that volatility of cash-flows implies the volatility of earnings. As such, the firm becomes constrained to finance out of retained earnings. It would thus have to seek funding from the external markets, starting off with the debt market to avoid the problem of adverse selection. In synch with this view, Frank and Goyal (2009:9) assert that firms with volatile shares are expected to be those about which beliefs are quite volatile. It would seem plausible that such firms suffer more from adverse selection. If so, then the pecking order theory would predict that riskier firms have higher leverage. They go on to suggest that firms with volatile cash flows might need to periodically access the external capital markets.

Ahmed *et al* (2010: 10) find a positive relationship between capital structure and risk of the insurance companies. They contend that the debt ratio increases with the increase of claim ratio of Pakistan insurance companies. Whilst Al-Najjar and Hussainey (2011: 335) report a negative relationship between firm leverage and risk. They study a sample of UK firms and their results show that there is a negative relationship between firms' risk and capital-structure. They aver that firms with high-risk will tend to have a higher risk of default and less access to debt financing.

2.9. Dividend Policy

The interaction of dividend policy and firm leverage can be explained in two ways. Firstly, signalling is one mechanism by which dividend policy filters into the capital structure decision. Increased dividends signal increased future earnings, and then the firm's cost of equity will be lower favouring equity to debt. To the contrary, a dividend cut might signal financial distress and send out a negative sentiment to the equity market. Therefore from the signalling theory perspective, firm leverage is anticipated to be inversely related to the dividend payout ratio.

Secondly from the premise of the contracting cost theory, one way to attenuate the free cash-flow problem of overinvestment is to increase the dividend payout ratio. Similarly to mitigate the problem of suboptimal investment, the company can pursue a restrictive dividend policy and thus reduce its dividend payout ratio. In the former case, the company is constrained to access more debt and in the latter case the company is liberated to seek more debt.

Antoniou *et al* (2008:80) report an inverse relation between leverage and dividends in the U.S. They assert that this supports the view that dividend payments signal a firm's future performance and thus, high dividend-paying firms benefit from a lower equity cost of capital. Lemma and Negash (2014:81) also find an inverse relationship between firm leverage and dividend payout ratio basing on a study of firms drawn from nine developing economies in Africa being; Botswana, Egypt, Ghana, Kenya, Mauritius, Morocco, Nigeria, South Africa, and Tunisia.

2.10. The Major Predictions of Trade-Off Theory Versus the Pecking Order Theory

A summary of the major predictions by the two "contestant" theories—being the pecking order and trade-off theories is given in Table 2.2. Suffice to highlight that the predictions are divergent. In the next section we shall consider the empirical studies that have been conducted to test the capital structure theories.

Table 1. The predictions of the pecking order theory versus the trade-off theory

Variable / Theory	Size	Profitability	Asset tangibility	Growth	Debt Tax Shield	Non-debt Tax Shield	Risk
Pecking Order	Positive	Negative	Negative	Positive	Negative	No prediction	Positive
Trade-Off	Positive	Positive	Positive	Negative	Positive	Negative	Negative

3. EMPIRICAL STUDIES

Extant empirical studies on capital structure focuses on: (1) whether firms have a target capital structure; (2) evidence of capital structures of firms in the developed countries and (3) evidence of capital structures in the developing countries. We shall consider each category of empirical studies on capital structure in turn.

3.1. Do Firms have a Target Capital Structure?

The static trade-off theory has managers seeking optimal capital structure (Shyam-Sunder and Myers, 1999:226). Further they posit that random events would cause them to drift away from the optimal capital structure, and they would then have to work gradually back. If the optimum debt ratio is stable, a mean-reverting behaviour towards this target capital structure would be expected. The first caveat was perhaps put aptly by Flannery and Rangan (2008:407), where they observe that in a frictionless world, firms would always maintain their target leverage. However, transaction costs may prevent immediate adjustment to a firm's target, as the firm trades off adjustment costs against the costs of operating with a sub-optimal debt ratio. The second caveat is enunciated by Barclay and Smith (2005:15). They contend that, even if managers set target leverage ratios, unexpected increases or shortfalls in profitability, along with occasional attempts to exploit financing "windows of opportunity," can cause companies to deviate from their targets. In such cases, there will be what amounts to an optimal deviation from those targets—one that depends on the transactions costs associated with adjusting back to the target relative to the (opportunity) costs of deviating from the target.

We shall first delve on the empirical studies on the existence of a target capital structure before we consider the empirical evidence about the determinants of the speed of adjustment towards the target capital structure. Firstly, Elsas *et al* (2014:1380), evaluate US firms' leverage determinants by studying how firms paid for 2,073 very large investments between 1989 and 2006. They find evidence consistent with target adjustment behaviour for their sample firms to be strong. First, they find that the type of securities issued to finance a large investment significantly depends on the deviation between a firm's target and actual leverage. Over-leveraged firms issue less debt and more equity when financing large projects, and vice versa. This result holds for a variety of methods for estimating leverage targets. Second, they demonstrate that firms making large investments converge unusually rapidly toward target leverage ratio.

Secondly, Flannery and Rangan (2006:471) employ a sample of all firms (excluding financial firms and regulated utilities) included in the Compustat Industrial Annual tapes between the years 1965 and 2001. Their evidence indicates that firms do target a long run capital structure, and that the typical firm converges toward its long-run target at a rate of more than 30% per year. Further they aver that this adjustment speed is roughly three times faster than many existing estimates in the literature, and affords targeting behaviour an empirically important effect on firms' observed capital structures. They also contend that target debt ratios depend on well-accepted firm characteristics. Firms that are underleveraged or overleveraged by this measure soon adjust their debt ratios to offset the observed gap.

Thirdly, Leary and Roberts (2005:2577) by utilising a sample of non-financial and non-utility firms listed on the annual Compustat files for the years 1984 to 2001, perform a nonparametric analysis of the leverage response of equity issuing firms, as well as examining the impact of introducing adjustment costs into their empirical framework. They find that firms are significantly more likely to increase (decrease) leverage if their leverage is relatively low (high), if their leverage has been decreasing (accumulating), or if they have recently decreased (increased) their leverage through past financing decisions. This is consistent with the existence of a target range for leverage, as in the dynamic trade-off model.

Fourthly, Hovakimian *et al* (2004:520) using annual firm level data from the Compustat Industrial, Full Coverage, and Research files for all firms (and also excluding financial firms) for the years between 1982 to 2000, find evidence consistent with a hybrid hypothesis that firms have target debt ratios but also prefer internal financing to external funds. They also find that profitability has no effect on target leverage.

Fifthly, Hovakimian *et al* (2001) test for the existence of a target debt level by employing firm level data from the 1997 Standard and Poor's Compustat annual files (including the Research file) for the 1979-1997 period. They also exclude financial firms. They find that specifically, when firms either raise or retire significant amounts of new capital, their choices move them toward the target capital structures suggested by the static trade-off models, often more than offsetting the effects of accumulated profits and losses (Hovakimian *et al*, 2001:22). Further they go on to suggest that, the tendency of firms to make financial choices that move them toward a target debt ratio appears to be more important when they choose between equity repurchases and debt retirements than when they choose between equity and debt issuances.

From the above foregoing it is impelling to suggest that there exist a target capital structure. It would seem that it is a target range and firms seek to operate within this target range. The attainment of this target is also dependent on the firm level characteristics. Having established that there is compelling evidence for the existence of a target capital structure, the main focus of empirical studies on firm leverage has changed to investigating the determinants of the speed of adjustment towards the target debt ratio. The main determinants of the speed of adjustment that have been cited in literature are: size, the cost of adjustment, the distance between observed leverage and target leverage and growth.

Antoniou *et al* (2008:83), employ a sample comprising of all non-financial firms, traded in the major stock exchanges of the five major economies of the world—France, Germany, Japan, the U.K., and the U.S from 1987 to 2000. Using dynamic models of estimation, they find evidence that reveals the presence of dynamism in the capital structure decisions of firms operating in the G5 countries. They contend that managers assess the trade-off between the cost of adjustment and the cost of being off target. Thus, the speed at which they adjust their capital structure may crucially depend on the financial systems and corporate governance traditions of each country.

Mukherjee and Mahakud (2010:261) study the dynamics of capital structure in the context of Indian manufacturing companies in a partial-adjustment framework during the period 1993-1994 to 2007-2008. They consider all the companies available in the PROWESS database. They find strong evidence of a positive relationship between the speed of adjustment and the distance variable. They reason that this result confirms the idea that the firm's cost of maintaining a sub optimal debt ratio is higher than the cost of adjustment and the fixed costs of adjustments are not significant. Therefore, the companies which are sufficiently away from their target leverage always want to reach the optimal very quickly. A positive relationship is also found between size of the company and the adjustment speed. They contend that this result lends support to the hypothesis that for large firms the adjustment costs are relatively lesser than the small firms due to the less asymmetric information. Therefore, the adjustment speed to the target leverage ratio has been more for large firms than small firms. Further they also find evidence that firms with higher growth opportunities adjust faster towards their target leverage. This confirms the *a priori* expectation that a growing firm may find it easier to change its capital structure by altering the composition of new issuances.

Lastly among others, Oztekin and Flannery (2012:108) estimate a standard partial adjustment model of leverage for the firms in 37 countries during the 1991–2006 period. They find that the mean adjustment speed is approximately 21% per year, half-life of three and two years for book and market leverage, respectively, but the estimated adjustment speeds vary from 4% (in Columbia) to 41% (in New Zealand) per year. In terms of the adjustment's half-life, the mean speed implies three years, and the range varies between one and a half and 17 years. As such they reject the constraint that firms in all countries have the same adjustment speed. They reason that, variation in leverage adjustment speeds must reflect something about the costs and benefits of moving toward target leverage. Further they conjecture that the effectiveness of a country's legal, financial, and political institutions is systematically related to cross-country differences in the adjustment speeds. Moreover their results suggest that, higher aggregate adjustment costs reduce estimated adjustment speed by roughly 12% of the average country's adjustment speed, even after they account for adaptations to firm characteristics that tend to raise adjustment speeds. As such they contend that evidence that adjustment speeds vary plausibly with international differences in important financial system features provides support for the applicability of a partial adjustment model of leverage adjustment to private firms.

In the final analysis it would seem that firms set a target debt ratio. They gravitate towards this target ratio. It could be that they operate within a target range of this ratio. Notwithstanding the quest to operate within this target range, there are some factors that can aid or militate against this objective. For instance, the prohibitive adjustment costs can hinder the firms from rebalancing their debt ratio should it fall without the optimum range. In the next section we consider the empirical studies that have been conducted on the determinants of capital structure in the developed world.

3.2. Empirical Evidence of Capital Structures of Firms in the Developed Countries

Extant studies conducted on capital structure policies of firms have sought to test the practical efficacy of the capital structure theories- the main "contestants" being the pecking order theory and the trade-off theory. Further these studies have sought to establish the firm level determinants of capital structure. It is trite to highlight that we have every reason to discern between developed countries and developing countries in our review of empirical studies on firm financing behaviour, as we believe that the nature of frictions in the developing countries is dissimilar to those found in developing markets.

Titman and Wessels (1988:2) employed a sample of manufacturing firms in the U.S found on the Compustat database for the period 1974 to 1982. Their results suggest that firms with unique or specialised products have relatively low debt ratios. The proxies they employed for uniqueness are the firms' expenditures on research and development, selling expenses, and the rate at which employees voluntarily leave their jobs. They also found that smaller firms tend to use significantly more short-term debt than larger firms. However they aver that their model explains virtually none of the variation in convertible debt ratios across firms and find no evidence to support theoretical work that predicts that debt ratios are related to a firm's expected growth, non-debt tax shields, volatility, or the collateral value of its assets. Notwithstanding, they find some support for the proposition that profitable firms have relatively less debt relative to the market value of their equity.

Using international data from Group of Seven (G7) countries for the period from 1987 to 1991,

Rajan and Zingales (1995:1421), investigate the determinants of capital structure choice by analysing the financing decisions of public firms in the major industrialised countries. They find that at an aggregate level, firm leverage is fairly similar across the G-7 countries. Also, they find that factors identified by previous studies as correlated in the cross-section with firm leverage in the United States, are similarly correlated in other countries as well. Precisely they find that profitability and market-to-book value have a negative impact on capital structure, whereas asset tangibility and firm size have a positive effect impact on capital structure.

The reliability of the pecking order theory, amongst others, was tested by Frank and Goyal (2003:217). Their test was conducted on a broad cross-section of publicly traded American firms for 1971 to 1998. They report that, contrary to the pecking order theory, net equity issues track the financing deficit more closely than do net debt issues. While large firms exhibit some aspects of pecking order behaviour, the evidence is not robust to the inclusion of conventional leverage factors, nor to the analysis of evidence from the 1990s. Financing deficit is less important in explaining net debt issues over time for firms of all sizes. They also contend that in contrast to what is often suggested, internal financing is not sufficient to cover investment spending on average. Instead they find that external financing is heavily used. Moreover they find evidence that debt financing does not dominate equity financing in magnitude.

The two "contestant" theories of capital structure (pecking order theory and trade-off theory) were pitied against each other by Shyam-Sunder and Myers (1999:221). They examine the financing behaviour of 157 U.S. firms listed on the Compustat database (excluding financial firms and regulated utilities) for the period 1971 to 1989. They find that a simple pecking order model explains much more of the time-series variance in actual debt ratios than a target adjustment model based on the static trade-off theory. Moreover, they demonstrate that the pecking order hypothesis can be rejected if actual financing follows the target-adjustment specification. Further they assert that on the other hand, this specification of the static trade-off hypothesis will appear to work when financing follows the pecking order. They reason that this false positive results from time patterns of capital expenditures and operating income, which create mean-reverting debt ratios even under the pecking order. As such, they posit that they have grounds to reject the pecking order but not the static trade-off specification. Finally they conclude that the pecking order is a much better first-cut explanation of the debt-equity choice, at least for the mature, public firms in their sample.

Frank and Goyal (2009:1) examined the relative importance of many factors in the capital structure decisions of publicly traded American firms from 1950 to 2003. They found that the most reliable factors for explaining market leverage are: median industry leverage, market-to-book assets ratio, tangibility, profits, log of assets and expected inflation. Market-book-value (the growth variable) and profitability are found to be inversely related to leverage. On the other hand, tangibility, median industry leverage, log of assets (size variable) and inflation are found to be directly (positively) associated with firm leverage. Further they find that dividend-paying firms tend to have lower leverage. When considering book leverage, somewhat similar effects are found. However, for book leverage, the impact of firm size, the market-to-book ratio, and the effect of inflation are found not to be reliable. They assert that their empirical evidence seems reasonably consistent with some versions of the trade-off theory of capital structure.

More recently, the profit-leverage conundrum has been revisited by Frank and Goyal (2014: 1448). The evidence they lead tilt the scale in favour of the trade-off theory. Following from other studies on capital structure, they make use of a sample of non-financial firms found on the now Compustat database for the period 1971 to 2009. Their results suggest that more profitable firms really do borrow more and not less. Further their evidence points to more profitable firms repurchasing their equity. They experience an increase in both the book value of equity and the market value of equity. Less profitable firms really do tend to reduce their debt and to issue equity. They also unearth evidence that firm size and market conditions also matter. Larger firms tend to be more active in the debt markets while smaller firms tend to be relatively more active in the equity markets. During good times there is more use of external financing.

Further, Frank and Goyal (2014:1448) posit that the usual profits–leverage puzzle result is primarily driven by the increase in equity that is experienced by the more profitable firms. They reason that the puzzle should be restated as asking: why do firms not take sufficiently large offsetting actions to fully undo the change in equity? What limits the magnitudes of the typical leverage response to profit shocks? They go on to say that in a frictionless model the partial response appears puzzling. Further they contend that there is good empirical reason to believe that rebalancing entails both fixed and variable costs and that firm size matters. The rebalancing costs can be fully avoided by doing nothing. Accordingly, the firm must decide whether any given shock is big enough to be worth responding to. If it is, then the firm must decide how big a response is called for. They refer to these technical conditions as "value matching" and "smooth pasting". They also deduce that optimisation implies that some shocks will be ignored. Even if the shock is not ignored, the optimal response will only partially undo the shock. The magnitude of the leverage response must balance the marginal cost and the marginal benefit of an extra unit of leverage. Since the marginal cost of adjusting leverage is strictly positive, the adjustment toward that static leverage optimum will only go part way. This is true both for leverage increases and for leverage reductions.

3.3. Empirical Evidence of Capital Structures of Firms in the Developing Countries

Mukherjee and Mahakud (2010:250) investigated the dynamics of capital structure in the context of Indian manufacturing companies in a partial-adjustment framework during the period 1993-1994 to 2007-2008. They applied a partial-adjustment model and used the generalised method of moments

technique to determine the variables which affect the target capital structure and to find out the factors affecting the adjustment speed to target capital structure. They found that firm-specific variables such as size, tangibility, profitability and market-to-book ratio to be the most important variables which determine the target capital structure across the book and market leverage. Further they found that factors like size of the company, growth opportunity and the distance between the target and observed leverage determine the speed of adjustment to target leverage for the Indian manufacturing companies. They aver that their overall results are consistent with the dynamic trade-off theory of capital structure.

Ramjee and Gwatidzo (2012:52) employed a dynamic model to investigate capital structure determinants for 178 firms listed on the Johannesburg Stock Exchange for the period 1998-2008. The sample of firms is also used to examine the cost and speed of adjustment towards a target debt ratio. They applied a target adjustment model is estimated using a generalised method of moments technique to examine the cost and speed of adjustment towards a target debt ratio. Further they also examined the determinants of target capital structure for South African listed firms. Their results suggest that a target debt-equity ratio does exist for South African firms. Further they found that these firms bear greater transaction costs when adjusting to a target debt ratio than to a target long-term debt ratio. However, they do adjust to their target ratios relatively quickly.

Their study also reveals that firms with a larger proportion of tangible assets have higher debt ratios, more profitable firms operate at lower levels of leverage, larger firms operate at higher levels leverage, and that fast growing firms prefer debt to equity when raising funds. Further they found that when firms require finance, they prefer internal to external sources of finance. They reason that, these firms seem to take into account the trade-off between the costs and benefits of debt when making financing decisions. The evidence that they lead suggest that the capital structure decisions of South African listed firms follow both the pecking order and the trade-off theories of capital structure.

Chipeta *et al* (2012:171) investigate the dynamics of firm leverage within the context of a transition economy of South Africa. They employ a sample consisting of non-financial firms that were listed on the JSE before and after the financial liberalisation phase. They utilise the I-Net Bridge database to source audited income statements, balance sheets and financial ratios for a sample of firms that operated from 1989 to 2007. Their data is split between the two regimes, that is the pre liberalisation period (1989-1994), and the post liberalisation period (1995-2007). Their results confirm the predictions of most the theories of capital structure.

Precisely for the pre-liberalisation period on the one hand, they report an inverse relationship between firm leverage and the profitability and size variables. On the other hand the find a positive relationship between firm leverage and the tax variable. Further for the post liberalisation period they find that on the one hand, firm leverage is positively associated with the size, growth and dividend payout variables. On the other hand firm leverage is found to be negatively related to the profitability, tax and asset tangibility variables. Moreover, they find that the empirical relationship between the firm-specific determinants of capital structure and leverage is statistically stronger for the post liberalised regime than the pre liberalised era. The same holds for the coefficient on the target leverage. They reason that this confirms their conjecture that transaction costs are lower in a post liberalised regime.

Furthermore, Lemma and Negash (2014:64) examine the role of institutional, macroeconomic, industry, and firm characteristics on the adjustment speed of corporate capital structure within the context of developing countries. They utilised a sample of 986 firms drawn from nine developing countries in Africa over a period of ten years (1999-2008). Their study applies a dynamic partial adjustment models that link capital structure adjustment speed and institutional, macroeconomic, and firm characteristics. Their analysis is carried out using system Generalized Method of Moments. They find evidence that firms in developing countries do temporarily deviate from (and partially adjust to) their target capital structures. Their results also indicate that more profitable firms tend to rapidly adjust their capital structures than less profitable firms. They also find that the effects of firm size, growth opportunities, and the gap between observed and target leverage ratios on adjustment speed are functions of how one measures capital structure. Further they also establish that adjustment speed tends to be faster for firms in industries that have relatively higher risk and countries with common law tradition, less developed stock markets, lower income, and weaker creditor rights protection. They reason that their evidence reveals that capital structure of firms in developing countries not only converges to a target but also that it faces varying degrees of adjustment costs and/or benefits in doing so. This suggests not only that dynamic trade-off theory explains capital structure decisions of firms but also rules out the dominance of information asymmetry-based theories within the context of firms in developing countries.

4. CONCLUSION

In this article we have reviewed extant literature on capital structure with view to establishing what drives the financing decisions of firms. The starting point was to review the MM irrelevance propositions. These were subsequently demonstrated not to hold in a world with frictions such as taxes and transactions costs. As such capital structure choices affect firm value. Firstly, we established that there are reliably important firm characteristics that determine the capital structure choices of firms. These are: size, profitability, growth, asset tangibility (collateral), debt-tax shield, non-debt-tax shield, risk, dividend policy and age. Their interaction with firm leverage was demonstrated. Secondly, we also reviewed the predictions of major theories of capital structure namely the trade off and pecking order theories. Suffice to highlight that in some instances, there is a dichotomy in the predictions by the major theories of capital structure. The "horse race" is usually between the pecking order theory and the

trade-off theory. This article demonstrated that in order to reconcile the predictions of the two theories, it is imperative to highlight that the aforementioned theories compliment rather than substitute each other in explaining financing behaviour of firms. As such the financing behaviour of firms exhibits some element of dynamism. It was demonstrated that these theories mutually reinforce rather than substitute one another. Thirdly, in this article we reviewed empirical studies that have been conducted to investigate the existence of a target capital structure. We established that the majority of these studies demonstrate that firms set a target ratio and actively seek to achieve it. There are a number of factors that might promote or deter the firms from achieving this target. These are size, adjustment costs and the distance between the observed and target leverage. Finally this research effort also considered the empirical studies that have been conducted to examine firm financing behaviour both from developed countries as well as from developing countries. It was established that the factors that drive firm financing in the developed countries also carry over to the emerging markets notwithstanding the disparities of their financial markets. However it would seem that the trade-off view dominates the pecking order view in explaining the firm financing behaviour in the developing countries. It could be that firms in the developing countries are relying more on external financing as compared to their counterparts in the developed countries.

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INTERNATIONAL WORKSHOP IN PARIS, NOVEMBER 24, 2016 - WORKSHOP

During past two decades the world has witnessed the growing importance and visibility of a range of initiatives led by businesses, social organizations and governments that was aimed at pressuring companies to behave in more socially responsible and accountable ways. This is a new development for many parts of the business world. Previously, the state was assumed to lead standard setting and behavioral norms for businesses in relation to most categories of stakeholders. When community organizations and interest groups wanted to change business behavior, they focused on changing the law. From the 1990s the focus changed, reflected in the emergence of new alliances and regimes of influence over business norms, linking together consumers, communities, workers and producers. Nowadays the issue of sustainability and accountability of business entities received a complex form and is continuingly changing. It is important to trace these changes, follow regulatory developments, business practice to identify stable fundamentals in corporate accountability and management practices and distinguish emerging trends that are going to occupy practitioners, regulators and academics minds in nearest future.

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