CORPORATE GOVERNANCE AND FINANCIAL DISTRESS IN COMMERCIAL BANKS IN KENYA

BY

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DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this contains no material written or published by other people except where due reference is made and author duly acknowledged.

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ABSTRACT

Kenya is among countries in Africa where the financial system by regional standardsis relatively well developed, although there are fundamental impediments that hinder full exploitation of its potential. Financial distress is considered as one of the most significant threats for commercial banks in both developed and emerging economies despite their size and nature. The study sought to establish the relationship between corporate governance and financial distress in commercial banks in Kenya. The study's specific objectives were to establish the relationship between government ownership, board size, independence of the board and auditing by the big four auditing firms and financial distress in commercial banks in Kenya. The study was based on the agency theory and the theory of inspired confidence. The study applied the descriptive research design. The study population was the commercial banks in Kenya that were operational and duly registered as at 31st December 2015. The study was a census of the commercial banks. The study utilized secondary data. The data was collected for five years. The data was collected from the published financial statements of the banks, the websites of the banks, CBK bank supervision reports, CMA and the NSE. The panel data collected was analyzed using the panel data model. After the analysis, the results were presented in tables and figures.The results indicated that board size, government ownership and auditing by the big 4 did not have any effect on the financial distress of commercial banks in Kenya. The results also indicated that independence of the boardwas a significant positive influencer of the Z score. This indicates that having a high proportion of independent directors was expected to strengthen the banks' Altman Z score this reducing its chances of distress. Following the findings from the study, the following recommendations are made. Commercial banks should be very observant of the composition of the board to ensure that the proportion of independent directors in the board is high so that the board can be more independent and able to monitor the bank. Secondly, corporate governance is a key factor in stewardship of the banks. Even though the board size and auditing by the big four indicated to have no effect on financial distress, there are other indirect advantages that can emanate from having a board of optimal size and being audited by a top firm. These include efficiency, provision of other support services and credibility.

Keywords: Financial distress, board of directors, auditing, independence, big four

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DEDICATION

This work is dedicated to my parents, my wife Loise, sons Lincolnfive and Adryan and my daughter Mayerlinfor their continued support and bearing the pain of my education. I pray that the Almighty bless them lavishly. Thanks again to the Almighty God for his blessings without which it would have been impossible to accomplish this research.

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ACRONYMS AND ABBREVIATIONS

CAMEL	Capital adequacy, Asset quality, Management, Earnings, Liquidity and Systemic risk
CBK	Central Bank of Kenya
CBR	Central bank Rate
CGI	Corporate Governance Index
CMA	Capital Markets Authority
DPF	Deposit Protection Fund
EY	Ernest and Young
FE	Fixed Effects
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
KBRR	Kenya Banks Reference Rate
KPMG	Klynveld Peat Marwick Goerdeler
NPL	Non-Performing Loan
NSE	Nairobi Securities Exchange
POLS	Pooled Ordinary Least Squares
PWC	Pricewaterhousecoopers
RE	Random Effects
UAE	United Arab Emirates
US	United States

OPERATIONAL DEFINITION OF TERMS

Big four – the four leading global accountancy firms that offer audit, tax, advisory, assurance, actuarial, consulting, legal and corporate finance services(Lennox & Pittman,2010).

Board independence – having members in the corporate board of directors who do not have a substantial or economic relationship with the business or management of the business(O'Connell & Cramer, 2010).

Board size – the number of directors that have been elected or appointed to constitute the corporate board of directors(Belkhir, 2009).

Financial distress - a condition when assurances to creditors of a business are not honored which can lead to bankruptcy (Bredart, 2014).

Government ownership – the number of shares that are owned by the state as a proportion of shares that have been authorized and issued (Al-Khouri, 2012).

CHAPTER ONE

INTRODUCTION

This chapter presents an introduction to the study on corporate governance and financial distress in commercial banks in Kenya. The chapter outlines the background of the study which includes the context of the Kenyan commercial banking sector. Presented in the study is also the statement of the problem, study objectives, hypotheses of the study, justification of the study and also the significance of the study.

1.1 Backgroundof the Study

Kenya is among countries in Africa where financial system by regional standard are relatively well developed, although there are fundamental impediments that hinder full exploitation of its potential (Omondi, 2015). Kenya's financial system although being the largest in East Africa continues to face numerous challenges among them being financial distress. Whenever, financial sector of any economy is well developed, there is long-term economic growth, improvement of purchasing power and poverty alleviation. However, according to Beck & Fuchs (2004) emerging economies have demonstrated a detrimental effect of state ownership and affirmative influence that is derived from foreign bank ownership on the development of market based financial.

The banking sector being a deposit taking institution, their liabilities at some point in time are fixed where a fixed interest rate is guaranteed on them. However, the assets of the bank

are in form of loans granted to its clients and subject to credit risk. This usually contributes to interest rate risk.Equally, customer deposits by nature have short maturity while the loans advanced to clients have longer maturity periods.Therefore, due to these features of assets and liabilities maturity mismatch, banking sector is usually exposed to financial distress in wake of any shock or decrease of level of confidence among the depositors (Hu &Zheng, 2015).

The ability to distinguish healthy banks from distressed banks raises important significant policy issues of imminent corporate distress warning surveillance system, effectiveness of the country monetary policy and external prudential regulations to improve liquidity and soundness of the financial sector. Previous studies of bank insolvencies that envisioned developing models of earlier indicators of financial distress primarily relied on bank level data (Cole & Gunther, 1998). The early signs developed from these studies were closely related to the supervisory rating system of banks. The widely used rating system is CAMELS system i.e. Capital adequacy (C), Asset quality (A), Management (M), Earnings (E), Liquidity (L) and Systemic risk (S). The CAMELS model provides a framework for measuring financial performance of banks. The system measures bank financial performance through set parameters in the perspective of the internal strength of the bank, loan portfolio quality, management efficiency, liquidity management and the banks sensitivity to risk.

Financial Distress is considered as one of the most significant threats for companies both developed and emerging economies despite their size and nature. According to Outecheva (2007), financial distress is a situation where a company has a liquidity problem, temporary and it’s unable to meet its obligation fully when they fall due. Sometimes financial distress can lead

to bankruptcy. Financial distress for non-manufacturing firms is measured by Altman z-score for non-manufacturing firms (Altman, 1983).

Brownbridge (1998) observed that banks are financially distressed when they are technicallyinsolvent or illiquid. Liquidity which is held by commercial banks indicates their ability to support any increase in assets and meet obligations as they fall due. However, failure one bank may cause systematic crisis in the banking sector due to their interrelated operations.According to CBK (2014), Kenya banking sectors for twelve months to December 2014, had an average liquidity ratio of 37.7 per cent which was above statutory minimum requirement of 20 per cent.The average liquidity ratio had a marginal decline from 38.6 per cent December 2013 to 37.7 per in December 2014. This was caused by the increase in lending in 2014 as indicated in the increase in loans to customers deposit ratio from 81.6 per cent in the year 2013 to 83.1 per cent by December 2014.

1.1.1 Corporate Governance

Corporate governance fundamentally encompasses harmonizing the interests of a company's many stakeholders, such as customers, shareholders, financiers, management, suppliers, financiers, the community and the government to ensure that the company runs ethically and profitably (Kogan&Tian, 2012). Corporate governance includes various factors touching on the board of directors, external auditing, ownership, management and general observance of rules and regulations governing financial reporting and other operations of the firm. The key corporate

governance factors that have the most significant influence on a company include ownership, board size and independence and external auditing (Think Business, 2011).

Shin-Ping and Tsung-Hsien (2009) observe that the class of shareholdings does have an influence on corporate performance. Concentrated ownership by government or institutions can increase managerial monitoring and hence enhance financial performance of the firm (Isik, 2007). However, government ownership can also impede corporate performance. Board decisions usually need to be approved by government in institutions that have high governmentownership thus denying the companies the flexibility they may need to perform in the fast changing environment (Zouari&Taktak, 2014).

The board of directors acts as agents of outside stakeholders of the company especially the shareholders (Kumar & Singh, 2013). The shareholders of the company delegate the task of monitoring to the board. The board hence has a role to monitor and review performance of top management and ensure that they act on the interest of shareholders. The board of directors is one of the key corporate governance entities in the firm. With the optimum number of members, the board can be able to carry out its functions effectively. The size of the board (number of directors on the board) is one of the critical factors influencing governance and performance of a firm. While some authors such as Yammeesri and Herath (2010) argue that smaller boards are better for corporate performance due to their efficiency while other authors such as Ujunwa (2012) argue that larger boards are able to perform their duties effectively than smaller ones. However, Rodriguez-Fernandez, Fernandez-Alonso and Rodriguez-Rodriguez (2014) note that the influence of the board on financial performance depends on the ability of the board to utilize the expertise and knowledge of the members to reach consensus.

Board independence is another critical corporate governance mechanism that can influence performance. Gaur, Bathula and Singh (2015) intimated that a board is perceived to be more independent when it has more outside directors compared to a board with more executive directors. Independence of the board enables the board to be free from management influence and hence be more effectivein its monitoring role (Bertoni, Meoli&Vismara, 2014). However, there are scholars who argue that independence of the board denies the firm to have a unified command and control system (Ujunwa, 2012).

External auditing is expected to provide assurance to outside stakeholders that the financial information provided by management is a true reflection of the company affairs. However, there have been incidences where external auditors have failed to unearth material misrepresentations, errors and fraud in company operations leading to serious financial consequences in subsequent years(Dalwai, Basiruddin&Rasid, 2015).Lennox and Pittman (2010) observed that auditing by the big four auditing firms (Pricewaterhousecoopers - PWC, Deloitte, Ernest and Young –EYand Klynveld Peat Marwick Goerdeler- KPMG) have aims to afford stricter outside monitoring to avoid tarnishing their reputations and becoming entangled in expensive lawsuits. This hence ensures that financial statements audited by these firms are devoid of misrepresentation.

Corporate governance has always been an issue in the banking sector. The banking industry reforms in Kenya have seen major changes in the ownership and corporate governance(CBK, 2014). The government has reduced its shareholding in the government owned commercial banks which were previously dominated by the government. These have opened an opportunity for foreign ownership in banking sector and as a result expansion of the banking

operations (Mang'uyi, 2011). Moreover, there have been various prudential regulations aimed at strengthening corporate governance in the banking sector.

After liberalization, there were 39 financial institutions that failed in Kenya (Kathanje, 2000). The Kenya's economy lost Kshs 19.6 billion in terms of loan and grants for restructuring, paying the bank depositors and losses which were brought by depositors' funds which had not been covered by Deposit Protection Fund compensation scheme. The failure caused 10% of the Kenya's GDP. There was also high rate of unemployment which was brought by high non-monetary cost that resulted in general instability in the financial sector.

The Deposit Protection Fund (DPF) was established to instill confidence in the financial sector. The central bank also developed corrective measure to strengthen its supervisory role through fully implementation of the Basel Accord Principles (CBK Banking Supervision Report, 2004). The parliament later passed into law the Anti-Money-Laundering Bill (Think Business, 2011). The notes that initially there were no legal mechanism which had been enacted criminalizing money laundering in Kenya. The government also expanded the role of DPF as a deposit insurance scheme to act as a cover for depositors and at the same time as a liquidator where the bank cannot be salvaged.

1.1.2Structure of the Banking Sectorin Kenya

Commercial banks play important role in jump starting financial growth and development by providing credit facilitates to institutions that could not be able to raise their own funds. This crucial role may be hindered where the owners of banks fail to purse economically viable

objectives (Kithinji&Waweru, 2007). The first commercial bank was established in Kenya by the European imperial powers at the turn of 20th century. The bank was known as National Bank of India it opened its branch in Mombasa in 1896.The banking sector in Kenya as at 31st December had total population of 44 banking institutions; they included 43 commercial banks and 1 mortgage finance company. The ownership of these commercial banks is diverse, whereby 30 were locally owned 3 had public shareholding and 27 were privately owned while 14 of the commercial banks while 14 were branches of foreign incorporated banks (CBK,2014).

Out the14 foreign owned banking institutions 10 are locally integrated subsidiaries of foreign banks and 4 are other branches incorporate banksamong these, 10 were listed in the Nairobi Securities Exchange (NSE), while the remaining banks are not listed at NSE. The Central bank regulates banking sector. The government has to play an important role in creating conducive environment for efficient financial sector. The experience in both developed and emerging economies have shown a negative impact of government ownership of financial development. Initially, government ownership was seen as a necessary that boost financial and economic development. Instead, state owned banks have not delivered up to the expectations and have delayed especially emerging economies from building marker driven financial systems. According to Barth, Caprio and Levine, (2004), countries with higher share of government owned banks experience lower GDP per capita growth, more concentrated access to credit facilities and higher interest rate spread.

The robustness of financial system serves as the nerve center of economic development. The system provides significant service of financial intermediation that largely necessitates surplus spending units to raise fund to spend in deficit units for investment and consumption.

This robust system comprises of four segments with diverse service including banking, insurance, equity, pension and long term bonds. Each of the above segments is regulated by a statutory body with an aim of promoting orderly growth and development of financial sectors. The oversight mandate of each regulatory authority is focused on identifying and taking appropriate measures to mitigate potential risks in the relevant financial segment (Kenya financial sector report, 2010).

1.2 Statement of the Problem

Various cases of financial distress emanate from poor corporate governance practices. The financial distress of banking institutions is predicted by its negative cash flows, illiquidity, and insolvency, low profitability, failure to pay goods and services when they fall due and non-performing loans among others. Hu and Zheng (2015) in a study in China established that a concentrated ownership structure is negatively related to the degree of financial distress. Further, the results indicated that state-owned status helps banks in decreasing their degree of financial distress. Md-Rus, Mohd, Latif and Alassan (2013) conducted a study in Malaysia and noted that government and foreign ownership was negatively related to financial distress whereas director ownership was not significantly related with financial distress.

Kariuki (2013) conducted a study on the Kenya commercial banks and noted that most banks are in distress due to non-performing loans. Moreover, Kariuki (2013) noted that most of the banks in financial distress are the ones that have not listed in the NSE. In the Kenyan commercial banking sector, non-performing loans ballooned to KSh124.6 billion by June 2015,

painting a gloomy picture for the industry whose profitability growth is slowing down. Moreover, between January and the end of May 2015, non-performing loans (NPLs) increased by 16 per cent from KSh104 billion (Omondi, 2015).A number of commercial banks in Kenya surveyed by the Central Bank of Kenya (CBK) has indicated that the cost of borrowing and recent increase in the Central Bank Rate (CBR) have played a major role in reducing the demand for credit and pushing up non-performing loans.

The CBK's(2015) Credit Survey for June further indicated that an increase in the CBR in June and July, and the Kenya Banks Reference Rate (KBRR) are likely to compound the risk of financial distress going forward (CBK, 2015). This has resulted to the banking sector's slow growth as indicated by the loss reported by Bank of Africa and National bank of Kenya in the financial year ending December 2015 (Masinde, 2015). Government or corporate investors can be quick in bailing an entity from financial distress (Hu &Zheng, 2015). Moreover, having good corporate governance practices and being audited by the top four auditing firms also have been established to influence financial management practices which can have an effect on financial distress (Omondi, 2015). This hence informs the basis of the study to establish the role played by corporate governance in financial distress.

1.3 Study Objectives

The study sought to establish the relationship between corporate governance and financial distress in commercial bank in Kenya.

The study's specific objectives were;

i) To establish the relationship between government ownership and financial distress in commercial banks in Kenya

ii) To assess the relationship between board size and financial distress in commercial banks in Kenya

iii) To establish the relationship between independence of the board and financial distress in commercial banks in Kenya

iv) To determine the influence of auditing by the big four auditing firms and financial distress in commercial banks in Kenya

1.4 Study Hypotheses

H_{01}: There is no significant relationship between government ownership and financial distress in commercial banks in Kenya

H_{02}: There is no significant relationship between board size and financial distress in commercial banks in Kenya

H_{03}: There is no significant relationship between independence of the board and financial distress in commercial banks in Kenya

H_{04}: Auditing by the big four auditing firms has no significant effect on financial distress of commercial banks in Kenya.

1.5 Justification of the Study

The banking sector occupies a pivotal position in the global, regional and local economy. The sector has been subject to many external and internal forces in many countries. Kenya has seen a tremendous growth in local banks. The growth of local banks could provide important benefits to the economy and facilitate the objectives of financial liberalization, by boosting competition in banking market, stimulating improvements in services to customers and expanding access to credit, especially to domestic small- and medium-scale businesses.

The attainment of the benefits of having locally incorporated banks has been jeopardized because the local banks have been vulnerable to financial distress, a major cause of which has been moral hazard, with the adoption of high-risk lending strategies, in some cases involving insider lending. This research hence analyzed how corporate governance can inform financial distress in the banks in Kenya and hence suggest ways in which regulatory policy reforms might mitigate the problems of moral hazard and therefore reduce the incidence of financial distress.

1.6 Significance of the Study

The study had findings that might be valuable to policy makers, the banks themselves, investors and even customers of the commercial banks in Kenya. The policy makers such as CBK, NSE, CMA and the Ministry of Finance can use the finding and get a deeper insight into how corporate

governance in the banking sector is related to financial distress. They can hence use the findings to adopt policies that are geared towards reducing risk of financial distress in the banking sector. The findings can also inform top management of these banks and adopt measures to ensure that their corporate governance is geared towards reducing level of financial distress that these banks are exposed to.

The study findings can also be of value to customers of these financial institutions. Customers can use the findings to establish the banks that have high risks of financial distress and hence utilize the findings in making decisions regarding which banks to be transacting with.

1.7 Scope of the Study

The study focused on all the operational commercial banks in Kenya. Data included in the study was data for five years from 2011 to 2015. The study focused on four corporate governance factors which included government ownership, board size, independence of the board and auditing by the big four auditing firms. There were many other corporate governance issues such as demographic diversity of the board, foreign ownership and institutional ownership among others which were not included in the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the theoretical literature which explains the relationship betweenfirm'scorporate governance and financial distress. The chapter also presents a review of empirical studies on the subject. The corporate governance factors that have been focused on in empirical review include government ownership, board size, independence of the board and auditing by the top four auditing firms. The chapter further presents the conceptual framework.

2.2 Theoretical Orientation

This study was based on the Agency theory and theory of inspired confidence. A credible research study needs to be based on a sound theoretical ground to provide direction and a strategy for carrying out the study (Creswell, 2013). The agency theory was applied in this study to explain the link between corporate governance mechanisms of board size and independence, government ownership and financial distress. Theory of inspired confidence, on the other hand, explained the link between board size, independence of the board and auditing by the big-four and financial distress.

2.2.1 Agency Theory

Agency theory posits that owners of the company who are the shareholders (principal) prioritize maximization of value where they delegate their authority to management (agents) to run company on their behalf (Jensen &Meckling, 1976). A conflict arises since the priorities of the shareholders are not always in congruence with those of the managers. This creates an agency problem which the shareholders seek to solve by employing a board of directors and other monitoring mechanisms to ensure that management do not act contrary to the principal's interests(Rodriguez-Fernandez et al., 2014). The agency problem is created because of the separation of ownership and control.

The agency theory indicates that having independent directors and credible external auditors is one mechanism that shareholders use to monitor and control the operations of management and thus minimizing the agency conflict. Management is more inclined and motivated to work as required by shareholders when they have monitoring mechanisms such as a board of directors and auditing by external auditors to the firm (Shin-Ping &Tsung-Hsien, 2009). Government ownership is also expected to have increased monitoring ability on management and hence management are not expected to deviate from company objectives in a firm with high government ownership (Zouari&Taktak, 2014). By having control and monitoring mechanisms, shareholders are generally assured that management will not deviate from their aspirations and will not expropriate the company resources for their selfish interests. In the current study, agency theory linked board size, independence, external auditing and government ownership with financial distress.

2.2.2 Theory of Inspired Confidence

Theory of inspired confidence was developed by Limperg in 1932 and postulates that firms require external auditors and the board due to the inclusion of outside stakeholders in the firms (Peltier-Rivest&Lanoue, 2015). The separation of ownership and control makes outside stakeholders to contract other entities which ensure that managers do their job as required and their report is also accurate and reliable. These contracted entities demand accountability from management on behalf of outside stakeholders of the firm including shareholders.

The theory of inspired confidence associates the society's needs for dependability of commercial information to the capacity of audit practicesand board oversight to meet these needs (Pathan, 2009). Furthermore, it stresses the improvement of the desires of the community and the procedures of auditing and oversight in the course of time. The function of the oversight bodies emanate from the confidence that society places in the efficiency of the bodies (Lary& Taylor, 2012). The normative basic of the theory of inspired confidence is that the oversight bodies are obliged to carry out their work in such way that they do not betray the anticipationsof the stakeholders and the public. As such the corporate board of directors and external auditors are expected to play their oversight roles with professionalism such that they control the stewardship of the firm (Peltier-Rivest&Lanoue, 2015). This is expected to lead to a well-managed firm. This study applied the theory of inspired confidence to explain how the composition of the board, independence of the board and auditing by the big-four could influence financial distress.

2.3 Empirical Review

This section deals with analysis and discussion of past empirical studies on corporate governance and its effect on financial distress of a firm. The corporate governance factors discussed in this section include government ownership, size of board, independence of the board and auditing by the big-four.

2.3.1 Government Ownership

Li, Wang and Deng (2008) conducted a study that focused listed companies in China. The study sought to assess the effect of government ownership of companies among other variables on financial distress. This study used data that was publicly-available from annual financial reports of the companies. The sample selected 404 finance distressed and a matching sample of 404 non-distressed firms in the Chinese securities markets. Data utilized in the study covered the between 1998 and 2005 financial years. The study utilized binary logistic analysis. The results indicated that state ownership is negatively related with financial distress.

A study by Al-Khouri (2012) on banks in the Gulf Cooperation Council (GCC) region assessed influence of government ownership and risk taking attitudes and risk of financial distress of the banks. The study utilized the fixed effect regression model to quantify the effect of government ownership on financial distress and risk taking. The study established that proportion of government ownership reduced risk taking attitude of banks and hence reduced the risk of financial distress. Banks that high proportion of private and institutional ownership were more risky than those with high government ownership.

Md-Rus, Mohd, Latif and Alassan (2013) conducted a study in Malaysia that examined the influence of ownership structure on financial distress of firms. The study focused on firms that were listed in Malaysian main Bursa exchange. Distressed firms were considered to be those that had shareholders' equity that was less than 25% of the allotted and paid-up capital of a company. The study period was 2004 to 2009. A firm must meet the distress criterion during this period to be identified as a distressed firm. To examine the effect of ownership structure on financial distress, logistic regression model was applied. Findings indicated that government ownership was not a significant factor in influencing financial distress of the firms under analysis.

Hu and Zheng (2015) tested whether ownership structure has any influence on the degree of corporate financial distress in China. The study estimated the degree of corporate financial distress for a sample of 378 firms listed in China. These were firms that had gotten into financial distress between 2000 and 2008. Panel data analysis method was applied to examine the association amongst ownership structure and the degree of corporate financial distress. The study established that government ownership helped firms decrease their degree of corporate financial distress.

2.3.2 Board Size

Belkhir (2009) studied the effect of board of directors' size and sustainability and performance in the banking industry in United Arab Emirates (UAE). That study applied panel data techniques and panel univariate analyses to establish how board size related with bank performance and

financial distress. The study established that, conflicting to theories that forecast that smaller boards of directors are more efficient, increasing the size of corporate boards in banking firms does not undermine performance. In contrast, the confirmation was in support of a positive association between board size and performance. These findings indicate that firms with smaller boards were expected to experience financial distress than firms with larger boards. However, these findings were contrasted with findings by Akhmetova and Batomunkueva (2014) which established that there is no significant relationship between board size and probability of financial distress.

Dowell et al. (2011) postulate that the influence of board size is tough to developowing to its partthat it plays in the company being different. Judge and Zeithaml (1992) deliverconfirmation that the board size has anadverse relationship to board participation. When the board is big, there is a restriction ondeliberations and consultations, which take place during the meetings, and therefore this reduces the contribution of the members of the board. Judge and Zeithamlexplain this decline in the involvement by the lesseningcollaboration levelbetween individuals with growing size of the board. In addition, Coles et al. (2008) share similarview and add that smaller boards delivergreaterworth to the corporation. Moreover, Coles and colleagues state that smaller groups are more effective inmonitoring, oversight and connectedness. Smaller boards are hence able to interact better and deliberate on the issues brought before them.

A study in India by Kumar and Singh (2013) assessed the effect of board size on firm value and the sustainability of the firms. The study investigated the board size of 176 Indian firms listed on the Bombay Stock Exchange and applied linear regression analysis to test the relationship that existed between board size and financial distress. The study's empirical findings

indicated that there was a significant and positive relationship between board size and financial distress. This study's findings implied that increasing the size of the board could make the firms to experience financial distress. This supports the notion that larger boards are not necessarily efficient in playing the leadership and stewardship in the firm (O'Connell & Cramer, 2010).

Bredart (2014) conducted a study in United States (US) that investigated influence of board configuration on financial distress. Bredart had noted that the number of firms filing for bankruptcy had increased significantly since 2007. Corporate governance was indicated to be one of the key reasons for this implosion of firms through bankruptcy and financial distress. The study was conducted on a sample of 312 US firms. A questionnaire survey was conducted where the research question on whether configuration of the board influenced financial distress was asked. Logit regression analysis was used to analyse the survey results. The study established that board size was considerably different for companies that opted for legal safeguards from those that did not. The implication of these results was that board size is a significant factor in affecting bankruptcy or financial distress of firms in US.

2.3.3 Independence of the Board

Abdullah (2006) conducted a study on independence of the board and its effect on financial distress of firms in Malaysia. The study used secondary data that was readily available from the published financial statements of the firms. A sample of 86 firms that had not been financially distressed was selected from the Bursa Malaysia. This was matched to another sample of 86 forms that had experience financial distress. The study focussed on data from 1999 to 2001. The

findings indicated that independence of the board was not related with financial distress of the studied firms.

Having high proportion of independent directors in the board was established in a study by Li et al. (2008) to be negatively associated with financial distress. This implies that firms that have many independent directors in the board have lower probabilities of financial distress. Al-Tamimi's (2012) findings agreed with the findings by Li et al. (2008). The study by Al-Tamimi (2012) was conducted to establish the effects of corporate governance on financial distress and firm performance. The study focussed on banks in UAE. Data was collected using a modified questionnaire that had items that covered independence of board of directors among other variables. The study results revealed that there was a substantial negative association between financial distress and independence of the board of directors.

Azoury and Azzi's(2013) study in Lebanon had the purpose of determining corporate governance factors that are associated with financial distress. The study had noted that corporate governance had become a critical issue globally where boards and other oversight entities had failed to accomplish their monitoring responsibilities, which appeared to be one of the foremost explanations behind the actual bankruptcy and financial distress that affected businesses globally. The study sample was 178 Lebanese family owned firms that were not listed in the securities exchange. The study established that firms that had boards with a high proportion of outside directors were less prone to face a financial distress than the boards that had lower proportions of outside directors.

A study in Sweden and Denmark by Akhmetova and Batomunkueva (2014) assessed the influence of board composition on financial distress. This study was informed by high profile corporate failures such as Worldcom,Enron and Parmala which demonstrated that there are various internal governance factors that can result to a company's financial distress. The study applied Altman's Z-score to measured financial distress of the firms under study. Binary and multiple regression analyses were employed in analysing the secondary data collected from a sample of 260 companies. Study results indicated that board independence has significant association with possibility of financial distress.

Shahwan (2015) conducted a study in Egypt aimed at determining the effects of corporate governance on financial distress. Board independence was among the various variables considered in the study. The study used a design where a corporate governance index (CGI) was computed for a sample of 86 non-financial firms that were listed in the Egyptian Securities Exchange. Financial distress was measured using the Altman Z-score. Study results indicated that there was an insignificant negative association between board independence and the probability of financial distress.

2.3.4 Auditing by the Big Four

Hollingsworth (2011) notes that the big four auditing firms are PWC, Deloitte, EY and KPMG. The big four were reduced from the big five by the collapse of Arthur Andersen after the Enron scandal. The collapse of Enron resulted in is culminated in the enactment of the Sarbanes-Oxley Act. This statute was delivered by the US Congress to shield the general public and shareholders

from bookkeeping inaccuracies and dishonest practices in the company, as well as advance the truthfulness of company disclosures. Some authors (for example Lennox & Pittman, 2010) claim that auditing by the big four makes companies able to adhere to the Sarbanes-Oxley Act and avoid risk of bankruptcy and financial distress.

In the post-Enron era, those companies that are audited by the big four have fewer chances of experiencing financial distress than those who were audited by smaller auditing firms. Lennox and Pittman (2010) noted that the big four auditing firms have aims to afford stricter outside monitoring to avoid tarnishing their reputations and becoming entangled in expensive lawsuits. Therefore, big four audit firms are more enthusiastic to recognize accounting misstatements and to repel client pressure to relinquish their rectification. This makes firms that are audited by big four audit firms to be less prone to fraud and hence have lower probability of experiencing financial distress.

A study in US by Hollingsworth (2011) sought to establish the association between auditing by the big four and the possibility of the firm facing financial distress. The study was conducted through interviews and questionnaire survey. Interviews with 10 of the big four audit partners were conducted who represented a broad spectrum of companies in the manufacturing, retail, technology, healthcare and financial services. A questionnaire survey was also conducted for firms who had moved down the auditing ladder from a big auditor to a small one. Nearly 70 percent of the Big 4 resignation clientele who moved down in auditor class encountered financial distress in the years directly following the resignation.

A study by Cassell, Giroux, Myers and Omer (2013) examined whether financial reporting and distress of firms was different among firms audited by big four, second tier and other emerging auditing firms. The study focused on data for the period 1994 to 2000 which was prior to collapse of Arthur Andersen and 2001 to 2011 which was post Arthur Andersen era. The Second-Tier and Big 4 client matched sample was comprised of 201 (691) Second-Tier and Big 4 client observations during the pre- (post) Andersen period. The Second-Tier and other non-Big 4 client matched sample was comprised of 146 (451) Second-Tier and Other non-Big 4 client observations during the pre- (post) Andersen period. Panel data model was used to analyse the data. Study results revealed that post-Andersen, financial reporting credibility of Second-Tier clients is higher than that of other non-Big four clients and is indistinguishable from that of Big four clients. Moreover the findings indicate that risk of financial distress is higher in the firms audited by other auditors and less in firms audited by big four or second tier auditors.

Samaha and Hegazy (2010) conducted a study in Egypt that investigated the analytical procedures among Big four versus non-Big four audit firms. The study also did a comparative analysis of the effects such procedures may have on performance, disclosure and financial health of the client. The study applied a questionnaire survey to collect information on actual uses of analytical procedures from 14 audit firms in Egypt which audit the 100 actively traded corporations on the Egyptian Stock Exchange. The study was conducted between 2008 and 2009. Results established that non-Big four auditing firms had relatively low use of analytical procedures than the big four auditing firms. Auditors from Big 4 firms are found to use APs to a greater extent than auditors from non-Big 4 firms. Moreover, the use of analytical procedures indicated that they significantly affected client's disclosure, reporting and financial distress.

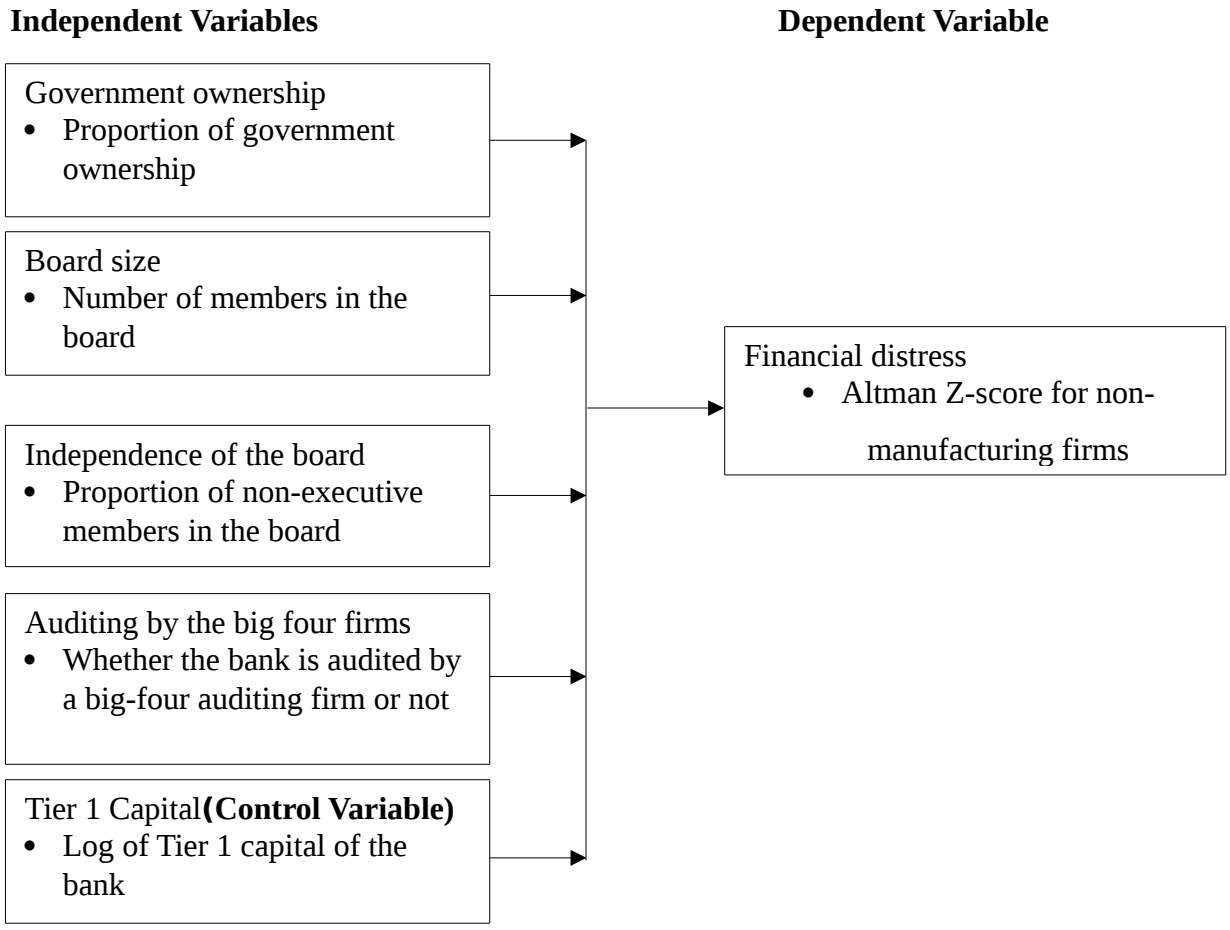
2.4 Conceptual Framework

Cresswell (2013) indicates that a conceptual framework is a diagram that elucidates the main concepts being studied and the relationship among the variables. The conceptual framework provides a visual presentation on what the study is all about and the expected outcome of the study based on theory and previous studies that are similar to the study in question. The conceptual framework that will be applied in this study is presented in Figure 1.

The conceptual framework indicates that the independent variables that are expected to have an effect on the dependent variable are government ownership, board size, board independence and auditing by big four audit firms. The dependent variable in the study is financial distress which is indicated by Altman z-score.

FIGURE1

Conceptual Framework



Source: Author (2016)

2.5 Measurement and Operationalization of Variables

The independent variables in the study weregovernment ownership, size of the board, independence of the board and auditing by big four. Government ownership was measured using the proportion of equity owned by government over total equity. Size of board was measured

using the number of directors in the board while independence of board was measured using the proportion of non-executive directors in the board. Auditing by big four was measured using a binary scale; 1 when the bank is audited by big four and 0 when the commercial bank is not audited by big four. Altman z-score was computed using the score as indicated by Altman (1985) for non-manufacturing firms. Lastly, the control variable (bank size) was measured using the core capital for the bank.

TABLE1

Operationalization of Variables

Variable	**Measurement**	**Measurement level**
Government ownership	Equity owned by government / total equity	Scale
Board size	Number of directors in the board	Scale
Independence of board	Number of non-executive directors / total directors	Scale
Auditing by big four	1 = Bank is audited by big four 0 = bank is not audited by big four	Nominal
Financial distress	Altman z-score for non-	Scale

	manufacturing firms	
Bank Size	Tier I capital	Scale

Source: Author (2016)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter pronounces the procedure that was followed in conducting the study. The chapter encompasses the research design, the target population, sample selection, data collection methods, and measurement of variables, data analysis procedures and statistical assessments. The chapter also entails the pre analysis tests that will be conducted before the data analysis is performed.

3.2 Research Design

The study applied the descriptive research design. Coolican (2014) observed that descriptive research design definesinformation and features about the phenomena under study as they exist in their natural environment. Descriptive studies rather than just describing entities of interest enable the researcher to summarize the data, and observe relationships between the variables of interest. The study sought to establish the relationship that exists between corporate governance and financial distress in commercial banks in Kenya. As such the descriptive design enabled a description of corporate governance factors and financial distress and also enabled the relationship between the two to be established. This design therefore was appropriate for the study.

3.3 Population

The population in this study is the 40commercial banks in Kenya that were operational and duly registered as at 31st December 2015 (Central Bank of Kenya, 2015).

3.4 Sampling technique

The population of study was small (less than 100),Cresswell (2013) notes that when studying small populations, there is no need for sampling as sampling only increases measurement error which can distort the research findings. Therefore the study was a census of the 40 commercial banks (Central Bank of Kenya, 2015).

3.5 Data Collection

The study utilized secondary data. The data was collected for five years (2011 – 2015). This is because the study was interested with the most current data. Data that was collected related to ownership structure, board size, independence of the board and who the auditors of the bank were. The study also collect data relating to working capital, total assets, net operating profit, earnings before interest and taxes, book value of equity and total debt. This data was collected to enable calculation of the Altman z-score for each bank for the five years.

The data that was sought for the study was collected from the published financial statements of the banks, the websites of the banks, CBK bank supervision reports, Capital

Markets Authority (CMA) and the Nairobi Securities Exchange (NSE). CBK, CMA and NSE all had financial reports from the commercial banks relating to the variables under study. Information relating to financial performance, revenues, debt, working capital and assets will be accessed from Central Bank reports and the banks financial statements. Data relating to government ownership, board size and board independence for the listed banks was received from CMA and NSE. Data for the other banks was available from CBK and the banks themselves. Validity and reliability of the data was tested through cross checking data from the different sources and using audited financial statements.

3.6 Data Analysis

The data collected in the study was quantitative data in panel form. The entities in the panel data were the commercial banks while the years were the five years under consideration in the study (2011-2015). As noted by Beck and Katz (2005), panel data is better analyzed using either the Pooled Ordinary least squares regression (POLS) or the panel data models. To establish which of the two models was fit for the data, pre analysis diagnostic tests were conducted (Creswell, 2013). However, since most of the variables in the study were not expected to change much over the entire five years period, the POLS model was applied.

3.6.1 Pre Analysis Tests

The diagnostic tests for any regression analysis include the tests for multicollinearilty, serial correlation, normality and heteroscedasticity. These examinations were conducted to confirm that the data was fit for POLS regression model. The tests also ensured that the outcome of the

analysis through the model was reliable and the estimates efficient. If any of the violations to the assumptions existed, corrective measures were undertaken depending on the nature of violation.

After the diagnostic tests, the Breusch Pagan Lagrange Multiplier test was conducted to test which of the two models (POLS or panel data model) was suitable. If POLS was selected, it was used to analyze the data. However, if the panel data model was selected, a Hausman test would be conducted to establish which of the two panel data models (fixed effects or random effects) was well suited for the data. The selected model was then run using the Stata statistical software.

3.6.2 Model Specifications

The three models that are considered in the study are the POLS, fixed effects model and the random effects model. To establish whether to use POLS or panel data model, the Breusch Pagan Lagrange Multiplier test was conducted.

The POLS model will be of the form:

$$Y = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + e_i \quad \text{(ii)}$$

Where:

Y – Altman z-score for non-manufacturing firms.

β_0- Constant

β_i– Coefficients of dependent variables

X_1 – Government ownership

X_2 – Board size

X_3 – Independence of board

X_4 – Auditing by big four

e_i –Error term

If the panel data model was selected to analyze the data, the random effects (RE) or the Fixed effects (FE) would be applied. A Hausman test was used to select the best suited model for the data (Coolican, 2014).

The Altman Z score for manufacturing firms was calculated as follows:

$Z = 6.56X_1 + 3.26X_2 + 6.72X_3 + 1.05X_4$ …… (i)

Where:

X_1= Working capital / total assets,

X_2= Retained Earnings / total assets,

X_3= Earnings before interest and taxes / total assets

X_4= Book value of equity / total liabilities

Altman noted that the z-score should be interpreted as follows;

Less than 1.21= financially distressed zone

Above 1.21 to 2.90 = Gray area (no distinct line between bankruptcy and non-bankruptcy but undesirable)

Above 2.90 = financially healthy

The suitability of Z-score in predicting financial distress has been tested in various empirical studies including recent ones by Pradhan (2014) and Messai and Gallali(2015).

The fixed effects model is:

$$Y_{it} = \alpha_{it} + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + u_{it} \quad \text{..... (iii)}$$

Where:

α_i = (i=1….42) intercept for each commercial bank.

Y_{it}= Dependent variable (Altman z-score for non-manufacturing firms)

i = bank

t = time in years (1…..5).

u_{it}= Error term

Similarly, the random effects model is;

$$Y_{it} = \alpha_{it} + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + u_{it} + \varepsilon_{it} \quad \text{(iv)}$$

Where

α_{it}= Intercept for all banks.

Y_{it}= Dependent variable (Altman z-score for non-manufacturing firms)

i = bank

t = time.

u_{it}= Between-entity error

ε_{it}= Within-entity error

After the analysis, the results were presented in tables and figures. The results were then discussed relating them to the theories applied in the study and also earlier empirical studies conducted relating to corporate governance and financial distress.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

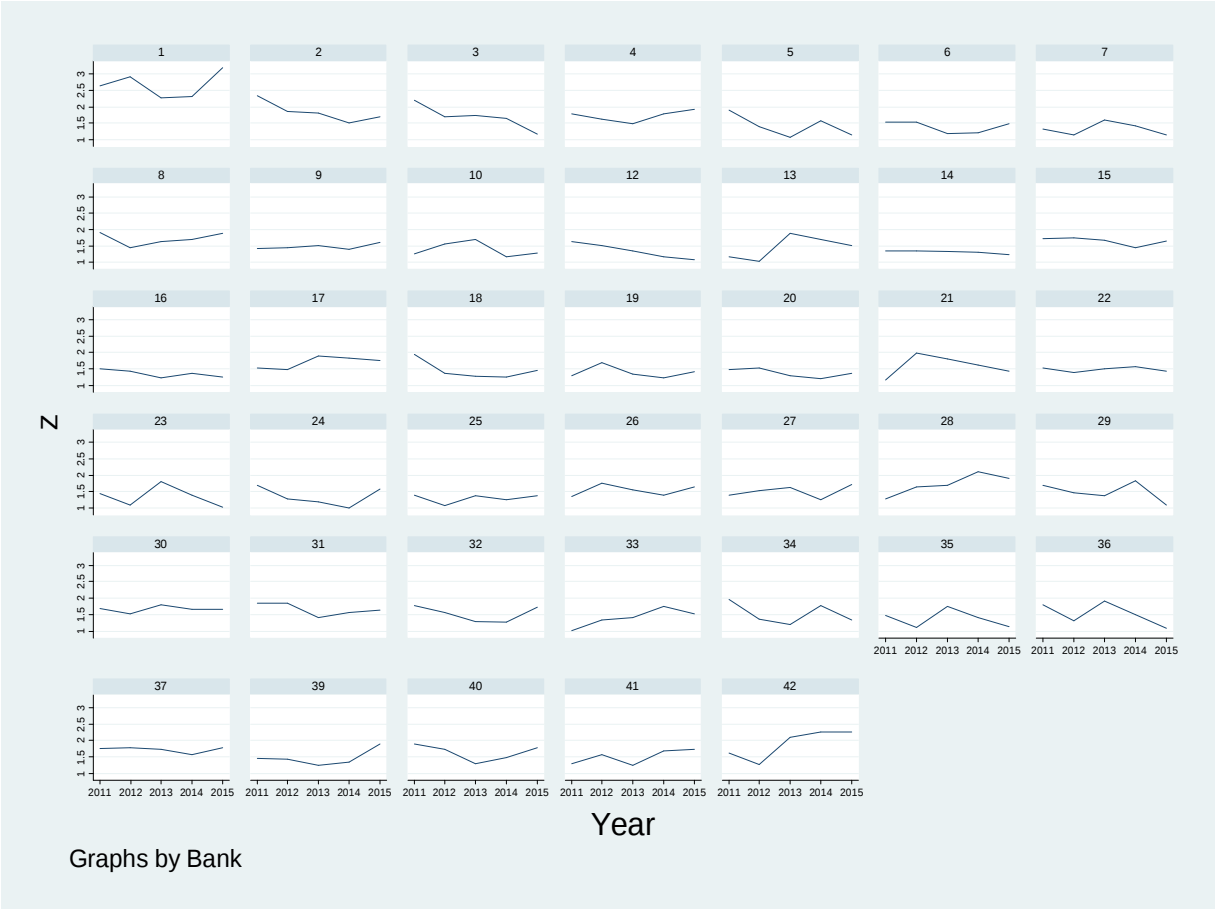
Presented in this chapter are the study results which are based on the objectives and research hypothesis of the study. Data was available for 40 commercial banks for the entire five year period. In the first section of this chapter, exploratory analysis is provided. This includes analysis of the trend of Altman Z score for the firms and also an overlain plot of Z score for the 40 commercial banks. Further presented in the chapter are the pretest diagnostic statistics. Posttest diagnostic tests and the output of the model are then presented.

4.2 Exploratory Data Analysis

In this section, exploratory analysis of the data is provided where the visual plots of each firm are presented. The overlain plots of all the firms are then presented which enabled the study to establish whether there were significant time related fixed effects. This output helped to determine whether to use POLS or panel data models (FE and RE). Figure 2 presents the growth plots of the commercial banks. The figure indicates that the Altman Z score of the banks had slight up and down movements which might be because of time related fixed effects.

FIGURE 2

Growth Plots for Altman Z score

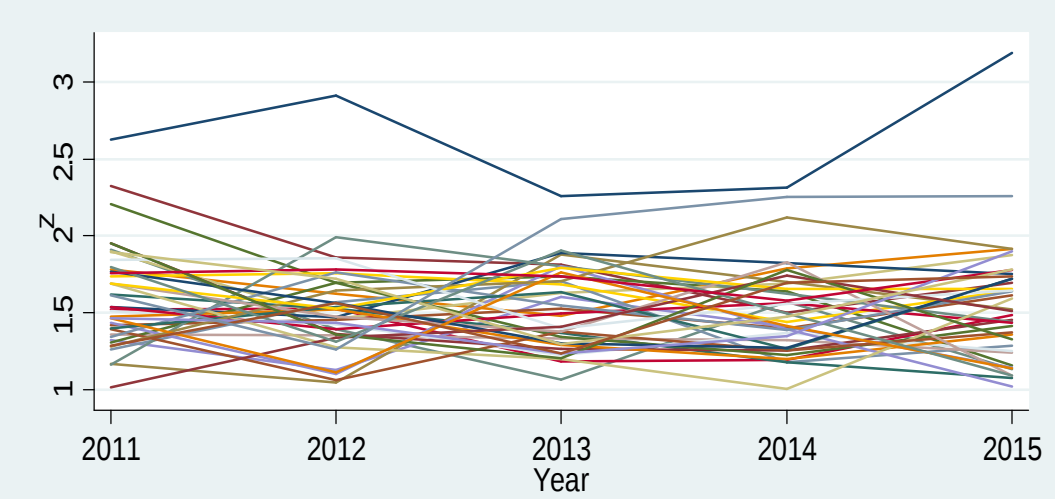


Source: Author (2016)

The growth plot was also developed to establish whether there were significant differences among the firms. The overlain plots also enabled the study to check whether the intercepts were the same for all the commercial banks since the basic models assume intercepts are the same for all firms. The results in Figure 3 indicate that except for one commercial bank

which had significantly higher Altman Z score than the other firms, the other commercial banks had Altman Z scores that were not significantly different.

FIGURE3
Overlain Plots of Altman Z Score for the Firms



Source: Author (2016)

4.3 Descriptive Statistics

The descriptive statistics for the panel data are presented in Table 2. The descriptive results provide the average for all the variables for all the firms. The results indicated that average Altman Z score was 1.57. This can be explained by the fact that commercial banks are highly leveraged institutions with very high values of current liabilities and few long term assets. The descriptive results also presented the overall, between and within standard deviations, minimums and maximums. Further analysis indicated that average Altman Z score for firms with government ownership was 1.67 while that of banks with not government ownership was 1.38. This indicates that firms with no government ownerships had greater risk of financial distress than those that have government ownership.

TABLE2
Descriptive Statistics

Variable		Mean	Std. Dev.	Min	Max	Observations	
size	overall	9.13	1.955048	5	13	N =	200
	between		1.960403	5	12.6	n =	40
	within		.237237	7.53	9.93	T =	5
gov	overall	6.890345	18.94938	0	89.3	N =	200
	between		19.11992	0	89.3	n =	40
	within		.9251316	-4.782455	9.808545	T =	5
big4	overall	.75	.4340993	0	1	N =	200
	between		.438529	0	1	n =	40
	within		0	.75	.75	T =	5
z	overall	1.547197	.3231763	1.000624	3.186952	N =	200
	between		.2369258	1.29092	2.660306	n =	40
	within		.2223453	.9108492	2.073843	T =	5
t1c	overall	6.420654	.7889253	3.823002	9.743172	N =	200
	between		.6670281	4.729043	8.062869	n =	40
	within		.4317636	4.563512	8.923227	T =	5
ind	overall	.8142603	.0816647	.6	.9166667	N =	200
	between		.0818966	.6	.9166667	n =	40
	within		.0098426	.7642603	.8920381	T =	5

Source: Author (2016)

4.4 Pretest Diagnostic Tests

The pretest diagnostic tests were conducted. First, a correlation analysis was performed to establish whether there were any two independent variables that were highly correlated. Results of the correlation analysis are presented in Table 3. The results indicate that all the six variables Altman Z score (z), board size (size), government ownership (gov), auditing by Big 4 (big4) board independence (ind) and Tier 1 Capital (t1c) all had very low relationships with each other. This therefore indicated that there was no multicollinearity.

TABLE3
Correlation Matrix

	z	size	gov	big4	ind	t1c
z	1.0000					
size	-0.0182	1.0000				
gov	-0.0325	0.0109	1.0000			
big4	0.1073	0.1628	0.1509	1.0000		
ind	0.1919	0.2569	0.2343	0.1368	1.0000	
t1c	0.1950	0.0940	0.1735	0.3302	0.2249	1.0000

Source: Author (2016)

To preclude presence of multicollinearity conclusively, the Variance Inflation Factor (VIF) was applied. Results are presented in Table 4 and they indicate that all VIFs were very low and hence there was no multicollinearity.

TABLE4
Test for Collinearity

Variable	VIF	1/VIF
ind	1.16	0.859380
big4	1.12	0.895554
size	1.10	0.911954
t1c	1.09	0.915710
gov	1.08	0.925951
Mean VIF	1.11	

Source: Author (2016)

After the pretest diagnostics, the study tested which model was more appropriate for the data between fixed effects model and random effects model. This was conducted using hausman test. The results are presented in Table 5. The results from the hausman test indicated that chi square value was not significant (Chi square = 2.78; $p > 0.05$). This hence indicated that the hypothesis that difference in coefficients is not systematic could not be rejected. This hence indicated that the random effects model was appropriate.

TABLE5

Hausman Test

	Coefficients			
	(b) fixed	(B) random	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
size	-.0283105	-.0165392	-.0117713	.0719012
gov	-.0054788	-.0017954	-.0036834	.0189958
ind	2.160243	.9738791	1.186364	1.730637
t1c	-.0449713	-.0102322	-.0347391	.0232087

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 2.78
Prob>chi2 = 0.5959

Source: Author (2016)

Further, to establish whether the random effects or POLS model was appropriate, testing for random effects was conducted using the Breusch-Pagan LM test. The results are presented in

Table 6. The results indicated that the chi square was significant (chi square = 52.84; $p < 0.05$). This indicated that the random effects model was selected.

TABLE6
Breusch and Pagan Lagrangian Multiplier Test for Random Effects

```
z[Bank,t] = Xb + u[Bank] + e[Bank,t]

Estimated results:
                         |       Var     sd = sqrt(Var)
                ---------+-----------------------------
                       z |   .1044429       .3231763
                       e |   .0619602        .248918
                       u |   .0431621        .207755

Test:   Var(u) = 0
                             chibar2(01) =    52.84
                          Prob > chibar2 =   0.0000
```

Source: Author (2016)

4.5 Posttest Diagnostics

After the model was run, test for serial correlation was conducted to establish whether the errors were serially correlated. This was conducted using the Woodridge test. Results are presented in Table 7. The results in Table 7 indicate that the t statistic was not significant (F = 1.583; p > 0.05). The null hypothesis of no first order serial correlation was therefore accepted.

TABLE7
Test for Serial Correlation

```
Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
    F(  1,      39) =      1.583
           Prob > F =      0.2158
```

Source: Author (2016)

Further heteroscedasticity was tested using the Cameron &Trivedi's decomposition of IM-test. The results (Table 8) indicated that the chi square value was not significant (chi square = 14.70; $p > 0.05$). This indicates that there was no heteroscedasticity in the variances.

TABLE 8

Test for Heteroscedasticity

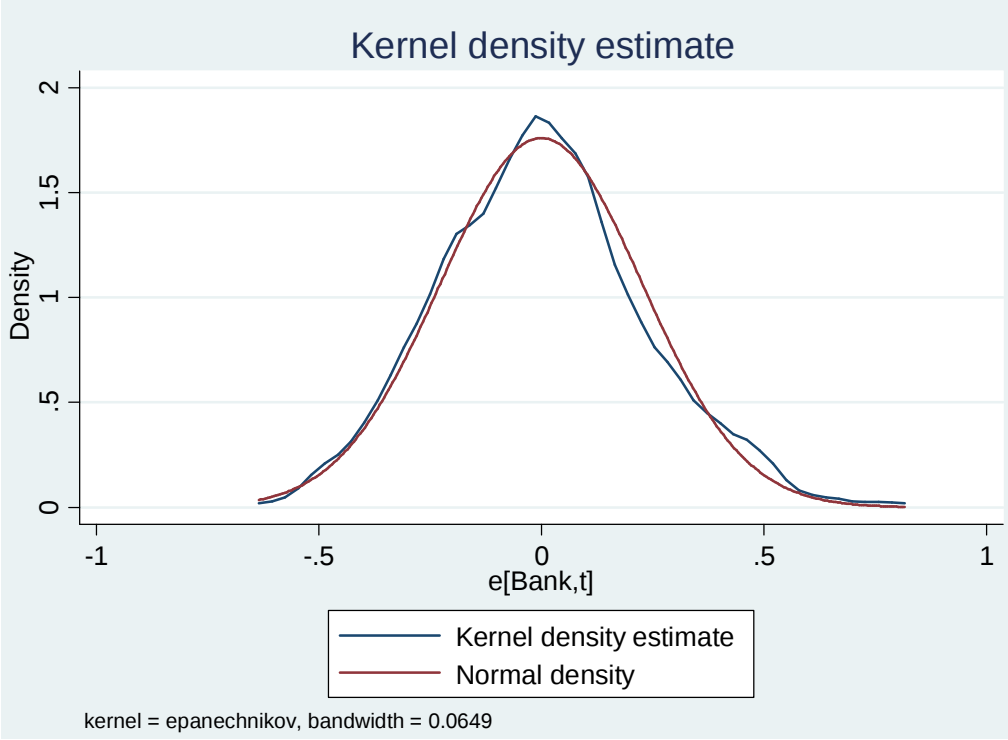
Cameron & Trivedi's decomposition of IM-test

Source	chi2	df	p
Heteroskedasticity	14.70	19	0.7414
Skewness	8.37	5	0.1369
Kurtosis	2.05	1	0.1527
Total	25.12	25	0.4557

Source: Author (2016)

Lastly the test for normality of residuals was conducted using the kernel density estimate. A plot of the overlain normal distribution and the residuals of the model was developed as indicated in Figure 4. The results indicate that the residuals did not deviate much from normal and were hence considered to be normally distributed. The model that was developed was hence considered reliable and efficient.

FIGURE 4
Test of Normality of Residuals



Source: Author (2016)

4.6 Random Effects Model

The random effects model was selected for the study and hence the results presented in Table 9 relate to the random effects generalized least squares regression. The independent variables in the model were board size (size), government ownership (gov), auditing by the big 4 (big4) and board independence (ind). Bank size measured by Tier 1 capital of the commercial bank (t1c) was used as a control variable in the study. It was input in the model as an extra independent variable as indicated in Table 9.

TABLE9
Random Effects GLS Regression

```
Random-effects GLS regression                   Number of obs      =       200
Group variable: Bank                            Number of groups   =        40

R-sq:  within  = 0.0157                         Obs per group: min =         5
       between = 0.0978                                        avg =       5.0
       overall = 0.0559                                        max =         5

                                                Wald chi2(5)       =      5.41
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.3676
```

z	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
size	-.0165392	.0193871	-0.85	0.394	-.0545372	.0214588
gov	-.0017954	.0020303	-0.88	0.377	-.0057747	.002184
big4	.0835088	.0892911	0.94	0.350	-.0914985	.2585161
ind	.9738791	.4752958	2.05	0.040	.0423165	1.905442
t1c	-.0102322	.0337269	-0.30	0.762	-.0763357	.0558712
_cons	.9206456	.4170756	2.21	0.027	.1031924	1.738099
sigma_u	.20775498					
sigma_e	.24891798					
rho	.41058971	(fraction of variance due to u_i)				

Source: Author (2016)

The results presented in Table 9 indicate that the model explained 1.57% of variation within the study period of 5 years while it explained 9.78% of the variation in Altman Z score between the commercial banks. When the model overlooked the panel form of the data, it explained 5.59% of the variation in Altman Z score.

The results indicated that board size (B = -.017; P > 0.05) was not a significant factor in explaining financial distress in the commercial banks. These results led to acceptance of the null

hypothesis of the study that there is no significant relationship between board size and financial distress in commercial banks in Kenya.

Findings also indicated that government ownership (B = -.0018; P > 0.05) did not have a significant effect on financial distress of commercial banks in Kenya. These results led to acceptance of the null hypothesis that there is no significant relationship between government ownership and financial distress in commercial banks in Kenya.

Auditing by the big 4 did not have any effect on the financial distress of commercial banks in Kenya (B = .084; P > 0.05). This led to the acceptance of the null hypothesis that auditing by the big four auditing firms has no significant effect on financial distress of commercial banks in Kenya at 5% level of significance.

The results also indicated that independence of the board (B = .974; p < 0.05) was a significant positive influencer of the Z score. This indicates that having a high proportion of independent directors was expected to strengthen the banks' Altman Z score this reducing its chances of distress. This led to the rejection of the study's null hypothesis that there is no significant relationship between independence of the board and financial distress in commercial banks in Kenya.

Tier 1 capital which was the control variable in the study did not have any significant effect on financial distress (B = -0.01; p > 0.05).

The robustness of the model was tested using the POLS model. Results of the POLS model are presented in Table 10. The results indicate that the model was a better fit as indicated by the significance of the f statistic ($F = 2.43$; $p < 0.05$). The results from the random effects model were hence considered robust as it provided similar results with the POLS. The poled OLS model was hence applied in making conclusions and recommendations for the study.

TABLE10

POLS Model

Source	SS	df	MS		
Model	1.22594951	5	.245189901	Number of obs =	200
Residual	19.5581954	194	.10081544	F(5, 194) =	2.43
Total	20.7841449	199	.104442939	Prob > F =	0.0364
				R-squared =	0.0590
				Adj R-squared =	0.0347
				Root MSE =	.31751

z	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
size	-.0123197	.012255	-1.01	0.316	-.0364899	.0118505
gov	-.0016974	.0012338	-1.38	0.171	-.0041308	.0007361
big4	.0691574	.0545892	1.27	0.207	-.038507	.1768218
ind	.8336024	.2951819	2.82	0.005	.2514248	1.41578
t1c	.0195526	.0305497	0.64	0.523	-.0406995	.0798048
_cons	.8147834	.2843492	2.87	0.005	.2539707	1.375596

Source: Author (2016)

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the results on corporate governance and financial distress in commercial banks in Kenya. The chapter also presents the conclusion and recommendations. The summary of findings, conclusions and recommendations are made in relation to the research objectives.

5.2 Summary of Findings

This section provides the summary of results and also discusses the results. Moreover, the discussion of the findings is provided in relation to the study objectives. Correspondingly, the discussion of the results is done in relation to empirical studies and theories that had been used as basis for the study.

5.2.1 Board Size and Financial Distress

The results indicated that board size was not a significant factor in explaining financial distress in the commercial banks. These results led to acceptance of the null hypothesis of the study that there is no significant relationship between board size and financial distress in commercial banks in Kenya.These results support the findings by Akhmetova and Batomunkueva (2014) that there is no significant relationship between board size and probability of financial distress. The study

findings contrast the findings by Belkhir (2009) which had established that board size was a significant factor in influencing financial distress. Thestudy by Belkhir indicated that firms with smaller boards were expected to experience financial distress than firms with larger boards.

5.2.2 Government Ownership and Financial Distress

Findings also indicated that government ownership did not have a significant effect on financial distress of commercial banks in Kenya. These results led to acceptance of the null hypothesis that there is no significant relationship between government ownership and financial distress in commercial banks in Kenya.These results supported previous results by Md-Rus et al. (2013) that government ownership was not a significant factor in influencing financial distress in firms. The results however, disagree with findings by Hu and Zheng (2015). Hu and Zeng had established that government ownership helped firms decrease their degree of corporate financial distress. These study results also contrasted the results by Li et al. (2008). Li and colleagues established that state ownership is negatively related with financial distress. The study findings also contradict the findings by Al-Khouri (2012) who established that government ownership of banks in the GCC enabled banks to report reduced risk of financial distress.

5.2.3 Auditing by the Big Four and Financial Distress

Auditing by the big 4 did not have any effect on the financial distress of commercial banks in Kenya ($B = .084$; $P > 0.05$). This led to the acceptance of the null hypothesis that auditing by the big four auditing firms has no significant effect on financial distress of commercial banks in Kenya at 5% level of significance. These findings contradict the findings by Lennox and Pittman (2010) that auditing by the big four makes companies able to adhere to the Sarbanes-Oxley Act and avoid risk of bankruptcy and financial distress. The study results also contradict the findings

by Samaha and Hegazy (2010) which established that auditing by the big four significantly affected client's disclosure, reporting and financial distress.

5.2.4 Independence of Board and Financial Distress

The results also indicated that independence of the board ($B = .974$; $p < 0.05$) was a significant positive influencer of the Z score. This indicates that having a high proportion of independent directors was expected to strengthen the banks' Altman Z score this reducing its chances of distress. This led to the rejection of the study's null hypothesis that there is no significant relationship between independence of the board and financial distress in commercial banks in Kenya.

These results support the agency theory by Jensen and Meckling (1976). Agency theory posits that owners of the company who are the shareholders (principal) prioritize maximization of value where they delegate their authority to management (agents) to run company on their behalf. A conflict arises since the priorities of the shareholders are not always in congruence with those of the managers. This creates an agency problem which the shareholders seek to solve by employing a board of directors and other monitoring mechanisms to ensure that management do not act contrary to the principal's interests. The agency theory indicates that having independent directors and credible external auditors is one mechanism that shareholders use to monitor and control the operations of management and thus minimizing the agency conflict. To ensure that there are no agency conflicts, the board should be independent of management. These were the results in this study that a board that is more independent reduces financial distress in the firm.

The study findings about the significant effect of board independence on financial distress contrast the findings by Abdullah (2006). Abdullah had noted that independence of the board was not related with financial distress of the studied firms. The study results also

contradict the finding by Shahwan (2015) which established that there was an insignificant negative association between board independence and the probability of financial distress.

5.3 Conclusions

Following the study findings, the following conclusions are made. First, board size was not a significant factor in explaining financial distress in the commercial banks. These results led to the conclusion that the size of the board is not a significant factor in determining whether a bank will be in financial distress or not.

Secondly, government ownership did not have a significant effect on financial distress of commercial banks in Kenya. These results led to the conclusion that the proportion of ownership by the government cannot determine the probability of financial distress in commercial banks. Further, the study concludes that auditing by the big 4 did not have any effect on the financial distress of commercial banks in Kenya. This indicates that whether a firm is audited by the big four or another medium or small auditor is not a factor in influencing financial distress.

Lastly the study concludes that independence of the board is a significant positive influencer of the Altman Z score of commercial banks. This indicates that having a high proportion of independent directors can have an effect of strengthening the banks' Altman Z score thus reducing its chances of distress.

5.4 Recommendations

Following the findings from the study, the following recommendations are made. Commercial banks should be very observant of the composition of the board to ensure that the proportion of independent directors in the board is high so that the board can be more independent and able to monitor the bank. This is expected to lower the possibility of financial distress in the bank.

Secondly, corporate governance is a key factor in stewardship of the banks. Even though the board size and auditing by the big four indicated to have no effect on financial distress, there are other indirect advantages that can emanate from having a board of optimal size and being audited by a top firm. These include efficiency, provision of other support services and credibility. Commercial banks therefore should decide critically on these issues.

5.5 Limitations of the Study

The study established that government ownership in commercial banks was very minimal. Most of the banks reported zero government ownership which could have affected the results. It is expected that when compared with findings from a sector with high government ownership, the findings can be different.

5.6 Suggestions for Further Research

A study is suggested to be carried out in the commercial and services sector where there are many struggling companies such as Uchumi Supermarkets and Kenya Airways. This study would inform how corporate governance can be used to explain financial distress in these companies and hence be valuable to policy and practice in corporate governance. Moreover, another study can be conducted which includes other corporate governance variables such as foreign ownership, demographic diversity, skill diversity and institutional ownership among others.

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APPENDIX: List of Commercial Banks in Kenya

1. ABC Bank (Kenya)
2. Bank of Africa
3. Bank of Baroda
4. Bank of India
5. Barclays Bank of Kenya[4]
6. CfCStanbic Holdings
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. Ecobank Kenya
16. Equity Bank
17. Family Bank
18. Fidelity Commercial Bank Limited
19. First Community Bank
20. Giro Commercial Bank
21. Guaranty Trust Bank Kenya
22. Guardian Bank
23. Gulf African Bank
24. Habib Bank
25. Habib Bank AG Zurich
26. I&M Bank
27. Jamii Bora Bank
28. Kenya Commercial Bank
29. Middle East Bank Kenya
30. National Bank of Kenya
31. NIC Bank
32. Oriental Commercial Bank
33. Paramount Universal Bank
34. Prime Bank (Kenya)
35. Sidian Bank
36. Spire Bank
37. Standard Chartered Kenya
38. Trans National Bank Kenya
39. United Bank for Africa
40. Victoria Commercial Bank