

**THE EFFECT OF CORPORATE GOVERNANCE ON ENTERPRISE RISK IN
COMMERCIAL BANKS IN KENYA**

BY

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DECLARATION

This research project report is my original work and has not been presented for any award in any other university.

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This research project report is submitted for examination with my approval as the university supervisor.

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ABBREVIATIONS

CAS	-	Casualty Acturial Society
CBK	-	Central Bank of Kenya
CDF	-	Constituency Development Fund
CGPO	-	Corporate Governance Policies
CGPR	-	Corporate Governance Practice
DPP	-	Disclosure Policies and Practices
ERM	-	Enterprise Risk Management
NYSE	-	New York Stock Exchange
ROE	-	Return on Equity
SOX	-	Sarbanes Oxley Act
SEC	-	Securities and Exchanges Commission
SRR	-	Shareholders' Rights and Responsibilities

DEDICATION

This research project is dedicated to my lovely mother Ms Millicent Wangui Kimani and my entire extended family, for the support and encouragement throughout my entire academic journey.

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ABSTRACT

Corporate governance is important in ensuring that companies are run in a transparent and professional manner. It is especially important in banks where the enterprise risk management has to be monitored to safeguard assets. Various facets of corporate governance help in management of enterprise risk and this study set out to evaluate their effect on enterprise risk in commercial banks in Kenya. Limited studies had been done on the effects of corporate governance on enterprise risk management in Kenyan banks. This is the research gap the study intended to fill. Research objectives were formulated from the research gap and research questions outlined in a bid to fill the research gap. Literature review was done, highlighting the important theories which were deemed important for the study and also important variables that were used in the study. Empirical literature review was also done by analyzing similar studies, their research design and outcomes which were used as a reference for the outcome. The study used cross-sectional study to fill the research gap and primary data was collected using questionnaire. Questionnaires were designed and sent to internal audit managers for their response in order to answer the research question. From the responses provided and the study research objective, descriptive statistics was provided and data analysis was done using the multiple regression analysis. The study findings indicated that CRO presence in executive board, board size, and board independence had a positive effect on the CAMEL rating, while board diversity had a negative effect on the CAMEL rating. The study had few limitations which included a low response rate from the banks but was sufficient for the study. This limitation was countered by providing questions that will provide accurate results and informing banks to cooperate in providing the information. The other limitation was accessibility to some information and the authentication of information provided by the respondents. This limitation was countered by informing respondents to answer all questions asked and corroborated information provided through annual reports. The study recommended a centralization of banks' CAMEL rating by the Central Bank of Kenya for easier analysis and also other analytical techniques may be used in the analysis of the study. The study also recommended an increase in independent directors and expansion of the board size as these facets of corporate governance improved the banks' enterprise risk management.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Companies are owned by shareholders, managers are agents who manage the companies on behalf of the owners. This agency relationship may increase the conflict between the owners and management. Financial scandals in companies led to increased levels of monitoring of companies to protect the shareholders, hence the emphasis of corporate governance. Essentially, corporate governance is a guidance system composed of standard management practices operating within a governance framework designed to suit the organization. The practices are essentially common management tools drawn together into a logical, inter-related system focused on achieving results. They can be universally applied to any organization irrespective of their size, or statutory and regulatory environments.

Companies face various risks and challenges and managers have to make optimal decisions in order to safeguard the assets of the company. These risks faced by the company are mitigated by having controls and systems which are instituted by managers. Since risks are company-wide, enterprise risk management has been adopted as a result of corporate governance observance and ensure all areas of the enterprise risk are taken care of.

Historically, internal control has been considered as only minimizing the operational risks but the various mismanagement scandals has made corporate governance to become a matter of major public concern and view risk not only in financial terms but organization-wide. Therefore, international guidelines perceive that effective implementation of corporate governance so as to achieve enterprise risk management. A growing number of financial restatements by government institutions joined with allegations of financial statement fraud and lack of accountable corporate

governance of many government departments has helped to grinded the ever increasing attention on corporate governance in wide-ranging and the role of the board in ensuring it is implemented.

The view of corporate governance and internal control as a way of managing organization-wide risk has helped companies avoid a repetition of company crises. In Kenya, strong internal controls and governance are being implemented by companies since there have been a few cases such as Trust Bank, Kenya Re, and Kenya Cooperative Creameries which had management issues. If companies are able to embrace corporate governance, the risks of the companies are reduced as loopholes are taken care of.

1.1.1 Enterprise Risk Management

A risk is the chance or probability of a hazard causing harm or damage to people, property or the environment. In business terms, it can be articulated as a threat to the company's assets so as to hinder return that is expected. An enterprise risk is a risk on an organization's capital and earnings and includes not only accidental losses, but also financial, strategic, operational and other risks. This is different from 'pure' risks where managers are able to manage risk through insurance. The enterprise risks evolved since the early 1970s when Hamilton of Sweden's Statsforetag proposed the 'risk management circle' to describe the interaction of all elements in the risk management process (assessment, control, financing and communication).

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) defines ERM as a process effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives. The Casualty Actuarial Society (CAS) defines enterprise risk management as the process by which organizations in all industries assess,

control, exploit, finance and monitor risks from all sources for the purpose of increasing the organization's short and long term value to its stakeholders.

CAS enumerated the types of risk subject to enterprise risk management as hazard, financial, operational and strategic. Hazard risks are those risks that have traditionally been addressed by insurers, including fire, theft, windstorm, liability, business interruption, pollution, health and pensions. Financial risks cover potential losses due to changes in financial markets, including interest rates, foreign exchange rates, commodity prices, liquidity risks and credit risk. Operational risks cover a wide variety of situations, including customer satisfaction, product development, product failure, trademark protection, corporate leadership, information technology, management fraud and information risk. Strategic risks include such factors as completion, customer preferences, technological innovation and regulatory or political impediments. Although there can be disagreement over which category would apply to a specific instance, the primary point is that enterprise risk management considers all types of risk an organization faces.

A common thread of enterprise risk management is that the overall risks of the organization are managed in aggregate, rather than independently. Risk is also viewed as a potential profit opportunity, rather than as something simply to be minimized or eliminated. The level of decision making under enterprise risk management is also shifted, from the insurance risk manager, who would generally seek to control risk, to the chief executive officer, or board of directors, who would be willing to embrace profitable risk opportunities (Kawamoto, 2001).

ERM creates value through its effects on companies at both a “macro” or company-wide level and a “micro” or business-unit level. At the macro level, ERM creates value by enabling senior

management to quantify and manage the risk-return tradeoff that faces the entire firm. By adopting this perspective, ERM helps the firm maintain access to the capital markets and other resources necessary to implement its strategy and business plan. At the micro level, ERM becomes a way of life for managers and employees at all levels of the company. Though the academic literature has concentrated mainly on the macro-level benefits of ERM, the micro-level benefits are extremely important in practice. As we argue below, a well-designed ERM system ensures that all material risks are “owned” and risk-return tradeoffs carefully evaluated, by operating managers and employees throughout the firm.

1.1.2 Corporate Governance

Levitt (1999) described corporate governance as processes “indispensable to effective market discipline”. He further defined it as the link between a company’s management, directors, and its financial reporting system. Monks & Minow (2001) defined corporate governance as the relationship among various participants in determining the direction and performance of corporations. They identify the primary participants as the shareowners, management, and the board of directors. Roe (2004) defines corporate governance as the relationships at the top of the firm—the board of directors, the senior managers, and the stockholders. He opined that institutions of corporate governance are those repeated mechanisms that allocate authority among the three and that affect, modulate and control the decisions made at the top of the firm.

The Organization for Economic Cooperation and Development, OECD (1999) described corporate governance as 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 set and the means of attaining those objectives and monitoring performance as determined. Good corporate governance should provide proper

incentives for the board and management to pursue objectives that are in the interests of the company and shareholders and should facilitate effective monitoring. This definition includes a wider perspective by incorporating ‘objectives’ and introduces the concepts of goal congruence, incentives, monitoring, and control. Effective governance approaches may be applied in different ways across different cultures.

Corporate governance within an organization has several roles: board of directors and committees, laws and regulations, business practices and ethics, disclosure and transparency, enterprise risk management, monitoring, and communication. The pinnacle of the governance structure is the board of directors, who are charged directly with representing the shareholders’ interests. Hence, the type of the board is likely to have a significant impact on the quality of financial reporting and the risks of fraudulent financial reporting. Arthur Levitt, former chairman of the U.S. Securities & Exchange Commission (SEC), (1999) stated “The link between a company’s directors and its financial reporting system has never been more crucial”. Also, since the strength of a company’s corporate governance structures is expected to affect a client’s financial reporting quality and business risks, it is expected that governance will impact auditors’ risk assessments and subsequent program planning decisions (Cohen & Hanno 2000).

1.1.3 Enterprise Risk and Corporate Governance

Corporate governance now encourages boards of directors to develop more clearly defined risk audit functions, including an overview of their top management teams. This high-level risk audit function is often an additional responsibility for the audit committee of the board of directors. Since executive directors themselves have to be monitored, a non-executive director chairs the audit committee in order to give it the necessary degree of independence. The board of directors has the ultimate responsibility for the enterprise risk of the company, being accountable to

shareholders and other stakeholders. In countries that have a tradition of having a two-board structure, an executive board and a supervisory board, the chief risk officer should report to the supervisory board. Public policy makers around the world have started to question the appropriateness of the current corporate governance applied to financial institutions. In particular the role and the profile of risk management in financial institutions has been put under scrutiny.

In many recent policy documents, comprehensive risk management frameworks are outlined in combination with recommended governance structures (e.g., BIS, 2008; FSA, 2008; IIF, 2007; Walker, 2009). One common recommendation is to “put risk high on the agenda” by creating respective structures. This can involve many different actions. As already claimed by the Sarbanes-Oxley Act (SOX) in 2002, financial expertise is considered to play an important role. Other, more specific measures involve either the creation of a dedicated risk committee or designating a CRO who oversees all relevant risks within the institution (e.g., Brancato, Tonello, Hexter, and Newman, 2006; Sabato, 2010).

Risk management, therefore, develops the control environment. Then the control environment provides reasonable assurance to boards and senior managers that the organizational objectives will be achieved within an acceptable degree of residual risk. Effective risk management is therefore the cornerstone of sound corporate governance (Dahms, 2008).

In declining or crisis periods, organizations often engage in a mechanistic shift, from which centralization of authority is the most widely recognized outcome (Staw *et al.*, 1981). Daily and Dalton (1994) argue that centralized authority has particular applications to the relationship between governance structure and bankruptcy. Judge and Zeithaml (1992) find that high insider representation on boards is associated with lower board involvement in strategic decision

making. Insiders are not in a position to monitor the CEO, and the domination of the board of directors by top management can lead to collusion and transfer of stockholder wealth (Fama, 1980). The inability of insiders to monitor the CEO and their lack of involvement in strategic decision making may be extremely harmful to the firm during a period of financial distress. Baysinger & Butler's (1985) results indicated that the degree of financial health is affected by board composition because firms with above average performance have higher percentages of outside directors than firms with below average performance.

It may be characteristic of firms in persistent financial distress to have weak corporate governance, as measured by board composition and structure. Hambrick & d'Aveni (1992) reported that dominant CEOs are more likely to be associated with firm bankruptcy. Pfeffer (1972) found that the percentage of insider directors is higher on boards of declining firms. These studies show that risk management and performance in these companies is greatly affected by corporate governance.

1.1.4 Enterprise Risk Management and Corporate Governance in Kenya

Enterprise risk management has become embraced by Kenyan companies over the last decade in a bid to minimize overall risk faced by the company. Since the risk a company faces includes various aspects such as operations and finance, structures have to be in place to ensure that the company's assets are not at risk. Kenyan companies have embraced enterprise risk management voluntarily or through industry requirements such as the Central Bank laws for banks, Capital markets authority legislation for listed companies, among other requirements. These legislations are instituted to ensure corporate governance is practiced by Kenyan companies. As a result, auditors have a role in the institution of strong corporate governance practices in companies as the watchdog for shareholders. These corporate governance practices have enabled the

management of enterprise risk, and for Kenyan banks it is important to have proper risk management practices since they form a large part of the economy.

The global financial crisis and corporate mismanagements underscored the importance of senior management in Kenya to take taking an integrated firm-wide perspective of their company's risk exposure (i.e. enterprise risk management), in order to support its ability to identify and react to emerging and growing risks in a timely and effective manner. Implementing and adopting a properly functioning enterprise risk management (ERM) programme has therefore become increasingly important for banking institutions in Kenya. Few studies have been done on corporate governance and financial performance in Kenya, and little literature present on corporate governance and enterprise risk management as a whole.

1.2 Research Problem

Corporate governance helps in managing risks faced by a company through various mechanisms among them ensuring implementation of internal controls. As a consequence of global financial crisis and mismanagement of companies by management, standards such as the Cadbury Report (1992), SOX Act (2002), and the Turnbull guidance, 1999 were implemented to reinforce corporate governance.

Various studies (Elloumi & Gueyle, 2001; Ellonmi & Gueyie, 2011; Beltratti & Stulz, 2011) analyzed the effects of corporate governance on risk management and especially financial distress in companies. Mongiardino & Plath (2010) showed that the risk governance in large banks seems to have improved only to a limited extent despite increased regulatory pressure induced by the credit crisis. Studies by Beltratti and Stulz (2011) and Fahlenbrach & Stulz (2011) analyzed the influence of corporate governance on bank performance during the credit crisis. Specifically, Fahlenbrach and Stulz (2011) analyze the influence of CEO incentives and

share ownership on bank performance and find no evidence for a better performance of banks in which the incentives provided by the CEO's pay package are stronger. Aebi *et al.*, (2011) also analyzed whether risk management related corporate governance mechanisms are associated with better bank performance during financial crisis, and few local studies having been done in an attempt to determine the effects of corporate governance on enterprise risk management (Otieno, 2012; Miring'u & Muoria, 2011; and Choge, 2013).

These studies highlighted the effects of corporate governance on enterprise risk management (financial performance under crisis). However, the local studies that analyzed banks used different variables in the analysis of both corporate governance and enterprise risk management while the others did not use the financial sector in their study. This study used the central bank CAMEL rating which is seen as an adequate measure for enterprise risk in banks. This provided a different perspective to our study which has not been done in another study.

It is with this that our study sought to cover the research gap and answer the question "What are the effects of corporate governance on enterprise risk in commercial banks in Kenya?" From the previous studies, literature and results, it was expected that corporate governance had a positive impact on enterprise risk (CAMEL rating) in banks. This implied that the stronger the corporate governance instituted by the bank the better the enterprise risk management for the Kenyan banks.

1.3 Objective of the Study

To determine the effects of corporate governance on enterprise risk in commercial banks in Kenya.

1.4 Value of the Study

The study was of importance to the banks and the banking sector as a whole as it helped them know the importance and role of corporate governance in ensuring that they perform well through proper enterprise risk management. This helped the sector grow and also safeguard the stakeholders' interests. The study was also of value to internal auditors, who may use the findings to effectively manage the role of corporate governance in banks in Kenya. Since internal auditors have a say in corporate governance and they have a role in managing enterprise risk, they also knew what constituted a good corporate governance board and help in constitute it through audit reports on corporate governance.

Managers across the banking industry as agents benefited from the study as it helped them design and implement proper corporate boards. The constitution of the board in the achievement of corporate governance was important and therefore the study helped them achieve that. Lastly, the study was of importance to scholars to further the study and also serve as a literature in other studies related to it. This helped to increase the general knowledge of the subject and also provide useful reference to future studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The study reviewed the theoretical and empirical literature of the effects of corporate governance on enterprise risk management in banking sector in Kenya. Section 2.2 discussed the theoretical literature, highlighting the various theories that form the bedrock of the study. Section 2.3 looked at the empirical literature that was used, where previous studies were reviewed in order to fill the research gap. Section 2.4 reviewed the local studies done on the topic, while the summary of the literature review was done in Section 2.5.

2.2 Theoretical Literature

Theoretical literature provided a framework in which the theories relevant to the study were based on. The theories that were of relevance to the study were the agency theory, the stakeholder theory, and the stewardship theory. Each of them was believed to provide framework on the effects of corporate governance on enterprise risk management in Kenyan banks.

2.2.1 The Agency Theory

The study made use of the agency theory to understand more of the concept. Agency relationship is defined as one in which one or more persons (the principal(s)) engage another person (the agent) to perform some services on their behalf which involves delegating some decision-making authority to the agent (Jensen & Meckling, 1976; Ross, 1973). The central idea of this theory is that there exists a conflict of interest between owner and management. Eisenhardt (1989) discussed two main causes of agency problems namely, conflict of interests, and different attitude towards risk between owner and management. Berle & Means (1932) argued that when shareholders are not able to monitor management properly, the company assets might be used for

the welfare of management instead for maximizing shareholders' wealth. Chrisman, Chua & Litz (2004) noted that this conflict arises from information asymmetry between owners' and managers and there exists a gap between them.

This theory was relevant to this study as it showed how board of directors, as agents of the shareholders, should ensure that the risks of the shareholders in the banking sector are taken care of.

2.2.2 Stakeholder Theory

The other theory that was of relevance to this study is the Stakeholder Theory. The Stakeholder theory takes account of a wider group of constituents rather than focusing on shareholders (Mallin, 2007). It examines the firm in the context of a wider range of implicit and explicit stakeholders having legitimate expectations, urgent claims, and/or power regarding the firm (Jones & Politt, 2002a; Jones & Politt, 2002b). Freeman (1984) defines a stakeholder as "any individual or group who can affect or is affected by achievement of the organization's objectives". Thus, stakeholders include shareholders, employees, suppliers, customers, creditors, communities in the vicinity of the company's operations and general public. Stakeholder theory represents that the company is a separate organizational entity and it is connected to different parties in achieving wide range of purposes (Donaldson & Preston, 1995). The theory highlights interests of different groups and argues on the possibility of favouring one group's interest over that of other (Jones & Wicks, 1999). Donaldson & Preston (1995) point out that managers are responsible to deploy their wise decisions and best efforts in obtaining benefits for all stakeholders.

This theory focuses on managerial or strategic decision-making and suggests that the interests of all stakeholders have intrinsic value, and no sets of interests are assumed to dominate others

(Clarkson, 1995; Abdullah & Valentine, 2009). This theory was therefore relevant to the study as it showed how different stakeholders are important in the company as the management board ensures safeguard of all the stakeholders through implementation of strong corporate governance in a bid to effectively manage an enterprise risk.

2.2.3 Stewardship Theory

According to Stewardship theory, directors are regarded as the stewards of the company assets and are pre-disposed to act in the best interest of the shareholders (Mallin, 2007). Stewardship theory relates to the board's task of providing support and advice to management (Davis, 1991). Stewardship theory argues that the effective control held by professional managers empowers them to maximize firm performance and corporate profits. Regarding the leadership structure, stewards maximize their utility because they achieve organizational rather than self-serving objectives (Davis, 1991; Balta, 2008).

Stewardship theorists contend that superior corporate performance is associated with the majority of inside directors because, firstly, they ensure more effective and efficient decision-making and secondly, they contribute to maximize profits for shareholders (Kiel & Nicholson, 2003). This theory will be relevant to our study to show the relevance of managers as stewards in the quest to instill corporate governance in their institutions.

2.3 Determinants of Enterprise Risk

Several studies have come up with the determinants of enterprise risk management as implemented by companies. These determinants have been stated as:

Size: A larger company size is generally associated with an increasing scope and complexity of risks, which increases the likelihood of an ERM implementation. Hoyt & Liebenberg (2011)

suggested that larger firms are more likely to engage in ERM due to their relatively high complexity, the fact that they face a wider array of risks, and their institutional size which enables them to bear the administrative cost of ERM adoption. Furthermore, according to Beasley, Clune, & Hermanson (2005) and Golshan & Rasid (2012), larger companies also tend to have more resources with which to implement an ERM system. A positive correlation of the company size with the extent of the risk management system has also been shown previously (Colquitt, Hoyt, & Lee, 1999).

Financial leverage: Greater financial leverage is expected to generally induce a higher shortfall risk and thus higher financial distress costs. Even though the relationship between financial leverage and the adoption of an ERM system is not entirely clear (Hoyt & Liebenberg, 2011), financial leverage is expected to positively affect the adoption of an ERM system (Liebenberg & Hoyt, 2003). Financial leverage is mostly defined by the debt (or liability) to asset ratio.

Earnings volatility: A reduction in earnings volatility is typically stated as one major benefit of ERM, which is expected to result from the comprehensive consideration of interdependencies between enterprise-wide risks (Liebenberg & Hoyt, 2003). In the empirical studies considered, earnings volatility is measured by the coefficient of variation of earnings before interest and taxes (EBIT).

Asset opacity: In situations of financial distress, companies with more opaque assets have more difficulties liquidating their assets at purchase costs to prevent financial distress and they are more likely to cause an undervaluation of the company, also due to higher information asymmetry (Pagach & Warr, 2011). In addition, Liebenberg & Hoyt (2003) argue that the economic benefit of ERM may be greater for companies with higher opacity due to the ability of

the CRO to communicate the firm's risk profile and financial strength to prevent disagreement. The assets' opacity is measured by the ratio of intangible assets to total assets.

Growth opportunity: Liebenberg & Hoyt (2003) and Pagach & Warr (2011) expect that firms with greater growth opportunities face an increasing degree of uncertainty with respect to future cash flows and are thus more likely to implement an ERM system. In particular, ERM does not only help reduce risks but also accounts for potential opportunities, such that the growth potential can be realized in an optimal way by means of an ERM system. Furthermore, according to Beasley, Pagach & Warr (2008), the growth opportunities of high potential companies are generally undervalued resulting in higher costs of debt. Hence, greater growth opportunities enhance the benefit of ERM and are measured by the (average) market-to-book asset ratio in the studies considered.

Diversification: Companies that operate in several segments or business units are overall more broadly diversified, thus potentially helping to reduce operating and financial risks (Pagach & Warr, 2011). However, a higher diversification within the company is also consistent with higher risk complexity, thus resulting in the assumption of a positive relation between an ERM system and the firms' level of diversification (Golshan & Rasid, 2012).

Enterprise risk management is known to be affected by several factors. These were identified as: the size of a company, as larger companies have increased scope and complexity; financial leverage, with greater financial leverage inducing higher shortfall risk; earnings volatility, as a reduction in earnings volatility being stated as one of major benefits of ERM; asset opacity, where the economic benefit of ERM is greater for companies with higher opacity; growth opportunity, where it is expected that firms with greater growth opportunities face an increased

degree of uncertainty with respect to future cash flows, hence more likely to implement ERM system; and diversification, where companies that operate in several segments or business units are more broadly diversified, thus potentially helping to reduce operating and financial risks.

2.4 Empirical Studies

Over the last decade, corporate governance has been an important aspect for companies especially after the collapse of Enron, Worldcom and the Lehmann Brothers. Various governance regulations such as the Cadbury Report (1992), Turnbull Report (1999), and Sarbanes-Oxley Act (2002) were instituted to ensure strong corporate governance and to protect shareholders' assets. Studies have therefore been done to analyze how corporate governance affects risk management of companies. The study therefore reviewed both the international and local literature in a bid to understand the concepts.

2.4.1 International Literature Review

Elloumi & Gueyie (2001) conducted a study on the relationships between corporate governance characteristics and financial distress status for a sample of Canadian firms. Results from logit regression analysis of 46 financially distressed and 46 healthy firms lead them to conclude that the board of director's composition explains financial distress, beyond an exclusive reliance on financial indicators. Additionally, supplemental results indicate that outside directors' ownership and directorship affect the likelihood of financial distress. Furthermore, splitting financially distressed firms based on chief executive officer change as a proxy of turnaround strategies provides useful insights on corporate governance characteristics in financial distress.

Hui & Jing-Jing (2008) examined the relationships between selected aspects of corporate governance and the indirect costs of financial distress, using panel data of 193 financially distressed listed companies in China from 2000 to 2006. They found that ownership balancing at

the governance level reduced the indirect costs of financial distress, while each of the following three aspects of corporate governance; the proportion of the company's shares that were held by the state, the percentage of independent directors on the board, and the proportion of total costs that were overhead costs; increased the indirect costs of financial distress. The study results suggested that companies benefit from better corporate governance and that such improvements can help the companies to become financially healthy.

Minton, Taillard, & Williamson (2010) investigated how risk taking and U.S. bank performance in the crisis are related to board independence and financial expertise of the board. Their results show that financial expertise of the board is positively related to risk taking and bank performance before the crisis but is negatively related to bank performance in the crisis. Finally, Cornett, McNutt & Tehranian (2010) investigate the relation between various corporate governance mechanisms and bank performance in the crisis in a sample of approximately 300 publicly traded U.S. banks. In contrast to Erkens, Hung, & Matos (2010), Beltratti & Stulz (2011), and Fahlenbrach & Stulz (2011), they found better corporate governance, for example a more independent board, a higher pay-for-performance sensitivity, and an increase in insider ownership, to be positively related to the banks crisis performance.

Beltratti and Stulz (2011) investigated the relation between corporate governance and bank performance during the credit crisis in an international sample of 98 banks. Most importantly, they found that banks with more shareholder-friendly boards as measured by the “Corporate Governance Quotient” (CGQ) obtained from RiskMetrics performed worse during the crisis, which indicates that the generally shared understanding of “good governance” does not necessarily have to be in the best interest of shareholders. Beltratti and Stulz (2011) argued that banks that were pushed by their boards to maximize shareholder wealth before the crisis took

risks that were understood to create shareholder wealth, but were costly ex post because of outcomes that were not expected when the risks were taken.

Similar to Beltratti & Stulz (2011), Erkens, Hung, & Matos (2010) investigated the relation between corporate governance and the performance of financial firms during credit crisis of 2007/2008. Erkens, Hung, & Matos (2010) used an international sample of 296 financial firms from 30 countries. Consistent with Beltratti & Stulz (2011), they found that firms with more independent boards and higher institutional ownership experienced worse stock returns during the crisis. They argued that firms with higher institutional ownership took more risk prior to the crisis which resulted in larger shareholder losses during the crisis period. Moreover, firms with more independent boards raised more equity capital during the crisis, which led to a wealth transfer from existing shareholders to debtholders.

Aebi, Sabato & Schmid (2011) also did a study to investigate whether risk management related corporate governance mechanisms are associated with better bank performance during the crisis of 2007/2008. They measured bank performance by buy-and-hold returns, ROA, and ROE and we control for standard corporate governance variables such as CEO ownership, board size, and board independence. Their study results indicated that banks, in which the CRO directly reports to the board of directors and not to the CEO (or other corporate entities), exhibit significantly higher (i.e., less negative) stock returns, ROA, and ROE during the crisis. In contrast, standard corporate governance variables are mostly insignificantly or even negatively related to the banks performance during the crisis.

Al-Tamimi (2012) also did a study investigating the UAE national banks' practices of corporate governance (CG) and the perception of the UAE national banks of the effects of CG on

performance and financial distress. A modified questionnaire was developed, divided into two parts. The first part covered disclosure and transparency, executive compensation, relationship with shareholders, governance structure, policies and compliance, relationship with stakeholders, and board of directors. The second part dealt with performance and financial distress. The study results indicated that UAE banks are aware of the importance of disclosure transparency, executive compensation, the relationship with shareholders and stakeholders, and the role of the board of directors. The results also indicated that the corporate governance practices of UAE national banks are acceptable. In addition, the results revealed that there is a significant positive relationship between corporate governance practices of UAE national banks and disclosure and transparency, shareholders' interests, stakeholders' interests, and the role of the board of directors. Furthermore, the results indicate that there is an insignificant positive relationship between corporate governance practices of UAE national banks and performance level, and that there is a significant positive relationship between financial distress and corporate governance practices of UAE national banks. Finally, the study found that there is no significant difference in the level of corporate governance practices between the UAE's national conventional banks and its Islamic banks.

Salloum & Azoury (2012) did a study to determine the managerial governance characteristics related to financially distressed companies. Through the analysis of a sample of 178 Lebanese non-listed and family owned firms, their study results showed that boards which have a higher proportion of outside directors are less inclined to face financial distress than the boards with a lower proportion. In addition, a different conclusion proved that the board's size and financial distress are directly linked.

2.4.2 Local Literature Review

Various local studies have been done to analyze the effects of corporate governance on enterprise risk management. Corporate governance studies became important in the country after bankruptcies and mismanagement became common and its importance amplified after the global recession in 2008.

Miring'u & Muoria (2011) did a study to identify the relationship between financial performance, board composition and size. The study used descriptive survey design and sample size of 30 corporations. Data was analyzed through descriptive statistics and multi-linear regression technique. The finding of the study was that there is a relationship between ROE and board size and board compositions of all state corporations.

Otieno (2012) conducted a study aiming to establish the effects of corporate governance practices and policies (corporate governance practice, CGPR; corporate governance policies, CGPO; disclosure policies and practices, DPP; and shareholders' rights and responsibilities, SRR) on financial performance of commercial banks. A cross sectional and analytical research design was in this study. The population involved in this study was all the 44 commercial banks in Kenya. 13 CEOs from the sampled banks were subjected to the study and questionnaires administered to them. The study used spearman correlation coefficient and multiple regression analysis to determine the magnitude of the relationship and prediction of financial performance. The study results found that corporate governance play an important role on bank stability, performance and bank's ability to provide liquidity in difficult market conditions. From the findings, corporate governance factors (CGPR, CGPO, DPP and SRR) accounts for 22.4 % of the financial performance of commercial banks, derived from adjusted R square value of the regression test.

Choge (2013) did a study to find out the effects of board size, board composition, and ownership concentration on the financial performance of firms listed in NSE and also to establish the effect of sustainable responsible business on the financial performance of companies listed in the NSE. The study used longitudinal research design with the target population being companies listed in the Nairobi stock exchange since the year 2004 after the automation of the systems in the stock market and data analyzed using SPSS regression analysis. From the study, it was concluded that the board size, ownership concentration, board composition and sustainable responsible business all have a significant effect on the financial performance of companies listed at the NSE

Ngulumbu (2013) did a study on the relationship between board composition and financial performance of companies of companies listed at the Nairobi Securities Exchange. The population of this research consisted of all the listed companies in the Nairobi Security Exchange. The study used secondary data and used correlational study design. Financial performance (ROA) was collected for a period of three years (2010 to 2012). The study results showed that the size of the board plays an important role in influencing the financial performance of quoted companies. The regression results indicated that there was a positive relationship between board size and financial performance and that board size has a positive impact on operational efficiency. The findings indicated that there was a positive and significant relationship between number of independent directors and financial performance of listed firms.

Wambua (2011) did a study to determine the effects of corporate governance on savings and credit co-operatives' financial performance in Kenya. The study's targeted population was 532 sacco staff working in Nairobi and therefore generated 53 sample respondents who were given questionnaires. The study concluded that the board size and composition did not affect the financial performance of the sacco. The study also concluded that financial monitoring by the

board affected the performance of the sacco. Number of meetings held by the board affected the financial performance of the sacco and the sacco leadership played an important role in selecting, monitoring, and replacing the CEO.

2.5 Summary

This chapter reviewed both theoretical and empirical literature on the effects of corporate governance on enterprise risk management. The purpose of the review was to analyze the theories used and identify the research gap in the study using the empirical reviews. The theories and empirical studies used in the study assisted in providing a framework. These were the agency theory, stakeholder theory, and stewardship theory. From the review, it is noted that corporate governance is considered important in the financial performance of companies and banks. Almost all of the studies indicated a positive relationship between corporate governance and financial performance.

Both international and local studies indicated relationship between the two variables. However, the local studies did not look at the variable of enterprise risk management that our study used, which was the CAMEL rating. These gaps provided a background for analyzing the effects of corporate governance on enterprise risk in commercial banks in Kenya and therefore help us in answering our research question which is “what are the effects of corporate governance on enterprise risk in commercial banks in Kenya?”

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter contains the methodology, which was used in the study. Section 3.2 began with discussion of the overall research design, while section 3.3 discussed the target population and the sampling procedure, which was used to arrive at the appropriate sample size. Section 3.4 presented the data collection techniques and instrument used in data collection and the justification for the choices. The technique of data analysis was contained in Section 3.5.

3.2. Research Design

According to Bryman & Bell (2007), research design is a general plan that provides a framework for the choice of data collection techniques and data analysis procedures. A descriptive cross-sectional design was be suitable for this study as it analyzed different banks in the country. This is because analysis of different banks with regards to effects of corporate governance on enterprise risk management is possible at the same time.

The descriptive study is one which information is collected without changing the environment while a cross sectional study is one which involves a one-time interaction (snapshot) with the unit of analysis. The benefit of the cross-sectional study design is that it allows researchers to compare many different variables at the same time. The banks as the units of analysis were analyzed at the same time and descriptive information was sought from banks' risk officers who were the respondents.

3.3 Population

The study's population included all the commercial banks in the country which are currently 44 including one mortgage company (Central Bank of Kenya, 2014). In addition, the study included

the Central Bank of Kenya as the regulator of the bank with a supervisory role over all banks and as custodians of some of corporate governance guidelines for the banks.

Since the study population was not large and is accessible, the study did not use any sampling in the study and used a census study. This enabled us to get adequate information on the study objectives. From this census, questionnaires were administered and the effects of corporate governance on enterprise risk management determined.

3.4 Data and Data Collection Instruments

Data collection stage showed what type of data was collected, whether primary or secondary, the instrument of data collection used, and the period of which the data was collected. Our study used primary data, and the data collection instrument was a questionnaire. The questionnaire covered the important issues relating to the effects of corporate governance on enterprise risk management.

These questionnaires were sent to risk officers of banking institutions and were designed to seek the effects of corporate governance on enterprise risk management. This was through both email and hard copy together with a cover letter specifying the research topic and guarantee of confidentiality. Secondary data was collected from financial statements and annual reports, examining information on corporate governance and use it on how it affects enterprise risk management.

3.5 Data Reliability and Validity

According to Shanghverzy (2003) reliability refers to the consistency of measurement and is frequently assessed using the test-retest reliability method. Berg and Gall (1989) stated that validity is the degree by which the sample of test items represents the content the test is designed

to measure. The study measured the validity using Cronbach-Alpha test to measure the degree by which the sample of test items represents the content the test is designed to measure. The test provided the following results:

Table 3.1: Cronbach Alpha

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.598	.526	5

The table above indicated a Cronbach Alpha value of 0.595 indicating that 59.8% of the variance are 'true scores' or reliable.

To ensure reliability, the study pre-tested the questionnaire using two commercial banks. They were also be asked to confirm if the questionnaire was generally okay with them and their feedback was used to improve on the quality of the questionnaire. Expert opinion from the supervisor and other lecturers were also used to determine the instrument reliability and validity.

3.6 Data Analysis

3.6.1 Conceptual Model

The study variables were corporate governance as the independent variable, while enterprise risk management was the dependent variable. The managers informed us on how corporate governance affects enterprise risk management. The study therefore sought as to what extent the dependent variables was affected by the internal audit function in Kenyan banks. The dependent variable (corporate governance) was measured using a Likert scale in order to know the extent to which it affected enterprise risk management in Kenyan banks.

The model of the study therefore took the form:

$$Y = f(X) \tag{1}$$

Where

Y is enterprise risk management in Kenyan banks as measured by the central bank of Kenya CAMEL rating.

X is enterprise risk management as measured by CRO in executive board, presence of risk committee, board size, board independence, and board diversity.

f is the function as it affects the corporate governance facets.

This model shows how enterprise risk management (Y) in Kenyan banks is effected by corporate governance as the independent variable, hence showing the role corporate governance plays in enterprise risk management in Kenyan banks. The study expects a positive impact between corporate governance and enterprise risk management in Kenyan banks.

3.6.1.1 Variables of Enterprise Risk in Banks

Proposals for the disclosure of risks for firm-wide measures of risk is important to know the level of exposures to risk by banks. One important way of determining enterprise risk in banks is through the CAMEL rating by the central bank. It is the main measure used to evaluate the overall safety and soundness of a bank. The acronym CAMEL stands for Capital adequacy, Assets quality, Management, Earnings, and Liquidity to market risk and they are used to measure the overall risk of commercial banks in the country. All these aspects for the banks are audited by the central bank and rated on the scales of Strong, Satisfactory, Fair, and Fail. The overall rating for the bank is done from these variables and it will be for the last CBK rating for all the banks under survey.

The overall CAMEL rating done by the central bank was used in the study to measure the enterprise risk in commercial banks and it was our dependent variable.

3.6.1.2 Corporate governance variables

The study used Aebi, Sabato and Schmid (2011) model to come up with corporate governance variables. The first variable the study collected data on is a dummy variable whether the CRO is a member of the executive board (*CRO in executive board*). If the CRO is a member of the executive board, his influence and power are expected to be larger as compared to a CRO who is situated on the third management level.

The second governance variable is a dummy variable, which was equal to one if the bank had a dedicated committee solely charged with monitoring and managing the risk management efforts within the bank (*Risk committee*). Banks, for which the variable *Risk committee* has a value of zero, have either no committee in charge of risk management at all or the audit committee assumes responsibility. We would expect that having a risk committee in general indicates a stronger risk management and therefore better corporate governance.

The third governance variable was board size, measured as the natural logarithm of the number of directors on a bank's board ($\ln(\text{Board size})$). Yermack (1996) finds a negative relation between board size and firm value as measured by Tobin's Q. Adams and Mehran (2003) found that bank holding companies have on average larger boards of directors than manufacturing firms. They notice that these differences could be explained by regulatory differences as the regulatory requirements imposed on banks may act as substitutes for a sound corporate governance structure.

The fourth variable that the study used was board independence as measured by the percentage of independent outside directors on the board of directors (*Board independence*). This study defines independent directors as directors without any relation with the company except for their board seat. Hence, we classify directors with prior executive function, with a family relationship

with an executive officer of the bank, or with any other business ties, such as for example lawyers or consultants doing other work for the bank as non-independent (or “gray”) directors.

The fifth variable was the diversity of board as measured by the different professions of each director. This is known to bring diverse knowledge to the board which is deemed important for proper governance of the banks. Having a diverse board can play an important role in anticipating and managing risk because it will have a broader range of perspectives and professional expertise that will allow greater insights and discussion (Community Business Limited, 2013).

3.6.2 Analytical Model

The study employed multiple linear regression analysis in its data analysis. Regression analysis was used to test the effects of corporate governance on enterprise risk management.

The formula used for regression analysis was:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon \quad (2)$$

Where:

Y = Overall CBK CAMEL rating

X₁ = CRO in executive board

X₂ = Dedicated Risk Committee

X₃ = Board Size

X₄ = Board independence

X₅ = Board diversity

β₁, β₂, β₃, β₄, β₅ = the independent variable coefficients

α = the constant of the regression.

ε = the residual or error term

The significance of the data was analyzed using critical p-values. The resulting p-values were compared with the critical p-value from the table at 5 percent significance value. Values within the 5 percent significance value were considered statistically significant while calculated values above were rejected. The results were presented using percentages, tables and charts. In measuring how well our regression model fits the data in this study, we employed the use of the goodness of fit statistic R^2 . The R^2 calculated was used to examine how close the data is to the fitted regression line. The R^2 is also known as the coefficient of determination. The R test was used to measure the strength and the direction of the linear relationship between variables. The F statistic was used to measure variances in the population under study. The significance of the regression results was tested using the F test statistic which is basically a ratio that compares the explained sum of squares and the unexplained sum of squares.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The objective of the study was to determine the effects of corporate governance on enterprise risk management in Kenyan banks. This chapter discusses the summary statistics from the bank response in 4.2, while the analysis of the effect of corporate governance on risk management is presented in section 4.3. Section 4.4 discusses the findings of the study with section 4.5 presenting as summary of the data analysis findings, results and discussions.

4.2 Summary Statistics

The objective of the study was to analyze the effects of corporate governance on enterprise risk management in Kenyan banks. Questionnaires were sent to 44 banks in Kenya and 18 banks responded by sending back the questionnaires. This gave the study a response rate of 41% with the other 59% not responding either because they were not in a position to give their company information or could not answer the questionnaire in time required for the study.

4.2.1 Descriptive Data

Descriptive data was calculated for the responses given, with the mean, the standard deviation and the data distribution provided. From the analysis, the following data was provided as shown below:

Table 4.1: Statistics of independent variables

Variables	N	Minimum	Maximum	Mean	Std. Deviation
No. of board directors	13	6	13	9.85	1.951
Board Diversity	13	2	10	5.92	2.326
No. of independent directors	13	2	11	5.92	2.900
Board Independence	13	.2500	.9000	.589642	.2401813
No. of dedicated risk comm. Members	13	2	10	4.85	2.035
No. of independent directors in risk committee	13	1	5	2.92	1.441
No. of meetings by risk committee	13	3	6	4.08	.641

The above showed the descriptive statistics of the independent variables which were used as the corporate governance facets. These figures were for the financial period which the CAMEL rating was done by the Central Bank of Kenya, between 2013 and 2014. With regards to the number of board directors sampled, there was a minimum of 6 directors and a maximum of 13, with an average of 9.85 directors per board directors from the banks sampled. In terms of board diversity which indicated the number of different professions constituted in the board, the minimum number of professions was 2 and the highest in terms of diversity was 10, with an average of 5.92 professions per board. The number of independent directors was considered a factor in determining strong corporate governance. The table indicated a minimum of 2 and a maximum of 9 independent directors, with a mean of 5.92 directors. The absolute number of independent directors was converted to percentage of the total directors. This gave a minimum percentage of 25 percent and the highest percentage of 90 percent, with a directors' independence mean of 58.96 percent.

The existence of a dedicated risk committee in banks shows the importance of enterprise risk management in banks. However, this is also as a result of the Central Bank of Kenya directive that it is necessary for banks to have these committees. The number of dedicated risk committee members indicated a minimum of 2 directors and a maximum of 10 directors with a mean of 4.85

directors per committee, while independent directors in the risk committees had a minimum of 1 director and a maximum of 5 directors. Finally, the minimum number of meetings held by the risk committee was 3 while the maximum number of meetings held was 6.

Enterprise Risk Management

Table 4.2: Management board advocates for participating in an organization’s ERM efforts

	Frequency	Percent	Cumulative Percent
Valid Neutral	1	7.7	7.7
Agree	8	61.5	69.2
Strongly Agree	4	30.8	100.0
Total	13	100.0	

The above table indicated the distribution of responses by banks’ internal audit managers on whether management board advocates for participation in an organization’s ERM efforts. Of the responses provided, 61.5% (N=8) stated that they agreed with the statement and 30.8% (N=4) stated that they strongly agreed with the statement.

Table 4.3: Management board involves CROs in facilitating identification of key areas for the organization

	Frequency	Percent	Cumulative Percent
Valid Agree	9	69.2	69.2
Strongly Agree	4	30.8	100.0
Total	13	100.0	

The response on whether the management board involves CROs in facilitating identification of key areas for the organization as well as all key processes indicated that 69.2% (N=9) agreed with the statement and 30.8% (N=4) strongly agreed with the statement. This indicated that CROs are involved in the identification of key processes.

Table 4.4: Management board involves CROs in the development of standards

		Frequency	Percent	Cumulative Percent
Valid	Neutral	1	7.7	7.7
	Agree	8	61.5	69.2
	Strongly Agree	4	30.8	100.0
	Total	13	100.0	

The above table shows the response distribution on whether the management board involves CROs in the development of standards. From the responses, 61.5% (N=8) of the banks stated that they strongly agreed with the statement while 30.8% (N=4) stated that they agreed with the statement.

Table 4.5: Management board involves CROs in evaluating business

		Frequency	Percent	Cumulative Percent
Valid	Agree	10	76.9	76.9
	Strongly Agree	3	23.1	100.0
	Total	13	100.0	

Banks also gave their responses on whether the management board involves CROs in evaluating business and process owners on taking responsibility on enterprise risk management. It was indicated that 76.9% (N=10) of the respondents agreed with the statement while 23.1% (N=3) strongly agreed with the statement.

Table 4.6: CAMEL Rating distribution

		Frequency	Percent	Cumulative Percent
Valid	Fair	1	7.7	7.7
	Satisfactory	8	61.5	69.2
	Strong	4	30.8	100.0
	Total	13	100.0	

The CAMEL rating showed the responses by the banks on how they were rated by the Central Bank of Kenya. The Central Bank of Kenya audits the commercial banks and rates them with regards to certain parameters which are corporate governance constituents. The responses as shown from the above table was that 30.8% (N=4) stated that they were ranked Strong, while 61.5% (N=8) stated that they were ranked Satisfactory.

4.3 Effect of Corporate Governance on Risk Management

The effect of corporate governance on risk management was done using multiple regression analysis. The outcome of the analysis contained correlation analysis test, goodness of fit test, analysis of variance (ANOVA), and the regression coefficient model.

4.3.1 Results of Correlation Analysis

Table 4.7: Correlation Analysis

Variable	CAMEL Rating given	CRO member of board	Dedicated committee for risk Mngt	Board Size	Board Diversity	Board Independence
CAMEL Rating given	1					
CRO member of board	.312	1				
Dedicated committee for risk management	. ^a	. ^a	. ^a			
Board Size	-.127	-.426	. ^a	1		
Board Diversity	.074	-.201	. ^a	.736**	1	
Board Independence	.566*	-.299	. ^a	.218	.495	1

The table shows the relationship between the dependent variable, Audit Quality, and the independent variables, Audit Rotation, Consultation Services, and Audit Fees. From the table results, it can be seen that the variable ‘CRO being a member of executive board’ had a low positive correlation (0.312) to the CAMEL rating by central bank. The variable ‘dedicated committee for risk management’ did not have an output since it was considered a constant as all the respondents indicated to having a dedicated committee for risk management. The ‘banks’

board size' variable used the logarithm of the board size (\ln (size)) and it indicated a negative correlation (-0.127) to the CAMEL rating given. The 'board diversity' variable had no significant variable to the CAMEL rating given (0.074) while board independence which was a percentage of independent directors in the total board indicated a significant relationship to the CAMEL rating. However, board diversity had a high correlation coefficient to board size (0.736)

4.3.2 Results of Model Goodness of Fit Test

Table 4.8: Goodness of Fit Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.799 ^a	.639	.459	.441

a. Predictors: (Constant), Board Diversity, CRO member of board, Board Independence, Board Size

Table 4.8 above shows the R , R^2 , and the standard error of the estimates. R represents the multiple correlation coefficients, while R^2 represents the proportion of variance in the dependent variables that can be explained by the independent variables. As shown in Table 4.8, R indicated a value of 0.799, while adjusted R^2 indicated a value of 0.459, and a standard estimate 0.441. The adjusted R^2 is used for multiple regression analysis and it indicated that there was a variance of 40.7% on audit quality as a result of audit rotation, consultancy services, and audit fees. The table also indicated an overall correlation coefficient of 0.799 indicating that there is a strong relationship between the dependent and independent variables.

4.3.3 Results of ANOVA

Table 4.9: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.753	4	1.188	6.125	.046 ^a
	Residual	1.554	8	.194		
	Total	6.308	12			

a. Predictors: (Constant), Board Diversity, CRO member of board, Board Independence, Board Size

b. Dependent Variable: CAMEL Rating given

The ANOVA table tested whether the overall regression model is a good fit for the data, and whether the independent variables statistically significantly predict the dependent variable. It tests the statistical significance of the test. The F test has two numbers for its degrees of freedom and from the table, $F(4,8) = 9.364$ and p value $(0.46) < 0.05$. This indicated that the regression model is significant in predicting the CAMEL rating.

4.3.4 Estimated Model

Table 4.10: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.632	2.217		.285	.783
	CRO member of board	.757	.323	.607	2.346	.047
	Board Size	.755	1.071	.265	.705	.501
	Board Independence	2.279	.683	.914	3.339	.010
	Board Diversity	-.116	.101	-.452	-1.158	.280

a. Dependent Variable: CAMEL Rating given

The regression coefficients table indicates the slope of both the unstandardized and standardized coefficients of the variables. Table 4.10 above indicated standardized coefficients for the variables: CRO being a member of board had a standardized beta coefficient of 0.607, board size had a standardized beta coefficient of 0.265, board independence had a standardized beta coefficient of 0.914, while board diversity had a standardized beta coefficient of -0.452.

From these coefficient variables indicated, the equation can be stated as:

$$ERM = 0.632 + (0.607 * X_1) + (0.265 * X_3) + (0.914 * X_4) - (0.452 * X_5)$$

This equation indicates that an increase in enterprise risk management by one unit in a bank requires increase of 0.607 units of CRO being in executive committee, increase of 0.265 units of

board size, increase of 0.914 units of board independence, and a decrease of 0.452 units of board diversity. Dedicated risk committee had no effect on the CAMEL rating as it was considered a constant hence its omission from the model.

4.4 Discussion

Data was collected from banks, coded and analyzed using SPSS in order to answer the research objective. Descriptive data provided the mean, standard deviation, and distributions of the responses. With the independent variable 'dedicated risk committee' being made the controlling variable, the other independent variables' effects on enterprise risk management were analyzed. The main objective of the study was to analyze the effects of corporate governance on the enterprise risk management in Kenyan banks.

Regression analysis test was conducted to determine the extent of relationship between the dependent and independent variables. The adjusted R^2 was 0.459 or 45.9% which indicated the variance of the dependent variable for increase in the independent variables. This value indicates that there might be other variables that cause the other 44.1% of the variance in enterprise risk management. The ANOVA of the study indicated an F value of 6.125 and a p value of 0.046. This indicated that the independent variables were significant in terms of goodness of fit since the p value of 0.046 is less than the significant 0.05. The coefficients table provided the various beta coefficients indicating the extent to which the independent variables affected audit quality.

The first independent variable was CRO in executive board with a coefficient of 0.607 and a t value of 2.346. This together with the significance value of 0.047 indicated that the variable had a significant impact to the CAMEL rating. This outcome is in agreement with that of Aebi *et al.* (2011) who indicated that when the CRO is a member of the executive board, his influence and power are expected to be larger as compared to a CRO who is situated on the third management

level, hence improving corporate governance. The second variable in the study was the presence of a dedicated risk committee which was not in the model as all the respondents indicated that they had a dedicated risk committee in their banks. This is because it is mandated by the central bank of Kenya to have a dedicated risk committee. This variable was therefore treated as a constant. The third variable in the study was the board size. The study used the log of the size as the variable which had a coefficient of 0.265. This finding was different to that of Yermack (1996) who found a negative relation between board size and enterprise risk and firm value.

Board independence was the fourth independent variable in the study which had a value of (0.914) and a t value of 3.339. This together with the significance value of 0.01 indicated a significant impact on the CAMEL rating. It is generally expected that having independent directors improve corporate governance, hence stronger enterprise risk management. The fifth variable used in the study was board diversity which had a coefficient value of (-0.452) and a t value of -1.158. This together with a significance value of 0.28 indicated that board diversity does not play a significant role in determining the CAMEL rating of Kenyan banks. A study done by Community Business Ltd (2013) indicated that having a diverse board can play an important role in anticipating and managing risk because it will have a broader range of perspective and professional expertise which will allow greater insights and discussions.

4.5 Summary

This chapter analyzed and presented the findings of the effects of corporate governance on enterprise risk management in Kenyan banks, which was the objective of the study. The study calculated descriptive statistics showing the mean, median, standard deviation, standard error and other important statistics for the sampled banks which were 13 in total. The main analysis technique for the study was done using ordinal regression, with the CAMEL rating being the

dependent variable and the independent variables being CRO being in executive board, dedicated risk committee, board size, board independence, and board diversity. These findings were displayed using tables and discussed.

The findings indicated that the variable CRO being in executive board had a positive correlation and a positive impact on the banks' CAMEL rating. The banks' board size variable had a negative correlation with CAMEL rating but had a positive impact on the CAMEL rating. Board independence had a significant correlation and a positive impact on the CAMEL rating. The board diversity had a low correlation to CAMEL rating and negative impact on the CAMEL rating. In general, it was seen that the five variables have an impact on the CAMEL rating except the presence of a dedicated risk committee.

CHAPTER FIVE

SUMMARY AND CONCLUSION

5.1 Introduction

This final chapter contains the summary and conclusion of the study with regards to the effects of corporate governance on enterprise risk management in Kenyan banks. Chapter 5.2 looked at the summary of the study, while chapter 5.3 presented the conclusion of the study based on the results of the analysis. The limitations of the study were presented in chapter 5.4 and finally chapter 5.5 highlighted the study recommendations for further research.

5.2 Summary of the Study

Corporate governance is important in ensuring that companies are run in a transparent and professional manner. The relationship of corporate governance and enterprise risk management has been highlighted in previous studies but its impact had not been done for Kenyan banks. Limited studies had been done on the effects of corporate governance on enterprise risk management in Kenyan banks, which provided the study's research gap. The research objective was formulated which was to determine the effect of corporate governance on enterprise risk in commercial banks in Kenya.

Literature review was done, highlighting the important theories which were deemed important for the study and also highlighting important variables that were used in the study. The study used a cross sectional research design which aided in doing a comparative analysis. Questionnaires were designed and sent to internal audit and risk managers for their response in order to answer the research question. From the responses provided and the study research

objective, descriptive statistics was provided and data analysis was done using the ordinal regression analysis as the study variables were in ordinal scale.

The study results indicated that CRO presence in executive board, board size, and board independence had a positive impact on the banks' CAMEL rating, while board diversity had negative impact on the CAMEL rating. The variable dedicated risk committee did not have an impact since it was deemed as a constant as all the respondents indicated a presence of a dedicated risk committee.

5.3 Conclusion

Companies face various risks as a result of business operations. These risks expose the owners and risk management has evolved through the years in order to mitigate the risks. Enterprise risk management has been able to assist companies to identify, monitor and counter risks that are facing the company. The banking sector in Kenya has evolved over the years and with the financial collapse of companies both locally and globally, corporate governance has been emphasized to reduce the risks faced by shareholders as a result of agency.

The study identified how corporate governance impacts on the enterprise risk management, identifying corporate governance facets and measuring how they impact on enterprise risk management. From the findings of the study, CRO presence in executive board, board size, and board independence had a positive impact on CAMEL rating while board diversity had a negative impact on the CAMEL rating. It is therefore important for the bank board to have many independent directors as board independence has the highest impact on the CAMEL rating, followed by CRO being in executive board/committee.

With the findings, banks should be able to implement these findings to be able to improve their enterprise risk management and other areas. Corporate governance not only improves the enterprise risk management but also other areas of the organization. It is therefore important for managers and board to ensure implementation of the findings, even though different banks have different situations which affect implementation.

5.4 Limitations of the study

The study experienced few limitations, one of them including low response rate from banks with regards to providing information. This would have been due to several reasons but the number of responses received was sufficient to do analysis and infer the results to the bank population. The study was able to counter this limitation through follow ups of the sent questionnaires to those we were able to reach and ensuring that they give accurate results so as to have a small margin of error when analyzing. Larger samples usually have the law of central tendency which enables them have smaller margin of errors.

Another limitation of the study was the access to some of the information required for the study, especially the CAMEL ratings for the banks. Some banks were not able to provide this information while the Central Bank of Kenya was also not in a position to avail the information for study purposes. The CAMEL rating that was used is the overall rating and the study would have used the specific ratings if they were available. This limitation was also countered by discussing with the responders on the confidentiality of the study and the importance of the study to the industry. Also, some of the information provided was corroborated through the banks' annual reports which had information about the board and enterprise risk management.

5.5 Recommendations for Further Research

The subject of corporate governance and enterprise risk management is important as highlighted in the study and the study recommends further research in various aspects. The first is there should be a centralized database of a bank's overall CAMEL rating. In as much as the ratings are private for the banks, central bank should provide the overall rating so as to be able to know the risks faced by the banks and will also make the banks better manage its enterprise risk.

The study also recommends that other variables may be identified and analyzed towards their impact on enterprise risk management. The study findings indicated an R^2 value of 45.9%, indicating that there might be other variables which impact on the other 44.1% of the dependent variable variance. Also, other analytical models and techniques may be used to analyze the factors which have an impact on enterprise risk management so that they can be analyzed from different perspectives. Finally, the sample size may be increased to over 30 banks and the analysis done to check if there is conflicting results to the one above. Other economic sectors such as manufacturing or insurance may also be studied using the same variables used in the study.

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APPENDICES

APPENDIX I: INTRODUCTION LETTER

To whom it may concern,

RE: RESEARCH PROJECT

My name is Geoffrey Kimani from the University of Nairobi. I am carrying out a research study on the effects of internal audit on corporate governance in Kenyan banks. The research is purely for academic purposes and I am glad to inform you that your input will form part of the research study. I would request your assistance in filling the questionnaire and any information given will be treated with utmost confidentiality

Thank you.

Geoffrey Kimani.

APPENDIX II: QUESTIONNAIRE

The questions provided below form part of the research study which seeks to determine the effects of corporate governance on enterprise risk management. Your participation will be highly appreciated and the information provided in the questionnaire will be confidential and purely for academic purpose.

Name of bank _____ **Date of interview** _____

Name of respondent (optional) _____

BOARD COMPOSITION

	<i>Response</i>	
Does the bank have a position of Chief Risk Officer (CRO)?	Yes	No
If yes in the above question, is the CRO a member of the executive board?	Yes	No
Does the bank have a dedicated committee solely in charge of monitoring and managing the risk management efforts within the bank?	Yes	No
What is the number of directors in the bank's board (both executive and non-executive)?		
What are the professional backgrounds of your board members?	<i>Profession</i>	<i>Number</i>
What is the number of the independent directors in your board? <i>(These are directors who have no relation to the company except for their board seat)</i>		
How many meetings were convened by the board in the past financial year?		
If you have a dedicated risk committee, How many members does it consist?		

How many independent directors sit in the Risk committee?	
How many meetings did the Risk committee hold during the past financial year?	

CAMEL RATING

	<i>Response</i>
What is your bank's latest overall CAMEL rating done by the central bank of Kenya?	Strong Satisfactory Fair Fail
When was the last CBK inspection done on your bank and the CAMEL rating given?	

With the statements below, indicate the level with which you agree with the statements:
1=strongly disagree, 2=disagree, 3=neutral, 4=agree, and 5=strongly agree.

<i>Enterprise Risk Management by management board</i>	5	4	3	2	1
The management board advocates for participating in an organization's ERM efforts, including a commitment to common methodologies and tools.					
The management board involves CROs in facilitating identification of key areas for the organization as well as all key processes.					
The management board involves CROs in the development of standards and process flow documentation.					
The management board involves CROs in evaluating business and process owners on taking responsibility for ERM.					

APPENDIX III: LIST OF BANKS

1.	ABC Bank (Kenya)
2.	Bank of Africa
3.	Bank of Baroda
4.	Bank of India
5.	Barclays Bank
6.	CFC Stanbic Bank
7.	Chase Bank (Kenya)
8.	Citibank
9.	Commercial Bank of Africa
10.	Consolidated Bank of Kenya
11.	Cooperative Bank of Kenya
12.	Credit Bank
13.	Development Bank of Kenya
14.	Diamond Trust Bank
15.	Dubai Bank Kenya
16.	Ecobank
17.	Equatorial Commercial Bank
18.	Equity Bank
19.	Family Bank
20.	Fidelity Commercial Bank Limited
21.	Fina Bank
22.	First Community Bank
23.	Giro Commercial Bank
24.	Guardian Bank
25.	Gulf African Bank
26.	Habib Bank
27.	Habib Bank AG Zurich
28.	I&M Bank
29.	Imperial Bank Kenya
30.	Jamii Bora Bank
31.	Kenya Commercial Bank
32.	K-Rep Bank
33.	Middle East Bank Kenya
34.	National Bank of Kenya
35.	NIC Bank
36.	Oriental Commercial Bank
37.	Paramount Universal Bank
38.	Prime Bank (Kenya)
39.	Standard Chartered Kenya
40.	Trans National Bank Kenya
41.	United Bank for Africa
42.	Victoria Commercial Bank
43.	HDFC Bank Limited
44.	FirstRand Bank

Source: Central Bank of Kenya, 2014.