EFFECT OF BOARD CHARACTERISTICS ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS LISTED AT NAIROBI SECURITIES EXCHANGE

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A RESEARCH PROJECT PRESENTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN FINANCE, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI
DECLARATION

This research project is my own original work and has never been presented for a degree at any other university for examination.

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This research project has been presented for examination with my approval as the University Supervisor.

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ACKNOWLEDGEMENTS

First and foremost, I thank the Almighty God for sustaining me throughout my course work and during my research.

I thank my son for his unconditional love and my husband for his continued support throughout my course work. I thank my parents and siblings for their unconditional love, support and prayers.

My sincere most gratitude to my supervisor Mr. Joseph Barasa for sharing his wisdom and time with me throughout my research.

May blessings always follow you all.
DEDICATION

This research paper is dedicated to my parents, Mr Justus Mwanga & Mrs Rose Mwanga for their unwavering support to me throughout my life, for their prayers and encouragement and motivation in good and bad times.

To my son, Shawn Don Chege, I hope you know that you are capable of achieving anything you put your mind into in this life.
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LIST OF ABBREVIATIONS

BOD: Board of Directors
CBK: Central bank of Kenya
CDSC: Central Depository and Settlement Corporation
CEO: Chief Executive Officer
CG: Corporate Governance
CMA: Capital Market Authority
NSE: Nairobi Securities Exchange
SPSS: Statistical Package for Social Sciences
ABSTRACT

Over time, corporate boards have proven critical for the operation and oversight of firms, the monitoring of management and provision of strategic directions. The Research Objective of this study was to ascertain the effects of board characteristics on financial performance of listed commercial banks in Kenya at the Nairobi Securities Exchange. This study was based on three theories: Stewardship theory, stakeholder theory, and resource dependency theory. The research used a descriptive research design in studying the board characteristics and the effect on financial performance among the listed commercial banks. The population used in this study was all listed commercial banks. The study was a census survey covering all the 11 commercial banks at the Nairobi Securities Exchange. Data was collected from 2014 – 2018. The study used secondary data on the study variables that included board size, board gender diversity, board composition, bank size, bank liquidity and capital adequacy which was obtained from the banks audited financial statements. The study covered descriptive and inferential statistics. Descriptive statistic was conducted through multiple comparisons of the means from the variables. On the other hand, inferential statistics used Pearson product moment correlation analysis design and analysis through regression method. Correlation coefficient was used by the researcher to describe the relationship between the study independent and dependent variables. The study used coefficient of determination to evaluate the model fit. The model had an a coefficient of determination ($R^2$) of 0.473 and which implied that 47.3% of the variations in commercial banks financial performance are explained by the board characteristics investigated. The study findings indicate that board size had a positive correlation that was insignificant) .Board gender diversity had a negative but insignificant correlation. Board composition had a positive but insignificant correlation. While bank liquidity had a negative but significant correlation. Capital adequacy had a positive and significant correlation. Firm size had a positive significant correlation.

Based on the findings of this study recommended that the board sizes of the banks should be averaged at 12 director and a minimum of 7 for proper oversight of the banks as well as the managers of the listed banks should ensure they meet the minimum capital requirement as set out by CBK for improved financial performance and attracting clients through maintenance of optimum liquidity ratios as they give the banks a positive reputation. Further board composition in terms of independent directors to the ratio of total directors should be balanced to provide for impartial decision making on the banks strategic directions.
CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Board characteristics have gained global upsurge both in academia and the corporate level, mainly due to increased demands for better accountability and governance on every sector of the economy. Board attributes or characteristics can affect strategic decisions, including resource allocation and thus affect financial performance (Kyondu, 2014). Van der Walt & Ingley (2013) highlight that, the importance of a board’s characteristics such as personality characteristics, competencies and demographic characteristics not only determine the organizations effectiveness but also its performance. Considering the nature and importance of the tasks carried out by board of directors of firms, it is vital to identify the attributes that make them effective.

The study was premised on three theories; agency, stewardship and stakeholders’ theory. Jensen and Meckling agency theory (1976) which outlines the relationship between the agent and principal as one based on contrasting interests. Stewardship theory was developed by Donaldson (1991). The theory explains how stewards should maximize the shareholder wealth by raising the firm performance because by so doing their utilities are also maximized. The study is also based on stakeholder theory as developed by Freeman (1999) provides an avenue of investigating the relationship between performance of a company, board diversity and representativeness in the operations of a company.

In Kenya, commercial banks are strictly supervised and regulated by the CBK, corporate governance issues related to board characteristic are clearly spelt out in the banking Act and prudential guidelines but the onus of determining the appropriate board
composition is on individual banks (Kiragu, 2018). The failure of most commercial banks has been particularly linked to the adverse impacts of fluctuations in interest rates and corporate governance among other factors which influence financial performance (Sifunjo et al., 2017). In this view, this show there is still lays a gap that could be strengthened if proper research work is done in the area of the topic.

1.1.1 Board Characteristics

Board characteristics refers to the board autonomy, gender diversity of the board, board nationality or ethnicity, duality of the CEO with board chair and the board structure (Abu, Okpeh & Okpe, 2016). The board of director’s characteristics is defined as a collection of technically competent individuals whose role is to facilitate adoption of effective corporate governance practices in a firm (Fama, 1980). It is the controlling system that supervises management decisions (Jensen, 1986). According to Htay (2012) board characteristics is referred to the dimensions of the board’s organization, including the type and the size of the committees, committee membership, and how the information flow from one board member to another and board leadership.

Board size focuses on the total directors inclusive of non-executive and executive directors. Having a big board may be good in terms of experience and expert advice. However, there is no specific preference to the size of the board but a balance should be obtained. Board independence involves the ability of persons to make decisions without being externally influenced and is mainly affected by the ownership of the firm or overbearing executives (Shirdasani, 1993). Swartz and Firer (2005) opine that board diversity is concerned with, among others, members of the boards of directors having varied kinds of expertise, learning style, managerial background, personality, gender, age,
education and values. CEO duality comes about if the CEO doubles up as the board chairperson and is unable to separate these two roles while performing his duties. An element of bias is likely to creep in decision making (Lishenga & Mbaka, 2015).

From the banking sector perspective, the board composition is essential in determining in synchronizing managers interests with those of the various shareholders in the organization. Board size focuses on the number of directors in the board, the size may be large or small but according to the Banking Act the minimum number is five directors (Okiro, Aduda & Omoro, 2015). In this research paper, two characteristics that are highly likely to have an effect on the financial output of banking industry were examined. These characteristics are: board composition and board size. This research used size of the board operationalized as a total number of board members in the board and board independence was measured as ratio of independent directors to total board members (Makokha, 2014).

1.1.2 Financial Performance

This is the degree to which a firm’s financial soundness over a timeframe is gauged (Robin, Salim & Bloch, 2018). It is an economic achievement used so as to produce superior sales, profitability along with company value for the shareholders in the management its fixed and non-fixed assets, equity, funding, profits along with expenses (Naz, Ijaz & Naqvi, 2016). Financial performance refers to a prejudiced assess of how healthy a company can exploit assets from its main entity approach to make profits. It is as well exploited as a universal gauge of company’s economic soundness within a specified point in time (Gharaibeh, 2015).
Superior economic performances of banks reward shareholders for their savings moreover stimulate extra savings that can accrue additional financial development. Conversely, inferior performance of financial institutions may head to bank’s failure along with manifestation of economic crisis that can encompass unconstructive consequences on financial development (Nuhiu, Hoti & Bektashi, 2017). However, internal factors are manageable and are specific to individual bank. The internal factors which determine financial performance include: corporate governance, bank size, leverage and liquidity. On the flip side external factors are associated to macroeconomic factors and industrial factors. They include industrial concentration, growth, inflation and interests rates among many others.

The primary objective of every business is to maximize profits or as a way of reducing exposure to risks. Some of the rations used in measuring profits include Return on Equity and Return on Asset (ROA) (Hassan, 2011). ROE is the ratio of net profit and the total equity generated from shareholders investments. The ration depends on the financial leverage, profit margin, and speed assets. Also, the returns on assets help in determining the profitability of the investment assets. Kihumba (2010) indicated that ROA is essential in understanding the efficiency of the company management when it comes to generation of resources in the organization. This research concentrates on financial measures and uses ROA as a financial performance measure.
1.1.3 Board Characteristics and Financial Performance

The influence of characteristics of the board on company financial achievement is theoretically supported by the Jensen (1993) whose argument is that the duality might reduce the supervision of the administration of an organization by the board. This decrease leads to an expenses expansion of the organization. The resource dependency perspective on the other argues that external directors separately from giving their proficiency can in the course of their links with other firms accrue advantages by assisting to provide the required resources, customers as well as and to the corporation (Pfeffer & Salancik, 1978).

According to Adam & Mehran (2003) the board of directors should adhere to good CG practices those results to maximizing of shareholder’s wealth through management of corporate affairs. Kihumba (2010) indicated that large boards impact organizations performance positively in any organization especially organizations that want more advises such as those which operate in multiple segments. According to Kyereboah (2007), CEO duality negatively affects firm performance as compared to firms with independent CEO and board chair separately. A study by Rosenstein and Wyatt (1990) indicated that a rise in the numbers of independent directors on the board contributed to the growth of the firm’s value. Bhagat and Black (2001) also discovered the 934 large U.S companies in their study increased the independent directors numbers when their financial performance was on a declining trajectory.

Likewise, when a business situation declines, firms with numerous autonomous executives have had lesser likelihood of petitioning for insolvency. Rathish & Sujoy (2015) argued that a positive impact on performance exists only when the chairman is
independent especially in the case of the larger firms. Further, Dyck & Zingales (2004) who conducted an international study on how ownership structure affected financial performance established a negative relationship. However, Demsetz and Lehn (1985) investigated the impacts of ownership concentration on firm performance and they established no relationship.

1.1.4 Commercial Banks Listed at the Nairobi Securities Exchange

After establishment of NSE in 1954, it remains the main securities exchange market of Kenya and also the leading securities market in East Africa (Kioko, 2015). NSE is a body corporate established in the Companies Act (CAP 486) of the Kenyan law and comprises of all licensed stock brokers. In 1988 the government sold 20% share of NSE to private investors. The NSE is regulated by the CMA of Kenya who ensures compliance of the listed companies. The NSE focuses on helping trade clearance arrangements of financial tools such as; derivatives and equities (Olang, 2017). A total number of 65 firms have been listed at NSE to date as shown in Appendix I, (NSE, 2018).

NSE plays a significant part in the developing the economy by helping firms access capital that is less costly and also encouraging savings for both local and international firms. In most firms debt to equity ratio is typically intended to help the interest of the equity stockholders. The regulators have set criteria’s which all firms must meet such as being financially stable to enhance investors’ confidence and economic growth. Nevertheless apart from meeting those criteria’s firms encounters many internal and external dynamic forces which contribute either positively or negatively to firm
performance. These dynamics may include; corporate governance, government policies, management decisions, risk perceptions and investment decisions (Mutegi, 2016).

According to CMA code of CG practices report (2018) firms with higher corporate governance were considered to have higher returns compared to those with lower corporate governance practice. A total of 47 companies listed on the NSE were ranked on basis of governance, ethnic and gender diversity, board meeting attendance, remuneration, board independence, board composition and transparency among other 24 considerations in the global market. All the companies share market capitalization of Sh1 billion. After the ranking, the results showed that best three firms had an increase in CG posting an average of 21.7 percent in 2018 from a previous of 17.1 percent in 2017. On the flipside, a strong positive relationship was found between CG and share return. Where highest 23 firms recorded a positive share return of 13% compare to a negative 13% share return recorded by bottom 23 firms within a period of five years. This concludes that attractive and sustainable share return can be achieved through good CG practices (CMA report, 2018).

1.2 Research Problem

Firm’s response to external and internal factors that affect financial performance is highly influenced by the corporate governance adopted (Donaldson, 2010). The top managerial staff is one type of inside control instruments in banks since the board individuals designate, administer and compensate top supervisors in the bank notwithstanding technique detailing (Wachudi and Mboya, 2012). Agency theory argues that board ownership structure, concentrated type is observed to reduce the agency problems as
shareholder get involved in monitoring of managers, ensuring they do not get involved in hazardous activities and instead focusing on maximizing shareholders’ wealth (Jensen & Meckling, 1976).

Nevertheless, even with boards and board structures in place, the increased boardroom tussles and collapsing corporates have been observed in both developed and developing economies. In Kenya, financial institutions have also had their share of difficulties, and between the years 2014 and 2016 a number of them collapsed; these are such as Imperial Bank, Dubai Bank, chase bank and National Bank of Kenya. In these all, respective boards members have widely been blamed for the failure of firms. Most fraud-related cases that have resulted to major corporate failure have been linked to the BOD and management. Based on this observation, stakeholders question the ability of board characteristics to effectively monitor management of firms.

Global studies have outlined different findings in relation to board characteristic and ROA. Assenga et al (2018) found that of CEO/chairperson roles and genderdiversity has an impact that is positive on financial performance, further the outcomes revealed a negative effect between outside directors, board size and ROA of firms in Tanzania. Anis et al (2017) inquired about on gender orientation assorted variety, CEO/executive duality, outside members quality and board size and the results uncovered that there is sure connection on monetary execution from Egyptian recorded organizations. Borlea et al (2017) uncovered absence of a statisticallysignificant linkage between any of the board attributes and performance of inside non-money related recorded firms in Romania. Martin and Herrero (2018) found that board size. Palaniappan (2017) revealed that size of
the board, CEO duality, Independence and board activity were inversely association to performance of the firm performance.

Locally, Kyoa (2017) indicated that improvement in board composition aspects facilitates operational efficiency of the Sacco’s. Mandala (2018) found that overall structure of the board had a significant independent influence on performance of financial institution, board activity had the strongest independent influence on performance and the board of directors meetings that optimize firm performance is 11-15. Mwaura (2017) revealed a significant positive relationship between the board characteristics observed and profitability of commercial banks. Jepkemboi (2017) found that there exist solid noteworthy and positive connection between's gender decent variety that is increment in ladies in the board and profit for resources and furthermore a huge and positive connection between board structures on ROA while board size had negative impact on execution monetarily.

From the global and local empirical studies above, there is conflicting results on relationship between the variables. Therefore this creates a reason enough to conduct further studies to investigate board characteristics in Kenya context and identify their effect on financial performance. Moreover most investigations led in Kenya have concentrated on of qualities of sheets and execution monetarily of non-money related establishments and few have concentrated on board attributes and budgetary execution of business banks in Kenya. Therefore this breeds the knowledge gap upon which this research sought to fill.
1.3 Research Objective

The objective of this study is to establish the effect of board characteristics on financial performance of listed commercial banks at the Nairobi Securities Exchange in Kenya.

1.4 Value of the Study

The research is of great benefit to the following stakeholders: Companies’ managers, investors, researchers and academicians, regulatory body, financial analysts and fund managers. The findings of the research was useful to financial institutions, particularly listed banks since they was in a position to identify the challenges and areas which need to be improved in the firm in regard to board characteristics so as to increase efficiency.

The branch managers and staffs in the banks may also use the findings to advance on governance practices used by the banks in an effort to enhance financial performance.

The study is useful to policymakers in the banks sector by establishing the best governance practices to implement both locally and globally and understand the integration of the same into practices by businesses for enhancing profitability. The study provides knowledge on banking failure beyond regulatory failure and help them appreciate the importance of corporate governance in enhancing institutions performance.

Researchers and academic community shall utilize findings of the research as a reference for further studies and as a basis for discussions on quoted companies in the Nairobi Securities Exchange. It also forms a reference material for study and analysis. It also documents and makes available literature used by other scholars and researchers in assessing whether the findings are consistent with those in developing markets or not thus proving ground for further research.
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter examines the important literature relating to effects of board characteristics and ROA. It lists the theoretical literature review and the determinants of financial performance. Empirical literature from international and local studies, conceptual framework and summary based on the review is also discussed.

2.2 Theoretical Review

Four main theoretical viewpoints of boards and management crescendos well-thought-out as pertinent to this research namely: the agency, theory of stewardship, the resource dependence as well as theory of stakeholder.

2.2.1 Agency Theory

This theory was established by Jensen and Meckling in (1976). The theory discusses agency relationship between the agent (managers) and principal (shareholders). Agency relationship is an arrangement where a principal appoints agents to act on his or her behalf (Jensen & Meckling, 1976). The decision-making authority is delegated to the agent by the principal. The agency theorists assume that the BOD, in exercising its corporate governance mandate, evaluate and monitor the management and the firm. Corporate governance addresses the problems that the agency theory creates (Mallin, 2010).

Agency hypothesis is evenly essential to the control of a company, as it creates the spine of all triumphant company governance procedures and policy particularly in the 21st century where there have been a number of the main commercials subsides (Jadah &
Adzis, 2016). Agency presumption forecasts that the motivations presentable to the management along with the directors differ and are thus a vital predecessor to successful supervision and that company performance would consequently advance if these are associated with the owner’s interests (Muchemwa, Padia & Callaghan, 2016). The agency theory in this study explained that the directors’ board signifies the instrument of internal control that governs the agency problems in all company structures.

**2.2.2 Stewardship Theory**

The stewardship hypothesis was advanced by Donaldson and Davies (1989) and posts that directors are good company stewards need to carry out healthy and collaborate with all stakeholders for a mutual objective of achieving the general company intends (Lawal, 2012). The speculation states managers as steward safeguards and utilizes the shareholders fund via company operation, as by so doing, the steward’s efficacy purposes are exploited. The stewardship hypothesis therefore proposes that reliable and supportive connections amid principals with stewards are affirmatively linked with company performance (Tonui & Olweny, 2018).

The supporters of stewardship conjecture argue that good company performance will be connected to a huge part of internal executives as they logically effort to exploit owner’s profits. Information access along with the aptitude to take a long-term scrutiny is looked as input factors in the process of making decisions (Hassan & Lukong, 2012). Critics to the stewardship theory have argued that boards can become unnecessary when there is a principal dynamic owner, principally when the main owner is a family or state. One could wonder that some boards are formed from edifying custom, blind trust in their efficiency,
or to construct state or family businesses seem 'more company like (Tonui & Olweny, 2018).

The stewardship perception proposes that stewards are contented furthermore motivated when managerial triumph is achieved. According to the speculation, managers are termed as stewards of the companies resources who shall be liable to perform in shareholders’ best interest (Dharmadasa, Gamage & Herath, 2014). Different from agency speculation, stewardship hypothesis does not affirms the viewpoint of distinctiveness but relatively on the task of the top executive being as stewards, incorporating their achievements as piece of the organization (Hassan & Lukong, 2012). Stewards are business top managers and directors acting for the firm’s owner, who safe guard and create earnings for the owners. They safe guards and capitalizes on shareholder’s fund via excellent company operations, as by so acting, the steward’s usefulness utilities are exploited (Lawal, 2012). In this study, the stewardship hypothesis stresses on the task of managers being as stewards, incorporating their objectives as portion of the firm.

2.2.3 Resource Dependency Theory

The resource dependency hypothesis was advanced by Pfeffer and Salancik’s (1978). The resource dependency theory explains that directors play an important role in accessing resources that are critical to the firm via their connections to the external environmental set. The speculation states that directors of boards is considered as a provider of resources to the company, in terms of information, expertise, proficiency, in addition to access to main suppliers and customers (Muchemwa, Padia & Callaghan, 2016). The resource dependency theory proposes that directors’ board can be employed as an instrument to create connections with the external environmental set so as to support the
organization in the areas where there is knowledge gap in order to ensure the achievement of organizational goals (Dharmadasa, Gamage & Herath, 2014).

Resource dependency speculators assume that a sound diversified board having suitable account of outside autonomous members is possible to head to advanced company performance particularly in environmental instability face when the level of firm dependence rises (Lawal, 2012). The RDT presumes that a perfect board should comprise of people having selections of outside connections for instance business professionals, maintain experts as well as the public prominent that bring within the company’s accomplish access to required assets (Muchemwa, Padia & Callaghan, 2016). This theory provides hub on the selection of delegates of autonomous firms as a way for getting right to use to vital assets for the company’s triumph (Lawal, 2012).

Supporters of this conjecture dispute that the management require power and aspire for appreciation by peers also bosses. Therefore, their enthusiasm surpasses merely economic thoughts. The duty of the BOD in matters of policy is perceived as contributing to this management viewpoint (Hidayat & Utama, 2017). The RDT proposes that the directors’ board can be utilized as means of forming connections with the outside environmental set so as to sustain the managers in attainment of the company objectives (Hassan & Lukong 2012). This presumption gives a hypothetical basis for manager’s resource responsibility together with access to finances as well as counsel required by the company to develop managerial performance, company operation, in addition to continued existence(Dharmadasa, Gamage & Herath, 2014). With relation to this study, the RDT explains that the key duty of the directors’ board is to present the firm with resources and managers are pointed as a vital resource to the company.
2.3.4 Stakeholder Theory

Stakeholder theory was developed by Freeman (1999). The theory provides a guideline for evaluating interrelations between the stakeholder and management and how such relations influence the achievement of organizational objectives (Speckbacher 2013). Having evaluated the relevance of stakeholder in management, Mitchell (1997) outlined the importance of recognizing stakeholders whose activities are the ultimate source of an organization's wealth or lack of it. Therefore stakeholders should be engaged and used for formulating, implementing and evaluating organizations strategic objectives to enhance organizational growth and survival (Matten 2003).

There exist two evaluations of the stakeholder theory recognized as relevant to implementation of strategy. These are: key stakeholders, their relative power and the stakeholder’s perception towards other stakeholder groups (Daake & Anthony, 2010). This has extraordinarily added to the key administration thoughts on the premises of adjusting hierarchical destinations and key activities to the requirements and desires of the key partners. This current study's' point of view of the partner hypothesis is that it contains an assortment of methods that are created to help associations to oversee complex settings (Rodriguez, 2012).

It is in this manner essential to comprehend the interests, desires and part of key partners keeping in mind the end goal to effectively convey on the destinations being sought after with negligible clash. Partner examination is along these lines essential with an end goal to handle the difficulties of the use of the adjusted score card. It proposes that the viability of the BSC can be accomplished through among others a comprehension of the different partners' key desires, interests and parts (Thompson and Strickland, 2003).The
parts and desires of every partner ought to be all around oversaw and imparted and their engagement utilized as an instrument for checking their commitments and fulfillment of how the vital administration of an element is being overseen.

2.3 Determinants of Financial Performance

2.3.1 Board Characteristics

For board size, an extensive board will effect better the strategic changes necessary to promote efficiency especially due to the complexity of business condition and an hierarchical culture facing such organizations (Klein, 1998). Therefore, a large number of individuals sitting at the board are presumed to be reasonably better if firm effectiveness is to be achieved (Dalton, 2013). Regarding board diversity the female board members mirror an enhanced humanity for the board (Dutta và Bose, 2006). On education level of board members each member should be completely furnished with governance principles, financial management, marketing, data frameworks, legislation and other basic leadership process. The suggestion of this necessity is that each member will make contributions altogether and also to choices of the administration which is converted into the organization’s efficiency (Adams & Ferreira, 2014).

Elloumi and Gueyié (2011) presumed, organizations that have high proportions of independent directors in a board face less problems in relation to finance, investors ought to attach their financial related advantages to the amount paid to management of a company. This connection resolves organization issues amongst administration and investors and contributes decidedly to an organization’s efficiency (Jensen & Meckling, 1976).
2.3.2 Bank Liquidity

Adebayo, David & Samuel (2011) define liquidity as the potential that a company has to meet its interim obligations. Bank liquidity according to Global Association of Risk Professionals (2013) is the capability of a bank to finance increase in loan assets and enable withdrawal of both anticipated and unanticipated cash demand as well as collateral obligations at a reasonable cost without incurring financial losses. One of the obligations of Kenyan Commercial Banks is the minimum liquidity requirement of 20%. As at June 2015, the average liquidity ratio was at 38.7% an indication that the banks still have the ability to lend more (CBK, 2015).

Sufficient liquidity will enable a bank to meet short term obligations like normal customer withdrawals, loan requests and operating expenses (Luckett, 1980). This ability will shield the bank against challenges of loss of business, poor credit worthiness, reputational risk and even insolvency. Banks receive customers’ deposits and lend them out to earn interest and this becomes a source of revenue majorly for most banks worldwide (Choudhry & Masek, 2013). Current day banks are desperate for customer deposits to increase their liquidity and lend them out to generate more income. However, Pandey (2010) cautions that too high liquidity is bad because idle funds are only classified as current assets but earning nothing and advises that organizations should balance between lack of liquidity and high liquidity. Liquidity ratios look at the capability of firms to settle their short term obligations. The liquidity state of a company is evaluated by quick ratio and current ratio. The current ratio is current assets divide by current liabilities.
2.3.3 Capital Adequacy

In the recent years, commercial bank regulators have shown a lot of interest on the capital adequacy of the commercial bank as an approach of promoting competition and stability among banks. Capital adequacy refers to a banking regulation that determines a framework on how the commercial banks should manage their core capital (Nzioki, 2011). Common stock constitutes a major portion of a bank’s core capital (especially tier one capital). The implication of this is that a bank’s policy on its stock price greatly influences the banks’ capital structure. Empirical literature has established both negative and positive impacts of capital adequacy on stock prices. For instance, a study by Dodwell, Govindraj and Chain (1992) on the effect of stringent packaging regulation on share prices of pharmaceutical firms established that stringent packaging regulation leads to negative abnormal returns among pharmaceutical firms.

Berger and Bouwman (2012) sought to analyse the correlation between the capital and bank performance in regard market share and survival. The study also explored the capital levels of the banks under various circumstances such as economic turbulence, financial crisis and under normal times in the U.S.A. The outcomes of the research indicated that the capital level of the bank significantly improves the performance of a smaller bank in any circumstance. However, the capital level of the bigger banks only improves the bank performance under financial crisis. Numerous studies have provided mixed results in regard to how capital adequacy influences stock prices. Chia, Yahya & Muhammad (2015) established that commercial banks financial performance reacted negatively to first announcement of Basel Accord Capital Adequate Framework while a
few stock prices reacted positively. On the other hand, Chen (2010) reported that the market-valued capital ratios are negatively correlated to ROA.

### 2.3.4 Bank Size

Company size describes how big or small of a firm is and gauged by its total investments or by its entire capitalization (Abubakar, Sulaiman, & Haruna, 2018). Company size can thus be seen as how big a firm is reflected by its total assets, sales, or market capitalization. A firm must boast the size to be capable of taking benefits of the various offered instruments. Smaller firms cannot attain the economies of scale required to build various instruments cost effectiveness. In other instances, they can be so adequately large that they can proficiently use the needed capacity along with knowledge available in the firm and do not requires several advantages given by a number of the instruments (Robin, Salim & Bloch, 2018).

Big and more beneficial financial institutions may encompass an advanced degree of industrial effectiveness. Though, big financial institutions may incident reduced performance as a result of dilapidated asset portfolio quality. High risky credits create higher accretion of defaulting credits, and ultimately, worsen the productivity (Robin, Salim & Bloch, 2018). Big sized banks might less expenditure and hence raise incomes because of economies of scale. Conversely, big financial institutions could not be competent in lessening operational costs and happen to be less advantageous (contrasted with small size financial institutions) because of composite bureaucratic structure, excess work force as well as weak management of their large amount of assets (Abubakar Sulaiman, & Haruna, 2018). Size of the bank is gauged as natural log of total assets the bank possesses.
2.4 Empirical Studies

Globally, Assenga et al (2018) explored on the effects of board qualities on the money related execution of Tanzanian firms. The attributes of the board watched were outside chiefs, board size and CEO duality, sexual orientation decent variety, board ability and remote executives. It secured a time of 2006-2013 for an objective populace of 80 firms. Auxiliary information from distributed reports was gathered and essential information through semi-structure survey to twelve key partners. The study outcomes revealed support for separation of CEO/chairperson roles, and gender diversity has an impact that is positive on performance financially, further the outcomes did not support outside directors, board size, foreign directors and PhD qualification link to financial performance. The study recommends an understanding of the board performance link by policy makers. The study presented a contextual gap as its findings in Tanzania cannot be generalized to the Kenyan firm.

Anis et al (2017) researched on impacts of boardcharacteristics on firms’ financial performance with evidence from Egyptian listing companie. The targeted population was 70 listed firms for the period 2005-2010. Gender diversity, CEO/chairman duality, outside directors presence and board size were studied and the outcomes revealed that there is positive link on financial performance. The study recommended a mandatory code because in its absence the boardofdirectors is not effective on the implementation of proper governance. The study presented a contextual gap because its focus was in Egypt that has been plagued by an Arab spring before and hence the findings cannot be generalized to the Kenyan context.
Borlea et al (2017) researched on board characteristics and firm performances in emerging economies with a lesson from Romania. The sample was 55 non-financial listed firms in Romania and Optional nature information was lifted from budget reports of the organizations. Harmony among official and non-official individuals from the governing body, board freedom, assignment council, and preparing of individuals abilities, compensation panel, and review advisory group were attributes watched and the results uncovered that no measurably noteworthy linkage between any of the board qualities and execution of the organizations. The study recommended firms should have committees on advisory such as remuneration, nomination and audit in their governance characteristics. The study presented a contextual gap because it focused on firms in Romania but this paper looked at quoted commercial banks in Kenya.

Martin and Herrero (2018) researched on board of directors: composition and effects on the performance of the firm over the period 2010-2015 with the sample being all 82 non-financial companies listed at the Spanish Stock Exchange. Secondary nature data was lifted from the firm’s annual published financial statements. The board size, diversity and Independence were characteristics considered and the outcomes revealed a negative relationship to financial performance. The study further recommended the need for highly qualified and experienced directors as well as policy makers should let characteristics of the firm determine the board size. The study presented a conceptual gap because it focused on effect of the composition of the board but this study concentrated on several characteristics of the board that are linked to performance of a firm financially.

Palaniappan (2017) researched on determinants of corporate financial performance relating to board characteristics of CG in Indian manufacturing industry. The targeted
population was 275 firms listed National Stock Exchange of India across eighteen sectors over a period of 2011-2015. Secondary nature data was lifted from published reports of the companies. Board size, Independence, Board activity and CEO duality were characteristics evaluated and the outcomes indicated an inverse link in the characteristics of the board and performance of the firm financially. Hence the research recommended the use of ownership structure of the board in improving the performance of a firm financially. The research presented a contextual gap as it investigated firms in India which may not be a representation of the Kenyan context and conceptually it looked into listed companies but this research concentrated on listed commercial banks.

Locally, Kyoa (2017) researched on the effect of board composition on operational efficiency of deposit taking Sacco’s in Kiambu County. The targeted population was 15 Sacco’s with primary data on board characteristic being collected using questionnaires and Secondary data on indicators of financial performance were taken from the financial statements over a period of 2002 -2016. The outcomes of the study indicated that improvement in board composition aspects facilitates operational efficiency of the Sacco’s. Hence the study recommended that the composition of board of directors for effectiveness should involve increase in gender balance, education qualification improvement, individual years of experience, increased directors independence, compensation package that is adequate and the lowering of ownership share of the board. The study presented a conceptual gap as it focused on the board composition but this study looked into various characteristics of the board as well as a contextual gap as it looked into Sacco’s but this research majored on listed commercial banks.
Mandala (2018) researched on board structure, chief executive tenure, firms characteristics and performance of financial institution in Kenya. The sample population was 98 financial institutions and secondary data was collected over a period of 2006-2015. The research used a correlation descriptive design and cross-sectional survey. The outcomes indicated that overall board structuring had a significant independent influence on performance of financial institution, board activity had the strongest independent influence on performance and the board of directors meetings that optimize firm performance is 11-15. And CEO tenure is not a significant intervening variable between board structure and performance financially. The study recommended that for financial institutions to achieve good performance the managers should ensure that board structure especially board activity and board types are optimized in relation to findings. The study presented a contextual gap because it focused on a mixture of the sectors of financial institution but this paper concentrated on quoted commercial banks.

Mwaura (2017) examined on the relationship between board characteristics and profitability of banking in Kenya. The population included 43 regulated commercial banks in Kenya by the CBK. Secondary nature data was lifted from published financial institutions from 2012-2016. Characteristics observed were size of the board, board expertise, independence of the board and gender diversity. The outcomes of the research revealed a significantly positive link between the characteristics observed and performance financially. Therefore the research recommended that there is need for improved board characteristics in terms of board size, board characteristics, director independence and board diversity so as to improve the profitability of banks. This study
presented a contextual gap because it focused on all regulated banks, private, public and foreign but this paper concentrated on commercial banks quoted in Kenya.

Jepkemboi (2017) researched on linkage between board diversity and financial performance of insurance firms in Kenya. The research used a descriptive research design. The targeted population was 48 insurance firms and the sample included 20 insurance firms. Secondary nature data was lifted from the annual published financial sentiment for the period 2012-2016. The outcomes of the research indicated that there exist strong positive and significant correlation between gender diversity that is increase in women in the board and return on assets, increased ethnic diversity results to increased financial returns and increased foreign directors lead to increased return on assets, there exists a strong, significant and positive relationship between board composition on ROA as well as size of the board had negative effects on performance financially. The study hence recommended that management of insurance companies should increase gender diversity in board members through increased female directors, increased foreign directorship members, board ethnicity in the board, increased non-executive board membership would increase positively return on assets. The study presented a contextual gap because it looked into insurance firms but this one focused on quoted commercial banks.

Abdi (2018) researched on effect of board characteristics on financial performance of microfinance banks in Kenya. The targeted study population was 13 microfinance institutions. Secondary nature data was lifted from the financial statements over a period of 2013-2017. The outcomes of the study indicated a positive and immaterial link between board autonomy and budgetary execution and a negative and irrelevant
connection between board estimate and money related execution, further board sex, board nationality and monetary execution indicated a negative relationship. The study hence recommended that managers of micro-finance institution should include more ladies in boards since board sexual orientation improves their money related execution. The study presented a contextual gap because it investigated microfinance institutions but this study looked at listed banks.

2.5 Conceptual Framework

The conceptual framework helps in explaining the relationship between the responsive variable and predictors variables. This research seeks to explain effects that corporate governance, financial performance, firm liquidity, and size of firm and firm liquidity (independent variables) have on share return (dependent variable).

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board Size</td>
<td>Financial Performance</td>
</tr>
<tr>
<td>Board Gender Diversity</td>
<td>ROA</td>
</tr>
<tr>
<td>Board Composition</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Control Variables

| Bank Liquidity                           | Financial Performance      |
| Capital Adequacy                         | ROA                        |
| Bank Size                                |                            |

Figure 2.1 Conceptual Model

Source: Research, 2019
2.6 Summary of Literature Review

This section outlined the existing literatures on of boards and financial performance, determinants of financial performance and theories outlining relationship between the variables. Despite the empirical and theoretical studies which have been conducted on the characteristics of boards and financial performance, they are still not conclusive on the relationship between the two variables. Global studies have also shown a mix of results on the relation of board characteristics practices on ROA. There is limited literature on local concept since many studies have focused on non-financial institutions, hence creating conceptual knowledge gap that this study sought to fill. The knowledge gap that exists on various works by researchers was also highlighted since the concentration was on banking and this research sought to fill the gap by adding on more knowledge on the area of study.
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes methods of research for application to objectively determine the relationship between the variables. It also includes research design, the population and data used for the study and analysis criteria.

3.2 Research Design

It identifies the basis from which the investing aims to gather data, measure and also analyze data. According to Creswell (2014), a study intends refer to the array of situations for the gathering as well as data scrutiny in a way that seeks to merge significance to the study rationale with saving in the method. The study adopted a descriptive research plan. The choice of descriptive survey research was informed by the nature of the data the study sought which was quantitative data in nature (Kothari, 2008).

3.3 Population

According to Mugenda and Mugenda (2003) target population refers to the total element which the research findings are generalized. The study focused on listed banks in Kenya. According to CBK Annual Report 2018 there are 11 listed commercial banks as illustrated in Appendix 1. The study involved these 11 banks that comprise a time series study of financial data over 5 years period starting from 1st January, 2014 to 31st December, 2018.
3.4 Data Collection

The study used data in secondary nature that shall be lifted from annual published reports submitted to the NSE and CMA for a period of five years (2014-2018). Data on the predictor variables; board gender diversity, board size, board composition was obtained from the individual bank websites. Total assets, total capital, current assets and current liabilities were obtained from the published financial statements.

3.5 Diagnostic Tests

In order for the study model to be well specified, little if any information which can be used to improve prediction should be contained in the disturbance term. This means that the term should be random for the model to be well specified. Based on this, the following tests shall be undertaken to check if the model is well specified.

3.5.1 Normality Test

Normality test is done because it is impractical to achieve accurate and reliable deductions about the reality on whether the study population derived is normally distributed. This study used the Kolmogorov-Smirnov test (Ghasemi & Zahediasl, 2012).

3.5.2 Autocorrelation Test

Autocorrelation is tested to detect any similarity between time series at given a time interval which is carried out using Durbin-Watson. This test depicts a test statistic with a value of 0 to 4 where 2 no autocorrelation exists, where the statistic is less than two a positive autocorrelation exists and where greater than two, negative autocorrelation exists (Khan, 2012).
3.6 Data Analysis

Upon collection of data, it will be prepared, analysed, organized and used to report the findings as well as results of tests of hypotheses. The information will be prepared for investigation, information altering, institutionalization, coding and arrangement will be embraced. Graphic insights which included proportions of focal inclination will be figured. Standard deviation is similarly used to investigate scattering in the fundamental information. Likewise, coefficient of variety, kurtosis and skewness will likewise be registered, for the purpose of confirming normality of the data. All the variables of the research were described, and the salient characteristics of the data collected provided, this enabled the researcher to conduct further data analyses (Mugenda & Mugenda, 2003).

3.6.1 Analytical Model

The study made use of a multiple regression in carrying out analysis in finding out the outcome between the responsive variable and predictors variables. A responsive variable is the financial performance while the predictor variables are board characteristics, bank liquidity, capital adequacy, bank size and inflation.

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \epsilon \]

Where;

\( Y \) = Financial Performance; measured by ROA (Net Income/Total Assets)

\( X_1 \) = Board Size; Measured as the total number of directors in the board

\( X_2 \) = Board Gender Diversity; Measured using the ratio of female directors to total number of directors in the board

\( X_3 \) = Board Composition; Measured using the ratio of independent directors to the total number of directors.
$X_4 =$ Bank Liquidity; measured by ratio of total loans to total customer deposits

$X_5 =$ Capital Adequacy; measured by total capital to total assets ratio

$X_6 =$ Size of the firm; measured by natural log of total assets

**3.6.2 Test of Significance**

The test for joint significance of all coefficients was done using the F-test while the test for individual coefficient was done using the T-test. The significance of the regression model was determined at 5% and 95% confidence interval.
CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.1 Introduction

The study applied descriptive statistics and inferential statistics that is: correlation and regression analysis, to analyze the various board variables on the one hand, and the dependent variable (ROA) on the other hand. This chapter presents data analysis and interpretation of the results. The areas covered in this chapter are: Descriptive Statistics, Correlation Analysis, Regression Analysis and Chapter Summary.

4.2 Diagnostic tests

4.2.1 Normality Test

In the study, the normality was tested using the Shapiro-Wilk Test. It is a more consistent test for identifying values of normality. In case it is lower than 0.05, the data meaningfully deviates from normal dispersal as presented in Table 4.1

Table 4.1: Test for Normality

<table>
<thead>
<tr>
<th>Variable</th>
<th>Kolmogorov-Smirnova Statistic</th>
<th>Df</th>
<th>Sig.</th>
<th>Shapiro-Wilk Statistic</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Performance (Roa)</td>
<td>.228</td>
<td>55</td>
<td>.000</td>
<td>.899</td>
<td>55</td>
<td>.000</td>
</tr>
<tr>
<td>Board Size</td>
<td>.211</td>
<td>55</td>
<td>.000</td>
<td>.822</td>
<td>55</td>
<td>.000</td>
</tr>
<tr>
<td>Board Gender Diversity</td>
<td>.125</td>
<td>55</td>
<td>.031</td>
<td>.932</td>
<td>55</td>
<td>.004</td>
</tr>
<tr>
<td>Board Composition</td>
<td>.095</td>
<td>55</td>
<td>.200</td>
<td>.957</td>
<td>55</td>
<td>.046</td>
</tr>
<tr>
<td>Bank Liquidity</td>
<td>.437</td>
<td>55</td>
<td>.000</td>
<td>.165</td>
<td>55</td>
<td>.000</td>
</tr>
<tr>
<td>Capital Adequacy</td>
<td>.203</td>
<td>55</td>
<td>.000</td>
<td>.880</td>
<td>55</td>
<td>.000</td>
</tr>
<tr>
<td>Firm Size</td>
<td>.078</td>
<td>55</td>
<td>.200</td>
<td>.972</td>
<td>55</td>
<td>.236</td>
</tr>
</tbody>
</table>

Source: Researcher 2019
4.2.2 Test of Multicollinearity

Table 4.2 exhibits the multicollinearity results. The results show that the variance inflation factors (VIF) are less than 10, which signify no multicollinearity existing between the dependent and independent variables.

Table 4.2: Test for Multicollinearity.

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>.659</td>
</tr>
<tr>
<td></td>
<td>Board Size</td>
<td>.732</td>
</tr>
<tr>
<td></td>
<td>Board Gender Diversity</td>
<td>.670</td>
</tr>
<tr>
<td></td>
<td>Bank Liquidity</td>
<td>.887</td>
</tr>
<tr>
<td></td>
<td>Capital Adequacy</td>
<td>.955</td>
</tr>
<tr>
<td></td>
<td>Firm Size</td>
<td>.861</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Financial Performance (ROA)

Source: Researcher 2019

4.2.3 Autocorrelation

Autocorrelation is tested to detect any similarity between time series at given a time interval which is carried out using Durbin-Watson. This test depicts a test statistic with a value of 0 to 4 where 2 no autocorrelation exists, where the statistic is less than two a positive autocorrelation exists and where greater than two, negative autocorrelation exists (Khan, 2012). In this instance it is 1.723, meaning a positive autocorrelation exists.

Table 4.3: Test of Autocorrelation

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>Durbin–Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1.723a</td>
</tr>
</tbody>
</table>

Source: Research Findings (2019)

Autocorrelation is tested to detect any similarity between time series at given a time interval which is carried out using Durbin-Watson. This test depicts a test statistic with a value of 0 to 4 where 2 no autocorrelation exists, where the statistic is less than two a
positive autocorrelation exists and where greater than two, negative autocorrelation exists. In case it is 1.723, meaning no autocorrelation exists.

4.3 Descriptive Statistics

Table 4.4: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Performance (RoA)</td>
<td>55</td>
<td>.0000</td>
<td>.0500</td>
<td>.027091</td>
<td>.0125717</td>
</tr>
<tr>
<td>Board Size</td>
<td>55</td>
<td>7.0000</td>
<td>20.0000</td>
<td>11.6000</td>
<td>3.0160067</td>
</tr>
<tr>
<td>Board Gender Diversity</td>
<td>55</td>
<td>.1053</td>
<td>.4545</td>
<td>256957</td>
<td>.0952029</td>
</tr>
<tr>
<td>Board Composition</td>
<td>55</td>
<td>.5833</td>
<td>9.5000</td>
<td>.757056</td>
<td>.1056059</td>
</tr>
<tr>
<td>Bank Liquidity</td>
<td>55</td>
<td>.0797</td>
<td>341.3168</td>
<td>8.525273</td>
<td>46.0461125</td>
</tr>
<tr>
<td>Capital Adequacy</td>
<td>55</td>
<td>.0200</td>
<td>.2300</td>
<td>.154545</td>
<td>.0429823</td>
</tr>
<tr>
<td>Firm Size</td>
<td>55</td>
<td>10.7821</td>
<td>11.8539</td>
<td>11.357466</td>
<td>2632793</td>
</tr>
</tbody>
</table>

Source Researcher 2019

The study considered descriptive statistics (mean, standard deviation, minimum and maximum) for the panels. Table 4.1 depicts financial performance (ROA) of an average of 0.027091 with a minimum of 0.000 and a maximum of 0.0500. Board size on average of 11.6000 with standard deviation of 3.0160. The size ranged from 7 minimum to a maximum of 20 board directors. Board gender diversity had an average of 0.256957 with standard deviation of 0.0952029 with a minimum of 0.1053 and a maximum of 0.4545. Indicating that women ranged between 10.53% and 45.45% in boards. Board independence had an average 0.757056 with a standard deviation of 0.105609 and the minimum of 0.5833 and maximum of 0.9500. The bank liquidity had an average of 8.525273 a standard deviation of 46.0461 and minimum of 0.0797 and maximum of 341.3168. Capital adequacy had an average of 0.154545 a standard deviation of 0.042982 and a minimum of 0.0200 and a maximum of 0.2300. Firm size had an average of 11.3574 a standard deviation 0.2632793 and a minimum of 10.7821 and maximum of 11.8539.
4.4 Correlation Analysis

Table 4.5: Correlation Analysis

<table>
<thead>
<tr>
<th>Financial Performance (ROA)</th>
<th>Financial Performance (ROA)</th>
<th>Board Size</th>
<th>Board Gender Diversity</th>
<th>Board Composition</th>
<th>Bank Liquidity</th>
<th>Capital Adequacy</th>
<th>Firm Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.145</td>
<td>-.177</td>
<td>.055</td>
<td>-.274*</td>
<td>.289*</td>
<td>.481**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.292</td>
<td>.196</td>
<td>.691</td>
<td>.043</td>
<td>.032</td>
<td>.000</td>
</tr>
<tr>
<td>Board Size</td>
<td>Pearson Correlation</td>
<td>.145</td>
<td>1</td>
<td>-.397**</td>
<td>.394**</td>
<td>.075</td>
<td>.040</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.292</td>
<td>.003</td>
<td>.003</td>
<td>.585</td>
<td>.772</td>
<td>.038</td>
</tr>
<tr>
<td>Board Gender Diversity</td>
<td>Pearson Correlation</td>
<td>-.177</td>
<td>-.397*</td>
<td>.394**</td>
<td>-.428**</td>
<td>.185</td>
<td>-.064</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.196</td>
<td>.003</td>
<td>.001</td>
<td>.176</td>
<td>.643</td>
<td>.692</td>
</tr>
<tr>
<td>Board Composition</td>
<td>Pearson Correlation</td>
<td>.055</td>
<td>.394*</td>
<td>-.428**</td>
<td>1</td>
<td>-.192</td>
<td>.151</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.691</td>
<td>.003</td>
<td>.001</td>
<td>.161</td>
<td>.272</td>
<td>.414</td>
</tr>
<tr>
<td>Bank Liquidity</td>
<td>Pearson Correlation</td>
<td>-.274*</td>
<td>.075</td>
<td>.185</td>
<td>-.192</td>
<td>1</td>
<td>.109</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.043</td>
<td>.585</td>
<td>.176</td>
<td>.161</td>
<td>.428</td>
<td>.741</td>
</tr>
<tr>
<td>Capital Adequacy</td>
<td>Pearson Correlation</td>
<td>.289*</td>
<td>.040</td>
<td>-.064</td>
<td>.151</td>
<td>.109</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.032</td>
<td>.772</td>
<td>.643</td>
<td>.272</td>
<td>.428</td>
<td>.869</td>
</tr>
<tr>
<td>Firm Size</td>
<td>Pearson Correlation</td>
<td>.481**</td>
<td>.281*</td>
<td>-.055</td>
<td>-.112</td>
<td>.046</td>
<td>-.023</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
<td>.038</td>
<td>.692</td>
<td>.414</td>
<td>.741</td>
<td>.869</td>
</tr>
</tbody>
</table>

Source: Researcher 2019
The above table shows that board size had a weak positive correlation that was insignificant (r = 0.145, p = 0.292). Board gender diversity had a weak negative but insignificant correlation (r = -1.77, p = 0.196). Board composition had a weak positive but insignificant correlation (r = 0.055, p = 0.691). While bank liquidity had a weak negative but significant correlation (r = -0.274, p = 0.043). Capital adequacy had a positive weak but significant correlation (r = 0.289, p = 0.032).

### 4.5 Regression Analysis

In this study, a multiple regression analysis was conducted to test the influence among the variables.

#### 4.5.1 Model Summary

The results on the model summary were presented on the table below.

**Table 4.6: Model Summary**

<table>
<thead>
<tr>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

*<sup>a</sup> Predictors: (Constant), Firm Size, Capital Adequacy, Board Gender Diversity, Bank Liquidity, Board Composition, Board Size

**Source: Researcher 2019**

The model summary results on table 4.6 indicate the predictor variables account for 43.7 percent of the variation in the dependent variable as shown by the coefficient of determination value (R square) of 0.437. More variables not included in the model justify for 56.3% of the variations in the ROA.
4.5.2 Analysis of Variance

The study further tested the significance of the model by use of ANOVA technique. The findings are tabulated in Table 4.7:

**Table 4.7: Analysis of Variance**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.004</td>
<td>6</td>
<td>.0006666</td>
<td>6.394</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>.005</td>
<td>48</td>
<td>.0001042</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.009</td>
<td>54</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Research Findings 2017**

Critical value = 2.19 at 0.005

From the ANOVA table 4.7 above, the significant level of .000 indicates the findings are relevant to make conclusions on the research variables since the P value is less than 0.05 and thus the model statistically significant. The 95% confidence level was used to indicate statistical significance.

4.5.3 Distribution of Coefficients

**Table 4.8: Distribution of Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-.249</td>
<td></td>
<td>-3.797</td>
<td>.000</td>
</tr>
<tr>
<td>Board Size</td>
<td>-1.206</td>
<td>-.003</td>
<td>-.022</td>
<td>.983</td>
</tr>
<tr>
<td>Board Gender Diversity</td>
<td>-.011</td>
<td>-.086</td>
<td>-.680</td>
<td>.500</td>
</tr>
<tr>
<td>Board Composition</td>
<td>-.005</td>
<td>-.038</td>
<td>-.287</td>
<td>.775</td>
</tr>
<tr>
<td>Bank Liquidity</td>
<td>-8.856</td>
<td>-.324</td>
<td>-2.820</td>
<td>.004</td>
</tr>
<tr>
<td>Capital Adequacy</td>
<td>.098</td>
<td>.336</td>
<td>3.028</td>
<td>.004</td>
</tr>
</tbody>
</table>
The estimated regression model above explains that if board size, board diversity, board composition, liquidity and adequacy ratio were equal to zero, ROA would be equal to -0.249. The outcomes revealed that board size has a negative insignificant effect on ROA. The results did indicate that board diversity in terms of the women ratio in board and performance is negatively and insignificantly related. The results also exhibited non-executive board members had a negative and insignificant effect on ROA. Furthermore, the results also showed that liquidity had inverse and significant effect on ROA. Findings also indicated that adequacy has a positive and significant effect on ROA. Finally, bank size had significant positive effect on ROA.

4.6 Discussion of the Findings

As exhibited by the firms $R^2$ which is the coefficient of determination. It was found that $43.7\%$ of the changes in bank performance are caused by the various variables under study that is corporate governance practices indicators (board size, diversity and composition), liquidity and firm size whereas $56.32\%$ are caused by other variables that were not considered in this study over the period of five years.

To proceed with estimation, in the study, the normality was tested using the Shapiro-Wilk Test. In case the statistic is lower than 0.05, the data meaningfully deviates from normal dispersal and above 0.05 indicates normal distribution. This test depicts a test statistic.
with a value of 0 to 4 where 2 no autocorrelation exists, where the statistic is less than
two a positive autocorrelation exists and where greater than two, negative autocorrelation
exists (Khan, 2012). In this instance it is 1.723, meaning a positive autocorrelation exists.

Study indicated that the board characteristics have varied influences on financial
performance of listed commercial banks, Such that board size positively and
insignificantly affects financial performance Board size and firm performance
relationship has received empirical considerations such as by Lipton and Lorch (1992).
They recommended that a board should constitute between 7 to 8 members because
larger boards can result in time consuming effort in decision making. Their study is
corroborated by Jensen (2001) who concluded that companies with oversized boards tend
to become less effective. Lorch however recommends a board size of 12 members which
would lead to effective deliberations while allowing for staffing of board committees
which agrees with this study as the outcomes indicated a minimum of 11.67 for the board
size.

Board diversity had a statistically insignificant negative effect on ROA this is explained
by the fact that various institutional investors harbor different behaviours and attitudes
towards firms that have large numbers of women in their boards. Carter et al (2007)
investigated the gender and racial diversity of specific board committees in fortune 500
firms found positive effects of gender diversity on bank ROA but could not exclude the
possibility of a reverse outcome as investors act on their unconscious biases.

Board composition as a ration of independent directors to total directors indicated that it
negatively and insignificantly affects financial performance, majority of researchers
favour independent directors (Andres et al, 2005). This is because of the perceived
benefit that independent directors provide management due to their independence (Baysinger and Butler, 1985). Also, Independent directors contribute to impartiality in board’s strategic decision making including providing independent oversight on the management (Fama and Jansen, 1983).

Bank liquidity indicated that it negatively and significantly affects ROA, Capital adequacy of the listed banks at NSE indicated that it positively and significantly affects financial performance of listed commercial banks and the firm or bank size affects financial performance of listed banks positively and significantly. Several studies have found a positive and negative correlation between board characteristics and firm performance. Such that Borlea et al (2017) revealed lack of a statistically significant linkage between any of the board characteristics and performance of within non-financial listed firms in Romania. Martin and Herrero (2018) found that board size, diversity and Independence have a negative relationship to financial performance. Mwaura (2017) revealed a significant positive relationship between the board characteristics observed and profitability of commercial banks.
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
This chapter presents a summary of findings, conclusions and recommendations from the study. The chapter also highlights various limitations of this study and makes suggestions for further research. The chapter is organized into: Summary of Findings, Conclusion and Recommendations, Limitations of the Study and Suggestions for Further Research.

5.2 Summary of the findings
The objective of the study was to investigate the relationship between board characteristics and financial performance of listed commercial banks in Kenya at the NSE. The study makes a number of findings. Commercial banks in Kenya operate within the corporate governance guidelines and have to meet the minimum CBK requirements such as Board composition, board size, board gender diversity, bank size, bank liquidity and capital adequacy among others.

This study used the various board characteristics as the independent variable while financial performance was used as the dependent variable. Bank size, bank liquidity and capital adequacy were used as control variables. The study population was the 11 listed commercial banks at Nairobi securities exchange. Over the five year period from 2014 - 2018.

Kolmogorov-Smirnov and Shapiro-Wilk tests recorded p-values that were greater than 0.05. The implication of this was that the study used secondary data that was sourced from a normally distributed population. The data could therefore be used to carry out inferential analysis such as regression and Pearson correlation. Multi-collinearity tests
recorded VIF values of less than 10 implying that there was no multi-collinearity among the independent variables. This implied that corporate governance indicators (board size, board composition and board diversity), size of the firm and adequacy could be used as determinants of firms bank performance.

The study established that there was a weak connection (R= 0.661) amongst the study variables. The study also established that independent variables; board size, board composition, board diversity, size of the firm and liquidity explains 43.7% of the total variance in the bank performance.

The regression equation generated had a significance level of 0.00% implying that it was suitable for predicting the future returns on assets of banks. The regression model was statistically significant at the 95% confidence level confirming that it was suitable to explain how the predictors affect the returns on shares of company listed. In addition, the study further discovered that firm size and capital adequacy are statistically significant determiners of asset returns while board size, diversity and firm size were insignificant since the significance values exceeding 0.05.

5.3 Conclusions

The study concluded that secondary nature data applied in the study was sourced from a normally distributed population and could therefore be used to carry out inferential analysis such as regression and Pearson correlation. This was evidenced by the tests of normality which recorded p-values that were above 0.05. The research also concluded that the independent variables (financial performance, size of the firm and corporate governance) used in this study could be used as determinants of share returns since they recorded VIF values of less than 10 implying they did not have multi-collinearity issues.
This study concludes that CG has insignificant effects on returns on asset of banking listed. Board sizes and diversity, composition and size of the firm were observed to have negative insignificant effects on ROA. Bank liquidity was also found to have a negative but statistically significant effect on returns on asset of banks at the NSE. On the contrary, firm size and capital adequacy was found to have a positive and statistically significant effect on asset returns of banking in Kenya. This study therefore concludes that bank size, liquidity and capital adequacy and firm size do not significantly influence returns on asset banking at NSE.

The study also established that the predictor variables (board composition, women ratio in the board, no of board members, firm total assets and asset adequacy only represents 43.7% of the total change in the return of asset. This makes a conclusion that large number of variables excluded in the model affects ROA. In addition, the studies conclude that model used is fit and reliable for further studies.

5.4 Recommendations

The research concluded that board size insignificantly affects ROA with a mean of 8.6. The study therefore recommends that the management of listed bank should ensure that their boards have adequate numbers of an average of 9 directors to ensure that they maximize their share returns. As its a good number that can facilitate proper and impartial overseeing of the firms operations which would then guarantee high share returns due to increased performance.

The results found that board composition insignificantly affects return on asset. The study thus recommended that the firms should ensure that their boards have a good number of independent directors so that they can increase the value of their shares. This is because
the independent directors are deemed impartial in their decisions hence they would be made for the good interests of the respective firms stakeholders.

The study concluded that board diversity has an insignificant effect on return on asset. However, the study recommended that firms ought to ensure that their boards should be well diversified and inclusive of all genders as board diversity significantly affects shares returns. This is because gender diversity in the board membership portrays an image of inclusivity in the organizations and as a form of best practice it then creates a good reputation that translates to better performance and similarly higher share returns.

The study concludes that increased liquidity ratio leads to decreased in firm value though not to a significant extent. This study recommends that a comprehensive assessment of listed commercial firm’s immediate liquidity position should be undertaken to ensure the company is operating at sufficient levels of liquidity that will lead to enhanced firm value.

5.5 Limitations of study

This study investigated banks listed at the NSE thus the findings are limited to the sampled non-financial firms and may not be applied or be a representative of all listed firms. In addition, the findings are limited to the considered research variables, which included board size, board gender diversity, board composition, bank liquidity, bank size and capital adequacy. This could have limited the outcomes as addition of other variables could alter the findings.

Further, the findings are applicable within the research period, which was considered by the study with the scope of this study being five years period (2014 to 2018). Therefore,
the results may not hold for a longer study period which would otherwise capture major events not included in this study hence resulting into more reliable outcomes.

This study solely relied on secondary data to reach at the discussed conclusion. Secondary data was employed because it is combination of experts efforts in consolidating the data for the public to consume, investors and regulators consumption. However, an assessment of the same study using primary data and consulting with the management of the firms might yield different results.

5.6 Suggestions for Further

This study sought to find out the effect of board characteristics on financial performance of banks listed at the Nairobi securities exchange. However, the research did not exhaust the variables and therefore suggests that independent variables like the age of the directors and education levels should also be tested to find out if they have significance to performance. A related study also could be carried out to find out board characteristics aspects in all financial institutions.

Since the study covered only listed commercial banks in Kenya, further comparative studies could be appropriate between Kenya and other developing countries and even developed countries that act as a benchmarking analyzing the domestic companies achievement in areas of board characteristics. Similar studies covering longer periods should be carried out and compare the outcomes as this study focused on a five year period (2014 to 2018) owing to the fact that it was the most recent annual data listed commercial banks at the NSE.
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and Accounting, 6* (10), 173-182
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APPENDICES

Appendix I: Commercial Banks listed at Nairobi Securities Exchange

1. Barclays Bank Ltd
2. Stanbic Holdings Plc.
3. I&M Holdings Ltd
4. Diamond Trust Bank Kenya Ltd
5. HF Group Ltd
6. KCB Group Ltd
7. National Bank of Kenya Ltd
8. NIC Group PLC
9. Standard Chartered Bank Ltd
10. Equity Group Holdings
11. The Co-operative Bank of Kenya Ltd
## Appendix III: Data Collection Form

<table>
<thead>
<tr>
<th>Name</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRM 1</td>
<td>2013</td>
</tr>
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<td></td>
<td>2014</td>
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<td></td>
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<tr>
<td></td>
<td>2017</td>
</tr>
<tr>
<td></td>
<td>2018</td>
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