THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE AND FIRM PERFOMANCE IN SOUTH AFRICA

By

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DECLARATION

I, Tinashe Basil Mashonganyika, declare that the research study reported in this paper is my work, except where otherwise indicated and acknowledged. This paper has not, either in whole or part, been submitted at any other University or institution for degree purposes.

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Tinashe Basil Mashonganyika

Signed at ……..On the…….. Day of ……. 2015

ABSTRACT

This study examines the impact of corporate governance reforms on performance of publicly listed firms on the Johannesburg Stock Exchange (JSE) in South Africa from 2009 to 2013. The study examines the King III reform in detail, and previous reforms before King III. The variables employed in this study to measure firm performance are return on asset (ROA), return on common equity (ROE) as proxies for accounting based performance measures and Tobin's Q as a proxy for market based measure of performance.

The results do indicate that corporate governance does have an effect on a firm's performance. Evidence is presented that suggests that the level of compliance has increased over the period in question from 2009, when King III was assumed. Overall the conclusions are that board size has no impact on firm performance. The hypothesis that board independence impacts on firm performance was rejected among other findings. That being said, there is also significant deviations from the framework that leave room to further develop and/or improve policy. The sample size of 99 is large enough to make inferences about the population.

DEDICATION

This work is made possible by the Grace of God.

I dedicate this research report to my girlfriend and future wife, Chabota “Shugu” Haankuku. You have been truly God sent and the joy of my life - The late nights we spent together studying and sometimes pretending to study!

To my late father, John “Jomo/Joe” Mashonganyika, it is truly sad that you are not here to witness my achievements.

To my mother, Faith “fae fae” Mashonganyika, for your support, encouragement and, most importantly, your prayers.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

South Africa is the continent's economic hub and, accordingly, provides a great testing environment to examine this study on corporate governance and firm performance. Unlike all its African counterparts, South Africa boasts sound financial and corporate regulatory frameworks that mirror western standards. The Johannesburg Stock Exchange is highly regulated and unrivaled in Africa, competes with those of western economies like the London Stock Exchange and the New York Stock Exchange. Despite its highly accredited association and international recognition, the South African stock exchange has seen a decline in ethical management behaviours and practices that vary from fraudulent transactions, serious insider lending and inadequate capitalisation or market manipulation (Mangena & Chamisa, (2008)). Though not exhaustive, these few examples highlight the extent of dishonorable corporate governance. Following related cases of corporate scandals and failures, the study examines both good and bad corporate governance. The study further addresses the effects of corporate governance on an organisation's financial performance with a focus on economic efficiency and sustainability.

This chapter is organized as follow: Section 1.2 presents the context of the study. Section 1.3 presents the research problems, followed by the research objectives in section 1.4. In section 1.5 the research questions are presented. Section 1.6 discusses the research gap and finally the research methodology in section 1.7.

1.2 Context of study

At its most basic level, corporate governance deals with issues that result from the separation of ownership and control (Jensen & Meckling, (1979)), (Fama & Jensen, (1983)). This sheds light on an agency theory phenomenon or problem that concerns conflicts of interest between owners and managers (Eisenhardt, 1989). Studies by various authors including (Douma (1997)); (Jacoby (2000)); (Bhagat and Bolton (2008)), (Maignan and Ferrell (2004)) looked into the governance models addressing independence of executives, board size, gender and diversity etc. Failures in these model aspects were studied in an attempt to evaluate their effect on firm performance (Agrawal & Knoeber, (1996)).

South Africa is no exception to this. It adopted corporate governance in 1994 with the King Report, (Mallin, (2007)), that drew a lot of its fundamentals from the Cadbury report of 1992, (Mangena & Chamisa, (2008)). The specific task that the study seeks to address is the question of compliance and/or the lack thereof to set frameworks (for example, the JSE listing requirements and the institute of directors, King I, II and III on corporate governance and the Companies Act 2008) and their collective effect on a firm's performance. Examples of governance failures are the increasing number of firms suspended or delisted from the JSE. Statistics data from the JSE customer relations department provide evidence and reveal that a sum total of 24 firms were delisted in 2010, 20 firms in 2011, 22 in 2012 and finally 31 in 2013. Tables A3, A4, A5, and A6 in the appendices provide a list of the suspended or delisted firms. Further examples are seen in the construction industry that saw eight of the big players admit to fixing prices and collusion for the 2010 soccer world cup development and infrastructure projects leading to hefty fines being passed across the industry to the sum of R143million by the SA competition commission (FIN24, 25 June 2014). FIN24 (25 June 2014) further revealed that some firms like Stefanutti's borrowed, to pay off their fines, while larger firms like Murray and Roberts, Basil Read, Aveng paid their fines from the contingencies set aside for this purpose. Following the discovery of these scandals, many of these companies saw their stock valuations and prices slide dramatically, the Financial Mail reported, "The share price of the Financial Mail's 2013 pick, Wilson Bayley Holmes-Ovcon (WBHO), fell 6% during the year. The damage to the reputation of the once well-respected company will take longer to reverse after it was slapped with the highest penalty of R311m for bid-rigging. Other share price losers include Basil Read (-20%) and Aveng (-13, 6%)."

1.3 Research problems

Domestic and international cases of bad corporate governance have highlighted current regulatory framework inadequacies or gaps that are continually exploited by both private and public companies. The level of confidence in the abilities and structures in place to monitor and assess compliance has raised concerns within the global financial industry. Limited knowledge and empirical reviews on the subject in an African context, particularly South Africa, has led to the limited and narrow understanding of the matter locally. Despite being adopted from a combined view of the UK Cadbury report in 1994 and the American Sarbanes Oxley Act of 1997, there still exists clear gaps in the framework of corporate governance in South Africa (Mangena & Chamisa, 2008).

In light of this, the introduction of the King III report in September 2009 came into being in order to circumvent these challenges. It consists of two main documents, namely, the code of governance (The Code), which is a set of principles and the Report, in which it stipulates and makes recommendations of best practices for each principle. This was accompanied by the Companies Act No 71 of 2008. An assessment that provides the understanding of the fundamental link and relationship between governance and performance of publicly listed enterprises post King III implementation is important. As investors are concerned about the effect that these corporate governance structures have on their investments, there is increased pressure on the need for regulatory reforms. The problem is establishing the link between corporate governance and performance as contrasting conclusions exist in current literature. Khatab, Masood, Zaman, Saleem, and Saeed (2011) conclude that firms that have good corporate governance practices outperform their counterparts with bad corporate governance. In contrast, (P. Klein, Shapiro, and Young (2005) finds that there is no substantial evidence that good corporate governance enhances firm performance.

1.4 Research objectives

The study investigates the relationship between corporate governance measures and firm performance within the South African context. The study contributes to ongoing studies within an African emerging context, providing significant information that will help in the formulation of a comprehensive framework from a pro-active preventative nature, encouraging good corporate governance practices and enforcing law reforms for the firm and its board members.

The prevalence of corporate misconduct is sufficient evidence to support the need of studies of that give clarification to this problem. This study endeavours to institute practices that robustly safeguard fair returns on investments and the wider economy in which these corporations operate. The study isalso of importance in creating a platform for defining and demonstrating the effectiveness of firm internal corporate governance structures, models and frameworks as discussed in the King III (2009) report.

The specific objectives are therefore:

- To determine the effect of internal corporate governance structures on firm performance of publicly listed firms

- To establish the effectiveness of King III internal corporate governance requirements for listing firms.
- To compare the levels of corporate governance adherence across publicly listed firms on the JSE main board.

1.5 Research questions

This research study seeks to answer the following questions:

- Does corporate governance affect a firm's performance?
- What is the level of adherence to King III provisions of corporate governance among firms listed on the Johannesburg stock exchange?
- Is the practice of good corporate governance essential in enhancing performance and financial stability of a firm?

1.6 Research gap

Accounting standardisation, along with increased regulatory requirements and disclosures, have proven inadequate. The prevalence of corporate scandals due to bad governance is justification for the study. Significant attempts are made to furnish stakeholders with information on governance and their effect on performance. This study helps add some insights into the workings of corporate governance on a firm's performance and contributes to the already existing literature around the subject matter.

Earlier studies in this area have focused primarily on developed economies or developing non-African economies ((Vafeas & Theodorou, 1998). While they have argued that corporate governance is universal, the uniqueness of the African context should be considered. Previous studies by (Mangena and Chamisa (2008) focused specifically on listed South African firms that have been suspended due to non-compliance with various corporate governance codes and practice. A limitation of this study was its focus. It excluded those that were not suspended. The current study takes a more universal approach, focusing on all publicly listed firms over a 5 year period from 2009 to 2013. A similar study by (Ntim, Opong, Danbolt, and Thomas (2012) looked at post-apartheid corporate governance disclosures, along with the impact of corporate governance on firm performance. This study however, also looked at a sample of firms across the exchange. The sample used is a basis for criticism. This is because

samples can look at particular industries or sectors and the findings maybe sector specific. Therefore the inferences made are limiting for the wider economy. This study however examines a sample of firms equally representative of the JSE over a 5 year period in order to produce richer inferences and conclusions.

This study sheds more light into the situation on the ground. Looking at 10 key internal corporate governance measures against five performance measures, the study aims to ascertain the relationship between corporate governance and performance. The research problems articulated above are pursued against the research objectives for the purpose of providing a deeper and thorough understanding of the matter from a South African perspective.

1.7 Research methodology

This study uses panel data analysis of the industry over the period from 2008 to 2013. The study also follows a similar path as previous studies, using the fixed effect panel Least Squares (LS) regression technique to investigate the relationship between firm performance as the dependent variable and internal corporate governance structures as the independent variable to the regression analysis.

Measures such as Return on Assets (ROA), Return on Equity (ROE), are used as proxies for accounting based performance measures and the market based measure, Tobin's Q is used as a market measure. This allows for solid results and inferences. These dependent variables used as proxies for performance were chosen for their universal use and global acceptance as measures of a firm's performance, alongside their ease to calculate. The independent governance measures considered and used in the regression model are board composition, diversity, size, and frequency of board meetings, CEO duality or non-duality and many more factors.

1.8 Research structure

A comprehensive literature review in Chapter two outlines evidence of the disintegration of good corporate governance practices. The corporate governance structures as detailed in the JSE listing requirements and recommendations by the King III report of 2009 are also discussed. It progresses to address the fundamental issues underpinning the study of corporate governance, being the agency theory and problem. Additionally, the study explores

corporate governance models, structures and practices that encompass the ownership structure, frequency of the board, executive compensation, board size, independence, gender and diversity, to mention but a few variables.

Chapter three shifts focus to address study methodology with particular attention given to financial indicators or matrices of a firm's performance along with corporate governance structures and practices. Then, chapter four presents the descriptive statistics and the findings. Chapter five discusses the findings and concludes the thesis and makes recommendations for further research.

Chapter summary

The background of the study is looked at in this chapter. This chapter outlines and emphasizes the research problem, research objectives and the reasoning behind conducting this study. The following chapter addresses the extant literature.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter explores the extensive literature on corporate governance practices and their effect on firm performance and sustainability. There has been extensive academic work presented on the relationship or correlation of corporate governance and firm performance, with an emphasis on its effect performance or lack thereof. The chapter is organized as follows. Section 2.2 discusses corporate governance and firm performance; Section 2.3 presents a few definitions, followed by the evolution of corporate governance in section 2.4; Section 2.5 looks at its importance and section 2.6 addresses the theory behind this study. Finally section 2.7 looks at the various corporate governance structures.

Gaps in the fundamentals of corporate governance, namely, legislature as providers of rules and regulatory frameworks, audit and accounting as independent assurers to financial statement reporting and disclosures, banking as providers of funding and credit and, lastly, the society in which they operate, has seen South African firms decline in ethical management behaviours and practices, from fraudulent transactions, serious insider lending and inadequate capitalization or market manipulation ((Machold, Ahmed, & Farquhar, 2008). The study by (G. J. Rossouw, Watt, and Malan (2002) focuses on internal corporate governance structures addressing the governance effects on a firm's performance with a view to assessing its economic effect, efficiency and sustainability. Institutions such as HealthSouth, Tyco, and WorldCom, Parmalat, Enron took center stage to highlight that man cannot be trusted to do right or act with integrity when personal gain and greed is in their hearts (Hamilton & Micklethwait, 2006). This gave birth to the Sarbanes-Oxley Bill (also known as the Corporate Oversight Bill) passed into law in July 2002 (Rockness & Rockness, 2005). This type of improvement was meant to impose penalties and restrictions on firms and the individuals running them so that individuals would be held responsible in their personal capacity, along with their capacity as representatives of the firm.

The scandals concerning bad governance structures and practices, and the subsequent corporate failures led to ramifications in the accounting and auditing industry. Firms like Anderson ceased operations completely, for the role they played to enable corporate giants Enron misrepresent their financial statements (Imhoff, 2003). Anderson was a firm among the big 5 accounting and auditing firms and today does not exist.

The problem however, occurs in the existence of multiple definitions and views of corporate governance: an economist's interpretation of sustainability may relate to an accountant's opinion of assurance, which, in turn, may differ from the views of regulators and views of protectors of public interest. To resolve this paradox of conflicting views and definitions as well as attempt to address the shortcomings, the South Africa market proactively sanctioned the King I, II and III reports that gave stringent guidelines on corporate governance with the aim of curtailing immoral hazardous behaviours. This would also set a framework that all players would abide by that conforms to business, industry and with a view of economic sustainability. Its intent was to curb the immoral self-fulfilling behaviour of agents acting on behalf of the principal and was apparently successful.

Firms going public have to comply with the listing requirements set out in the King III report as an entry criterion. It is important to exercise caution with such statements as registration standards do not in themselves automatically lead to good governance. Mangena and Chamisa (2008)'s study of the 81 listed companies that were suspended between 1999 and 2005 alone supports the need for further inspection of the industry. Fidentia, Regal Treasury Bank and Master Bond were among the firms that brought the limelight onto South Africa and its structural corporate governance weaknesses (Sarra, 2004). For example, in the Fidentia case, evidence was produced and chartered accountant, Graham Maddock, testified that investment money was used to pay employee salaries. This Fidentia case is a good example revealing evidence of the effect of failing to adhere to the requirements of having an audit committee and the risk and compliance functions of corporate governance (Mangena & Chamisa, 2008). This was then misrepresented in the financial statements, a key failing on the audit committee function of assurance in their reporting and disclosure. This is a requirement of both the King III report and the Companies Act.

A more recent governance issues was that of Nedbank (attempting to enter the African markets to compete with counterpart's Standard Bank and Barclays-ABSA group) and its deal with Ecobank smeared with undisclosed reciprocal rights to buy shares in each other's company. This would affect shareholder interest by diluting their holdings and affect the ownership structure (Fin 24, 25 June 2014). These dealings did not appear in the financials nor were they disclosed to shareholders (Firer & Meth, 1986), (Williams, 1999).

2.2 Corporate governance and firm performance

Vafeas and Theodorou (1998); (Zaman, Hudaib, and Haniffa (2011) linked positive firm performance to good corporate governance, while (A. Klein (2002) argued that it was attributed to earnings management. This delves further into the competing issues of economic performance versus analyst projective performance. Another angle that has been focal to the South African context on corporate governance is around competition (Khemani & Leechor, 2001) and reward/remuneration (Main & Johnston, 1993). A positive relationship was found to exist between corporate governance and share or price performance (Kosnik, 1990). Barratt and Korac-Kakabadse (2002) conducted an experiment on corporate governance effects on and for the economy. They focused on defining the functionality and role corporate governance played in economic efficiency. They concluded that a good corporate governance system is positively correlated to financial performance from an association perspective (high revenues and profitability). Hence the aim of this study to further investigate the link and ascertain the extent of the linkage and bring this to the surface by answering questions like, "Is it corporate governance or other factors that affect a firm's performance?"

The underlying tones in all failures point to the above effects and lead to (G. J. Rossouw et al. (2002)) recommendation of improving corporate governance (Governance & Directors, 2002). The non-synchronistic element of these arenas has seen man take advantage of the loopholes in order to profiteer and in so doing, give rise to these scandals. To bridge that gap, this study shall focus on the various structures in an aim to uncover reasons and/or early warning signals along with determining the extent to which they affect a firm's performance.

2.3 Definition of Corporate Governance

There are different definitions put forward to describe the term corporate governance (CG). These definitions vary depending on the study being conducted or the scholar conducting the study. The definition also seems to differ depending on the country in question. The South African view as presented in the King report and derived from the Cadbury report, defines corporate governance as "a system by which companies are directed and controlled" how the corporate objectives are set, how the corporate activities and expectations of stakeholders are aligned. It is the way in which the affairs of corporations are handled by their Corporate Boards and officers (G. J. Rossouw et al., 2002).

The organization for Economic Co-operation and Development (2004) defines corporate governance as: "the system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as the board, managers, shareholders and other stakeholders, and spells out the rules and procedures for making decisions on corporate affairs. By doing this, it also provides the structure through which the company objectives are set, and the means of attaining those objectives and monitoring performance.
Blair (1995) defines corporate governance as "the whole set of legal, cultural and institutional arrangements that determine what publicly traded corporations can do, who controls them, how that control is exercised, and how the risks and return from the activities they undertake are allocated".

On the other hand, (Hendry and Kiel (2004) add the aspect of corporate governance as emanating from interactions among senior management, shareholders, boards of directors, and other corporate stakeholders.

Jesover and Kirkpatrick (2005) sum up the views taken by the above and forge their comprehensive view that states that corporate governance involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined.

From the above broad definitions and for the purpose of this study, corporate governance can be viewed as being concerned with issues that include effectiveness and efficiency of operations, reliability of financial reporting, compliance with laws and regulations, as well as safeguarding company assets. Corporate governance, in this study, is viewed as a set of rules that define the relationship between stakeholders, management, and the board of directors of a company and influence how that company is operating.

2.4 Evolution of corporate governance in different countries

The academic views useful and key to any study of corporate governance are the Cadbury and Greenbury theories. Williams (1999) noted that under the Cadbury proposals, a Code of Best Practices embodying underlying principles of openness, integrity, and accountability are

articulated and need to be adhered to. This theory states that, public trust in the corporate system is meant to be maintained by increasing disclosure to support successful shareholder and stakeholder interest-checks against managers (Meek, Roberts & Gray, (1995).

On the other hand, the Greenbury report focused mainly on a small section of the Cadbury report and called for the disclosure of directors' remuneration by detailing each individual director's remuneration. The Cadbury framework proposed to put forward practical ways of raising financial control and reporting standards, which could be put into effect without waiting for legislation. The increased disclosure requirements aimed to instill public trust, which was also seen as a cornerstone and key component to raising and maintaining standards. High Quality Financial Disclosure was seen as a means of encouraging effective shareholder and stakeholder interest and would facilitate checks and balances against professional managers (Aguilera, Williams, Conley, & Rupp, 2006).

Cadbury requires the board to meet as often as possible and retain full and effective control over the company, as well as monitor the executive management. The report additionally states that there should be clear division of roles and responsibilities at the head of the company, for example, the chairman should not and cannot also hold the position of the CEO (Chief Executive Officer). The board is required to have a majority of non-executive directors who bring an independent judgment.

This mandate has worked very well in the United Kingdom, However it has not been as successful in other European countries, a good example being Parmalat in Italy (Rockness & Rockness, (2005). In the USA, after a series of much publicized corporate failures in 2000 involving Enron, Tyco and WorldCom, the Cadbury report was reinforced by the Securities Exchange Commission in an attempt to protect investors and society. Laws that have serious corporate governance implications were introduced including Sarbanes-Oxley Act of 2002. According to (Puttick, Van Esch, and Van Esch (2008), the Institute of Directors in South Africa came up with the King report as a result of a decline in ethical business standards. The report advocates an integrated approach to good governance in the best interest of all stakeholders. It considered the fundamental principles of good social, financial, ethical, and environmental practice of good corporate governance (Governance & Directors, 2002). In March 2002, a Code of Corporate Practices and Conduct was put forward and applied to all companies listed on the Johannesburg Securities Exchange, South Africa. This included

banking institutions, financial and insurance entities as well as public sector enterprises. The current study focuses on the South African context of corporate governance, which arguably is an adaptation of the UK and USA, Cadbury and Sarbanes-Oxley Act.

2.5 Importance of Corporate Governance

The social and economic costs of corporate failures are significant. This includes high job losses, the loss of public confidence and the ripple effect a single failure may have in a particular market, industry and economy. Poor corporate governance has an impact on stakeholders who stand to lose out as a result of mismanagement by directors and managers. Good corporate governance needs to be maintained at all times to ensure transparency and efficiency in the day-to-day activities of the corporations. This will lead to better access to capital, aid economic growth, promote fairness and translates to transparency and accountability. Weak corporate governance, on the other hand, translates to waste, mismanagement and corruption (Donaldson & Davis, (1991). The following sections will outlined this.

2.6 Theoretical underpinning

Professional managers and directors are employed to handle the affairs of an organization on behalf of the owners. In discharging their responsibilities, directors must exercise their business judgment in a manner that they believe is in good faith and is in the best interests of all stakeholders investors, debt holders, creditors, the board, employees and society in general.

However, conflict of interest often arises between the entities and individuals entrusted as caretakers. Therefore, there is a heavy reliance on corporate governance structures and practices to attempt to alleviate and/or eradicate conflict (Cremers & Nair, (2005).

Corporate governance goes beyond simply establishing a clear reciprocal relationship between shareholders and managers. This shall be dealt with further and a deeper look at theories, including the agency problem, and supporting theories, in the next section.

2.6.1 Agency theory

At its most basic level, corporate governance deals with issues that result from the separation of ownership and control (Fama & Jensen, 1983) and the contractual view first developed by Coase (1937). The Agency theory forges the theoretical framework upon which the current study and many others of this nature are based. It proposes that due to information opaqueness, the agent is tempted to pursue self-interests to the detriment of the firm and the shareholders. This sheds light on a phenomenon called agency problem that speaks to conflicts of interest between owners and managers (Eisenhardt, 1989) and the separation of decision making in the firm and its security holders. The theory is applicable in various aspects of the business, including accounting.

Agrawal and Knoeber (1996) define an agency relationship as a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent. If both parties to the relationship are utility maximizers, however, the agent will not always act in the best interests of the principal. The theory is concerned with scenarios where the goals of the principal and agent are not aligned and the difficulty of the principal to validate this misalignment, thus giving rise to agency cost; examples of these are the monitoring expenditures by the principal, the bonding expenditures by the agent and the residual loss.

Agency cost is the expense incurred by the providers of funds to keep the board and its management acting in good faith. Agency theory and cost are the focal and starting point of this study of corporate governance as it underpins the concept of corporate governance.

2.6.2 Stewardship theory

Contrary to agency theory, stewardship theory states that executive management is intrinsically upright (Hendry & Kiel, 2004). It further states that management should be entrusted fully to run firms as they are good stewards of the resources entrusted to them. This theory assumes that because executive management spend most of their time in the companies that they take care of, they have superior information about both the environment they operate in and are more suited to understanding the firms they run, therefore have superior decision making capabilities (Donaldson & Davis, (1991).

2.6.3 Resource-dependence theory

The resource dependency theory states that corporate governance mechanisms function as a critical connection between the firm and the scarce resources needed to maximise performance. This theory is instituted to monitor the effective and efficient governance of the board and management, through corporate governance mechanisms like separation of board chairperson and the role of Chief executive officer (Strange, Filatotchev, Buck, & Wright, (2009). Expert advice, experience, independence and knowledge are necessary skill sets and resources the board and its directors should have. Through this experience comes a reputable association vital to business continuity. All these connections impact a firm's performance.

2.6.4 Managerial signalling theory

Managerial signalling theory is the concluding theory of corporate governance on which this study draws. Due to information asymmetry, it is assumed the board and its management have access to more and non-public information (Jensen & Meckling, (1979). In support of the agency theory, managerial signalling theory is faced with the moral hazard problem that the board and its management with their superior information do not use it to the peril of the firm. Adoption and compliance to good corporate governance set guidelines signals credibility and safety of investment (Shleifer & Vishny, (1997). One example is seen in the appointment of majority independent non-executive directors to the board. This has the effect of signalling to investors, both current and potential, its intention of treating them fairly and safeguarding their wealth.

2.7 Corporate governance models

The establishment of roles of the board and senior executives is fundamental to any corporate governance structure or model. The board and executive team should present a balance of independence, experience and skills on the board in line with the extent and nature of the company operations (Maury, (2006).

Douma (1997)); (Jacoby (2000); (Maignan and Ferrell (2004) looked into the governance models addressing independence of executives, board size, gender and diversity and other factors. The first references of corporate governance were in the 19th century, in response to the separation of ownership and control as a result of the formation of joint stock companies, which had owners who did not take part in the day-to-day operational issues. They required assurances that those entrusted (the directors and managers) were safeguarding their

investments and accurately reporting the financial outcome of their business activities. Hereto, shareholders were the original center of attention on corporate governance. However, contrary to initial schools of thought, current thinking acknowledges a corporation's obligations to the wider society generally, in the form of stakeholders.

2.7.1 Frequency of the board meetings

This speaks to the number of times the board meets or has meetings. The level of activity of the board determines the number of times they should meet. One would be of the view that more frequent meetings of the board would allow them to appraise managerial performance, review the financial performance of a firm and set strategic direction to ensure its operations translate into the financial performance desired of a firm. This is particularly of concern for policy makers because of the contrasting views from past research studies. (Lipton and Lorsch (1992)) found significance in more frequent meeting translating to higher performance as it allows boards to set strategy and appraise management performance ((Vafeas & Theodorou, (1998). However in a follow up research paper, (Vafeas and Theodorou (1998)) contended this view purporting a negative association with more frequent board meetings, measured against the intensity of board's activity and/or effectiveness of its monitoring function.

According to the King III code of governance, the board should meet at least four times per year, once each quarter. The Companies Act and the JSE listing rules, however, leave this to the discretion of the firm to formulate a framework that looks at the number of times they meet and the agenda.

2.7.2 Composition of the board

2.7.2.1 Board Size

Board size comprises the optimum number of board members. Lipton and Lorsch (1992) suggested optimal board sizes of about seven to nine directors stating that this enhances time taken to make decisions. Their results suggested smaller boards were more efficient than larger boards due to processing, control and co-ordinating activities, however arguments have been posed that smaller boards can be manipulated (Yermack, (1996); (Kyereboah-Coleman & Biekpe, (2007)

According to the King III code of governance every board should consider whether its size, diversity and demographics make it effective. The framework does not specify a number however. The South African Companies Act suggests that all companies must have a minimum of three directors and the JSE listing requirements stipulate four members. Minimum number of board members are stated or recommended but provide no indication of a maximum number of members.

2.7.2.2 Independence of directors

King III requires boards to be comprised of a majority of non-executive directors of whom the majority should be independent. Independence of directors is assessed by the board yearly. For the purpose of this study, independence of directors within the board looks at non-executive board members. It is a balance of executive and non-executive directors, preferably with a majority of non-executive directors (John & Senbet, (1998). A sufficient number of these should be independent of management so that shareowner interests can be protected (Rhoades, Rechner, & Sundaramurthy, (2000). The Companies Act prescribes that a minimum of three non-executive independent directors should exist.

The Board's independence is maintained by:

- Non-executive directors not holding service contracts and their remuneration not being tied to the financial performance of the Group; and
- All the directors having access to the advice and services of the company secretary and, with prior agreement of the chairman, being entitled to seek independent professional advice on the affairs of the Group at the Group's expense.

Non-executive directors are those that bring a strong contingent of diversity of experience, insight, and independent judgement to bear on issues of strategy, performance, resources and standards of conduct.

2.7.2.3 Board gender, age and diversity

Variations in the members of the boards of directors in connection with characteristics such as managerial background, expertise, age, personality, gender, education and nationality can be used to define board gender and diversity (Firer & Meth, (1986). Bhagat and Black (1999)

postulate that diversity of the board and its management is essential in order to ensure all stakeholders are considered in decision making and its effects on firm performance. Prior studies on the effect of board composition had generally adopted one of two approaches. The first approach involves the study of how board composition affects the board's behavior on discrete tasks, such as replacing the CEO, awarding golden parachutes, or making or defending against a takeover bid. This approach can involve tractable data, which makes it easier for researchers to find statistically significant results. But it does not give any indication of how board composition affects overall firm performance. For example, there is evidence that firms with majority independent boards perform better on particular tasks, such as replacing the CEO (Hermalin & Weisbach, (1988) and making takeover bids (Byrd & Hickman, (1992).

According to the King III code of governance every board should consider whether its size, diversity and demographics make it effective. While no prescriptions are set by all or any of the governing bodies here, the statement above ensures they carefully consider the composition of the board, based on attributes such as experience, age, gender, in carrying out their duties.

2.7.2.4 CEO non duality

To ensure a balance of power and authority, firms need a well-articulated and accepted division of responsibilities at the head of the company (Boyd, (1995). Therefore, no one individual has unregulated power to make decisions. This is essentially the separation of the position of chairperson from that of CEO and is ultimately meant to reduce any agency costs associated. The function of chairperson should be completely disconnected from that of the Chief Executive Officer. Duality presents profound issues in that the individuals responsible for the firm's performance are the same as those that evaluate its efficiency. Abor and Biekpe (2005) found that firms that separated these two positions are more able to maintain an optimal capital structure with debt being used as a control instrument for moral hazard. In contrast to these findings, (Donaldson and Davis (1991) found that returns were enhanced when there was duality. They further went on to state that combining these roles is more suitable in the case of small emerging firms. However, they reasoned that an independent non-executive director is to serve as deputy chairman or a strong independent non-executive director element on the board. On the other hand, other studies have shown preference is

always given to a chairperson being an independent non-executive director (Dalton & Kesner, (1987) and these sentiments are shared by many scholars (Boyd, (1995).

According to the King III code of governance, the board should elect a chairman of the board who is an independent non-executive director. The CEO of the company is not permitted fill the position of chairman of the board. This is corroborated by the JSE listing requirements that indicate that the positions must be held by different individuals and that the chairperson must be independent. The board should elect a chairperson on an annual basis; however this is not a requirement for the position of CEO. The chairman should be an independent appointment and justified, if not, in the integrated reports. Section 2.16.7 is of importance and states that the CEO should not become the chairman until 3 years have lapsed. The chairperson is in charge for the efficient functioning of the board while the CEO is liable for running the company's business.

2.7.2.5 Key board Committees

Key board committees are the audit, remuneration and nomination committees. These committees are required to be present by most literature in governance (King III Report, IoD (2009*)*. Depending on the firm the risk committee, information technology and governance committees are additional committees that could be considered. Because board committees are mainly made up of independent non-executive directors (or outside specialist in extraordinary cases) the committees are more suited at protecting shareholders' interests. The committees aid in the effective workings of the board.

Audit committees have a major role to play, according to international practice. The Sarbanes-Oxley Act in the USA along with the UK's Smith Report is the leading governance frameworks on audit committees. King III requires an independent and suitably skilled audit committee. Furthermore audit committees have sanctuary duties in terms of the Companies Act 71 of 2008, apart from the board. They are set up to give oversight and assurance of integrity of the firm's disclosures of their financial statements and the firms' performance. The accuracy of their reporting affects the perceptions of the firm for stakeholders and prospective investors. Very little has been covered on the effect of audit committees in the literature. The views expressed and recommendations made in the Cadbury report are that there should be a small group of non-executive directors to uphold the no conflict of interest.

This is the recommendations of the JSE listing requirements. There is very little literature exploring this variable and its link to performance.

According to the King III code of governance, the board should delegate other functions to well-structured committees but without abdicating their responsibilities. Committees, other than the risk committee, should comprise a majority of nonexecutive directors of which the majority should be independent.

Section 3.1 of The King III code of governance for South Africa 2009, states that the board should ensure that the company has an effective and independent audit committee that should meet as often as possible with terms of reference approved by the board. This committee should be chaired by an independent non-executive member of the board as this forms part of the integral factor of the risk management process. Further, all members of the audit committee should be independent non-executive directors. In contract to this, the JSE listing requirements state that at least two must be independent non-executive directors.

According to the King III code of governance for South Africa 2009, section 2.25, companies should remunerate directors and executives fairly and responsibly. However, there are no regulations on what constitutes fair compensation. Further, section 2.25.2 states that the remuneration committee should assist the board in setting and administering remuneration policies addressing pay basis, bonuses, employment contracts, long term incentive schemes and share-based benefits. These should be disclosed in the integrated report and shareholders should pass a non-binding advisory vote on the firm's policy. The committee should consist solely of independent non-executive directors.

The King III code of governance for South Africa 2009, section 2.19.1 further states that a nomination committee should assist with the process of identifying suitable members of the board. This entails conducting background and reference checks and assists in employing competent personnel. This requirement has only recently been adopted in South Africa. The structures of the nomination committee are similar to those of the audit and remuneration committee, requiring at least three independent non-executive directors, led by an independent director as chair.

Ntim, Opong, and Danbolt (2012) focused on compliance and disclosure of good corporate governance post South African independence. However this was prior to the global financial meltdown of 2008. They found that corporate governance standards and practices were generally improved and positively correlated to financial performance. Their findings echoed the same sentiments by (Love (2010). Their research also had practical implication for policy makers and regulators that monitor corporate behaviour. Strong measures of enforcement need to be put in place and strengthened.

Chapter summary

The chapter addressed the fundamental issue, namely, agency theory then went further to highlight the key corporate governance variables in accordance to King III recommendations and the Company's Act 71 of 2008. The next chapter looks at how the research was conducted.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the data used in this research; data sources and research design to determine the extent to which corporate governance measures influence the performance indicators of firms listed on the Johannesburg Stock Exchange (JSE). Similar to (Tshipa (2012) who investigated a sample of 137 firms listed on the JSE, this study will investigate a sample of 99 firms listed on the JSE evenly distributed across the industries, table A1 in the appendices shows this. Though different in many respects, it will follow a combined and similar approach of governance measures and performance measures as Mangena and Chamisa (2008), Gedeon J Rossouw, Van der Watt, and Rossouw (2002) and Tshipa (2012).

The chapter is organized as follows: Section 3.2 presents data and data sources. Section 3.3 looks at the research design, while section 3.4 looks at the regression equation. Section 3.5 develops the hypothesis.

3.2 Data

The performance data, market capitalization and book value of all different types of stocks are obtained from *Bloomberg* Professional databases and Inet Bridge for the research period from January 2009 to December 2013. The first data source, the internal corporate governance variables and performance variables are obtained from the firm's annual reports published as part of their listing requirements.

The use of panel data analysis should provide a link as to the observed corporate governance structures against firm performance over the period 2009 to 2013. The period, though short, still allows for robust analytical inferences. The period is from 2009 to 2013, a time that allows all firms to fully incorporate and comply with the King III recommendation enforced in 2009 or provide some insight and reasoning as to its non-adoption, the 'apply or explain' philosophy. The research period ends in 2013 which is the most recent period for data required and allows for newness and relevance.

For the purpose of this study, the sample comprised firms listed for four or five years consistent of the five year period from 2009 to 2013. The final sample of 99 was reached solely due to data availability and time constraints.

3.3 Research design

Panel data is used widely in market research to study firm performance, test new products, and evaluate promotional campaigns. Panel data analyses data comprising corporate governance to the same or similar firms listed on the JSE over more than one time period. A panel data study of a sample of JSE listed firms is followed. To put this into perspective, the panel data research study attempts to determine whether there is a relationship between a firm's performance and internal corporate governance structures over a 5 year time interval. It is believed that firms that do better are well governed compared to those that do not. The study aims to give evidence of this. Panel data is used to measure changes in firm performance of JSE listed firms over time, particularly useful for understanding trends. Panel data was used as it allows us to control for variables we cannot observe or measure, like differences in business practices across firms. With panel data, we can include variables at different levels of analysis (i.e. the corporate governance measures of independence, CEO non duality). This is not a perfect modeling technique as it comes with some drawbacks. These include data collections issues or, more specific to this study, correlation between governance variables.

3.3.1 Dependent variables

Three measures of firm performance are used as dependent variables and these are accounting based measures, market based measure, the risk adjusted measure as performance proxies. First, it will apply accounting based measures, return on assets (ROA) and return on equity or return on common equity (ROE) as per (Bhagat and Bolton (2008). Second, it will employ a market based valuation measure - Tobin's Q as in Carvalhal da Silva and Leal (2005). Net asset Value per share (NAV per share) is used as risk adjusted stock measure of performance.

ROA is measured as net income divided by total assets at end of any reporting period. ROA is an indicator of how profitable a company is relative to its total assets, as a percentage. It shows how efficient management and/or the firm's efficiency is in using its assets to generate income. The ROA measure is consistent with other studies such as Erhardt, Werbel, and Shrader (2003).

$$ROA = \frac{Net\ Income}{Average\ Total\ Assets} \times 100$$

ROE is measured as net income divided by shareholders equity. It measures a firm's profitability by revealing how much profit a company generates with the money shareholders have invested in the firm.

$$ROE = \frac{Net\ Income}{Shareholder's\ Equity(does\ not\ include\ preferred\ shares)} \times 100$$

Tobin's Q is calculated as total market value of a firm divided by the total replacement value of a firm's asset. Tobin's Q is the ratio of the market value of a firm to the replacement cost of the firm's assets. The Q ratio is useful for the valuation of a company. It is based in the hypothesis that, in the long run, the market value of a company should roughly equal the cost of replacing the company's assets. Tobin's Q has been used to explain a number of corporate phenomena, for example, managerial compensation and firm performance (Shleifer & Vishny, (1997). Tobin's Q has not been used alone as a measure of performance for its non-real world decision analysis, because of its limited availability of timeous and accurate data in comparison to other performance variables like ROA.

$$Tobin's\ Q = \frac{market\ value\ of\ firm}{total\ replacement\ value\ of\ assets}$$

It is because of all the shortcomings of each measure of the performance measures described above that more than one is used to enrich the findings of the study and account for each variables' shortcoming.

3.3.2 Independent variables

The corporate governance structures or measures used are board size, frequency of board meetings, independence of board members and diversity of board membership along with CEO duality and committees.

3.3.3 Control variables

The control variables that may influence the performance of the firm are size of the firm and firm leverage which is measured as debt to equity ratio. Alongside this is its age and reputation built over the years. There may be other variables omitted that could either affect

corporate governance or firm performance. Taylor, Miller, and Gray (2012) states that there will always be omitted variables with a causal effect on the output desired or being tested and summed it up by going further to state that there is little that can be done.

3.4 Equation and modeling

According to the King III recommendations for good corporate governance, the companies Act 2008 and the JSE listing requirements combined with information from earlier studies, this study derives a practical design offered in the regression model:

$$m_{bt} = \beta_0 + \beta_1 T1_{bt} + \beta_2 T2_{bt} + \beta_3 T3_{bt} + \beta_4 T4_{bt} + \beta_5 T5_{bt} + \beta_6 T6_{bt} + \varepsilon_{bt}$$

Where;

- M_{bt} *represents; Return on Asset (ROA), Return on Equity (ROE), Tobin's Q, and NAV per share for firm i at time t.*
- $T1_{bt}$ represents Frequency of the board meetings for firm i at time t
- $T2_{bt}$ represents board size for firm b at time t
- $T3_{bt}$ represents Independence of executives for firm b at time t
- $T4_{bt}$ represents Board gender, age and diversity for firm b at time t
- $T5_{bt}$ represents CEO non duality for firm b at time t
- $T6_{bt}$ represents Key board Committees for firm b at time t
- ε_{bt} represents the error term

3.5 Hypothesis development

3.5.1 Frequency of the board meetings and firm performance

This is the total number of corporate board meetings held in the year. The time used in board meetings, determines the performance effect. The agenda, issues raised, discussed and reviewed all have an effect on the performance of a firm. If these meetings have no meaningful agenda then the outcome will be useless. However if they are well-structured and organized, then meaningful decision and strategies will be laid down for the future and help keep the firms' ship on course.

Board meetings are costly in terms of time and money (travel costs, conferencing costs, etc.) and, as such, a balance should be reached between the number of times the board meets and

the cost inherent with the benefits of a successful meeting. A study by (Lipton and Lorsch (1992) revealed that more frequent meetings boards are able to lead the organization from a strategic direction point along with review performance as it stands, in order to realign any variances. As a result, this is tested here.

Hypothesis 1: A statistically positive relationship exists between the frequency of board meetings and the performance of a firm

3.5.2 Board size and firm performance

For the purpose of this study, board size is the number of directors serving or the number of Directors on the company's board, as reported by the company (Full time Directors only). Deputy members of the Board will not be counted. The board's capacity for monitoring increases as more directors are added, however the benefits may be engulfed by the incremental cost of poorer communication and decision making associated with larger boards. Yermack (1996) found that Tobin's Q deteriorates with board size. In the same light, (Kyereboah-Coleman and Biekpe (2007) refutes the earlier findings, stating that large boards have a more positive effect on firm performance than smaller ones. As a result of these conflicting views, this has been included in the variables of this study to examine its case from a South African perspective.

Hypothesis 2: A statistically negative relationship exists between the board size and the performance of a firm.

3.5.3 Independence of executives and firm performance:

The number of non-executive directors on the company board of directors reflects independence. It includes outside directors in those markets where applicable. Where the company has a two-tier board, this field refers to shareholder representatives on the supervisory board. Further, the number of Independent Directors on the company's board, as reported by the company, is addressed here. Independence is defined according to the company's own criteria. An effective board that can both lead and control the company is recommended (King III report, (2009). The non-executive directors act as overseers of good behaviour and owner's interest, while the executive directors are better suited to monitor business and enhance performance. Independence addresses the issue of associations and how these are supposed to be managed with respect to family ties, business connection or past and

present colleagues. These members offer the requisite reputable business experience, both academic and working expertise and business contacts to ensure the reviewing and monitoring mandate is adhered to efficiently and effectively.

Hypothesis 3: A statistically positive relationship exists between the independence of directors and the performance of a firm

3.5.4 Board gender and diversity and firm performance:

For the purpose of this study, gender is looked at as binomial, either male or female. Diversity turns to all other factors such as board average age, ethnicity, religion, race, professional and technical experience, academic background, life orientation and cultural. Here the study will look at the number of female executives and/or female directors on the company board, as of the fiscal year. Executives are as defined by the company, or those individuals that form the company executive committee/board or management committee/board or equivalent. A board can either be diverse or homogeneous. Diversity has the ripple effect of sending a positive signal of inclusive behaviour. This gives the impression that all stakeholders in a community and society are fully represented and accommodated. However, diversity means embracing differences and listening to all views, opinions, interests and prejudices before making decisions which may constrain its efforts tremendously. To date, the findings on the relationships between gender diversity and performance are inconclusive. For example, (Williams (1999) found a significant positive relationship between gender diversity and firms' performance. In contrast, (Firer and Meth (1986) reported a significant negative relationship between gender diversity and firms' performance. As a result of these varying findings, this variable was included in this study.

Hypothesis 4: A statistically positive relationship exists between the board gender, age and diversity and the performance of a firm

3.5.5 CEO non duality and firm performance:

CEO non duality is measured as the separation of the company's position of Chief Executive Officer and Chairmanship of the Board, as reported by the company. '0' indicates the two roles are separate. For the purpose of this study, binomial output will be used with either a '1' - Yes or '0' - No. If for any reason the position of CEO is vacant while the chairperson is in place, it is assumed that the chairperson assumes the responsibilities of the CEO and in this

case, duality would exist. Furthermore, if the position of chairperson is vacant while a CEO exists, it is assumed that the CEO takes on the responsibilities of the chairperson until the vacancy is filled. Yermack (1996) concluded that the value of the firm and its performance is enhanced when there is a separation of these roles. This shall be tested in the South African emerging market context.

Hypothesis 5: A statistically positive relationship exists between the CEO non duality and the performance of a firm

3.5.6 Committees and firm performance:

Board effectiveness may not necessarily be affected by its size or composition but by its internal administration structure. It can be argued that committees hinder the board and management from carrying out their duties freely and affect a firm's performance negatively. Further, they impose an additional cost in terms of time, remuneration and other expenses that impact a firm's performance negatively. An evaluation by (Klein (2002) focused on the directors roles within these committees and concluded by proposing committees be filled with specialized roles to enhance effectiveness and monitoring. This is tested by the study using the following hypothesis.

Hypothesis 6: A statistically negative relationship exists between the presence of all committees and the performance of a firm

Chapter summary

The chapter focused on the data and research design. The study draws inferences based on data on internal corporate governance variables and financial performance variables. Detailed description and in depth explanations on the corporate governance environment in South Africa follows. Further, that chapter addresses this environment's translation to firm's performance.

CHAPTER 4: PRESENTATION OF RESULTS

4.0 Introduction

The previous chapter detailed the research design. The hypotheses were introduced and discussed in Section 3.6. This chapter presents the research findings and is organized as follows: Section 4.1 presents descriptive statistics; Section 4.2 presents the diagnostic process followed for the regression which is then followed by presentation of the regression results in section 4.3; This is then followed by the discussion of results in relation to hypothesis introduced in section 3.6.

4.1 Descriptive statistics

Table 4.1 and Table 4.2 present the descriptive analysis of our independent and dependent variables for the entire period and for the year on year from 2009 to 2013. Most of our variables are close to being normally distributed except for CEO duality, committees and firm performance, ROE, ROA and Tobin Q which have skewness of 22.249, 7.697, 14.171, 8.369 and 13.959 respectively.

The summary statistics for the period are displayed in the tables below, table 4.1 and 4.2. A comprehensive description and discussion of the individual variables follows the summary statistics for the period and year on year.

Table 4.1 shows descriptive statistics of the specific dependent and independent variables for the entire period for the sample.

	MEETINGS	*SIZE*	*INDEP*	*NON_EXEC*	*WOMEN*	*AGE*	*CEO*	*COMM*	*ROA*	*ROE*	*TOBIN_Q*
Mean	5.921	12.077	6.632	8.836	1.962	55.552	0.002	0.016	0.092	0.208	1.949
Std Error	0.092	0.152	0.108	0.126	0.057	0.166	0.002	0.006	0.015	0.018	0.199
Median	5.000	12.000	6.000	9.000	2.000	55.454	0.000	0.000	0.059	0.165	1.313
Mode	5.000	9.000	5.000	10.000	2.000	54.000	0.000	0.000	0.007	0.092	2.609
Std Dev	2.039	3.387	2.412	2.794	1.265	3.689	0.045	0.126	0.329	0.405	4.426
Sample Var	4.158	11.472	5.816	7.805	1.600	13.606	0.002	0.016	0.108	0.164	19.593
Kurtosis	6.584	0.033	0.070	0.144	0.042	0.915	495.000	57.483	232.266	106.610	206.860
Skewness	1.951	0.592	0.485	0.537	0.332	-0.130	22.249	7.697	14.171	8.369	13.959
Range	16.000	18.000	13.000	16.000	6.000	27.670	1.000	1.000	6.293	7.474	68.684
Min	3.000	6.000	2.000	3.000	0.000	40.000	0.000	0.000	-0.302	-1.376	0.149
Max	19.000	24.000	15.000	19.000	6.000	67.670	1.000	1.000	5.992	6.098	68.834
Sum	2,931	5,978	3,283	4,374	971	27,498	1	8	46	103	965
Count	495	495	495	495	495	495	495	495	495	495	495

Table 4.2 shows descriptive statistics of the specific dependent and independent variables year on year from 2009 to 2013

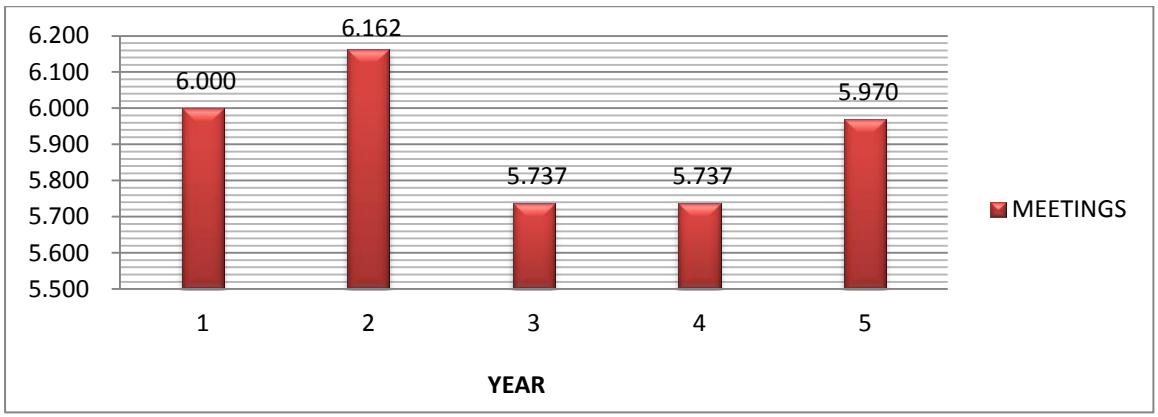
	2009		**2010**		**2011**		**2012**		**2013**	
	Mean	**std dev**	**Mean**	**std dev**	**Mean**	**std dev**	**Mean**	**std dev**	**Mean**	**std dev**
MEETINGS	6.000	2.241	6.162	2.498	5.737	1.747	5.737	1.782	5.970	1.826
SIZE	12.242	3.597	12.263	3.573	12.051	3.403	11.848	3.189	11.980	3.201
INDEP	6.323	2.519	6.586	2.611	6.636	2.314	6.717	2.304	6.899	2.306
NON_EXEC	8.737	2.940	8.838	2.958	8.818	2.837	8.848	2.712	8.939	2.555
WOMEN	1.798	1.245	1.859	1.254	2.071	1.303	2.030	1.273	2.051	1.248
AGE	54.696	3.659	55.195	3.821	55.404	3.492	56.062	3.608	56.405	3.674
CEO	-	-	-	-	-	-	0.010	0.101	-	-
COMM	0.051	0.220	0.010	0.101	0.010	0.101	0.010	0.101	-	-
ROA	0.105	0.348	0.137	0.602	0.096	0.199	0.069	0.101	0.053	0.094
ROE	0.224	0.393	0.267	0.631	0.225	0.370	0.184	0.236	0.139	0.268
TOBIN_Q	2.375	6.751	2.295	6.796	1.692	1.315	1.785	1.983	1.600	0.907

The data is further described graphically below.

4.1.1 Frequency of the board meetings

About 5.91 is the mean frequency of board meeting for the period from 2009 to 2013. Figure 4.1 shows that over the years the frequency of board meetings increased before decreasing and rising again to an average of 5.97 as depicted below. King III and the JSE listing requirements mandates boards to meet at least once a quarter which equates to four times a year.

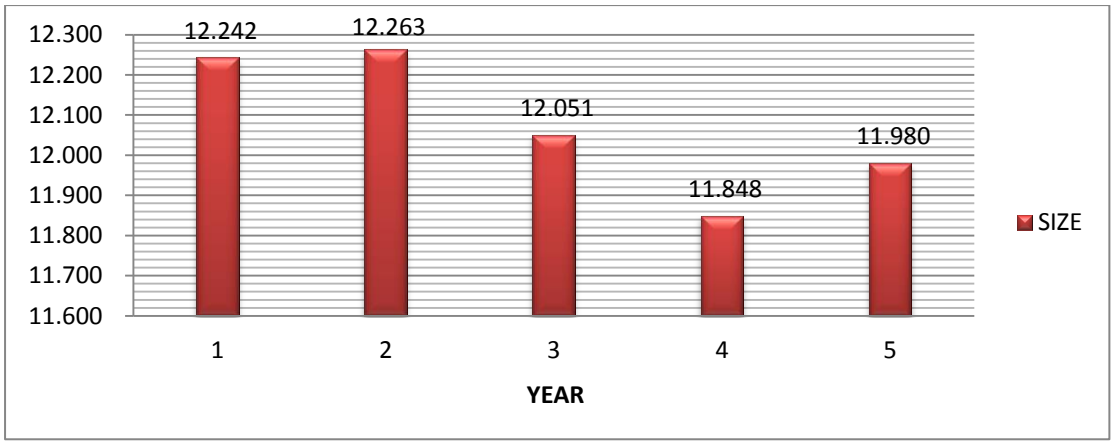
Figure 4.1



4.1.2 Board Size

The highest average board size was 12.263 in 2010, while the lowest Board size average of 11.848 was observed in 2012.

Figure 4.2



4.1.3 Independence of directors

Figure 4.3 shows that independent board membership increased progressively year on year from 6.323 in year 2009 to 6.899 in 2013. This reflects a linear increase of 9.1% over the period. Similarly, figure 4.4 shows that non-executive membership increased from 8.737 to 8.939 on average across the sample period. It is particularly interesting that more than half the board membership is filled by non-executive directors with the majority being independent.

Figure 4.3

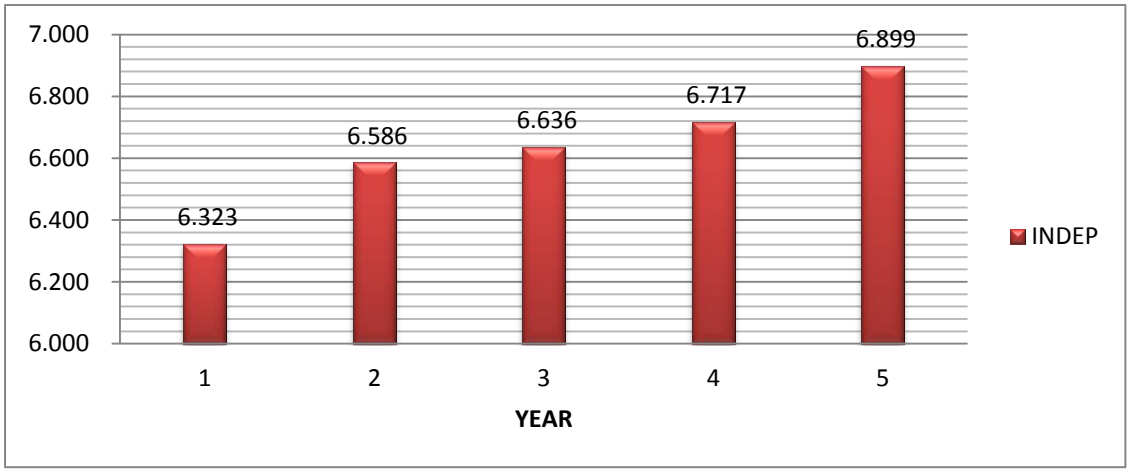
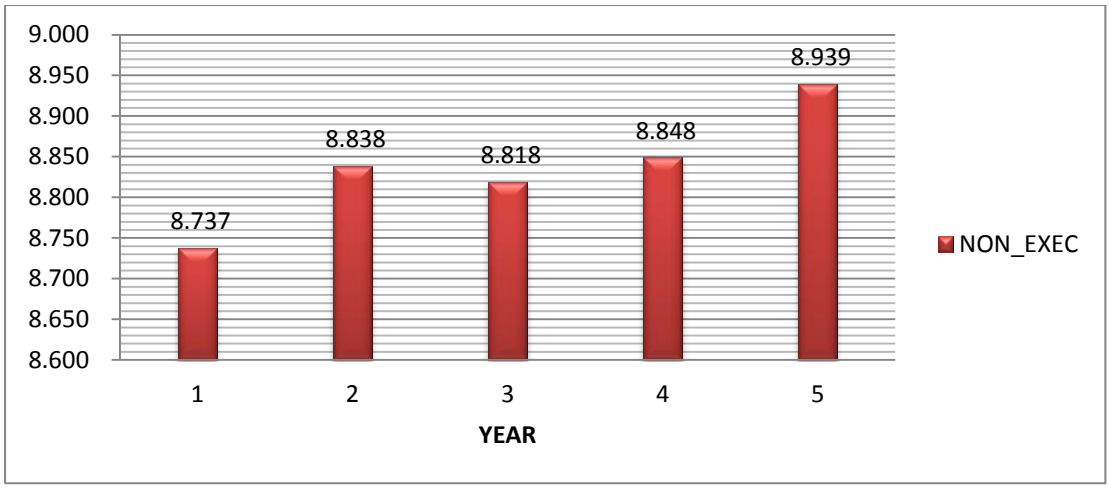


Figure 4.4



4.1.4 Board diversity (gender and age)

Figure 4.5 and 4.6 show that both average board age and gender matrix increased. A main contribution to this is the aging population on the board and the general adoption of BBBEE

codes of good practice. For this study, diversity looks at age and gender. However, boards are to ensure diversity in terms of skills, experience and qualification and demographics.

Figure 4.5

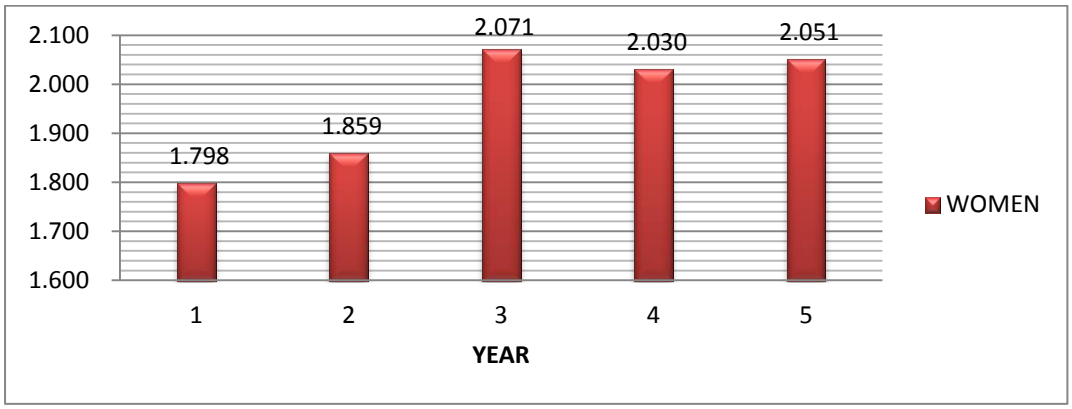
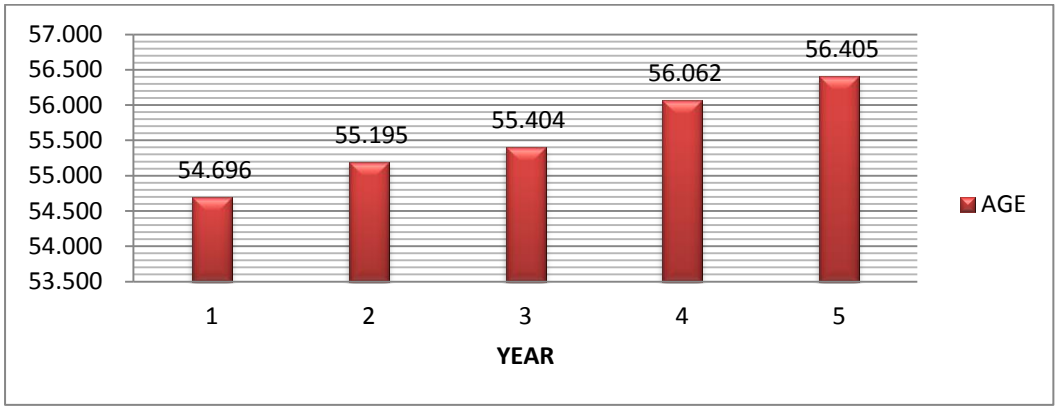


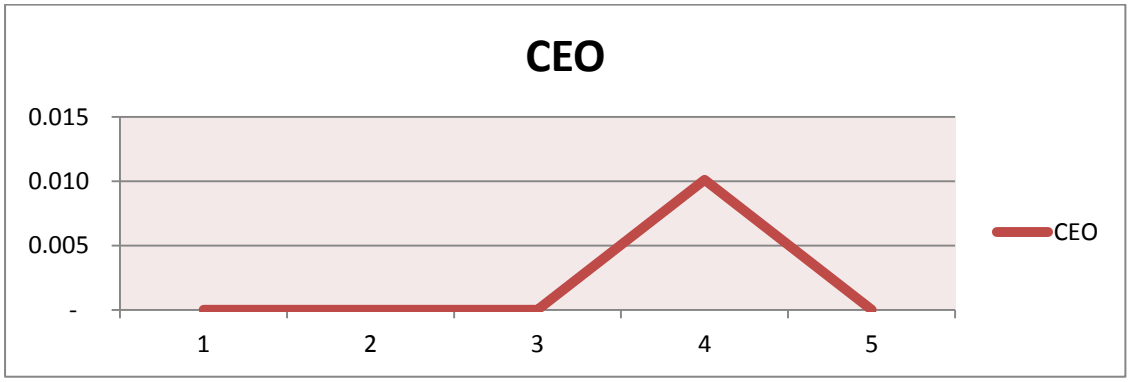
Figure 4.6



4.1.5 CEO non duality

Figure 4.7 shows that, with the exception of year 2012 there was generally, no duality over the sample period

Figure 4.7



4.1.6 Key board Committees

King III and the Companies Act 71 of 2008 together require listed firms to set up audit, risk, remuneration and nomination committees. This has almost been applied in totality by all firms in the sample. The decrease reflects this as presence of all was 0 while 1 was representative of a missing committee.

4.2 Regression diagnostic testing

In order to run any least squares regression analysis, a few assumptions had to be met and corrected for in the panel data. The assumptions were linearity, normality, multicollinearity and homoscedasticity. A series of tests were conducted and the data corrected for the least squares assumption before running the final regression and presenting the findings.

Firstly, the individual variables are tested for significance. A squatter plot of each individual variable was developed and outliers were eliminated, that left us with a sample of 99 listed firms, from a pool of 380 in the listed firm's population. Further, the correlation matrix below was done repeatedly removing outliers in the data sets that required extra modelling and fixing in order to be included. The presence of negative values and/or extreme deviations to norm based on either economic specific condition like the long mining strike and scandals in the construction industry would yield abnormal returns or results and as a result, inferences could not be made on the population at large. This of course means the study might omit important explanatory variables. This is noted and ignored for the purpose of this study. As a development to this study, one could assess the impact of eliminating such variables. Once this is done the study looks at the key features of a good regression model.

Table 4.3 shows the correlation matrix of the independent variables included in the model. The table shows a very low correlation coefficient of the independent variables after firstly removing the outliers and then first differencing with only Non-Executive and firm size having a correlation 0.872, indicating there is a marginally insignificant multicollinearity issue with the data (that same variables are correlated). The correlation statistic of 0.872 which is greater that the test statistic of 0.8 can safely be ignored as long as there is no autocorrelation, something that is corrected for by using first differencing of the data.

Important to note in the matrix is that the key board committees are negatively related to all the other independent variables.

Table 4.3 Correlation Matrix of the variables used in the regression analysis

	MEETINGS	***SIZE***	***INDEP***	***NON_EXEC***	***WOMEN***	***AGE***	***CEO***	***COMM***
MEETINGS	1.000							
SIZE	-0.006	1.000						
INDEP	0.064	0.708	1.000					
NON_EXEC	0.072	0.872	0.774	1.000				
WOMEN	0.020	0.470	0.462	0.470	1.000			
AGE	0.053	0.157	0.322	0.205	0.016	1.000		
CEO	0.002	0.052	0.044	0.083	0.037	0.047	1.000	
COMM	-0.089	-0.117	-0.127	-0.130	-0.047	-0.019	-0.006	1.000

To do away with multicollinearity, the study looked at the first differences of all our variables and regressed them using panel fixed effect and not panel random effect regression modeling analysis. The obvious solution would have been to log the data, however, due to presence of non-positive values, this was not possible. Because the random effect regression model failed to produce a test statistic that can be accepted at the 5 percent confidence level, we went ahead with the fixed effect panel regression model at first differences. I performed the Hausman specification test on our random effect panel regression to differentiate between the fixed effects model and the random effect. Because the random effect model had a "p" value greater than 0.05, (0.7123), we reject the null which states that the random effects model fits well with the data. The study found a statistically insignificant "p" value test showing that we reject the favoured null hypothesis of random effects and concluded that fixed effects model is the most appropriate for our data. The study uses the fixed cross section specification for our regression to remove the autocorrelation and the multicollinearity that may arise due to time invariant repeat independent values.

We tested for a unit root using the Augmented Dickey Fuller test and all our independent variables had a t statistic which was far more negative than the critical values, indicating that they all had no unit root and that they are all stationary and the regression can proceed.

We used the Durbin Watson test and the correlogram to test for autocorrelation and found no autocorrelation in our error terms except for CEO non-duality which we corrected for by first

differencing. To check for correctness of the data using this test, the results must yield a statistic above 1.5 and as close as possible to 2, which was observed in the final regression and allowed for interpretation of the data. The regression results are presented below.

Table 4.4 Summary of the hypothesis tests results

		ROE			ROA			TOBIN'S Q		
	Hypothesis sign	Regression result	Statistical significance of results	Hypothesis Decision	Regression result	Statistical significance of results	Hypothesis Decision	Regression result	Statistical significance of results	Hypothesis Decision
BOARD_MEETINGS PER_YR	+	-	INSIG	Reject	+	SIG	Accept	+	SIG	Accept
BOARD SIZE	-	+	INSIG	Reject	-	INSIG	Reject	+	INSIG	Reject
INDEPENDENT DIRECTORS	+	-	INSIG	Reject	-	INSIG	Reject	-	SIG	Reject
# NON EXECUTIVE	+	-	SIG	Reject	-	SIG	Reject	-	SIG	Reject
# WOMEN ON_BOARD	+	+	INSIG	Reject	+	SIG	Accept	+	SIG	Accept
BOARD AVE_AGE	+	-	INSIG	Reject	-	INSIG	Reject	-	INSIG	Reject
CEO NON DUALITY	+	+	SIG	Accept	+	SIG	Accept	+	SIG	Accept
COMMITTEES	-	-	INSIG	Reject	-	INSIG	Reject	-	INSIG	Reject

*INSIG = Insignificant

**SIG= Significant at either 1%, 5% or 10%

Hypothesis 1: A statistically positive relationship exists between the frequency of board meetings and the performance of a firm

Hypothesis 2: A statistically negative relationship exists between the board size and the performance of a firm.

Hypothesis 3: A statistically positive relationship exists between the independence of directors and the performance of a firm

Hypothesis 4: A statistically positive relationship exists between the board gender, age and diversity and the performance of a firm

Hypothesis 5: A statistically positive relationship exists between the CEO non-duality and the performance of a firm

Hypothesis 6: A statistically negative relationship exists between the presence of all committees and the performance of a firm

As revealed in table 4.5 and 4.6, in order for us to successfully make inferences of the results, the regressions needed to meet certain features for a good regression model. These included the regression line being strongly fitted to the data represented by an R squared value greater than 60 percent. This is the case for my outputs and allows me to proceed. The second feature is that the independent variables should be individually significant to explain the dependent variable observed in the t test. This was already tested for prior to running the regression. The third feature is that the independent variables should be jointly significant to explain the dependent variables and this is observed in the f test. The residuals must not be autocorrected, a feature already corrected for in the preliminary tests above using the Breusch-Godfrey serial correlation LM test. Lastly, the variances of the residuals are homoscedastic and not heteroscedastic. This is confirmed using the Breusch-Pegan-Godfrey test. With all these features observed, the data is normally distributed and as such indicates that the regression is a good model where the independent variables can explain the dependent variables to the regression model. The results are presented and discussed below.

4.3 Impact of governance on accounting based measures of performance

Table 4.5 shows the explanatory value of the independent variables to the variation of the dependent variables, ROE and ROA is 67.86% and 78.87% respectively seen by the R squared value. The dependent variables ROA and ROE are explained 67.86% and 78.87% accurately by the independent variables in the model.

Table 4.4 shows us that the number of board meetings *(MEETINGS)* per year has a statistically positive relationship to the performance of a company as shown by our results with a p-value of 0.0448 which is statistically significant at the 5%. We therefore accept the null hypothesis that there exist a statistically positive relationship between the frequency of board meetings and the performance of a firm. Despite this being the case for ROA, ROE reveals the opposite result. The relationship is not positive and the p-value is not significant at 0.2316. In this case, we therefore reject the null in this case.

Using ROA as our proxy for performance, the board size *(SIZE)* has a negative relationship to a firm's performance as indicated by the negative co-efficient of -0.000508. Although the relationship is in tandem with the hypothesis, the results are not statistically significant as shown by a p-value of 0.9688. This suggests that we therefore reject the hypothesis that a statistically positive relationship exists between the board size and the performance of a firm.

On the other hand, the relationship observed using ROE as a proxy is positive and the p-value insignificant, 0.6262, we therefore reject both the null hypothesis.

Table 4.5 shows a negative relationship between the number of independent directors *(INDEP)* and the performance of a firm, as shown by a p-value of 0.127 and 0.5418 which is not statistically significant for ROA and ROE respectively. We therefore reject the null hypothesis that there exists a positive relationship between the independence of directors and the performance of a firm. These finding are in sync with the findings of (Zaman et al. (2011) and (Tshipa (2013), but goes against the findings of Williams (1999), Mangena and Chamisa (2008) which found a positive relationship existing between the number of independent directors and the performance of a firm. Similarly the p-values are significant for non-executive director membership *(NON_EXEC)* which is 0.0004 and 0.0081 for ROA and ROE respectively. Despite the statistically significant p-value, the relationship is negative; we therefore fail to accept the hypothesis that there is a statistically positive relationship.

The results for the number of women *(WOMEN)* on boards and its relationship to performance is highly positive and statistically significant as shown by a p-value of 0.0016 for ROA but insignificant statistic for ROE, 0.2309. As a result we accept the hypothesis for ROA and reject for ROE. The board average age's *(AGE)* relationship with a firms' performance is negatively related for both ROA and ROE. With p-values of 0.2365 and 0.2942 respectively, this indicates statistical insignificance. The hypothesis is therefore rejected in both instances. These findings are in line with studies by (Erhardt et al. (2003) that found a negative relationship between board diversity and a firms' performance.

CEO non-duality's *(CEO)* relationship with a firm's performance is positive and statistically significant for both accounting measures ROA and ROE, as shown by a p-value of 0.0142 and 0.0757. We therefore fail to reject this hypothesis. Unlike CEO non duality *(CEO),* the presence of all committees *(COMM)* has a negative relationship with a firms' performance. Though the negative relationship is observed that fits the assumptions of this study, the p-values are not statistically significant at 0.268 and 0.4153 for ROA and ROE respectively. While the results capture the relationship correctly, the p-values are insignificant and therefore we reject the hypothesis.

Table 4.5 Relationship between firm performance and governance

Panel A: Dependent Variable: ROA				
Method: Panel Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INTERCEPT	1.493414	1.177653	1.268127	0.2058
MEETINGS	0.00422	0.002094	2.015662	**0.0448****
SIZE	-0.000508	0.012948	-0.039202	0.9688
INDEP	-0.01608	0.010331	-1.556418	0.1207
NON_EXEC	-0.017739	0.004928	-3.599334	**0.0004*****
WOMEN	0.018167	0.005693	3.191382	**0.0016*****
AGE	-0.021378	0.018021	-1.186298	0.2365
CEO	0.081012	0.032838	2.467016	**0.0142****
COMM	-0.027481	0.024762	-1.109807	0.268
R-squared	0.678597			
Adjusted R-squared	0.560712			
S.E. of regression	0.241547			
Sum squared resid	16.86163			
Log likelihood	63.06227			
F-statistic	5.75644			
Prob(F-statistic)	0			
Durbin-Watson stat	1.980443			

Panel B: Dependent Variable: ROE				
Method: Panel Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INTERCEPT	1.351293	1.045499	1.292485	0.1972
MEETINGS	-0.004271	0.003563	-1.198761	0.2316
SIZE	0.007733	0.01586	0.487581	0.6262
INDEP	-0.008882	0.014541	-0.61081	0.5418
NON_EXEC	-0.028656	0.010746	-2.666699	**0.0081*****
WOMEN	0.018031	0.015019	1.200584	0.2309
AGE	-0.016603	0.0158	-1.050863	0.2942
CEO	0.136412	0.076518	1.782748	**0.0757***
COMM	-0.025069	0.030732	-0.815712	0.4153
R-squared	0.788797			
Adjusted R-squared	0.711331			
S.E. of regression	0.231652			
Sum squared resid	15.50849			
Log likelihood	79.62559			
F-statistic	10.18256			
Prob(F-statistic)	0			
Durbin-Watson stat	2.131463			

***significant at 1%
**significant at 5%
*significant at 10%

4.4 Impact of governance on market based measures of performance

The explanatory value of the independent variables explaining the variation of the dependent variable is 70.30% seen by the R squared value. The dependent variable, Tobin's Q is explained 70.30% accurately by the independent variables in the model.

Table 4.6 shows the relationship between governance measures and the market based measure of performance that reveals a statistically significant positive relationship between a firm's frequencies of board meetings and a firm's performance with a p-value of 0.077. The hypothesis which states that there is a positive relationship between the frequency of board meetings *(MEETINGS)* and the performance of a firm is supported empirically by these findings and as such is accepted. The statistically significant positive relationship between the number of board meetings *(MEETINGS)* and the firm's performance is seen in the studies by (Mangena and Tauringana (2006), (Vafeas and Theodorou (1998), (Arora (2011), (Fich and Shivdasani (2006) and (Carcello, Hermanson, Neal and Riley (2002). A positive coefficient is in agreement with the King III report that there should be a significant number of board meetings in a year. Tshipa (2013) found a positive relationship between the number of board meetings *(MEETINGS)* and the firm's performance, although his findings were statistically insignificant.

There is a statistically insignificant positive relationship between a firm's board size (SIZE) and the market performance with a p-value of 0.5476. Though the findings are not statistically significant the positive coefficient is in conflict with the negative link stipulated in the hypothesis as was found by (Kyereboah-Coleman and Biekpe (2007) and (Lipton and Lorsch (1992). We therefore reject the null hypothesis that there is a negative relationship between the board size and the performance of a firm (Table 4.6).

The results reveal a negative relationship exists between the independent of directors *(INDEP)* and market based performance. Although it is statistically significant with a p-value of 0.0006, it is against the framework set out in the King III on best practice. This result questions the practices of firms in the South African economy and allows for improvement in policy. The number of non-executive *(NON_EXEC)* directors on a board has a statistically significant negative relationship with a firm's performance. Therefore we reject the forth hypothesis that states that there exists a positive relationship between the independence of

directors and the performance of a firm. This is against the findings of Dalton and Kesner (1987) and Boyd (1995).

The number of women *(WOMEN)* on boards has a statistically significant positive relationship with a firm's performance, p-value of 0.0147. Similarly this was revealed in the study by (Firer and Meth (1986) and (Bhagat and Bolton (2008). Therefore the hypothesis that states that there is a positive relationship between board diversity and performance is accepted. In total contrast to this hypothesis are the findings on board age, that revealed a negative relationship but with an insignificant p-value of 0.441. In this case the hypothesis is rejected.

Our study finds a statistically significant positive relationship between CEO non-duality and a firm's market performance in line with the studies of (Kyereboah-Coleman and Biekpe (2007), (Dalton and Kesner (1987) and (Boyd (1995). We therefore accept our null hypothesis number 5 (See Table 4.6). The relationship between the boards Committees *(COMM)* has a negative relationship to a firm's performance with a high p value of 0.192 showing high insignificancy statistically. This finding is consistent to major studies showing an empirically statistically negative relationship between Tobin Q and board committees (Vafeas & Theodorou, (1998).

Table 4.6 Relationship between firm performance and governance

Dependent Variable: TOBIN's Q				
Method: Panel Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INTERCEPT	12.42384	12.91775	0.961765	0.337
MEETINGS	0.074022	0.041713	1.774533	**0.077***
SIZE	0.125181	0.207936	0.602016	0.5476
INDEP	-0.245297	0.070336	-3.487496	**0.0006*****
NON_EXEC	-0.275857	0.138783	-1.987686	**0.0478****
WOMEN	0.165543	0.067425	2.455237	**0.0147****
AGE	-0.155664	0.201748	-0.771579	0.441
CEO	0.426494	0.121361	3.514249	**0.0005*****
COMM	-0.287396	0.219785	-1.307626	0.192
R-squared	0.703036			
Adjusted R-squared	0.594116			
F-statistic	6.45456			
Prob(F-statistic)	0			
Durbin-Watson stat	1.520467			

***significant at 1%
**significant at 5%
*significant at 10%

Chapter summary

A presentation of the descriptive statistics depicting the level of compliance to frameworks set and then a discussion of corporate governance measures in relation to various performance measures was followed with a look at the hypothesis test results. The next chapter discusses these findings in relation to theory.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter is organized as follows: section 5.2 discusses the results in relation to existing literature; Section 5.3 concludes and highlights some recommendations that can be explored for future studies.

5.2 Discussion

The purpose of this paper is to evaluate the current situation in the South African market, of the relationship of corporate governance and a firm's performance of a sample of listed firms on the JSE. The extant literature on corporate governance has not adequately covered several aspects on compliance with guidelines set out by the Companies Act and the King III report. One of the most important questions in corporate governance is whether or not the current governance framework is sufficient to ensure ethical and moral behavior. More importantly, it is not whether or not governance contributes to financial performance, but rather to what extent it contributes to financial performance.

Our ROA, ROE and Tobin Q results are in tandem with accepting the null hypothesis that there is a statistically significant relationship between CEO non-duality and a firm's performance in relation to the findings by (Arora (2011) and (Tshipa (2013). The opposite view to this study were seen in the study by (Mangena and Chamisa (2008). The positive coefficient of CEO non-duality strengthens the idea and recommendation of the King III report that the role of CEO and Chairperson should be separated. This allows division of responsibilities and aids in accountability and reporting fairly on operations. Donaldson and Davis (1991) posit that returns are enhanced when there is no separation of roles of CEO and chairperson but this is in contrast to resulting behaviours observed as in the Parmalat case.

The ROA and Tobin's Q measure of performance are in agreement with the hypothesis and proved empirically to be statistically significant. The results also revealed a positive relationship between the frequency of board meetings (MEETINGS) and the performance of a firm. This is in total conformity with the King III report that there should be a significant number of board meetings in a year. This allows for review of performance and realignment of variances if any accordingly during the financial period in question. Studies by (Mangena

& Tauringana (2006)), (Karamanou and Vafeas (2005)) and (Arora (2011)), (Vafeas (1999a)), (Fich and Shivdasani (2006)) and (Carcello, Hermanson, Neal and Riley, (2002)) agree with this framework and, as such, from a policy perspective, this seems to be working. However, if one looks at the case of African Bank Investment limited, that had more meetings but still yielded poor or negative performance results, clearly one can see that in times of crisis, these theoretical norms do not apply. Although (Tshipa (2013) found a positive relationship between the number of board meetings and the firm's performance, his findings were statistically insignificant. This could be explained by the time difference in study periods. This paper mainly looks at the time period post King III in 2009 while (Tshipa (2013) mainly focused on the 10 years leading up to 2009.

In agreement with (Lipton and Lorsch (1992), this study found empirical evidence to reject the null hypothesis that a statistically positive relationship exists between the board size and the company performance. This study's results were not statistically significant and the positive coefficient is in contrasting view to the findings of the market based measure, Tobin's Q, that revealed a statistically significant negative link between board size (Kyereboah-Coleman & Biekpe, (2007).

The study by (Adler (2001) suggests that that board diversity impacts positively on accounting measures of performance, but this study's ROE results reveals that we reject our null hypothesis that a statistically positive relationship exists between board gender, age and diversity and the performance of a firm. In contrast, the study by (Erhardt et al. (2003) found a negative relationship between board diversity and a firms' performance corroborating our findings.

In conjunction with studies by (Boyd (1995), this study also rejects the null hypothesis of a statistical positive relationship between the independence of directors and the performance. However this is in contrast to the view of policy makers that govern the way firms are monitored and operate, as seen in King III. Of course, scholars like (Dalton and Kesner (1987) are in agreement with the King III recommendation that favours a situation where a Chairperson be an Independent Non – Executive Director. This might be accounted for in the differences in geographic location and or economic environments the firms operate in.

This study supports a few of the studies already done in an African context but differ mostly in that South Africa is a developing economy, yet other scholars looked at developed economies and this has a key role to play in the different results observed.

5.3 Conclusion and recommendations

This paper makes a significant contribution by addressing these key factors post implementation of the King III guidelines that imposed stricter disclosure measures and governance of public listed firms on the JSE. It is the first to explore the situation on the ground with regards to compliance and adoption of frameworks imposed, along with an assessment of their effect on performance. However, time and data availability limited the depth of the study; As a result, the regression model had only six fundamental governance factors, yet the corporate governance spectrum has several other factors that could be explored.

Our study will add value to the existing literature in the findings of corporate governance factors and support a significant frequency of board meetings, board gender, age, diversity, CEO Non Duality to aid and improve performances through good corporate governance of South African based corporations and the world over.

An interesting future research agenda would be to find possible explanations for these contrasting results, starting with why we get positive relationships in one economy and negative relationships in the next or between sectors or industries. Put differently, an explanation why some factors are significant in one context and insignificant in another. A similar study can be carried out in Southern African countries like Zimbabwe, Botswana, Zambia, Angola and Mozambique to aid the literature of Corporate Governance factors in developing countries.

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APPENDICES A

Table A1: Industry classification for the sample

No.	Industry	Super Sector	Sector	# of firms	% of Sample
			Oil and Gas Producers		
			Oil Equipment, Service and Distribution		
1	***Oil and Gas***	***Oil and Gas***	Alternative Energy	***3***	3
		Chemicals	Chemicals		
		Basic Resources	Forestry and Paper		
			Industrial Metals and Mining		
2	***Basic Materials***		Industrial Goods and Services	***18***	18
		Automobiles/parts	Automobiles and parts		
			Food Producers and beverages		
			Household Goods and Home Construction		
		Personal and	leisure/Personal Goods		
3	***Consumer Goods***	***Households Goods***	Tobacco	***10***	10
			Healthcare Equipment and Services		
4	***Healthcare***	***Healthcare***	Pharmaceuticals and Biotechnology	***5***	5
		Retail	Food and Drug Retailers		
			General Retailers		
			Broadcasting and Entertainment		
		Media	Media Agencies/publishing		
5	***Consumer Services***	***Travel and Leisure***	Travel and Leisure	***15***	15
			Fixed Line Telecommunications		
	Telecommunications	***Telecommunications***	Mobile Telecommunication		
	&		Software and Computer Services		
6	***Technology***	***Technology***	Technology Hardware and Equipment	***5***	5
		Banks	Banks		
			Nonlife Insurance		
		Insurance	Life Insurance		
		Financial Services	Financial Services		
		Investment			
		Instruments	Equity Investment Instruments		
7	***Financials***	***Real estate***	Real Estate Investment Trusts/services	***21***	21
			Electricity		
		Utilities	Gas, Water and multi utilities		
		Construction			
		and Materials	Construction and Materials		
			Aerospace and defence		
			Electronic and Electrical Equipment		
	Industrials		Industrial Engineering		
	&	***Industrial Goods***	Industrial Transportation		
8	**Utilities**	***and Services***	Support Services	**22**	23
	TOTAL			**99**	**100%**

Table A2: List of suspended or delisted securities from the JSE in 2010

ELEMENTONE LIMITED	2010/01/11
FIRSTRAND LIMITED	2010/01/11
AQUARIUS PLATINUM LIMITED	2010/01/19
MUTUAL & FEDERAL INSURANCE COMP LD	2010/02/08
KIWARA PLC	2010/02/10
EUREKA INDUSTRIAL LIMITED	2010/03/08
EMERGENT PROPERTIES LIMITED	2010/03/08
IMPERIAL BANK LIMITED	2010/03/12
S&J LAND HOLDINGS LIMITED	2010/04/26
SET POINT GROUP LIMITED	2010/05/25
MAKALANI HOLDINGS LIMITED	2010/06/01
CAPE EMPOWERMENT TRUST LIMITED	2010/06/01
DTH DYNAMIC TECHNOLOGY HOLDINGS LTD	2010/09/14
ABE CONSTRUCTION CHEMICALS LIMITED	2010/09/28
GOODHOPE DIAMONDS (KIMBERLEY) LTD	2010/10/04
BEIGE HOLDINGS LIMITED	2010/10/26
KIMBERLEY CONSOLIDATED MINING LTD	2010/11/08
CIC HOLDINGS LIMITED	2010/11/16
WOOLTRU LIMITED	2010/11/16
WOOLTRU LIMITED	2010/11/16
WOOLTRU LIMITED	2010/11/22
PBT GROUP LIMITED	2010/11/29
DIMENSION DATA HOLDINGS PLC	2010/12/14
HEALTH STRATEGIC INVESTMENTS LTD	2010/12/20

Table A3: List of suspended or delisted securities from the JSE in 2011

BARNARD JACOBS MELLET HOLDINGS LD	2011/01/04
SPESCOM LIMITED	2011/01/25
MARSHALL MONTEAGLE PLC	2011/02/28
INDUSTRIAL CREDIT COMP AFR HLDGS LD	2011/03/22
PANGBOURNE PROPERTIES LIMITED	2011/04/05
GLENRAND MIB LIMITED	2011/04/28
MVELAPHANDA RESOURCES LIMITED	2011/06/07
BEGET HOLDINGS LIMITED	2011/06/13
BEST CUT LIMITED	2011/06/13
HYPROP INVESTMENTS LIMITED	2011/10/17
UCS GROUP LIMITED	2011/10/25
PALADIN CAPITAL LIMITED	2011/10/25
UNIVERSAL INDUSTRIES CORP LTD	2011/11/01
VOX TELECOM LIMITED	2011/11/15
MERCHANT & INDUSTRIAL PROP LIMITED	2011/11/22
PARACON HOLDINGS LIMITED	2011/12/06

SALLIES LIMITED	2011/12/20
ANGLORAND HOLDINGS LIMITED	2011/12/20
SAAMBOU HOLDINGS LIMITED	2011/12/28
FREEWORLD COATINGS LIMITED	2011/12/29

Table A4: List of suspended or delisted securities from the JSE in 2012

PLATMIN LIMITED	2012/01/03
MVELAPHANDA GROUP LIMITED	2012/01/04
AFRICAN BRICK CENTRE LIMITED	2012/01/10
METOREX LIMITED	2012/01/17
KAIROS INDUSTRIAL HOLDINGS LIMITED	2012/02/13
DIALOGUE GROUP HOLDINGS LIMITED	2012/02/13
REAL AFRICA HOLDINGS LIMITED	2012/03/14
INTERTRADING LIMITED	2012/03/19
MERCANTILE BANK HOLDINGS LIMITED	2012/05/22
O-LINE HOLDINGS LIMITED	2012/07/03
OPTIMUM COAL HOLDINGS LIMITED	2012/07/09
MINE WASTE SOLUTIONS (PTY) LTD	2012/08/01
CAPEVIN INVESTMENTS LIMITED	2012/08/13
PRESCIENT LIMITED	2012/08/20
AVUSA LTD	2012/09/26
BEIGE HOLDINGS LIMITED	2012/10/03
EXCELLERATE HOLDINGS LIMITED	2012/10/09
M CUBED HOLDINGS LIMITED	2012/11/19
IQUAD GROUP LIMITED	2012/11/27
CERAMIC INDUSTRIES LIMITED	2012/11/27
S A FRENCH LIMITED	2012/12/03
REDEFINE PROP INTERNATIONAL LTD	2012/12/03

Table A5: List of suspended or delisted securities from the JSE in 2013

SALLIES LIMITED	2013/01/02
NEW AFRICA INVESTMENT LIMITED	2013/01/30
NEW AFRICA INVESTMENT LIMITED	2013/01/30
QUEENSGATE HOTELS & LEISURE LIMITED	2013/02/18
HARDWARE WAREHOUSE LIMITED	2013/02/26
SIMMER AND JACK MINES LIMITED	2013/04/16
JCI LIMITED	2013/04/16
ZAPTRONIX LIMITED	2013/04/30
CAPE EMPOWERMENT LIMITED	2013/05/14
ELB GROUP LIMITED	2013/05/14
NEW BOND CAPITAL LIMITED	2013/06/04
CLOVER INDUSTRIES LIMITED	2013/06/04
AMALGAMATED APPLIANCE HOLDINGS LD	2013/07/02
REUNERT LIMITED	2013/07/02
THABEX LIMITED	2013/07/09
CIPLA MEDPRO SOUTH AFRICA LIMITED	2013/07/16
MOBILE INDUSTRIES LIMITED	2013/07/16
RGT SMART MARKET INTELLIGENCE LTD	2013/07/30
MUVONI TECHNOLOGY GROUP LTD	2013/07/30
LONRHO PLC	2013/08/05
ALLIED TECHNOLOGIES LIMITED	2013/08/20
AG INDUSTRIES LIMITED	2013/08/27
SABLE HOLDINGS LIMITED	2013/09/03
IFA HOTELS AND RESORTS LIMITED	2013/09/10
BUSINESS CONNEXION GROUP LIMITED	2013/10/08
URANIUM ONE INC	2013/10/22
REDEFINE PROP INTERNATIONAL LTD	2013/11/04
RACEC GROUP LIMITED	2013/11/05
MVELASERVE LIMITED	2013/11/12
KAGISO MEDIA LIMITED	2013/12/10
FIRST URANIUM CORPORATION	2013/12/24