2018

Effects of Chief Executive Officer attributes on financial distress in commercial banks in Kenya

Judy C. Rono
School of Management and Commerce (SMC)
Strathmore University

Follow this and additional works at https://su-plus.strathmore.edu/handle/11071/6150

Recommended Citation

This Thesis - Open Access is brought to you for free and open access by DSpace @Strathmore University. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of DSpace @Strathmore University. For more information, please contact librarian@strathmore.edu
Effects of Chief Executive Officer Attributes on Financial Distress in Commercial Banks in Kenya

Rono Judy Chepkurui

Submitted in partial fulfillment of the requirements for the Degree of Master of Commerce at Strathmore University

School of Management and Commerce
Strathmore University
Nairobi, Kenya

June, 2018

This thesis is available for Library use on the understanding that it is copyright material and that no quotation from the thesis may be published without proper acknowledgement.
DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the thesis contains no materials previously published or written by any other person except where due reference is made in the thesis itself.

© No part of this thesis may be reproduced without the permission of the author and Strathmore University.

Name: Rono Judy Chepkurui

Signed……………………………

Date ……………………………

Approval

This thesis of Rono Judy Chepkurui was reviewed and approved by the following:

Dr. James Ndegwa,
Senior Lecturer, School of Management and Commerce,
Strathmore University

Prof. David Wang’ombe,
Dean, School of Management and Commerce,
Strathmore University

Professor Ruth Kiraka,
Dean, School of Graduate Studies,
Strathmore University
ABSTRACT

This study aimed at examining the effects of CEO attributes on financial distress in commercial banks in Kenya. The prevalence of financial distress among financial institutions has been of concern to many stakeholders around the world. In the Kenyan context, commercial banks have been experiencing financial distress. Although other studies assessed in this research did not focus on the extent of financial distress in commercial banks in Kenya while categorizing them in bank tiers, this study bridges the knowledge gap and provides an in-depth review on the subject. The thesis adopted descriptive research design. Secondary data was examined and presented using descriptive statistics, univariate analysis and multi discriminant analysis. The findings present that there is presence of financial distress in both tier II and tier III commercial banks in Kenya at 18% in 2016. The main factor that was found to influence the extent of financial distress in commercial banks was CEO tenure. The research contributes to the knowledge on the extent of financial distress in commercial banks in Kenya and provides a basis for other scholars seeking to undertake research on financial distress. The study also gives pertinent recommendation to key stakeholders in commercial banks on how to identify and mitigate instances of financial distress. The Central Bank of Kenya is advised to regularly monitor commercial banks to identify and curb cases of financial distress. The board of directors are advised to evaluate CEO attributes especially CEO office tenure in their contracts to curb cases of financial distress. Since the study used Altman Z-Score Model, the findings on the extent of financial distress were limited to this model.
# TABLE OF CONTENTS

Contents

DECLARATION ........................................................................................................................... ii
ABSTRACT .................................................................................................................................. iii
TABLE OF CONTENTS ...............................................................................................................iv
LIST OF FIGURES .................................................................................................................... viii
LIST OF TABLES .........................................................................................................................ix
ABBREVIATIONS ........................................................................................................................ x
ACKNOWLEDGEMENT ............................................................................................................. xi
DEDICATION ............................................................................................................................. xii
CHAPTER ONE - INTRODUCTION ............................................................................................ 1
  1.1 Background of the study ........................................................................................................... 1
    1.1.1 Overview of Commercial banks in Kenya .......................................................... 4
  1.2 Problem Statement .................................................................................................................... 5
  1.3 Research objectives ................................................................................................................... 6
    1.3.1 Main objective .................................................................................................... 6
    1.3.2 Specific objectives .............................................................................................. 6
  1.4 Research questions .................................................................................................................... 6
  1.5 Significance of the study ........................................................................................................... 7
    1.5.1 Academicians ..................................................................................................... 7
    1.5.2 Financial Institutions ......................................................................................... 7
    1.5.3 Commercial bank regulator ............................................................................... 7
  1.6 Scope of the study ..................................................................................................................... 7
  1.7 Chapter Summary ..................................................................................................................... 8
CHAPTER TWO - LITERATURE REVIEW ................................................................................ 9
  2.1 Introduction ............................................................................................................................... 9
  2.2 Theoretical framework .............................................................................................................. 9
    2.2.1 Agency Theory .................................................................................................. 9
    2.2.2 The Upper Echelons Theory ............................................................................ 11
2.3 CEO attributes and financial distress ................................................................. 12
  2.3.1 CEOs age and financial distress ................................................................. 13
  2.3.2 CEO gender and Financial distress ......................................................... 14
  2.3.3 CEO education level and financial distress ........................................... 15
  2.3.4 CEO office tenure and Financial distress .............................................. 16
  2.3.5 CEO work experience and financial distress ........................................ 17

2.4 Measurement of financial distress ................................................................. 17

2.5 Determinant variable and hypothesis development ..................................... 20
  2.5.1 Relationship between CEOs age and financial distress .................... 20
  2.5.2 Relationship between CEO gender and financial distress .................. 21
  2.5.3 Relationship between CEO education level and financial distress ....... 22
  2.5.4 Relationship between CEO office tenure and financial distress ......... 23
  2.5.5 Relationship between CEO work experience and financial distress .... 24

2.6 Research Gap .................................................................................................. 24

2.7 Conceptual framework .................................................................................. 25

2.8 Chapter Summary .......................................................................................... 26

CHAPTER THREE - RESEARCH METHODOLOGY ............................................... 27

3.1 Introduction .................................................................................................... 27

3.2 Research philosophy ...................................................................................... 27

3.3 Research Design ............................................................................................ 28

3.4 Target Population and Sampling .................................................................... 29

3.5 Data collection methods ................................................................................ 29

3.6 Data analysis technique ................................................................................ 29
  3.6.1 Operationalization of variables ............................................................. 30
    3.6.1.1 Dependent Variable ........................................................................ 30
    3.6.1.2 Independent Variables .................................................................... 31
  3.6.2 Research Model ...................................................................................... 32

3.7 Data Presentation ............................................................................................ 33

3.8 Research quality ............................................................................................. 33
3.8.1 Objectivity of research ................................................................. 33
3.8.2 Validity of the research instrument ............................................... 33
3.8.3 Ethical consideration ................................................................. 34
3.9 Chapter summary ............................................................................. 34
CHAPTER FOUR – PRESENTATION OF FINDINGS .................................... 35
4.1 Introduction .................................................................................. 35
4.2 Response Rate .............................................................................. 35
4.3 Extent of financial distress in commercial banks based on financials ................................................................. 35
4.4 Effects of CEO attributes on banks’ financial distress .................... 37
  4.4.1 CEO attributes descriptive statistics ........................................... 37
    4.4.1.1 CEO age ................................................................................. 38
    4.4.1.2 CEO Tenure ........................................................................ 38
    4.4.1.3 CEO experience ..................................................................... 38
    4.4.1.4 CEO Gender ......................................................................... 39
    4.4.1.5 CEO education level ............................................................. 40
  4.4.2 Multi Discriminant Analysis of CEO attributes ......................... 40
    4.4.2.1 Wilks Lambda test ................................................................. 41
    4.4.2.2 Eigen value ........................................................................... 41
    4.4.2.3 Canonical Discriminant Function Coefficient ....................... 42
    4.4.2.4 Group membership classification ........................................ 44
    4.4.3.5 Group centroids ................................................................. 44
4.4.3 Analysis of the relationship between CEO attributes and financial distress ................................................................. 45
4.5 Summary of results ........................................................................ 48
CHAPTER FIVE - SUMMARY, CONCLUSIONS AND RECOMMENDATIONS .......... 49
5.1 Introduction .................................................................................. 49
5.2 Summary of findings ..................................................................... 49
  5.2.1 Extent of financial distress among bank tiers in commercial banks in Kenya ................................................................. 49
  5.2.2 Significance of CEO attributes on financial distress in commercial banks in Kenya ................................................................. 50
5.3 Conclusions .................................................................................. 53
5.4 Implication of the study .......................................................................................................... 54

5.4.1 Implication for commercial bank regulator ................................................................. 54

5.4.2 Implication for financial institution ........................................................................... 55

5.5 Limitations of the study .................................................................................................. 55

5.6 Suggestions for further study ....................................................................................... 55

REFERENCES ......................................................................................................................... 56

APPENDICES .......................................................................................................................... 67

Appendix I: Letter of introduction .................................................................................... 67
Appendix II: List of Commercial banks ............................................................................. 68
Appendix III: Turnitin Report ............................................................................................ 70
LIST OF FIGURES

Figure 2.1: Conceptual framework .................................................................................. 26
Figure 4.1: Group Centroids ............................................................................................ 45
LIST OF TABLES

Table 3.1: Zone of discrimination ................................................................. 31
Table 3.2: Operationalization of variables .................................................. 32
Table 4.1: Summary of level of distress ......................................................... 36
Table 4.2: CEO attributes ............................................................................. 37
Table 4.3: CEO Gender .................................................................................. 39
Table 4.4: CEO education .............................................................................. 40
Table 4.5: Wilks' Lambda .............................................................................. 41
Table 4.6: Eigen value .................................................................................... 41
Table 4.7: Canonical Discriminant Function Coefficients ......................... 42
Table 4.8: Predicted Group Membership ....................................................... 44
Table 4.9: Univariate analysis of the CEO attributes .................................... 46
# ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>CBK</td>
<td>Central Bank of Kenya</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GOK</td>
<td>Government of Kenya</td>
</tr>
<tr>
<td>MDA</td>
<td>Multi Discriminant Analysis</td>
</tr>
<tr>
<td>NPLs</td>
<td>Non-Performing loans</td>
</tr>
<tr>
<td>NSE</td>
<td>Nairobi Securities Exchange</td>
</tr>
<tr>
<td>TMT</td>
<td>Top Management Team</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENT

I thank the Almighty living God for the grace and energy to undertake this thesis.

This thesis has been accomplished with great inspiration, support and input from several people I will always be grateful to.

Special thanks to my supervisor, Dr. James Ndegwa who devoted time to this study. I am grateful for his prompt response, patience, guidance and insights throughout the research thesis. He offered great assistance and direction towards completion of this thesis.

Special thanks to my family for moral and financial support. My lovely sister Caroline Cherotich Rono and friends who cheered me up when the going was tough especially Miriam Wambui, Gloria Ngila, Ken Omwaka, Denis Too and Micah Kolum.

God bless you all!
DEDICATION

To my late Mum, Mrs Ruth Chelang’at Chebunye, dance with the angel’s mama………

My family. Thank you for your prayers and continued support in this journey. May God take care of you and bless you abundantly.
CHAPTER ONE - INTRODUCTION

1.1 Background of the study

Bank failures and financial crises are economic hazards which cause economic policy derailment and damage to the growth of commercial bank and finance (Ali, 2007). The growth and expansion of commercial banks offer significant benefit to economies and enable the objectives of financial liberalization by enhancing competition in the banking industry, stimulate progresses in service to clienteles and expansion of access to loans among the domestic small and medium scale businesses. Chan and Heang (2010) adds that the role of the banking industry is fundamentally significant in guaranteeing the smoothness of monetary policy transmission in less developed countries as it offers the core source of financing to businesses. In this context, banks act as asset transformer in transforming client deposits into loans as bank assets. However, the attainment of these benefits has been endangered because commercial banks have been susceptible to financial distress (Brownbridge, 1998). Similarly, Chan and Heang (2010) argue that due to the nature of the banking industry which is vastly leveraged, any incongruity resulting from loans as asset transformation may lead to financial distress of banks as well as alter the formation of sound financial system in the country. In Kenya, commercial banks performance has not been impressive over the last decade even with several reforms in place to improve performance, stability, productivity, financial accessibility and efficiency (Onuonga, 2014).

The proliferation of financial distress has drawn researchers, policy formulators, governing institutions and other stakeholders to prompt the need to advance the significance of liability by promoting respectable governance system (Manini & Addillahi, 2015; Shahwan, 2015). Extensive literature supports the importance of prediction of financial distress occurrence to safeguard financial system failure. Early warning signs of probable distress of an institution enables management and stakeholders to take preemptive actions to reduce cost of bankruptcy and to avoid failure contributing towards corporate and financial stability (Glautier & Underdown, 2001; Gharaibeh, Sartawi & Daradkah, 2013). Therefore, the capacity to forecast company distress is predominantly essential from both the private and social platform as it is a clear indicator
of resource misappropriation (Al-Saleh & Al-Kandari, 2012). Moreover, it is a function of the banks regulating body to thwart the outcome of systemic hazard in the banking industry (Financial Sector Regulators Forum, 2016; Baklouti, Gautier, & Affes, 2016; Chan & Heang, 2010).

Mostofa, Rezina and Hasan (2016) argue that banking distress is not an uncommon phenomenon, suggesting that there is urgent need to establish measures to cushion stakeholders. According to Gumbo and Zoromedza (2016) works on banking distress defines financial distress as a situation that occurs when a financial institution receives external support or is closed. Financial distress may also refer to a period where a borrower is not able to pay its obligation to creditors and financiers due to either reputation of entity, leverage, instability of earnings, collateral or macroeconomic aspects like economic condition (Zaki, Bah, & Rao, 2011). According to Hambrick and D'Aveni (2004) and Gonzalez-Hermosillo (1996) bank distress occurs either when recapitalized by Central Bank, a strategic investor, acquired by another financial institution, surrender of banking license, suspended or closed by a regulatory authority. Financial distress of an institution can be reflective of management condition (Gebreslassie & GrusuwmyNidu, 2015). Bennedsen, Perez-Gonzalez and Wolfenzon (2010) allude to the fact that CEOs position is prime to the determinant of firm performance.

The CEO as the team leader exercises critical strategic control, monitoring and decision making (Barno, 2017). The CEO monitors from an agency perspective and often require diversity of skill for effective institution management. Some of the traits that have shown mixed influence to CEO performance include age, ethnicity, level of education, gender, work experience, office tenure (Barno, 2017; Bhaiyat & Garrow, 2015; Croci & Jankensgard, 2014 and Dittmar & Duchin, 2012). For example, Barno (2017) concludes that age and gender have a negative but statistically significant influence in capital structure while tenure needed to be elongated for the CEO to gain deeper understanding of the company business. The age may signify that the influence risk tolerance of an individual ability and willingness to bear risk. Bhaiyat and Garrow (2015) maintain that one of characteristic that has captured a lot of attention is the age of a CEO. They argue that CEOs age may be analytically correlated to risk preferences due to varying
motivations over the CEO’s career and fluctuating CEO physiological and psychological characteristics as the CEO gets older. Gorts (2016) on the other hand, contends on the influence of CEOs age. Gorts points that age has no effect on financial strategy implying that age has no influence in financial decision making.

The occurrence of financial distress weakens managerial power due to greater scrutiny from other stakeholders in a bid to know strategic steps being taken to reverse performance (Kang & Mitnik, 2012). Gathaiya (2017) analyzed issues affecting collapsed banks in Kenya from 2015 to 2016 and concludes that the major contributors to financial distress in most banking institutions relates to insider lending, weak corporate governance practices, weaknesses in regulating and supervising body, risky management strategies, ineffective internal control systems and conflict of interest. All those contributors point to leadership of the institutions who is the CEO. The role of the CEO then becomes critical if occurrence of financial distress has to be curbed. Burgaz (1997) asserts that CEOs have the overall mandate on the institutions they have been appointed to provide leadership. Although organizations exist to achieve goals, there is an essential belief that management entail application of acquired skills into systems suggesting that CEOs have greater role in organizational performance (Kumar, 2015; Mintzberg, 1971).

Chiumya (2006) maintains that it is critical for the regulators to check financial health to safeguard against failure. According to Jahur and Quadir (2012) the roots of financial distress and corporate failure are often a complex mixture of complications and indicators that need to be addressed. Grier (2007) adds that management quality is a significant element as it plays pivotal role in financial institution success through decision making process which affect direction of a firm. Further, Whitaker (1999) cautions that institution leadership is paramount in determining recovery and development especially when early warning signs of financial distress are corrected. Hartarska (2009) adds that, well operated financial institutions maximize scarce funds by improving service provision leading to acquisition of more clients creating a wider base for uptake of financial services. Onuonga (2014) and Ayayi and Sene (2010) resolve that sound management policies and decisions results in financial stability. In addition, Nworji, Adebayo, & David (2011) reiterate the dire need to engage qualified employees in the banking arena as it will lead to exploitation
of expertise, sharpening of skill and due diligence when performing duties leading to better performance.

Different models have been developed to predict financial distress. One of the models that is widely used is Z-score. Z score model is less complicated and effective with the capacity to provide assistance to institution management in forecasting corporate difficulties to avoid financial distress as well as planning, controlling and decision-making process (Othman, 2013). Z-Score model has frequently been used as an early warning model of financial distress (Shahwan, 2015). Baimwera and Muriuki (2014) in their study on non-financial firms listed in the Nairobi Securities Exchange established that Z-score model which has a multivariate approach is significant in distress prediction model. Other financial models that explain predictability of financial distress include Ohlson’s O-score Model (1980), Zmijewski’s Model (1984) and Springate Model.

1.1.1 Overview of Commercial banks in Kenya

As of 31st December 2016, the Kenyan banking sector encompassed 43 banking institutions out of which 42 were commercial banks and 1 mortgage financial institution (CBK, 2016). The 43 commercial banks were such that, 40 were privately owned where 25 were owned locally while 15 were owned by foreigners and Kenyan Government held a majority shareholding in the remaining 3. The Kenyan financial system is dominated by commercial banks. The soundness of the Kenyan banking sector has come under scrutiny following the placement of two commercial banks under receivership and one under statutory management by the CBK (Deloitte, 2016). Commercial banks are licensed and regulated by CBK through the provisions of the Banking Act and the Regulations and Prudential Guidelines. The Kenyan banking sector is dominated by tier I banks that control an estimate of 80% of the Kenyan market (Deloitte, 2016). As per CBK (2016), profitability in the banking sector was recorded to be uneven where some banks reported profits while others losses implying presence of financial distress. Notably, the banking sector deteriorated from a high growth of 10.1% in 2015 to a low of 7.1% in 2016 (Kenya National Bureau of Statistics, 2017). Inclusively, the growth of the Kenyan financial sector slowed from 9.4% in 2015 to 6.9% in 2016 signifying that there is presence of financial distress in commercial banks (Kenya National Bureau of Statistics, 2017). The Kenyan
banking industry is earmarked as a vital pillar to the accomplishment of vision 2030 through improved savings, foreign direct investment (FDI) and safeguarding the economy (GOK, 2007).

1.2 Problem Statement

The extent and factors leading to financial distress have significant implications to the regulators, academics and stakeholders (Manini & Addillahi, 2015; Shahwan, 2015; Gharaibeh, Sartawi & Daradkah, 2013; Glahtier & Underdown, 2001). In Kenya, the banking sector is an essential portion of the economy and under the financial services. According to Waweru and Kalani (2009) there are non-financial institutions and banks that failed in Kenya since the 80s. This trend may ultimately lead to a loss of confidence among depositors and stakeholders. The Kenyan financial industry has seen 37 financial institution face financial distress, out of which 25 non-bank financial institutions have been liquidated and 12 banks liquidated (Deposit Protection Fund Board Kenya, 2014). According to CBK (2016), 2 more banks have been put under receivership and 1 under statutory management. However, the extent of financial distress among the different banks tiers is unknown and this presents a knowledge gap that prompted this study.

Various scholars have employed different methodology of evaluating financial distress combined with different variables. Al-Saleh and Al-Kandari (2012) applied logistic regression; Muriithi, Waweru and Muturi (2016) used panel data techniques of fixed effects estimation and generalized methods of moments and Mostofa, Rezina and Hasan (2016) applied Z-Score Model. Thus the usefulness of financial distress models have acknowledged immense credit among academics (Mahama, 2015). The discussions on financial distress continue to gain momentum as different scholars apply dissimilar models of prediction. Schaeck and Cihak (2007) further note that there is no consensus in past research findings on how to measure banking problems and the explanatory variable to be combined thus providing basis for this study to employ Altman Z-score model and explore tangible CEO attributes.
Research has evidence that individual attributes such as age, ethnicity, level of education, gender, work experience, office tenure have mix influence on firm performance (Barno, 2017; Bhaiyat & Garrow, 2015; Croci & Jankensgard, 2014 and Dittmar & Duchin, 2012). The varied findings may have been instigated by difference in geographical locations in which the study was conducted, industry of focus, methodology applied, sample sizes as well as the number of years covered by previous researchers. Since there is no consensus on the method of measuring extent of financial distress and variables to be used, this created a knowledge gap. This study therefore assessed the extent of financial distress in bank tiers in commercial banks in Kenya and established key CEO attributes that influence financial distress in Kenyan commercial banks. The model applied in the study incorporated company specific variables for the period under study.

1.3 Research objectives

This study aimed at fulfilling the following objectives:

1.3.1 Main objective

The main objective of this research was to assess the effects of CEO attributes on financial distress in commercial banks in Kenya.

1.3.2 Specific objectives

(i) To determine the extent of financial distress in the different bank tiers in commercial banks in Kenya.
(ii) To assess the significance of the CEO attributes on financial distress in commercial banks in Kenya.

1.4 Research questions

This research aimed at responding to the following questions:

(i) What is the extent of financial distress in the different bank tiers among Kenyan commercial banks?
(ii) What CEO attributes lead to the occurrence of financial distress in commercial banks in Kenya?
1.5 Significance of the study

Commercial banks financial health and stability is significant for the nation’s developmental objective of resource mobilization, promoting competition, efficiency and access of funds.

1.5.1 Academicians

The research contributes to the existing literature specifically on Z-score model by providing empirical evidence on CEO attributes on financial distress in commercial banks and provides impetus for further research on financial distress detection and correction.

1.5.2 Financial Institutions

The findings are beneficial to institution’s management in gaining an understanding of CEO attributes to curb financial distress and help counter risk exposure effectively resulting in a healthier and stable financial system. More so, CEO attributes are viewed as fundamental elements towards institution present and future performance including organizational value and development. One of the chief advances in modern organizational practice is enhanced interest in governance. The study informs on the major CEO attributes that should be addressed.

1.5.3 Commercial bank regulator

The study gives opinion in policy formulation that will foster growth and stability of commercial banks to realize the 2030 vision whose key objectives is achieving 10 per cent annual economic growth with projected investment at 30 per cent rate. The developments are meant to be funded through mobilization of local resources (GOK, 2007).

1.6 Scope of the study

The research focused on commercial banks with an aim of establishing the extent of financial distress in bank tiers and the CEO attributes significance on financial distress in commercial banks in Kenya. The Z-Score model was applied to assess financial distress among different bank tiers. This study focused on one year, 2016. The period captures some of the reforms that have been instituted by CBK to strengthen banks performance.
Some of this reform include: Credit Information Sharing in 2009; the introduction of Prompt Corrective Action (PCA) in 2010 allowing CBK to take swift action on institutions with weak capital base. In addition, enhancement of capital adequacy requirement in 2012; introduction of Kenya Banks Reference Rate (KBRR) with an aim of increasing transparency in pricing of credit and loans in 2014; Amendment of banking Act, 2016 imposing limits on interest rates chargeable by commercial banks on credit facilities and the rates payable on customer deposit. The study involved collection of secondary data from financial statements, annual financial reports and banks website which was used to answer specific objective one and two which were on the extent of financial distress in bank tiers in commercial banks in Kenya and CEO attributes that influence occurrence of financial distress quantitatively.

1.7 Chapter Summary

Chapter one expresses the importance of undertaking the study. It explains the main goal for assessment of the extent of financial distress in bank tiers and key CEO attributes on financial distress in commercial banks in Kenya. Additionally, the chapter gives the background while building basis for research. Additionally, the chapter illuminates the research problem, develops research objectives and research questions to guide the study. Chapter one moreover outlines the scope of the study and significance.
CHAPTER TWO - LITERATURE REVIEW

2.1 Introduction
The chapter evaluates past studies as well as theories relevant to the study. CEO attributes on financial distress will be discussed in detail while outlining literature from previous scholarly articles. Finally, the conceptual framework brings out the relationship between CEO attributes and financial distress (independent variables) and financial distress (dependent variable).

2.2 Theoretical framework
This research applied a multi-theoretical framework. More than one theory were applied to explain the existence of financial distress and CEO attributes which influence financial distress occurrence in commercial banks in Kenya. Agency theory brings out the relationship between managers and owners of corporations. The theory stipulates that information asymmetry between the management and owner may cause financial distress (Burgaz, 1997). The theory proposes that management led by the CEO should be liable as key personnel in an institution (Abdullah & Valentine, 2009). Personal characteristics can similarly determine the decisions made pertaining strategic choices that influences ultimate organizational performance and progress (Oppong, 2014). Upper echelons theory explains attributes such as individual age, years of experience, educational level, tenure, gender being useful to forecast actions of the top leader when faced with managerial decisions in the organization (Hood, 2008; Juravich, 2012; Herri, Johan, Handika, & Yulihasri, 2017). Consequently, researchers should use multi theoretical perspective in order to align their research findings.

2.2.1 Agency Theory
In financial economics, agency theory was put forth to address the principal-agent association brought about by existence of corporations whose leadership were managers not owners (Habbash, 2010; Getahun, 2013). The segregation of corporate ownership from management in current institutions paves way for the context of application the theory (Harun, 2017). Habbash (2010) alludes to the fact that institution owners are extensively spread hence they do not partake in daily processes and leadership of their own institutions
somewhat leading them to hire managers to manage the daily affairs of their corporation on their behalf led by the CEO with expectations of high returns. Similarly, Getahun (2013) asserts that majority of the owners hardly have time and skill required to manage a firm leading to ultimate return on investment and firm value.

Agency theory stipulates that, institution that employ appropriate corporate governance aim at increasing shareholders value by eradicating persistent conflict of interest that occur amongst owners and managers. In this view point, the shareholders elect and appoint board of directors whose mandate is to monitor actions of the management by providing strategic directions in place of shareholders as an avenue to reduce conflict of interest and are also tasked to hire a CEO to steer the organization (Getahun, 2013). This imply that the standard of corporate governance grounds the nature of the relationship among stakeholders.

Agency problem is not new to corporates due to differing goals between owners and hired managers (Naushad & Malik, 2015). For instance, owners are interested in gaining maximum value while CEOs may have goals such as contract renewal, bonuses, image and industry dominance (Jensen & Meckling, 1976). Jensen and Meckling (1976) defined agency relationship as an agreement under which the principal delegates decisions making authority to the agent. Even though CEOs have formal authority over the institutions they manage, agency problem emanates from information asymmetry where they are better placed with information regarding better ways to invest funds (Burgaz, 1997). CEOs may be limited on their contracts although they hold extensive rights which may lead to problem of corporate management (Fama & Jensen, 1983).

Agency theory proposes that alignment of the agent and principal interests results in maximizing of the interest of the shareholders. Corporate rules and regulations assist in alleviating agency costs by streamlining management and shareholders’ interests to avoid financial distress (Manini & Abdillahi, 2015). The theory prescribes that management led by their CEO should be answerable in their tasks, action and responsibilities (Abdullah & Valentine, 2009). The agency theory was adopted as it helps to explain why corporates fail leading to financial distress.
2.2.2 The Upper Echelons Theory

The upper echelons theory explains that firm performance is wholly dependent on the efficiency and the efforts pulled together by those bestowed to provided leadership to the organization specifically the CEO (Hambrick and Mason, 1984). Hence, the growth and overall performance of an institution is usually mirrored to the CEO. The theory specifically mentions that CEOs perspective of the institution they provide leadership is shaped by the strategies they chose to put forth that underscores future wellbeing of the institution. The theory adds that the CEOs vision in that case; the perception of the environment is delimited by their understanding base and standards they hold. The theory explains that the human capacity is limited to the information it can process at any given time, as a result, decisions to act on the matters arising in the surrounding is purely dependent on the depositions exposure and individual characteristics. Individual attributes thus influence decision making process.

According to Oppong (2014), personal characteristics can greatly influence facets of the surrounding that can be viewed, suggesting that what can be viewed and processed by the mind ultimately enlightens the eventual decisions and strategies to be employed which is reflective of firm performance. As a result, Hambrick and Mason (1984) suggest the need to evaluate individual characteristics that can be seen such as education levels, professional qualifications and societal background of the top leader in the corporate context. In this regard, factors such as CEO age, CEO years of experience, CEO educational background and level, CEO tenure, CEO gender can be examined to check for their influence on decision making process and strategies that affect institution future prospects (Hood, 2008; Juravich, 2012; Herri, Johan, Handika, & Yulihasri, 2017). Therefore, the theory proposes that values and experience which are reflected from attributes of the leader influence organizational performance and must constantly be under scrutiny to curb financial distress occurrence. This theory was applicable in identifying the main CEO attributes that influence financial distress.
2.3 CEO attributes and financial distress

Do CEO attributes contribute to financial distress? Some researchers have investigated the role of tangible and intangible CEO attributes. Barno (2017) examined effects of managers characteristics on capital structure among firms listed at NSE for the period ranging 2008 to 2013. The study involved data from 39 companies and adopted time series analytical approach. She found that age and gender to be negative but with significant effect on capital structure. Bhaiyat and Garrow (2015) on the other hand investigated the influence of the CEO and CFO attributes on firm probability of default. Their study involved 642 companies and established that as the office tenure of the CEO and the CFO increases, the chances of a firm being in financial distress reduces suggesting that office tenure has negative influence to firm being distressed. Equally, Dittmar and Duchin (2012) suggest that individual experiences acquired over time influences decision making processes among corporates. They used data from more than 8500 CEOs and found that corporations whose CEOs involved previously with cash flow complications opt for cash reserve, limited short-period debt and hold record of least net to debt ratios implying that past experience influences future decisions on firm management such that the longer the period of experience, the less likelihood of occurrence of financial distress due to better understanding of management practices.

Croci and Jankensgard (2014) and Kyenze (2014) point that there exist propositions concerning CEO attributes to institutional guidelines. CEO age as one of the attributes has captured a lot of attention. According to Croci and Jankensgard (2014), an individual’s age may be scientifically linked to risk appetite due to the continuous changes in CEO’s career growth and development, physiological and psychological deviations brought about by increase in age. There are variations among young and old CEO on the directions of their career. The young CEO have an appetite for debt so as to growth the organization which may jeopardize future firm opportunities. Their focus is to grow profits and acquire markets in order to gain favor from owners. Whereas, older CEO may have reached their peak and have less appetite for debt rather maintain corporate stability. This creates a status quo where they may experience difficulty in decision making if faced with financial distress situations.
Gorts (2016) equally concludes that CEO characteristics statistically influences corporate financial strategy. Gorts found tenure to be the most important determinant of corporate financials. In addition, Gorts found gender and directorship ownership to influence corporate financial strategy. While age on the other hand was found to have no effect on financial strategy. According to Gorts (2016), CEO attributes influences decision making that may cause financial distress occurrence in corporates.

According to Hackbarth (2008), overconfident CEO would prefer to double their levels of debt without considering cost implications. Hackbarth study revealed that CEO characteristics influences extensively on their overall performance. The higher levels of debt confines CEOs from diversifying investments which increases firm value by reducing agency costs. High debt level is associated to lost opportunities and delayed investment. Mild CEO investment decisions can improve corporate valuation which may cause reduced opportunities at a lower rate. CEOs are likely to possess traits such as excessive optimism and overconfidence due to the position they hold.

Since erstwhile research show that CEO attributes are significantly associated with corporate finance, this thesis assumes that financial policy preferences of CEOs are linked to their attributes. This is confirmed by Kariuki, Namusonge and Orwa (2015) that CEO attributes restrains the firm market share, expansion and the probability of financial distress occurrence as factors of firm cash reserve, which means that certain CEO attributes are linked to certain financial policies that they design to guide firm position in the industry.

### 2.3.1 CEOs age and financial distress

One characteristic that has captured a lot of attention in evaluating impact of the firm is CEO age (Croci & Jankensgard, 2014). Barno (2017) examined the age of managers in 39 companies listed at the NSE and established that it has a negative but significant effect on capital structure. Personal decision-making behaviors are influenced by the environment and society denoting that individual capacity and preparedness to handle risk could be influenced by age. Croci and Jankensgard (2014) equally propose that risk preferences are as a result of age. Age is associated to maturity and ability to own decisions. In addition,
older CEOs may tend to be risk averse when financial distress occurs as it may entail several difficult decisions, possibly involve budget cuts and excessive scrutiny by stakeholders. Moreover, prospects of firm distress circumstances are unenticing to older CEO since they hold personal attachment to the firm especially in situations where they have held leadership for a very long period.

According to Gorts (2016) elder executives are inclined to more safe investments compared to upcoming executives explaining that elder executives have fewer years until retirement compared to younger executives. Additionally, elder CEOs prefer to hold reserves than younger CEOs because the latter have become risk sensitive as they gain experience. Correspondingly, younger CEOs have barely been exposed and hold no accomplishment records. Kyenze (2014) examined 61 companies listed at the NSE for the period spanning 2008-2013 and concludes that there exist a significant association between the ages of the CEO and organizational performance inferring that the CEOs need to be mature in age as they are tasked with decision making. Gorts (2016) on the other hand in his study on effects of CEO characteristics on corporate financial strategy contends that age has no effect on financial strategy suggesting that age did not influence financial decision making. Chevalier and Ellison (1999) equally add that investment managers and financial analysts suggest that upcoming CEO are risk sensitive because they have the fear of being terminated due to unsatisfactory targets achieved. Further, Croci and Jankensgard (2014) support the argument stating that distress situations questions management ability, proposing that upcoming CEOs can protect their career by establishing avenues to prevent decline in performance because they have a longer career. Equally, Simerly and Gan (2017) maintains that younger CEOs are motivated to build their reputation with projects that provide expedient results while older CEOs want to experience the benefits of their labor before they retire.

2.3.2 CEO gender and Financial distress

Men and women tend to differ in decision making. It is argued that demographic diversity of leadership is positively associated with diverse practices that impact organization performance. Data collected from 260 United States organizations support this idea (Nishii, Gotte, & Raver, 2007). Barno (2017) established a negative but significant impact
on capital structure indicating that gender has effect on decision making. Barno suggests that more female managers should be appointed as it would enable women to share their array of experiences and talents in the organization to improve on performance. Gorts (2016) adds that gender influence corporate financial strategy. Kyenze (2014) however found that there was no statistically significant connection between the gender of the CEO and firm performance implying that gender did not influence organizational performance.

Vo and Phan (2013) propose involvement of female in corporate decision making since it positively effect on performance of the firms suggesting that inclusion of female in leadership positions influence decision making. The study comprised of 77 registered firms trading in Ho Chi Minh City Stock Exchange in Vietnam over the period 2006 to 2011. Shungu, Ngirande, & Ndlovu (2014) correspondingly concludes that there exists a positive association between board of directors’ gender diversity and commercial bank performance proposing that gender influence firm performance. However, Chan and Heang (2010) opined that there was no significance influence between gender diversity and cost signifying that gender did not have influence on overall firm output. Similarly, Manini & Addillahi (2015) posit that gender diversity did not prove any significance to banks profitability, the findings imply that gender variance does not cause financial distress. Likewise, Harun (2017) findings indicate that board gender diversity has no statistically significant influence on general financial performance of selected private commercial banks in Ethiopia. Additionally, Kirimi (2015) and Wairimu (2014) point that board gender-diversity was not statistically significant in determining financial performance. These studies suggest that gender variability has no influence on organizational performance.

2.3.3 CEO education level and financial distress

Education is usually associated with open-mindedness and reflects cognitive complexity and ability to discern pattern. According to Kyenze (2014) there is a statistically significant association between educational level of a CEO and firm performance amongst listed firms at the NSE. Ramezani, Khabiri, Alvani, & Tondnevis (2011) say that role performance improves with level of education. However, Harun (2017) found that education qualification was positive but insignificant related with the firm financial
performance. Additionally, Herri, Johan, Handika, & Yulihasri (2017) research involved 81 institutions enlisted in Indonesia Stock Exchange (IDX). They established educational level to have a negative impact on performance as well as CEOs with throughput functional background. Similarly, Ting, Azizan and Kweh (2015) found that both younger and longer serving CEOs are risk takers and aggressive regardless of their educational level pointing that education level do not influence firm performance. Further Ting, Azizan and Kweh add that the CEOs with higher levels of education are susceptible increased debt of the organization. Highly educated CEOs prefer debt financing as opposed to internal sourcing with an aim on rapid growth.

Orens and Reheul (2013) point out that characteristics of the organization can be a reflection of CEO education level. More educated CEOs have a risk appetite, out of the box thinker and positively welcomes changes and investment opportunities (Barker & Mueller, 2002). Further, Rakhmayil and Yuce (2011) support the argument that high levels of education have a multiplier effect to organizational financial leverage.

2.3.4 CEO office tenure and Financial distress

Barno (2017) points that managers need to have a long tenure so that they can offer deeper understanding of the company’s business so as to offer prudent advice and leadership. Bhaiyat and Garrow (2015) propose that as the CEO office tenure increases the chances of default significantly declines implying that long tenure contributes to stability and efficiency of the firm. According to Herri, Johan, Handika and Yulihasri (2017) study, they established a direct relationship of CEOs characteristics and turnaround performance. The research concluded that tenure in position favors turnaround performance. The longer the tenure, the quicker the turnaround.

Kariuki, Namusonge and Orwa (2015) in their research conclude that CEO tenure statistically significantly influences organizational size, growth and future opportunities. The study supports the argument that short-term tenure influences occurrence of financial distress. Kyenze (2014) adds that office tenure of the CEO affects the performance of the firm asserting that tenure is key determinant for future opportunities.
2.3.5 CEO work experience and financial distress

According to Kariuki, Namusonge and Orwa (2015), CEOs who have extensive managerial experience in other industries significantly influence financial decisions. CEOs who have gained experience from other industries are better exposed than those from a similar industry. Although occurrence of financial distress weakens managerial power due to greater scrutiny from other stakeholders, net potential effect of powerful CEO through extensive and broad experience positively results to better individual decision-making to discern abrupt negative firm performance (Kang & Mitnik, 2012; Kariuki, Namusonge, & Orwa, 2015). Extensively exposed CEOs are more likely to remain steady, assertive in leadership even as they encounter problems. Therefore, firms that have volatile performance can benefit from well experienced and exposed leadership. Experienced CEOs have increased influence on firm value as opposed to less experienced.

Vo & Phan (2013) and Wajiru (2013) equally add that working experience has a positive influence on performance of the firms asserting the need for experience in top management office in order to attain firm performance. Getahun (2013) asserts that expertise is necessary to operate a firm so as to make informed decisions. Dauda and Hawa (2016) correspondingly reveal that skill influences performance. Dauda and Hawa emphasize that the top management office holders to possess adequate skills and wealth of knowledge of banking trend in order to provide leadership. Besides work experience, personal experience impact corporate financial decision making. According to Malmendier, Tate, & Yan (2011) the CEOs personal life experiences greatly influence decision making which ultimately is reflective of organizational performance. Further, Larcker and Tayan (2017) opin that previous work experience and style are good forecast that inform future performance.

2.4 Measurement of financial distress

Financial distress prediction continues to gain considerable attention amongst academics, analysts and stakeholders of the firm (Wang & Li, 2007). In an attempt to explain financial distress, Outecheva (2007) points that financial distress may be associated with declined performance, failure, liquidation and defaulting. Outecheva further adds that deterioration

Mostofa, Rezina, & Hasan (2016) allude that financial distress is an ill-fated situation for any business firm; as shareholders will lose their invested capital, depositors will lose their deposits, government will encounter decline in tax collected and businesses will lack capital to reinvest. They further argue that there are numerous quantitative techniques available to measure financial performance of a firm. Altman Z-score has been proven to be reliable with ability to provide between 80 per cent to 90 per cent accuracy in forecasting bankruptcy one year before occurrence. The Z-score model utilizes multiple corporate income and balance sheet values to measure financial strength of a firm. The model devotes to predict probability of distress of both manufacturing and non-manufacturing concern. Shahwan (2015) admits that the Altman Z-score model has been applied often as an early warning sign.

Similarly, Chadha (2016) applied Z-score to check for financial performance of 196 listed firms on the Kuwait Stock Exchange. The investigation concludes that the level of distress necessitates key changes within the firms due to decline in performance. Sulub (2014) equally investigated 10 multinational corporations for a two-year period covering 5 bankrupt and 5 operating companies and tested the predictive power of Altman revised model and concludes that Altman Z-score model on financial distress prediction had an accuracy of 70% for the failed multinational and 55% predictive accuracy for the non-failed corporations. Many scholars support the prerequisite for prediction of financial soundness and the probability of occurrence of financial distress in corporations. Chadha (2016) admits that the Z-score financial model has been recognized largely for almost four
decades and is significant in credit risk analysis, merger and acquisition target analysis and improvement of management of organizations. Kivuvo and Olweny (2014) examined a sample of thirty deposit taking SACCOs in Kenya from 2008 to 2013 period and found that application of Altman Z-score contributes to financial stability. Pradhan (2014) asserts the need for prediction in order to evaluate credibility of firms thus emphasizing the significance of Z-value when financial institutions are seeking funding.

Mahama (2015) applied Altman Z-score on a data covering 2007 to 2013 involving ten companies listed in the Ghana Stock Exchange (GSE) and proposes that the Z-score model should include non-financial components and proxies that are reflective of the firms operating environment. Moreover, Paroth (2006) asserts that inclusion of macroeconomic information is a fundamental element in estimating default in corporations. Mahama (2015) underscores that rating tools that solely rely on financial ratios may not be appropriate for capturing the risk level in the organizations due to the influence of external factors that are beyond corporate ability such as change in economic environment and the financial ratios are subject to human manipulation. Wang & Li (2007) postulates that predictive models that combine both financial and non-financial ratios outperform models that contain either financial ratios or non-financial ratios. Paroth (2006), Wang and Li (2007), Messai and Gallali (2015), Mahama (2015) approve that financial distress variables as well as macroeconomic variables should be included in models in order to define relevant factors that explain financial distress. The array of variables enhances robustness of the forecasting performance in corporations. On the contrary, Zaki, Bah, & Rao (2011) juxtaposes the benefit of inclusion of macroeconomic information in the prediction model claiming that they were not useful for risk assessment because they are beyond organizational control. Zaki, Bah, & Rao (2011) strongly suggest that fundamental financial ratios such as cost to income, equity to total assets, total asset to growth and loan loss reserve to gross loans positively impact the probability of occurrence of financial distress.

Mostofa, Rezina, & Hasan (2016) similarly posit that financial distress is used to assess the insolvency and bankruptcy of the financial organization. They randomly selected 56 banks for the period 2010 to 2014 in Bangladesh and applied Altman Z-score model in
their study on Activity, profitability, Solvency, Leverage and market value ratios to measure firm performance. They posit that achievement or deterioration of an organization or industry is subject to managerial decisions such as investment financing and asset management. Whitaker (1999) positively submits that financial distress signals counteractive action which ultimately advances firm performance. Whitaker (1999) further cautions that managerial actions are weighty determinant of regaining and enhancement in industry adjusted market value for corporates encountering financial distress due to poor management decisions but not for firms entering due to factors of economic distress. Similarly, Ayayi & Sene (2010) analyzed data from 217 MFIs in 101 Countries for a period of 9 years (1998 to 2006) and notes that high quality credit portfolio combined with satisfactorily high interest rate that earns rational profits and sound management results in financial sustainability. Ayayi and Sene (2010) concludes that financial institutions need to apply sound and sustainable financial management coupled with respectable managerial governance to guarantee financial sustainability and profitability.

2.5 Determinant variable and hypothesis development

Financial distress may be determined by tangible individual attributes. Agency theory proposes the alignment of the principal and agent interests in order to maximize shareholders’ interests. Upper Echelons theory adds that personal characteristics influence decision making and are reflective of strategies employed in institutional management.

2.5.1 Relationship between CEOs age and financial distress

One individual characteristic that has captured a lot of attention in evaluating impact on the firm is the CEO age (Croci & Jankensgard, 2014). Barno (2017) established that it has a negative but significant effect on capital structure. Croci and Jankensgard (2014) equally propose that risk preferences are as a result of age implying that age is associated to maturity and ability to own decisions. Additionally, older CEOs may tend to be risk averse when financial distress occurs as it may entail several difficult decisions, possibly involve budget cuts and excessive scrutiny by stakeholders. Similarly, Kyenze (2014) concludes that there exist a significant association between the ages of the CEO and organizational
performance inferring that the CEOs need to be mature in age as they are tasked with decision making.

Gorts (2016) on the other hand contends that age has no effect on financial strategy suggesting that age did not influence financial decision making. Chevalier and Ellison (1999) equally add that investment managers and financial analysts suggest that upcoming CEO are risk sensitive because they have the fear of being terminated due to substandard targets achieved. Further, Croci and Jankensgard (2014) support the argument stating that distress situations questions management ability, proposing that upcoming CEOs can protect their career by establishing avenues to prevent decline in performance because they have a longer career. Equally, Simerly and Gan (2017) maintains that younger CEOs are motivated to build their reputation with projects that provide expedient results while older CEOs want to experience the benefits of their labor before they retire. Thus, there is a conflict on whether age influences occurrence of financial distress. Hence, the hypothesis developed was as follows;

\[ H_1: \text{there is a significant relationship between CEOs age and financial distress} \]

### 2.5.2 Relationship between CEO gender and financial distress

It is claimed that demographic diversity of leadership is positively associated with diverse practices that impact organization performance (Nishii, Gotte, & Raver, 2007) suggesting that men and women tend to differ in decision making. Barno (2017) established a negative but significant impact on capital structure indicating that gender has effect on decision making. Similarly, Gorts (2016) adds that gender influences corporate financial strategy. Additionally, Vo and Phan (2013) propose involvement of female in corporate decision making since it positively effect on performance of the firms suggesting that inclusion of female in leadership positions influence decision making. Furthermore, Shungu, Ngirande, & Ndlovu (2014) correspondingly concludes that there exists a positive association between board of directors’ gender diversity and commercial bank performance proposing that gender influence firm performance.
Kyenze (2014) however found that there was no statistically significant connection between the gender of the CEO and firm performance implying that gender did not influence organizational performance. Equally, Chan and Heang (2010) opined that there was no significance influence between gender diversity and cost signifying that gender did not have influence on overall firm output. Similarly, Manini & Addillahi (2015) posit that gender diversity did not prove any significance to banks profitability, the findings imply that gender variance does not cause financial distress. Likewise, Harun (2017) findings indicate that board gender diversity has no statistically significant influence on general financial performance of selected private commercial banks in Ethiopia. Additionally, Kirimi (2015) and Wairimu (2014) point that gender-diversity was not statistically significant in determining financial performance. These studies suggest that gender variability has no influence on organizational performance. These findings are based on upper echelons theory. Consequently, there is a conflict on whether gender motivates or reduces financial distress. The hypothesis developed was as follows;

\[ H_2: \] there is a significant relationship between CEO gender and financial distress

2.5.3 Relationship between CEO education level and financial distress

Education is usually associated with open-mindedness and reflects cognitive complexity and ability to make judgement. According to Kyenze (2014), there is a statistically significant association between educational level of a CEO and firm performance. Additionally, Ramezani, Khabiri, Alvani, & Tondnevis (2011) suggest that role performance improves with level of education. Orens and Reheul (2013) point out that characteristics of the organization can be a reflection of CEO education level. More educated CEOs have a risk appetite, out of the box thinker and positively welcomes changes and investment opportunities (Barker & Mueller, 2002). Further, Rakhmayil and Yuce (2011) support the argument that high levels of education have a multiplier effect to organizational financial leverage.

However other researchers have mixed findings. Harun (2017) found that education qualification was positive but insignificant related with the firm financial performance. Additionally, Herri, Johan, Handika, & Yuliasri (2017) research established educational
level to have a negative impact on performance as well as CEOs with throughput functional background. Similarly, Ting, Azizan and Kweh (2015) found that both younger and longer serving CEOs are risk takers and aggressive regardless of their educational level pointing that education level do not influence firm performance. Further Ting, Azizan and Kweh add that the CEOs with higher levels of education are susceptible to increase debt of the organization. Highly educated CEOs prefer debt financing as opposed to internal sourcing with an aim on rapid growth which may influence occurrence of financial distress. Both sides of the argument are supported by theory and evidence in favor, but neither of them has delivered compelling definitive answer. Hence, the hypothesis developed was;

\[ H_3: \text{there is a significant relationship between CEO education level and financial distress} \]

2.5.4 Relationship between CEO office tenure and financial distress

Barno (2017) points that managers need to have a long tenure so that they can offer in-depth understanding of the company’s business so as to offer practical advice and leadership. Bhaiyat and Garrow (2015) propose that as the CEO office tenure increases the chances of default significantly declines implying that long tenure contributes to stability and efficiency of the firm. According to Herri, Johan, Handika and Yuliasri (2017) research, they established a direct relationship of CEOs characteristics and performance. The research concluded that tenure in position favors performance.

Kariuki, Namusonge and Orwa (2015) in their research conclude that CEO tenure statistically significantly influences organizational size, growth and future opportunities. The study supports the argument that short-term tenure influences occurrence of financial distress. Kyenze (2014) adds that office tenure of the CEO affects the performance of the firm asserting that tenure is key determinant for future opportunities. Therefore, the hypothesis developed was;

\[ H_4: \text{there is a significant relationship between CEO office tenure and financial distress} \]
2.5.5 Relationship between CEO work experience and financial distress

According to Kariuki, Namusonge and Orwa (2015), CEOs who have extensive managerial experience in other industries are better exposed and significantly influence financial decisions than those from a similar industry. Although occurrence of financial distress weakens managerial power due to more scrutiny from other stakeholders, net potential effect of powerful CEO through extensive and broad experience positively results to better individual decision-making to discern abrupt negative firm performance (Kang & Mitnik, 2012; Kariuki, Namusonge, & Orwa, 2015). Broadly exposed CEOs are more likely to remain steady, assertive in leadership as they encounter problems. Consequently, firms that have volatile performance can benefit from well experienced and exposed leadership as opposed to less experienced. Vo & Phan (2013) and Wajiru (2013) equally add that working experience has a positive influence on performance of the firms. Similarly, Getahun (2013) asserts that expertise is necessary to operate a firm so as to make informed decisions. Dauda and Hawa (2016) correspondingly reveal that skill influences performance and they emphasize that the top management office holders to possess adequate skills and wealth of knowledge in order to provide leadership. Besides work experience, personal experience impact corporate financial decision making. According to Malmendier, Tate, & Yan (2011) the CEOs personal life experiences greatly influence decision making which ultimately is reflective of organizational performance. Further, Larcker and Tayan (2017) opin that previous work experience and style are good forecast that inform future performance. Therefore, the hypothesis developed was as follows;

H₅: there is a significant relationship between CEO work experience and financial distress

2.6 Research Gap

Most literature focus on capital structure and managers attributes. Bhaiyat and Garrow (2015) for examle express that there is limited literature concentrating on the impact of the TMT on the likelihood of default. Dittmar and Duchin (2012) investigated personal experiences impact on corporate decision making. Gorts (2016) looked at effects of CEO characteristics on corporate financial strategy. Herri, Johan, Handika and Yulihasri

2.7 Conceptual framework

The conceptual framework model in figure 2.1 clearly depicts the visual link between financial distress and CEO attributes of financial distress as discussed in the literature review. Financial distress is the dependent variable which is determined by Z score and answers the specific objective one on extent of financial distress among bank tiers in commercial banks in Kenya. The CEO attributes are the independent variables which were evaluated on their influence on financial distress in commercial banks to answer specific objective two.
2.8 Chapter Summary

Chapter two focused on empirical findings of studies relating to CEO attributes and financial distress. The chapter expounded theoretical framework that guide the study. The agency theory and Upper-Echelons theory were also explained in detail. The chapter also covered formulation of hypothesis to answer the second specific research objective and finally the conceptual framework that depicts variable relationship was described.
CHAPTER THREE - RESEARCH METHODOLOGY

3.1 Introduction

The chapter outlines the research philosophy, research design, the population used in the study, data collection method used, measurement of variables and methods used in analysis of data collected. The objective of the study was to evaluate the extent of financial distress among bank tiers of commercial banks in Kenya and determine the significance of key CEO attributes that influence occurrence of financial distress in Kenyan commercial banks.

3.2 Research philosophy

The tenacity of science is to transform what is believed to be known into things that are known. The school of positivism believe, employ deductive laws and quantitative methods to get to the fact. More so, positivism believe that the world functions by laws of cause and effect that one can extricate when scientific approach is applied (Sekaran & Bougie, 2013). Positivist hold that anything that is perceived through the senses is real (Sarantakos, 1993). According to Levin (1988) positivists believe that there is stability in reality and can be seen and defined from an objective view point without interfering with the study at hand.

Positivists are majorly troubled with the precision and replicability of research, dependability of observation and generalizability of result outcome. They use deductive reasoning to advance theories that can be tested by fixed, programmed research design and unbiased measures (Sekaran & Bougie, 2013; O’Leary, 2004). In addition, positivists seek to employ existing theory to develop hypothesis that are tested and confirmed to be wholly or else disproven paving way to further developmet of theory to be tested with additional research. Saunders, Lewis, & Thornhill, (2009) believe that positivism enables researchers to be concerned with facts and not impressions.

This research adopted positivism approach. Positivist argue that reality includes anything that is available to the senses and an inquiry should be based upon specific observations as opposed to speculation (Sarantakos, 1993). Positivist deal with facts not values. Positivist hold to the assumption that the world can be accurately described and casually
explained. In addition, this methodology is grounded by the use of quantitative methods and the exactness and worth of theories resultant in this method are umpired by their capacity to enlighten or predict phenomena. Friedman (1953) also highlights a subset in positivism, instrumentalism that regards predictive ability to be grander to explanatory ability of the methodology. In its purest form, research result from positivist methodology is scientific, structured, has theoretic base, seek to find nature of relationships, cause and effect and employ observed validation as well as statistical analysis to assess and validate theories. Positivist emphasize that the study quality and its adequacy is a function of reliability, validity and generalizability (Sarantakos, 1993). The research first assessed the extent of financial distress amongst bank tiers in Kenyan commercial banks then assume a reductionist approach to identify significant CEO attributes that influence financial distress among Kenyan commercial banks.

### 3.3 Research Design

A research design is a blueprint of how to carry out research and consist of data collection, measurement of data and data analysis that is grounded on the research questions of the study. Studies may be either exploratory, descriptive or causal. Sekaran and Bougie (2013) explain that exploratory studies are undertaken when there is limited information concerning the situation at hand or when there is unavailable information concerning how similar study has been determined in the past. Descriptive study on the other hand is designed to collect data that describe a characteristics of person, event or situation under study. Descriptive research can be either quantitative or qualitative. In addition, Sekaran and Bougie (2013) describe the third design as causal where the research study is directed to establish cause and effect relationship between variables.

The study employed descriptive research design. Descriptive research design was used to evaluate the extent of financial distress among bank tiers and significant CEO attributes on financial distress among commercial banks in Kenya. Hypothesis testing provided an understanding of the relationship that existed between variables.
3.4 Target Population and Sampling

This research considered a census approach. Cooper and Schindler (2011) defined census as consideration of all the total count of all the element in the population. The population of this research was obtained from CBK website (Appendix II) totaling to 42. The census was necessary due to the small nature of the population (Cooper & Schindler, 2011) and to enhance accuracy of the research results.

3.5 Data collection methods

The study employed secondary method of data collection. The analyzed data was obtained from CBK annual supervisory report available in the website and financial and annual reports of commercials banks’ available in their individual website. The period under study was one year (2016) which was cross-sectional. The data was utilized to answer objective one and two.

3.6 Data analysis technique

The data collected was evaluated based on the research problem. Data analysis can be described as the method of analyzing data and techniques for interpreting the results obtained. Multi discriminant analysis and Altman Z-score model were employed to analyze secondary data. The Altman Z-score model was used to detect the extent of financial distress among bank tiers in commercial banks. The model was selected due to its ability to predict financial distress and simplicity (Mostofa, Rezina, & Hasan, 2016; Shahwan, 2015; Sulub, 2014).

Discriminant function analysis was performed to determine how CEO attributes influence financial distress in commercial banks in Kenya. The discriminant analysis obtains a model to predict a single qualitative variable from one or more independent variables in research (Cramer, 2003). The discriminant analysis derives an equation as a linear combination of the independent variables that will discriminate best between groups in the dependent variable (Ramayah, Ahmad, Halim, Zainal, & Lo, 2010). The maximum number of functions obtained is usually either the number of predictor variable or the number of groups minus one whichever is lesser. In order to establish a relationship, a test of P-value was obtained at 5% significance level to test the significance of the CEO
attributes on financial distress while Eigen value was used to explain the unexplained variation in the model.

3.6.1 Operationalization of variables

The section presented the measurements used to operationalize the research variables before applying multi discriminant analysis.

3.6.1.1 Dependent Variable

In this research, the dependent variable was determined using the Altman Z-Score model. Altman (1968) pioneered MDA after Beaver’s Univariate model. Past studies on bankruptcy prediction model employed statistical model at 64 per cent, Artificial intelligence and Expert System (AIES) models at 25 per cent and Theoretical model at 11 per cent (Kpodoh, 2009; Aziz & Dar, 2006). It is evident that statistical models dominated distress prediction research literature. Aziz and Dar (2006) outline that out of the 64 per cent statistical models applied in bankruptcy literature, 30 per cent employed MDA while 21 per cent applied Logit models.

Hauschild (2013) alludes that Z-score as a model is used widely not only for predicting bankruptcy but also navigating model for performance measure for existing businesses. More so, it is an essential tool for emergent entrepreneurial undertakings and early stages of business development plans and those with intention to seek funding. Hauschild (2013) adds that Z-score model is valuable as a determinant for due diligence in both mergers and acquisition. In addition, the wider use of Z-score model as a tool to measure financial distress points it as reasonably accepted model, less complex and dependable measure of predicting distress among firms (Altman, Iwanicz-Drozdowska, Laitien, & Suvas, 2017). Muya (2017) examined financial distress prediction models and their applicability to forecast financial distress of Kenyan non-financial sector for the period 2005 to 2014 and concludes that Z score model is applicable in Kenya with a predictive power of 71.2%.

The Z-score model:

\[
Z = 3.25 + 6.56x_1 + 3.26x_2 + 6.72x_3 + 1.05x_4 + \epsilon
\]
Where:

\[ x_1 = \frac{\text{Current Assets} - \text{Current Liabilities}}{\text{Total Assets}} \]

\[ x_2 = \frac{\text{Retained earnings}}{\text{Total Assets}} \]

\[ x_3 = \frac{\text{Earnings before interest and taxes}}{\text{Total assets}} \]

\[ x_4 = \frac{\text{Book value of equity}}{\text{Total Liability}} \]

\[ \varepsilon = \text{error term (Altman, 2000; Altman et al., 2017)} \]

The ratings are a means of cutoff between distressed and non-distressed institutions. The ratings used in this study were as follows:

**Table 3.1: Zone of discrimination**

<table>
<thead>
<tr>
<th>Cut off Zone</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>( Z &gt; 5.85 )</td>
<td>Safe Zone</td>
</tr>
<tr>
<td></td>
<td>There is least likelihood that the firm will be distressed</td>
</tr>
<tr>
<td>( 4.35 &lt; Z &lt; 5.85 )</td>
<td>Grey Zone</td>
</tr>
<tr>
<td></td>
<td>There is less likelihood that the firm will be distressed</td>
</tr>
<tr>
<td>( Z &lt; 4.35 )</td>
<td>Distress Zone</td>
</tr>
<tr>
<td></td>
<td>There is high likelihood that the firm will be distressed</td>
</tr>
</tbody>
</table>

Source: Aasen (2011)

**3.6.1.2 Independent Variables**

Independent variables included: Age, Gender, Education, Tenure and Experience. The table 3.2 shows how the independent variables were computed.
Table 3.2: Operationalization of variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement</th>
<th>Literature</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of CEO</td>
<td>The difference between the CEOs date of birth and the year of the study</td>
<td>(Alqatamin, Aribi, &amp; Thankom, 2017);</td>
<td>Numeric</td>
</tr>
<tr>
<td>Education of the CEO</td>
<td>Last degree of executive formal education members</td>
<td>Herri, Johan, Handika and Yulihasri (2017)</td>
<td>Nominal</td>
</tr>
<tr>
<td>Gender of the CEO</td>
<td>Value of 1 if CEO is male and 0 if female</td>
<td>Alqatamin et. al. (2017); Gorts (2016)</td>
<td>Nominal</td>
</tr>
<tr>
<td>Tenure of the CEO</td>
<td>Number of years in the work</td>
<td>Herri, Johan, Handika and Yulihasri (2017); Gorts (2016)</td>
<td>Numeric</td>
</tr>
<tr>
<td>Experience of CEO</td>
<td>Number of years worked</td>
<td>(Kariuki, Namusonge, &amp; Orwa, 2015)</td>
<td>Numeric</td>
</tr>
</tbody>
</table>

Source: Author (2017)

3.6.2 Research Model

From the conceptual framework, the variables were expressed in a form of a function:

\[ F_{dit} = f(y_{1it}, y_{2it}, y_{3it}, y_{4it}, y_{5it}) \]

The multi discriminant analysis was used to test the relationship between variables:

\[ F_{dit} = \alpha + \beta y_{1it} + \beta y_{2it} + \beta y_{3it} + \beta y_{4it} + \beta y_{5it} + \varepsilon \text{it} \] (2016)

32
Where: \( F_{dit} \) = financial distress in commercial banks i at time t

\[ \alpha = \text{Intercept} \]

\[ \beta = \text{discriminant Coefficients} \]

\[ y_1 = \text{Age of the CEO} \]

\[ y_2 = \text{Education level of the CEO} \]

\[ y_3 = \text{Gender of the CEO} \]

\[ y_4 = \text{Tenure of the CEO} \]

\[ y_5 = \text{Experience of the CEO} \]

\[ \varepsilon_{it} = \text{error term} \]

3.7 Data Presentation

The quantitative data was mainly presented using tables. The multi discriminant analysis results were presented as generated by the statistical tool and the \( \beta \) coefficients summarized in a tabular format.

3.8 Research quality

3.8.1 Objectivity of research

Objectivity is the explanation of findings of results on the basis of the final results of data analysis as opposed to personal interpretation (Sekaran & Bougie, 2013). The findings of this research were based on the results obtained after analyzing the actual data collected and free from bias or any form of ethical and moral bias held by the researcher.

3.8.2 Validity of the research instrument

Validity is the degree in which an instrument, technique applied or process employed to measure a concept does certainly measure the concept as intended. It is a qualifying check for research (Kothari, 2004; Sekaran & Bougie, 2013). Validity of the research is dire to establish precision and truthfulness of the research. The validity of research was realized.
3.8.3 Ethical consideration

Kumar (2005) defined ethics as a way of conducting oneself in accordance to the principles of conduct that are considered correct especially those in a certain profession. This study was reviewed and designed to ensure integrity, transparency and quality. The Independence of this study was clear and any conflict of interest was made explicit (Bless & Higson-Smith, 2000; Economic and Social Research Council, 2015). Therefore, in this research, an introduction letter from Strathmore University stating confidentiality and the purpose of research was issued (Appendix I). The information collected was regarded with high privacy and no disclosure whatsoever was made beyond using the information solely in the research.

3.9 Chapter summary

This chapter focused on illumination of the research methodology adopted in carrying out the study. The philosophical stance of the study was clearly elaborated and the research design adopted was descriptive. The target population were all the commercial banks in Kenya that had been registered and regulated by CBK as of 2016. Secondary data was collected for analysis. Variables used in the research were also elaborated. Methods of data analysis were also expounded. The objectivity of research and validity of data collection instrument as well as ethical considerations were explained.
CHAPTER FOUR – PRESENTATION OF FINDINGS

4.1 Introduction

The chapter aimed at interpreting and analyzing the results against existing theories and previous studies. The main objective of the research was to evaluate the effects of CEO attributes on financial distress in commercial banks in Kenya. The chapter presents the findings in tabular and narrative form. In addressing specific objective one on extent of financial distress amongst bank tiers in commercial banks in Kenya; the results obtained from the secondary data were analyzed and presented in tables while in addressing specific objective two on significance of CEO attributes on financial distress; the results were analyzed and presented in tables and figures.

Section 4.2 addresses the response rate. Section 4.3 presents the results on the extent of financial distress among bank tiers. Additionally, section 4.4 presents results on factors influencing occurrence of financial distress. Finally, the main research finding of the chapter is summarized in section 4.5.

4.2 Response Rate

The initial data consisted of 42 commercial banks for one year (2016). The raw data was collected from banks websites and CBK website. The initial population was 42 observations (42 banks by 1 year). A total of 4 observations (4 banks by 1 year) had insufficient financial information and were therefore eliminated from the study. Subsequently, the results were based on (42-4) 38 observations in one year. However, CEO attributes for 34 banks were available giving a response rate of 80.95%. The data collected was deemed sufficient for analysis.

4.3 Extent of financial distress in commercial banks based on financials

To evaluate financial distress, Altman Z-score model was applied to categorize whether an institution was either in safe, in a grey area or distressed. The model:

\[ Z = 3.25 + 6.56x_1 + 3.26x_2 + 6.72x_3 + 1.05x_4 + \epsilon \]  

(2016)
Z represented financial distress, $x_1$ was arrived at by calculating (Current Assets-Current Liabilities) to Total Assets, $x_2$ was calculated from Retained earnings to Total Assets, $x_3$ was derived from Earnings before interest and taxes to Total assets and $x_4$ by Book value of equity to Total Liability (Altman, 2000; Altman et. al, 2017). The cut off zones for financial distress were: above 5.85 – safe; between 4.35 and 5.85 – grey and below 4.35 were classified as distressed (Aasen, 2011).

The research set out to determine the extent of financial distress in bank tiers in commercial banks in Kenya in 2016. The findings were meant to answer the specific objective one. The first objective was addressed by analyzing Z score components selected from banks financials and grouping them into either distressed, grey or safe as shown in table 4.1 below:

**Table 4.1: Summary of level of distress**

<table>
<thead>
<tr>
<th>Bank Tiers</th>
<th>Safe</th>
<th>Grey</th>
<th>Distress</th>
<th>Mean</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>4.9</td>
<td>4.56</td>
<td>5.19</td>
</tr>
<tr>
<td>II</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>4.84</td>
<td>3.49</td>
<td>5.89</td>
</tr>
<tr>
<td>III</td>
<td>2</td>
<td>14</td>
<td>4</td>
<td>4.8</td>
<td>2.93</td>
<td>6.06</td>
</tr>
<tr>
<td>Totals</td>
<td>3</td>
<td>28</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals in Percentage</td>
<td>8%</td>
<td>74%</td>
<td>18%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Table 4.1 shows the distress level under different bank tiers. There were 8 Tier I banks’ in 2016 with a mean Z-score of 4.9 implying that none of Tier I banks were distressed. The minimum Z-score was 4.56 while the maximum was 5.19. The minimum and the maximum gives the low and high Z-scores of bank tiers. Additionally, there were 10 Tier II banks in 2016 were 1 was in safe zone, 6 in grey zone and 3 were financial distressed. The mean Z-score was 4.84 while the minimum Z-score was 3.49 and the maximum Z-score was 5.89. The mean Z-score of 4.84 implies that most of the Tier II banks were in grey area and that there is a large range between those financially distressed and those in grey and safe zone. Among the Tier III banks there were 2 banks on safe
zone, 14 on grey zone and 4 financially distressed. The mean Z-score of Tier III banks was 4.8 with a minimum Z-score of 2.93 and a maximum Z-score of 6.06. The results show that there is large range between those in safe and grey and those facing financial distress. Overall, there were 3 banks in safe zone, 28 in grey zone and 7 financially distressed accounting for 8%, 74% and 18% respectively. The results implied that there was presence of financial distress in 2016 among Tier II and Tier III banks at 18%. The regulating body, CBK should monitor commercial banks and address causes of financial distress to safeguard the stakeholders (Whitaker, 1999; Ayayi & Sene, 2010; Mostafa, Rezina & Hasan, 2016). The cutoff points for the Z score are: less than 4.35 is distress zone; between 4.35 and 5.85 is grey zone while greater than 5.85 are considered as safe (Aasen, 2011)

4.4 Effects of CEO attributes on banks’ financial distress

4.4.1 CEO attributes descriptive statistics

The second objective of the research was to evaluate the significance of CEO attributes such as age, gender, education level, tenure and experience on the influence of occurrence of financial distress amongst commercial banks in Kenya.

Table 4.2: CEO attributes

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Std Deviation</th>
<th>Min</th>
<th>Max</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO Age</td>
<td>50.09</td>
<td>50</td>
<td>51</td>
<td>7.24</td>
<td>33</td>
<td>66</td>
<td>0.306</td>
<td>0.709</td>
</tr>
<tr>
<td>CEO Tenure</td>
<td>5.65</td>
<td>3.25</td>
<td>.67a</td>
<td>6.3</td>
<td>0.58</td>
<td>26</td>
<td>1.79</td>
<td>2.64</td>
</tr>
<tr>
<td>CEO Experience</td>
<td>24.94</td>
<td>24.5</td>
<td>26</td>
<td>7.1</td>
<td>8</td>
<td>41</td>
<td>0.329</td>
<td>0.627</td>
</tr>
</tbody>
</table>

a. Multiple modes exist. The smallest value is shown
4.4.1.1 CEO age

The table 4.2 shows the findings of the CEO age amongst 34 commercial banks in Kenya in 2016. The age of the CEOs ranged from 33 years to 66 years with a mean of 50.09 years, median of 50 years (SD=7.24), mode of 51 years, skewness of 0.306 which is approximately symmetrical and a kurtosis of 0.709 which is less than 3 is said to be platykurtic. The results illustrate that the average age of CEOs in commercial banks was 50 years implying that they are of mature age to manage demands of performance in commercial banks and to make strategic decisions towards direction of the financial institution (Croci & Jankensgard, 2014; Barno, 2017). Although the age difference between the oldest (66 years) and the youngest (33 years) a majority of the CEOs were approximately 50 years as indicated by a skewness of 0.306 which is approximately symmetrical.

4.4.1.2 CEO Tenure

The table 4.2 shows findings of CEO office tenure to range from 0.58 years to 26 years implying that there was varied number of years held in the office leading to a skewness of 1.79 implying that CEO tenure was highly skewed positively and a kurtosis of 2.64 which is platykurtic. The mean was 5.65 years, median of 3.25 (SD=6.30), and there were several modes. The mean number of office tenure (5.65 years) can be considered long enough to contribute towards financial stability of a commercial bank. Barno (2017) suggests that managers need to have a long tenure so that they can have deeper understanding of the company’s business and make informed decisions. Other studies with similar stance are Bhaiyat and Garrow (2015), Herri, Johan, Handika and Yulihasri (2017), Kariuki, Namusonge and Orwa (2015) and Kyenze (2014) who argue that CEO tenure significantly reduces the likelihood of financial distress.

4.4.1.3 CEO experience

The CEO experience as shown in table 4.2 was found to range from 8 years to 41 years with a mean of 24.94 years and a median of 24.5 years (SD=7.1), mode of 26 years, skewness of 0.329 which is approximately symmetric and kurtosis of 0.627 which is less than 3 implying platykurtic. On average, the CEOs were well experienced to provide
leadership in the banks as illustrated by mean of 24.94 years. Additionally, the CEO experience was evenly distributed as shown by a skewness that is approximately symmetrical of 0.329. In addition, experienced CEOs have increasing effect on firm valuation comparative to less experienced CEOs. The outcome concurs with Kariuki, Namusonge and Orwa (2015), Kang & Mitnik (2012), Vo & Phan (2013) and Wajiru (2013), Getahun (2013) and Dauda and Hawa (2016) who concluded that firms facing financial mayhem need CEOs who are well experienced and exposed for the positive variabilities to protect the value of the firm. In addition, adequate skills and wealth of knowledge can be garnered over a long period of experience and exposure. Larcker and Tayan (2017) found out that individual and professional characteristics have association to firm performance suggesting that previous experience garnered and work styles are good predictors of future firm performances.

4.4.1.4 CEO Gender

The table 4.3 shows the frequency of male and female CEO in commercial banks in Kenya in the year under study (2016).

**Table 4.3: CEO Gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>31</td>
<td>91.2</td>
<td>91.2</td>
</tr>
<tr>
<td>Female</td>
<td>3</td>
<td>8.8</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

In the year under study (2016), it was established that 91.2% of the CEOs were male while 8.8% were female from data drawn from 34 commercial banks. The results show male CEOs were majority in 2016.
4.4.1.5 CEO education level

The table 4.4 shows educational level of banks’ CEOs in 2016.

<table>
<thead>
<tr>
<th>Education type</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tertiary</td>
<td>1</td>
<td>2.9</td>
</tr>
<tr>
<td>Bachelors</td>
<td>7</td>
<td>20.6</td>
</tr>
<tr>
<td>Master</td>
<td>25</td>
<td>73.5</td>
</tr>
<tr>
<td>Doctorate</td>
<td>1</td>
<td>2.9</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>100</td>
</tr>
</tbody>
</table>

In the year under review, 2016. 2.9% of the CEOs had attained tertiary certification, 20.6% has attained a bachelors, 73.5% had attained a Master and 2.9% had attained a doctorate. The results show that the CEOs were well educated and had acquired training. The level of education is usually associated with open-mindedness and reflects cognitive complexity and ability to discern pattern. All CEOs had acquired training with varied level to equip them handle corporate demands.

4.4.2 Multi Discriminant Analysis of CEO attributes

Discriminant function analysis was performed in order to determine how CEO attributes influence financial distress in commercial banks. Cramer (2003) explains that discriminant analysis is used to obtain a model that can be employed to predict a single qualitative variable from one or more independent variables. Additionally, discriminant analysis helps to identify the independent variables that discriminate a nominally scaled dependent variable (Sekaran & Bougie, 2013). Further, discriminant analysis derives an equation as a linear combination factors of the independent variables that discriminate best between groups in the dependent variable component (Ramayah, Ahmad, Halim, Zainal, & Lo, 2010). The maximum number of functions is either the number of predictors or the number of groups less one whichever is smaller.
4.4.2.1 Wilks Lambda test

In discriminant analysis, the Wilks’ Lambda is used to test the significance of the discriminant functions and ranges between 0 to 1. When the resultant value of the lambda of a function is small, the function is considered to be significant. The Wilks’ lambda was used to test the significance of the discriminant function.

**Table 4.5: Wilks' Lambda**

<table>
<thead>
<tr>
<th>Test of Function(s)</th>
<th>Wilks' Lambda</th>
<th>Chi-square</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 through 2</td>
<td>.640</td>
<td>12.495</td>
<td>10</td>
<td>.253</td>
</tr>
<tr>
<td>2</td>
<td>.872</td>
<td>3.832</td>
<td>4</td>
<td>.429</td>
</tr>
</tbody>
</table>

From table 4.5, the first discriminant function was statistically significant. The findings imply that the variables applied in testing influence of CEO attributes on financial distress have significance and explain occurrence of financial distress in commercial banks.

4.4.2.2 Eigen value

Eigen value was used to explain the unexplained variation in the model. The Eigen value can be described as a ratio between the explained and the unexplained variation in a model. Eigen values are related to canonical correlations and helps in describing the best discriminating ability of a function.

**Table 4.6: Eigen value**

<table>
<thead>
<tr>
<th>Function</th>
<th>Eigenvalue</th>
<th>Variance %</th>
<th>Cumulative %</th>
<th>Canonical Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.363</td>
<td>71.2</td>
<td>71.2</td>
<td>.516</td>
</tr>
<tr>
<td>2</td>
<td>.147</td>
<td>28.8</td>
<td>100.0</td>
<td>.358</td>
</tr>
</tbody>
</table>
As displayed in table 4.6, the model had a Canonical Correlation Coefficient value of 0.516 indicating an effect size of 26.6% (0.516^2), hence the model explains 26.6% of the variability in financial distress of commercial banks in Kenya. The findings imply that age, gender, tenure, experience and education explain 26.6% of the occurrence of financial distress among commercial banks.

4.4.2.3 Canonical Discriminant Function Coefficient

In order to establish the unique contribution of each of the variables to the classification of the groups in the dependent variable, canonical discriminant function coefficient was estimated. That means that a discriminant score that belongs to a latent variable can be obtained for each case by applying the coefficients to the values in the respective independent variable. Table 4.7 shows a summary of the Canonical Discriminant Function Coefficients.

<table>
<thead>
<tr>
<th>Function</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenure</td>
<td>.181</td>
<td>-.023</td>
</tr>
<tr>
<td>Education</td>
<td>-.226</td>
<td>.170</td>
</tr>
<tr>
<td>Age</td>
<td>.006</td>
<td>.287</td>
</tr>
<tr>
<td>Gender</td>
<td>-2.763</td>
<td>2.308</td>
</tr>
<tr>
<td>Experience</td>
<td>.034</td>
<td>-.203</td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.493</td>
<td>-12.148</td>
</tr>
</tbody>
</table>

Unstandardized coefficients

Based on the first discriminant function, a bank’s financial distress status can be determined using the following formula:
Distress status = 1.493 + 0.181*Tenure -0.226* Education + .006* age -2.763* Gender + 0.034*Experience + εi

Where;

1.493 = a constant value of financial distress when all independent variables are equal to zero.

0.181 = discriminant coefficient of tenure. For every increase in tenure, there is expected approximately 0.181-point increase in distress, holding all other variables constant.

-0.226 = discriminant coefficient of education. For every increase in education, there is expected approximately 0.226-point decrease in distress, holding all other variables constant.

0.006 = discriminant coefficient of age. For every increase in age, there is expected approximately 0.006-point increase in distress, holding all other variables constant.

-2.763 = discriminant coefficient of gender. For every change in gender, there is expected approximately 2.763-point decrease in distress, holding all other variables constant.

0.034 = discriminant coefficient of experience. For every increase in experience, there is expected approximately 0.034-point increase in distress, holding all other variables constant.

εi = Error term in commercial bank i
4.4.2.4 Group membership classification

Additionally, group membership classification was predicted. Group membership shows the level of correct classification into either safe, grey or distress. The classification assists in understanding how well the different classifications (safe, grey, distress) were correctly classified.

Table 4.8: Predicted Group Membership

<table>
<thead>
<tr>
<th>Classification</th>
<th>Predicted Group Membership</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Distress</td>
<td>Grey</td>
</tr>
<tr>
<td>Actual (Count)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distress</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Grey</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>Safe</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Ungrouped cases</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Actual (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distress</td>
<td>28.6</td>
<td>71.4</td>
</tr>
<tr>
<td>Grey</td>
<td>4.3</td>
<td>95.7</td>
</tr>
<tr>
<td>Safe</td>
<td>0</td>
<td>66.7</td>
</tr>
<tr>
<td>Ungrouped cases</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

a. 75.8% of original grouped cases correctly classified.

As illustrated by the table 4.8 above, the multi discriminant function had correct classification of 75.8%, signifying that a majority of the banks were correctly classified by the function (Distress 28.6%, grey 95.7% and safe 33.3%). The findings imply that MDA correctly classified commercial banks by 75.8%. Sulub (2014) found a prediction classification accuracy of 70% while Muya (2017) found a predictive power of 71.2%.

4.4.3.5 Group centroids

The classification was depicted by the mean discriminant scores for each group (safe, grey, distress) in the dependent variable for each of the discriminant function using group centroids. The centroids are in a unidimensional space, one center for each group. Since there are three groups in the dependent variable, there are two discriminant functions. The centroids show the level of correct grouping of the distress categories to either safe, grey or distress. When the centroids are connected, a canonical plot is created depicting a discriminant function space.
As shown in figure 4.1 below, most of the cases were classified based on their group centroids. Only one case was not grouped by the function. The findings imply that MDA correctly grouped commercial banks into their classification (safe, grey, distress) at 75.8%.

**Figure 4.1: Group Centroids**

![Figure 4.1: Group Centroids](image)

### 4.4.3 Analysis of the relationship between CEO attributes and financial distress

Univariate analysis was performed to determine the variable significance and contribution to the model. The variables tested were CEOs age, CEO gender, CEO education level, CEO tenure and CEO years of experience. The table 4.9 gives a summary of univariate analysis of the CEO attributes.
Table 4.9: Univariate analysis of the CEO attributes

<table>
<thead>
<tr>
<th></th>
<th>Wilks’ Lambda</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.889</td>
<td>1.866</td>
<td>2</td>
<td>30</td>
<td>0.172</td>
<td>Reject</td>
</tr>
<tr>
<td>Gender</td>
<td>0.914</td>
<td>1.411</td>
<td>2</td>
<td>30</td>
<td>0.260</td>
<td>Reject</td>
</tr>
<tr>
<td>Education</td>
<td>0.970</td>
<td>0.460</td>
<td>2</td>
<td>30</td>
<td>0.635</td>
<td>Reject</td>
</tr>
<tr>
<td>Tenure</td>
<td>0.469</td>
<td>2.631</td>
<td>2</td>
<td>30</td>
<td>0.049</td>
<td>Accept</td>
</tr>
<tr>
<td>Experience</td>
<td>0.908</td>
<td>1.516</td>
<td>2</td>
<td>30</td>
<td>0.236</td>
<td>Reject</td>
</tr>
</tbody>
</table>

The univariate analysis which tests the equality of group means based on Wilks’ Lambda showed that CEO attributes did not vary significantly across the 3 distress categories of safe, grey and financially distressed: CEO tenure, $F(2, 30) = 2.631, p = 0.049$; education, $F(2,30) = 0.460, p = 0.635$; age, $F(2,30) = 1.866, p = 0.172$; gender, $F(2,30) = 1.411, p = 0.260$; Experience, $F(2,30) = 1.516, p =0.236$. The CEO attribute that was statistically significant was tenure. The other CEO attributes: age, gender, education and experience were positive but statistically insignificant. The results imply that age, gender, education and experience influenced the occurrence of financial distress but statistically insignificantly. CEO tenure was found to be positive and statistically significant in explaining occurrence of financial distress.

The univariate analysis was used to test the hypothesis which were:

**H$_1$:** there is a significant relationship between CEOs age and financial distress

From the results as shown in Table 4.9, the age of a CEO is statistically insignificant but with positive influence on financial distress, **H$_1$** was reject. The results imply that age was not significant in explaining the occurrence of financial distress. The findings are similar to Gorts (2016) in his study on effects of CEO characteristics on corporate financial strategy who established that age had no effect on financial strategy implying that age did not influence financial decision making that may cause occurrence of financial distress.

**H$_2$:** there is a significant relationship between CEO Gender and financial distress

As shown in table 4.9, the results from this study show that gender was positive but statistically insignificant in explaining occurrence of financial distress in commercial
banks, $H_2$ was reject. The study reveals that gender did not explain the occurrence of financial distress in commercial banks. Similar conclusions were arrived by Kyenze (2014), Chan and Heang (2010), Manini & Addillahi (2015), Harun (2017), Kirimi (2015) and Wairimu (2014) suggesting that gender diversity has no influence on financial performance.

$H_3$: there is a significant relationship between CEO education level and financial distress

The results in table 4.9 show that CEO education level is positive but statistically insignificant in explaining occurrence of financial distress. The findings suggest that CEO education does not explain the occurrence of financial distress in commercial banks. The findings were similar to Harun (2017) who found that education qualification to be positive but insignificant in relation to firm financial performance. The findings of this study suggest that education did not contribute to financial distress in commercial banks in Kenya. Therefore, $H_3$ was reject.

$H_4$: there is a significant relationship between CEO tenure and financial distress

This research established that there exists a positive and statistically significant relationship between CEO tenure and financial distress in commercial banks in Kenya. Therefore, $H_4$ was accept. The findings show that the longer the tenure the high the probability of occurrence of financial distress in commercial banks. The findings contradict Bhaiyat and Garrow (2015) who evaluated the effect of CEO and CFO attributes as TMT on the firm probability to default and concluded that as the tenure increases the probability of default decreases implying that long period of tenure contributes to stability and efficiency of the firm. The results may have been different since they were carried out in different geographical location, period and nature of the study.

$H_5$: there is a significant relationship between CEOs experience and financial distress

The findings in table 4.9 show that there exists a positive but statistically insignificant association between CEO experience and financial distress, $H_5$ was reject. The outcome suggest that experience did not contribute to occurrence of financial distress. This research
agrees to findings by Vo & Phan (2013) and Wajiru (2013) who found a positive effect of employment experience on performance of the firms suggesting the need for experience in top management office in order to attain firm performance.

4.5 Summary of results

To sum up the finding in objective one, there was presence of financial distress amongst commercial banks in Kenya in the year under review; 2016. The level of distress was computed using Z-score. The findings showed that 18% of commercial banks were financially distressed in 2016. The distressed commercial banks were in Tier II and Tier III. The occurrence suggest that close monitoring of commercial banks is necessary in order to minimize cases of financial distress (Whitaker, 1999; Ayayi & Sene, 2010; Mostafa, Rezina & Hasan, 2016). For objective two, the main CEO attributes that was found to influence financial distress occurrence was CEO tenure.
CHAPTER FIVE - SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a comprehensive summary of the findings of both objective one and objective two of the study. In addition, the implications of the study drawn from the conclusions of the study. Lastly it explores the various limitations of the study and gives suggestions for further research. The main objective of this study was to assess the effects of CEO attributes on financial distress in commercial banks in Kenya. The specific objective one was to assess the extent of financial distress in the different bank tiers in commercial banks in Kenya while the second specific objective was to examine the significance of CEO attributes on financial distress in commercial banks in Kenya.

5.2 Summary of findings

This section explains the major findings of the study according to the research objectives.

5.2.1 Extent of financial distress among bank tiers in commercial banks in Kenya

The research set out to determine the extent of financial distress among bank tiers in commercial banks in Kenya. The objective was addressed by analyzing the banks financials using Z Score and grouping them into either distressed, grey or safe against bank tiers. None of Tier I banks were distressed in the year of study; 2016. Three Tier II banks and four Tier III banks were distressed contributing to a total of 18%. The cutoff points for the Z score were: less than 4.35 meant that the bank was in distress; between 4.35 and 5.85 meant that the bank was in grey area while greater than 5.85 meant that the bank was safe (Aasen, 2011). The findings imply that there is presence of financial distress among commercial banks in Kenya. The regulating body, should monitor commercial banks and detect and correct causes of financial distress to safeguard the stakeholders (Whitaker, 1999; Ayayi & Sene, 2010; Mostafa, Rezina & Hasan, 2016).
5.2.2 Significance of CEO attributes on financial distress in commercial banks in Kenya.

The second objective was to examine the significance of the CEO attributes in relation to occurrence of financial distress. The findings from this study show that CEO age was positive but statistically insignificant in explaining the occurrence of financial distress; \(H_1\) was reject. The hypothesis stated that there is a significant relationship between CEO age and financial distress. The results from this study agree with Gorts (2016) study on effects of CEO characteristics on corporate financial strategy who found that age did not influence financial decision. The findings however contradict those of Barno (2017) who examined the age of managers in 39 companies listed at the NSE and established that it has a negative but significant effect on capital structure. Similarly, Kyenze (2014) examined 61 companies listed at the NSE for the period spanning 2008 to 2013 and concludes that there exist a significant association between the ages of the CEO and organizational performance. The findings may have differed due to period covered by the study, methodology used in analysis and nature of the study.

This thesis reports that there is a positive insignificant relationship between CEO gender and financial distress. The findings imply that gender did not explain the occurrence of financial distress although it is argued that demographic diversity of leadership is positively associated with diverse practices that impact organization performance (Nishii, Gotte, & Raver, 2007). The findings concur with research by Chan and Heang (2010) who opined that there was no significance influence between gender diversity and cost signifying that gender did not have influence on overall firm output. Similarly, Manini & Addillahi (2015) posit that gender diversity did not prove any significance to banks profitability, the findings imply that gender variance did not cause financial distress. Likewise, Harun (2017) findings indicate that gender diversity had no statistically significant influence on general financial performance of selected private commercial banks in Ethiopia. Additionally, Kirimi (2015) and Wairimu (2014) point that gender diversity was not statistically significant in determining financial performance. However, Barno (2017) established a negative but significant impact on capital structure indicating that gender has effect on decision making. Additionally, Gorts (2016) points that gender
influence corporate financial strategy. Similarly, Vo and Phan (2013) propose involvement of female in corporate decision making since it positively effect on performance of the firms suggesting that inclusion of female in leadership positions influence decision making. Shungu, Ngirande, & Ndlovu (2014) correspondingly concludes that there exists a positive association between gender diversity and commercial bank performance proposing that gender influences firm performance. Therefore, $H_2$ was reject. The hypothesis stated that there was a significant relationship between CEO gender and financial distress.

The thesis also shows that an insignificant positive relationship exists between CEO education and financial distress. This findings suggest that level of education did not explain the occurrence of financial distress; hence $H_3$ was reject. The hypothesis read that there is a significant relationship between CEO education and financial distress. Education is usually associated with open-mindedness and ability to make decision. The research finding concur with Harun (2017) who concluded that education qualification was positive but insignificant related with the firm financial performance. However, Herri, Johan, Handika, & Yulihasri (2017) established that education level has a negative impact on performance. Similarly, Ting, Azizan and Kweh (2015) found that both younger and longer serving CEOs are risk takers and aggressive regardless of their educational level pointing that education level do not influence firm performance. Further Ting, Azizan and Kweh add that the CEOs with higher levels of education are susceptible increased debt of the organization implying that highly educated CEOs prefer debt financing as opposed to internal sourcing with an aim on rapid growth. Similarly, Ramezani, Khabiri, Alvani, & Tondnevis (2011) point that role performance improves with level of education claiming that education does not influence occurrence of financial distress.

This thesis also reports that there is a positive significant relationship between CEO tenure and financial distress. The finding imply that CEO tenure positively influences the occurrence of financial distress; $H_4$ was accept. The hypothesis read that there is a significant relationship between CEO tenure and financial distress. The findings contend findings by Barno (2017) who points that managers need to have a long tenure so that they can offer deeper understanding of the company’s business. Similarly, Bhaiyat and Garrow
(2015) propose that as the CEO office tenure increases the chances of default significantly declines implying that long tenure contributes to stability and efficiency of the firm. Equally, Herri, Johan, Handika and Yulihasri (2017) concluded that there is a direct relationship between CEOs characteristics and performance. They concluded that tenure in position favors performance. Additionally, Kariuki, Namusonge and Orwa (2015) in their research concluded that CEO tenure statistically significantly influences organizational size, growth and future opportunities. The study supports the argument that short-term tenure influences occurrence of financial distress. Kyenze (2014) adds that office tenure of the CEO affects the performance of the firm asserting that tenure is key determinant for future opportunities. The findings from this research could be different due to the fact that the studies were conducted in different settings as well as the data was different in nature and method applied.

Based on the analysis, there was an insignificant positive relationship between CEO experience and financial distress. The hypothesis that was tested was that there is a significant relationship between CEO experience and financial distress; the hypothesis $H_5$ was reject. The findings were not significant in explaining the occurrence of financial distress. However, Kariuki, Namusonge and Orwa (2015), found that CEOs who have extensive managerial experience in other industries significantly influence financial decisions implying that extensively exposed CEOs are more likely to remain steady, assertive in leadership even as they encounter problems. Therefore, firms that have volatile performance can benefit from well experienced and exposed leadership. Additionally, Vo & Phan (2013) and Wajiru (2013) equally add that working experience has a positive influence on performance of the firms asserting the need for experience in top management office in order to attain firm performance. Further, Getahun (2013) asserts that expertise is necessary to operate a firm so as to make informed decisions. Dauda and Hawa (2016) correspondingly reveal that skill influences performance. Dauda and Hawa emphasize that the top management office holders to possess adequate skills and wealth of knowledge of banking trend in order to provide leadership. Besides work experience, personal experience impact corporate financial decision making. According to Malmendier, Tate, & Yan (2011) the CEOs personal life experiences greatly influence decision making which ultimately is reflective of organizational performance Further,
Larcker and Tayan (2017) opin that previous work experience and style are good forecast that inform future performance.

From the multi discriminant analysis, the canonical correlation was 0.516 indicating an effect size of 26.6% \(0.516^2\), implying that 26.6% of the variability of financial distress in commercial banks is determined by the changes in CEO age, gender, tenure, experience, and education. Additionally, the data was classified to either safe, grey or distress. The findings showed an overall classification of 75.8% by MDA, suggesting that a majority of the banks were correctly classified by the function (Distress 28.6%, grey 95.7% and safe 33.3%). The findings imply that MDA correctly classified data by 75.8%. Group centroids was also performed to establish the weight of each mean discriminant score for each group in the dependent variable for each of the discriminant function. The result show that most of the cases were classified based on their group centroids. However, only one case was not grouped by the function. The group centroids had a high mean discriminant score of 75.8% of the classification. The findings confirm MDA classification.

5.3 Conclusions

This research provides both academics and practitioners with a different perspective of the effect of CEO attributes on financial distress in commercial banks in Kenya. The findings should help develop discussions for policy makers around governance issues, more specifically the term. Various studies have indicated a correlation between CEO attributes and firm performance. None of the studies however specifically looked at the correlation between CEO attributes and financial distress in commercial banks in Kenya. The research objectives were developed to guide the study from which research questions and hypotheses were drawn. The first objective was to assess the extent of financial distress in bank tiers in commercial banks in Kenya. To achieve the objective, secondary data was collected from commercial bank annual reports and financial statements. The data was validated and analyzed using Altman Z-score model in order to classify banks into the different classification; safe, grey or distress. The model was selected due to its ability to reliably predict financial distress. The results from the model show that there is presence of financial distress at 18% among the Tier II and Tier III commercial banks.
The second objective of the study was to examine the significance of CEO attributes on financial distress in commercial banks in Kenya. Multi discriminant analysis was performed in order to obtain a model that can be employed to predict a single qualitative variable from many variables. Further, the discriminant analysis derives an equation as a linear combination factors of the independent variables that discriminate best between groups in the dependent variable component. The findings from this research show that MDA had majority of the banks correctly classified at 75.8%. Further, CEO tenure was found to influence the occurrence of financial distress. From the empirical analysis, there was evidence of correlation between CEO attributes and financial distress in Tier II and Tier III commercial banks at 26.6%.

Conclusively, the result of the study shows that there was presence of financial distress amongst commercial banks in Kenya in the year under study; 2016. The main CEO attributes that influenced financial distress was tenure supporting the upper echelons theory and agency theory. Other attributes: age, experience, education and gender were not considered as the main factors that influence financial distress.

5.4 Implication of the study

The prime of this thesis is to advance the research on effects of CEO attributes on financial distress in the context of commercial banks. Essentially, this study offers suggestions that contribute to the existing literature on financial distress. This section attempts to discuss the implications of the main findings.

5.4.1 Implication for commercial bank regulator

The CBK as commercial bank regulator should regularly monitor commercial banks in order to detect financial distress. The aim of detection is to safeguard stakeholders against loss and to avoid financial systemic failure that could cause panic to the public. Understanding the causes of financial distress allows amendment and inclusion of new regulations in monitoring of financial institutions especially those under CBK.
5.4.2 Implication for financial institution

The board of directors are advised to be cautious when setting the tenure of the CEO in order to avert financial distress. CEO tenure was found to be positive and statistically significant in determining financial distress. The findings suggest that the CEO tenure should not be too long. The result suggests that long period could encourage laxity and accountability problems which may lead to financial distress.

5.5 Limitations of the study

The secondary data covered one year (2016) during which some banks had been put into receivership, liquidated or merged. Although the study used census approach some commercial banks had to be excluded from the study due to incomplete data. Secondly, the study applied Altman Z-Score model to determine extent of financial distress, the findings were limited to this model.

5.6 Suggestions for further study

This research contributes to financial distress studies in Kenya. However, there are numerous areas that were not covered and form sources for further research. Some of the possible areas could include focus on other industry for example retail chains like supermarkets. Another study could focus on other models other than Altman Z-Score or combined in determining financial distress.

Another interesting area is having a longitudinal study rather than cross-sectional (one year). The study could help in understanding the trend of occurrence of financial distress. Additionally, financial and non-financial variables could be included in a study to determine their influence on financial distress.
REFERENCES


APPENDICES

Appendix I: Letter of introduction

3rd April, 2018

TO WHOM IT MAY CONCERN

Academic Reference for Rono, Judy Chepkurui Student No. 083244

Ms Rono, Judy Chepkurui is a postgraduate student in our Master of Commerce (MCom) programme. In partial fulfillment of the MCom degree, students are required to carry out a research project and write a thesis on a contemporary subject within their field of specialisation. Among other activities, the project involves data collection and analysis.

Judy is requesting to gather information to be used in her research. The information she will obtain from your organization will be used for this academic purpose only and will be kept confidential. The results of the survey will be in summary form and will not disclose any individual, company name or company information in any way.

The research study is entitled “Effect of Chief Executive Officer Attributes on Financial Distress in Commercial Banks in Kenya.”

We hope that your organization can assist by providing information to the above named student.

Yours faithfully,

Quindos Karanja
Coordinator – Master Programmes
School of Management and Commerce
Email: qkaranja@strathmore.edu
### Appendix II: List of Commercial banks

<table>
<thead>
<tr>
<th></th>
<th>Bank Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>African Banking Corporation Limited</td>
</tr>
<tr>
<td>2</td>
<td>Bank of Africa Kenya Limited</td>
</tr>
<tr>
<td>3</td>
<td>Bank of Baroda (K) Limited</td>
</tr>
<tr>
<td>4</td>
<td>Bank of India</td>
</tr>
<tr>
<td>5</td>
<td>Barclays Bank of Kenya Limited</td>
</tr>
<tr>
<td>6</td>
<td>Stanbic Bank Kenya Limited</td>
</tr>
<tr>
<td>7</td>
<td>Charterhouse Bank Limited (Under - Statutory Management)</td>
</tr>
<tr>
<td>8</td>
<td>Chase Bank (K) Limited (in Receivership)</td>
</tr>
<tr>
<td>9</td>
<td>Citibank N. A Kenya</td>
</tr>
<tr>
<td>10</td>
<td>Commercial Bank of Africa Limited</td>
</tr>
<tr>
<td>11</td>
<td>Consolidated Bank Kenya Limited</td>
</tr>
<tr>
<td>12</td>
<td>Co-operative Bank of Kenya Limited</td>
</tr>
<tr>
<td>13</td>
<td>Credit Bank Limited</td>
</tr>
<tr>
<td>14</td>
<td>Development Bank of Kenya Limited</td>
</tr>
<tr>
<td>15</td>
<td>Diamond Trust Kenya Limited</td>
</tr>
<tr>
<td>16</td>
<td>Ecobank Kenya Limited</td>
</tr>
<tr>
<td>17</td>
<td>Spire Bank Limited (Formerly Equatorial Commercial Bank Limited)</td>
</tr>
<tr>
<td>18</td>
<td>Equity Bank Limited</td>
</tr>
<tr>
<td>19</td>
<td>Family Bank Limited</td>
</tr>
<tr>
<td>20</td>
<td>Fidelity Commercial Bank Limited</td>
</tr>
<tr>
<td>21</td>
<td>Guaranty Trust Bank (K) Ltd</td>
</tr>
<tr>
<td>22</td>
<td>First Community Bank Limited</td>
</tr>
<tr>
<td>23</td>
<td>Giro Commercial Bank Limited</td>
</tr>
<tr>
<td>24</td>
<td>Guardian Bank Limited</td>
</tr>
<tr>
<td>25</td>
<td>Gulf African Bank Limited</td>
</tr>
<tr>
<td>26</td>
<td>Habib Bank A. G. Zurich</td>
</tr>
<tr>
<td>27</td>
<td>Habib Bank Limited</td>
</tr>
<tr>
<td>28</td>
<td>Imperial Bank Limited (In - Receivership)</td>
</tr>
<tr>
<td>29</td>
<td>I &amp; M Bank Limited</td>
</tr>
<tr>
<td></td>
<td>Bank Name</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------------------</td>
</tr>
<tr>
<td>30</td>
<td>Jamii Bora Bank Limited</td>
</tr>
<tr>
<td>31</td>
<td>KCB Bank Kenya Limited</td>
</tr>
<tr>
<td>32</td>
<td>Sidian Bank Limited (Formerly K-Rep Bank)</td>
</tr>
<tr>
<td>33</td>
<td>Middle East Bank (K) Limited</td>
</tr>
<tr>
<td>34</td>
<td>National Bank of Kenya Limited</td>
</tr>
<tr>
<td>35</td>
<td>NIC Bank Limited</td>
</tr>
<tr>
<td>36</td>
<td>M-Oriental Commercial Bank Limited</td>
</tr>
<tr>
<td>37</td>
<td>Paramount Bank Limited</td>
</tr>
<tr>
<td>38</td>
<td>Prime Bank Limited</td>
</tr>
<tr>
<td>39</td>
<td>Standard Chartered Bank Kenya Limited</td>
</tr>
<tr>
<td>40</td>
<td>Transnational Bank Limited</td>
</tr>
<tr>
<td>41</td>
<td>UBA Kenya Bank Limited</td>
</tr>
<tr>
<td>42</td>
<td>Victoria Commercial Bank Limited</td>
</tr>
</tbody>
</table>

(Source: CBK, 2016)
### Appendix III: Turnitin Report

**Third**

<table>
<thead>
<tr>
<th>Similarity Index</th>
<th>Internet Sources</th>
<th>Publications</th>
<th>Student Papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>17%</td>
<td>13%</td>
<td>6%</td>
<td>10%</td>
</tr>
</tbody>
</table>

**Primary Sources**

1. **Submitted to Kenyatta University**  
   Student Paper  
   2%

2. **Submitted to Strathmore University**  
   Student Paper  
   1%

3. **Submitted to Laureate Higher Education Group**  
   Student Paper  
   1%

4. **eprints.utar.edu.my**  
   Internet Source  
   <1%

5. **41.204.187.24**  
   Internet Source  
   <1%

6. **Submitted to Maastricht School of Management**  
   Student Paper  
   <1%

   Publication  
   <1%

**Submitted to Gordon Institute of Business**