

**CORPORATE GOVERNANCE PRACTICES AND FINANCIAL
PERFORMANCE OF COMMERCIAL BANKS LISTED AT THE NAIROBI
SECURITIES EXCHANGE, KENYA**

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D53/CTY/PT/32915/2015

**A RESEARCH PROJECT PRESENTED TO THE DEPARTMENT OF
ACCOUNTING AND FINANCE IN PARTIAL FULFILMENT FOR AWARD OF
MASTER IN BUSINESS ADMINISTRATION DEGREE IN (FINANCE OPTION)
OF KENYATTA UNIVERSITY**

MAY, 2021

DECLARATION

This project is my original work and has never been handed over for an award in any learning institution.

Signed

Date.....

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This research project has been submitted for review, with my approval as a university supervisor

Sign.....

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DEDICATION

This work is dedicated to Mr. and Mrs. Chege for the moral hold up, devotion, and inspiration

ACKNOWLEDGEMENT

Before and during the entire MBA program, I thank my immediate family and comrades for their constant encouragement and support. Similarly, I acknowledge the different scholars and the academic family providing information and a conducive environment in which my research project has been carried out. My supervisor, Mr. Anthony Thuo, is worthy of unique notice for his bits of knowledge which formed this work

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DEFINITION OF OPERATIONAL TERMS

- Audit committees** - Refer to persons charged with overseeing reporting and disclosure of the financials
- Board compensation** - allowance paid to board members and reimbursement of expenses incurred in travel and accommodation as well as other expenses incurred like attendance of board meetings
- Board composition** - organization of the directors elected during the annual general meeting by members of the board
- Book value of Equity** - The amount available for distribution to shareholders
- Commercial bank** - this is an organization offering services such as current, deposit and savings accounts as well as giving loans
- Corporate governance** - the strategies, practices, processes, laws, and associations that influence the structure or control of an organization
- Financial Expertise** - refers to the ability to give advice with regards to investments and interpret financial statements from the basis of previous experience and education background
- Financial performance** - refers to the measuring of the outcomes of an affiliation's procedures and exercises in cash related terms
- Market value of Equity** - the total worth of a bank in assets
- Tobin's Q** - Refers to the quotient of the equity market value to equity book value

ABBREVIATIONS AND ACRONYMS

B.O.D	-	Board of directors
B.V.E	-	Book value of Equity
C.B.K	-	Central Bank of Kenya
C.M.A	-	Capital Market Authority
C.G	-	Corporate Governance
F.P	-	Financial Performance
M.V.E	-	Market Value of Equity
N.S.E	-	Nairobi Securities Exchange
O.E.C.D	-	Organization for Economic Cooperation Development
R.O.E	-	Return on Equity

ABSTRACT

Incidences of collapses increased mergers, and acquisition of commercial banks attributed to poor CG systems have occurred in Kenya's banking and the regional area over the last few years. Research aimed at corporate governance in commercial banks and financial results by concentrating on different components of corporate governance has been carried out. Be that as it may be, there is still an awareness gap in the investigations focused on corporate governance and how it impacts the financial performance of the NSE-listed commercial banks. The overall objective of the review was to investigate the four explicit targets and their consequences for the performance of the investigation by the NSE-listed commercial banks; board compensation, board composition, financial expertise and the size of the audit committee based on these approaches: the control approach, agency approach, approach of inspired confidence and resource dependency approach. To obtain an enlightening exploration project, the target populace was the 12 NSE-listed commercial banks in Kenya. For collecting secondary data, the use of information sheets was used. Regression analysis has been used to assess the financial performance effect of the commercial banks listed in the NSE, Kenya. The study showed that the link between financial performance and board compensation was positive ($B=0.174$) and statistically significant ($P\text{-value}=0.022<0.05$) and that the composition of the board had a negative ($B=-0.850$) and meaningful ($P\text{-value}=0.000<0.05$) relationship to financial performance. The results also showed that financial experience was negative ($B=-0.256$) and negligible ($P\text{-value}=0.000<0.05$). The study concluded that the financial performance of Kenyan banks is significantly affected by board compensation, board composition and audit committee size.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Through planning stores from surplus units to default units, commercial banks carry on an enormous job of monetary improvement, with the surplus being diverted to default units through loans that are the focus of the activities of business banks (Kwambai, 2013). This action anyway has not been without difficulties. Schreiner (2001) shows that money-related foundations face a tremendous threat of non-performing credits, considering that larger advances pose more severe danger implementation, higher variable dollar expenditure. On the off chance that banks do not take extra care, there may be more credit defaults. An entity is expected to track the behavior of lenders to fulfill this test (Schreiber, 2001).

Corporate governance is critical for realization of success in organizations. Thus, it is vital to indicate that corporate governance is key in governance of companies. Sound governance is essential to the efficient operations of a company (Kwambai, 2013). It lays down the infrastructure to enhance the quality of the directors' decisions. Sound, right decision-making builds sustainable businesses allowing them to effectively create more long-term value (Bassem, 2009). It focuses on the ways and processes for running the operations of a company to realize its goals, and similarly safeguarding the stakeholders' confidence that their trust in that establishment (Liu et al, 2013).

The unforeseen collapse of companies like Enron, WorldCom, Parmalat, Tyco and Bank of Credit and Commerce International (BCCI) in UK and the US worldwide has prompted the existing need to pay attention to corporate governance. In addition, corporate governance and performance literature has evolved since the report by Cadbury (1992) committee on governance with regards financial aspect which showed that good governance leads to boosted performance. The Cadbury (1992) committee recommended that for best practice in over sighting the company, the United Kingdom Corporations

should ensure that there are not less than three outside directors and the head of the company and the Chairman positions should be under other individuals (Bassem, 2009).

In billions of money laundering cases across Africa, the Chief Executives of Oceanic, Afribank and Intercontinental Banks were found guilty of high-level fraud in Nigeria, while Cadbury PLC's CEO and Lever Brothers, an Anglo-Dutch company, were accused of manipulating their financial statements (Osemene & Fakile, 2019). Agyemang (2020) posits that poor performance and collapse of several banks such as UT Bank and Capital Bank in Ghana has called for serious corporate governance practices to monitor management and provide proper financial reporting in Ghana. As such, several scholars, regulators and international organizations have argued that weak corporate governance systems and excessive bank risk-taking are some of the most important causes of the crisis (Mavrakana & Psillaki, 2019).

Numerous banks in Kenya have been encountering poor monetary execution. a large portion of these budgetary issues emerge from absence of credit data on the advance candidates, which at that point influence their capacity to recoup both the head and the intrigue. CBK has made efforts to encourage credit data sharing among business banks on advance candidates in order to lower the default rates among advance recipients. Banks in Kenya are working with administrative and premium meetings to build access to credit through conventional financial administrations (Sanda, 2004). In action, it is a game plan through which loan specialists add their customer data to a common pool available to all banks contributing.

Corporate governance is basic for commercial banks that handle extraordinary open premium that likewise decide the exhibition of the economy of a nation and need to perform proficiently (Liu et al, 2013). The advantages of corporate administration to firms are numerous and various including productive tasks, development, and ideal utilization of assets, capital gathering and brief reaction to factors in the working condition (Flodberg, 2013). Kenya's administration has made endeavors to standardize CG in organizations by revering corporate governance ethics in enactment. These include obligation, talent, and viability, uprightness, and reasonableness, duty, and simplicity (Oghojafor, 2010). For example, administrative specialists in the domain of Commercial banks in Kenya, CBK

and CMA have built up corporate governance rules and strictly regulated them. Be that as it may, the problem of corporate administration remains disturbed given the considerable number of measures (Kamar, 2009). This report will investigate the disparity of corporate work. The divergence of corporate management in relation to Kenyan NSE commercial banks will be explored in this report.

1.1.1 Commercial Banks' Financial Performance

Financial performance is defined as a general degree to which a company's overall financial status may be used over a certain period of time to measure the overall performance of different institutions conducting similar business (Mulili, 2010). Financial performance denotes the financial achievements of generating high sales volume, increased returns and the net-worth of a corporation through the management of its equity shares, short and fixed assets, financing, incomes and expenditures (Kamar, 2009). An organization's general monetary strength within a particular duration is its performance measure in financial terms. Financial performance is measured by the corporations' capacity to cover its expenses with, provide a good return to its investors and finance its growth strategies (Osemene & Fakile, 2019).

Financial outcome has ramifications for the future of the bank. High financial performance represents the quality and effectiveness of management in the use of corporate capital and in turn, contributes to a bank's economy (Ashari & Krismiaji, 2020). Good entity performance replicates the effectiveness of management and efficiency in the use of the resources of the company, which then adds to the economy of the country as a whole. Firm performance exemplifies the results magnitude in a procedure that has been attained in comparison to the company's goals and objectives (Egbunike & Okerekeoti, 2018).

Financial performance is measured by the corporation's capacity to cover its expenses with, provide a good return to its investors and finance its growth strategies. Financial performance metrics fall into two categories; market-based and accounting steps. Indicators of financial success include return on Investment, return on equity, return on assets, profitability and liquidity ratios (Kwambai, 2013). The Tobin Q which depicts the quotient of the equity market value to equity book value was implemented to ascertain the performance of commercial banks listed in NSE

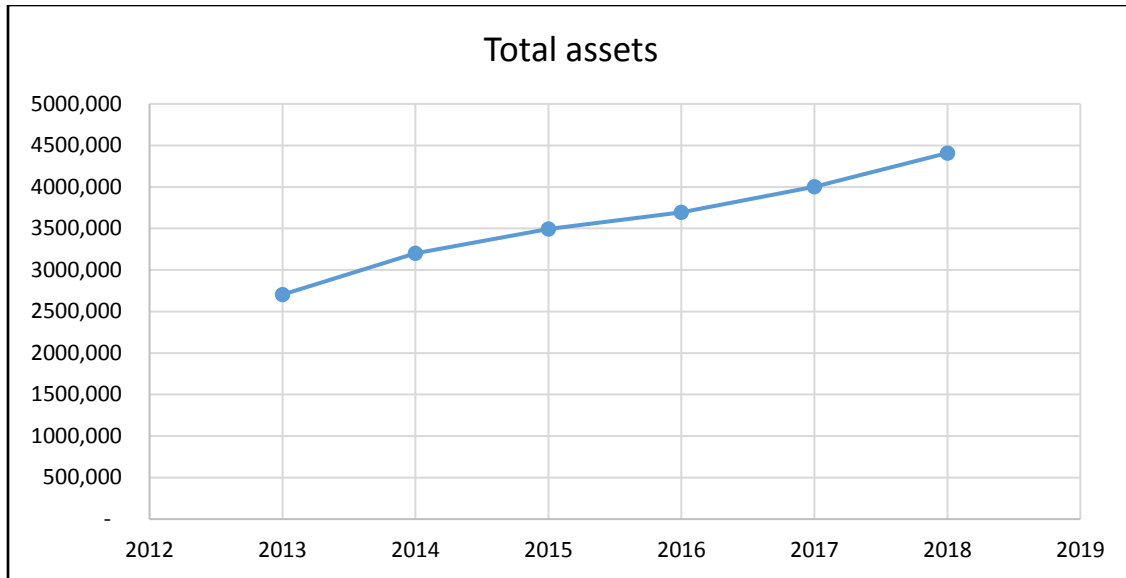


Figure 1.1: Trend of Asset Growth

Source: CBK annual report (2018)

Among the factors that affect performance of NSE –listed banks is corporate governance that affects performance of firms differently. For example, well governed firms post higher financial performance (Kimaite, 2016). On the converse, poor corporate governance results in poor financial performance of firms, in particular due to misallocation of assets, mismanagement, corruption, higher risks, lower returns and high capital costs (Oghojafor, 2010). In Nigeria, Nair et al. (2012) it was found that most commercial banks’ performance was negatively affected by non-compliance with corporate governance conventions and code of conduct, particularly with regard to internal controls and authority limits

1.1.2 Corporate Governance

Corporate governance is the system of laws, procedures and processes by which an organization is regulated. (Bassem, 2009) defined CG as the set of rules and procedures by which an organization is regulated and controlled. Corporate management is the relationship between investors, top managers and top management in decision-making about the organization’s bearing and execution (Kim 2010). It incorporates the relationship between the numerous players (partners) involved and the objectives for which the organization is managed. CG provide mechanisms for setting the objectives of the

company, pursuing these objectives in the social, regulatory and market setting contexts (OECD, 2016).

Corporate management harmonizes large number of conglomerates between the administration of an association, its board and its financial experts. This provides a basis through which the association's objectives are coined and settles the strategies for their realization in addition to tracking implementation (association for monetary participation advancement (OECD, 2016). It is essentially a toolkit which allows the organization and the board to tackle well the challenges of managing a corporation. CG allows companies have in place, proper decision making process and mechanisms for the interest of all interested parties (employees, stakeholders, suppliers, clients as well as society are well taken care of (Bassem, 2009).

Commercial banks' performance is affected by corporate governance in many ways including reduction of diverse risks and threat of fraud by ensuring transparency (Kaur 2014). It also reduces agency conflicts, lowers transactional costs and makes it possible for commercial banks to acquire cheap capital (Yaron 2012). Effective internal audit spearheaded by the audit committee can also protect the company against potential losses and increase level of shareholders value levels (Asfaw et al, 2015). Corporate governance has gained great importance in the recent years with increased shareholders accountability, more women involved in corporate governance among others. Table 1.1 indicate key summary of findings of top 100 companies in Kenya key board statistics.

Table 1.1 Key Corporate Board Statistics

Key Corporate Board Statistics	2018	2017	2016	2015
Average board size (intentionally did not round up)	8.1	8.6	8.5	8.0
Average no. of board meetings	7.9	7.6	7.2	6.7
Separation of chairman & CEO	96%	95%	95%	94%
Independent chairman	45%	45%	43%	40%
Board assessments carried out	95%	81%	77%	76%

Source: Deloitte (2019)

1.2 Problem Statement

Good corporate administration suggests that there has been a tendency for more prominent business roles and corporate leadership beyond conventional ethical standards by which top managers and senior management regulate their behavior. The basic goal of cg's principles is to ensure that the directors and administrators of the company are responsible for ensuring efficient and fair security for all shareholders (Mulili, 2010).

Over the past few years, a number of bank collapses and a rise in mergers and acquisition have occurred in the Kenyan banking sector and the wider region due to poor cg frameworks with banks such as Dubai Bank Ltd, Imperial Bank Ltd and Chase Bank put under reception and Charterhouse Bank placed under statutory control, and poor corporate failures were typically followed by financial hardship and deteriorating perforations. According to CBK's annual supervisory report on banking, liquidity retained by commercial banks demonstrates their capacity to fund rising assets and meet obligations as they are due. Liquidity is an important measure of financial stability because the liquidity shortage of banks can lead to banking sector systemic crises. Despite there being an increase in the banks liquidity ratio over the years there been a significant decrease in their nonperforming loans and this is due to downgrading of loan accounts due to delayed payments.

Many studies have been conducted to determine whether there is a correlation between the concepts of CG and FP. A study by Muriithi (2005) on corporate governance frameworks described in the securities exchange found that governance structures are positively linked. A study by Manyuru (2005) on governance structures of firms in Africa and the corresponding increase in the return on shares while a study by Matengo (2008), focused on the association between governance activities of a company and the actual outcomes, with the focus on African country. The disadvantages of these studies are that none of them provide a detailed review of the influence of corporate governance on Kenya's banks' financial performance. This research aims to focus on four components including boards' compensation, board composition, board financial expertise and audit committee size in reviewing the effect of corporate governance on FP.

1.3 Research Objectives

To establish how corporate governance practices impact on the financial performance of NSE-listed commercial banks

1.3.1 Specific Objectives

The research was driven by following specific goals

- i. To assess the effect of boards' compensation in relation to the financial performance of NSE-listed commercial banks
- ii. To assess the effect of board composition in relation to the financial performance of NSE-listed commercial banks
- iii. To assess the effect of board financial expertise in relation to the financial performance NSE-listed commercial banks
- iv. To assess the effect of audit committee size in relation to the financial performance of NSE-listed commercial banks

1.4 Research Questions

The following research questions guided the study;

- i. How does board compensation affect the financial performance of NSE-listed commercial banks?
- ii. How does board composition affect the financial performance of NSE-listed commercial banks?
- iii. How does board financial expertise affect the financial performance of NSE-listed commercial banks?
- iv. How does audit committee size affect the financial performance of NSE-listed commercial banks?

1.5 Significance of the Study

Findings and recommendations should be valuable to many industry players and stakeholders. Commercial bank management plays an essential role in ensuring their organizations' high performance even in volatile economic situations such as the one faced in Kenya. This study's findings should be to understand the key management practices that lead to commercial banks' superior performance.

Industry regulators are responsible for supervising the industry through their positions in supervisory capacity and also in market activity monitoring. The study's conclusions and recommendations that could inform future policy decisions on the enforcement of corporate governance among commercial banks would be supported by CMA and CBK as the banking sector regulators.

The analysis should give researchers and scholars an understanding into corporate governance practices in NSE-listed commercial banks and their FP. This investigation will be a quotation for future researchers, scholars interested in the topic of corporate governance between commercial banks and will form a root for advance research.

1.6 Scope of the Study

NSE-listed commercial banks being the focus of this study those that are currently registered by CBK to engage in banking business by the end of 2019. The work will cover the 2014-2019 periods. Considering that corporate governance is a broad topic, the scope of the investigation should be limited to the board compensation, board composition, financial disclosures and audit committees' four study variables. There will be no inquiry into other facets of corporate governance. The study will use secondary data.

1.7 Limitations of the Study

The research focuses exclusively on NSE-listed commercial banks and how the different corporate governance practices impact their financial performance, not included in this report are other forms of commercial banks. Research needs to focus on specific corporate governance components so as not to identify the implications of other components.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The part is composed of survey of hypothetical, observational writing and an article on the holes that the investigation will try to fill. An applied system portraying the relationship p among factors is likewise included.

2.2 Theoretical Review

A review of the philosophies designed to explain corporate governance practices and the study ought to be directed by below discussed hypothesis: the control hypothesis, agency hypothesis, hypothesis of inspired confidence and resource dependency theory.

2.2.1 Control Theory

Bierstaker (2004) detailed that the basic philosophy of control is that of any undertaking or system to be firm, participant should authorize the purchase and sale of products, while the other should be responsible for the sale and the third party should account for the number of products sold. In the case of deposit taking organization, a board must oversee the policies and management operations to ensure control. The theory holds that the better a process operation is conducted, the lower the cost and the greater the gain associated with it. According to the Nichitean (2011), the grid of the strategy and control some portion of the associations, for example, banks grow to incorporate the administration, top managerial staff, audit committee and inspectors. The core duty with regards to progression and backing of control rests with organization.

Bierstaker (2004), Say that the point of convergence of internal control has changed from practice and theory to the association's dominant thought and working style, with widespread gigantism imposed on the state of government. Emphasis on these weak corners requires the hugeness within the control structure of the top organization's engagement. When inside access is not an administrator prerequisite, it will not be one for people in the association either by then. As an indicator of the board's responsibility, an unreservedly associated top company may announce on the annual cash statement of the association that the organization has set up a declaration of an internal control game plan

that the organization understands is amazing. In addition, the declaration may provide explicit knowledge of the internal control system of the association (Flodberg 2013).

Internal monitoring must be tested, according to Bierstaker (2006), to provide the managers with some attestation regarding their practicality. External monitoring covers everything the board does to manage the partnership in order to achieve its goals. In command, if its parts were accessible and function feasibly for undertakings, plan specification, and reliability, an option would be settled as fruitful. The manager and his survey alert set are committed to ensuring that the inspection system within the association is sufficient. This dedication fuses the option of how much is being surveyed inside controls. The relationships within supervisors and their external commentators are two social events related to the evaluation of internal control (Hillman et al 2000). The theory will exhort the assessment in setting up the imagined by the board and the audit warning gathering in keeping up control and corporate organization among business banks recorded in NSE

2.2.2 Agency Theory

Jensen (1976) is concerned with resolving problems that may arise in office affiliations, i.e. between managers (such as financial experts) and managers (such as affiliate specialists). The two aspects that the office theory's realms are: the issues that emerge when the head and ace's needs and goals are in battle, and the supervisor is unable to check what the boss is doing, and the issues that arise when the head and authority are in danger. The head and chairperson are likely to take on various tasks, taking into account various risk guarantees.

The agency theory expounds on the association between the principal who employs another party the agent to work on its behalf in an organization (Jensen & Meckling's, 1976). The relationship between the two benefits from the division of ownership and control, which includes the security of the interests of shareholders, minimizes the costs of the agency and aligns the interests of principal agents (Müller, 2014). Therefore, the principle seeks to minimize agency costs borne by the principal by enforcing internal controls that hold the actions of the self-serving agent in check. This harmonizes the needs of executives and shareholders in order to maximize the profitability of the company. Different governance frameworks are prescribed by agency theorists (alternative executive compensation

systems and governance structures to protect shareholder interests, mitigate agency expenditures and ensure alignment of principal-agent interest (Omoriegbe & Kelikume, 2017).

Islam et al, (2000) highlighted that organization theory will be in line with increasingly indulgent and dynamically noteworthy research in the corporate organization discipline. Association theory fights that corporate organization practices, gets together with other cash related instruments like budgetary reporting and keeps up financially savvy engagements amidst customers, executives. office conjecture may not explain the proximity of internal survey in affiliations yet can in like manner help explain a part of the properties of the inside audit office, for instance its proportion, magnitude of engagement such as , monetary against operational examining.

The approach educates the examination in setting up how the creation, remuneration and nature of monetary exposures limit the data asymmetry and the chaperon organization issues in recorded business banks and its suggestion it has on the financial executions of the banks' business

2.2.3 Theory of Inspired Confidence

Limperg (1932) formulated this theory and suggests that firms require Independent auditors and the board as a result of the presence of independent shareholders in companies (Manini, 2015). The separation of ownership and control makes outside stakeholders' contract other entities that ensure that managers do their job as required and their report is also accurate and reliable. These contracted entities demand accountability from management on behalf of outside stakeholders of the firm including shareholders.

The theory links the need for organizational data quality with the capacity of audit procedures and board oversight to meet these needs (Matengo, 2009). In particular, it emphasizes strengthening the community's needs and auditing and monitoring processes over time. The oversight bodies' work emanates from the confidence that society places in the bodies' efficiency (Kopp, 2006). The normative basis of the inspired confidence theory is that the supervisory bodies are obliged to carry out their work in such a way as not to betray the stakeholders' and the public's expectations. As such, the directors' corporate

board of directors and external auditors are expected to play their oversight roles with professionalism such that they control the stewardship of the firm (Kopp, 2006). This is expected to lead to a well-managed firm. This study will use the theory of inspired trust to show how the conformation and remuneration of the board of directors in Kenya's listed commercial banks lead to superior corporate governance practices complete with the necessary accountability and disclosures.

2.2.4 Resource Dependency Theory

Hillman et al, (2000) claim the board's role as a service provider for managers to facilitate the achievement of authoritative targets. Hillman et al. (2000) also advise that chiefs bring the company's assets, such as information, expertise, access to scratch stakeholders, suppliers, customers, developers of transparent agreements, social gatherings, etc. For example, individuals from the board with specific abilities can utilize their mastery to prepare and guide administrators in a manner that improves authoritative presentation. Moreover, individuals can also take advantage of their help systems to attract the association's assets. Also, RDT is backed by outside members' appointment to the board as a means of gaining various abilities and for their prospects to obtain material and interacting in numerous ways (Oyedokun, 2019).

The RDT postulates that directors generate resources for instance information, expertise, crucial elements (purchasers, suppliers, social units public policy makers) and legality that will lessen uncertainty which sequentially decreases the transaction fee and the prospective of associating the corporation with the outside systems. This offers prospect to source more material and even expertise in a number of domains. Lawrence and Lorsch (1967) associated the RDT as a natural effect on CG and they argued that prosperous corporations have inner structures that equal outside environmental need. Among the RDT assumptions is that uncertainty overshadows a corporation's resources control and makes it vital for the corporation to adjust strategies that lessen this dependence. Since uncertainty as well as dependencies surge, the necessity for relations to other corporations similarly increases (Hillman et al., 2000).

Firms often modify their corporate strategies to adjust to variations in control relations with various firms that affect their access to resources. This study will use the concept of

resource dependency to show how the composition and remuneration of the board of directors in the listed commercial banks of Kenya contributes to the introduction of corporate governance practices and their role in the financial performance of commercial banks.

2.3 Empirical Literature

Corporate governance and the area of financial reporting have previously been researched and investigated. The empirical literature is structured as follows and driven by variables of study;

2.3.1 Boards' Compensation and Commercial Banks' Financial Performance

The influence of listed commercial banks in Kenya, Muriuki and Kariuki (2018) on financial results was examined for executive compensation. A descriptive design was adopted and data was gathered for 6 years from the 12 listed banks from 2012 to 2018. Executive annual bonuses, executive fixed salaries and benefits had an affirmative effect; using the regression model analysis, while executive ownership had a negative effect on the financial performance of listed NSE banks.

European banking efficiency and risk taking have been examined by Mavrakana and Psillaki (2019). More specifically, over the 2004-2016 period, a sample of 75 banks from 18 European countries was used. The study showed that experienced directors increase banks' productivity and decrease risk-taking. In addition, female directors have a positive effect on the performance of the bank, but risk-taking outcomes are mixed. In addition, the study showed that board compensation was positively connected with the success of banks.

Omoregie and Kelikume (2017) investigated how the efficiency of the banking sector in Nigeria is influenced by executive compensation. The study used the panel vector error correction model and the outcomes showed a positive effect on the deposits and equity-asset ratio of consumers to executive compensation, but negatively impacted return on equity (ROE). Results based on the Granger causality test reflected no causal connection between executive compensation and customers' deposits and the ratio of equity to assets.

Olaniyi, Obembe, and Oni (2017) addressed how company success in Nigeria affects CEO pay. The study collected data collected from 63 companies between 1998 and 2010 as well

as the two-step generalized hierarchical process of data analysis moments. A two-way relationship has been reported between CEO pay and company performance. The study concluded that CEO pay aligns shareholder interests efficiently with those of CEOs; therefore, stakeholders should focus more on CEO pay as a corporate governance mechanism to mitigate the issue of the department.

The impact of executive pay by the Ministry of Energy in Kenya on the financial performance of state-owned commercial companies was examined by Kyalo (2015). The cross-sectional study obtained second-hand data from the published financials of eight state-owned commercial enterprises over a five-year period from 2010-2014. The research found a poor adverse relationship between, on the one hand board compensation and financial performance and the other, firm size and financial performance.

Olaniyi, Obembe, and Oni (2017) addressed how company success in Nigeria affects CEO pay. The study collected data collected from 63 companies from 1998 to 2010 as well as the generalized two-step hierarchical method of data analysis moments. A two-way relationship has been reported between CEO pay and the results of businesses. The study concluded that CEO pay effectively aligns shareholder interests with those of CEOs; therefore, stakeholders should focus more on CEO pay as a corporate governance mechanism to mitigate the problem of the department.

As analyzed by Aduda and Musyoka (2011) using a pay and performance-related regression model, the relationship between executive compensation and firm performance among the commercial banks listed on the NSE was considered to be a functional correlation between the level of executive remuneration and accounting performance measures. The results of the study indicate that accounting performance metrics are not key factors in the calculation of executive compensation among the major commercial banks in Kenya in the pay and performance-related regression model. The results of the study show that accounting performance indicators are not key factors in the executive compensation assessment of Kenya's large commercial banks, and that size is a key parameter in the executive compensation assessment, provided that compensation is significantly but adversely linked. The negative correlation suggests capping executive pay in order to ensure that shareholder returns are maximized.

2.3.2 Board Composition and Commercial Banks' Financial Performance

Sarkar and Sarkar (2018) on board governance affects financial performance state-run and individual owned banks in India, data was gathered for 10 years between 2003 and 2012. Using the regression model, the analysis showed that board impartiality had a positive correlation with private bank performance, and a strong but adverse correlation with state-owned bank performance. The suggested improving the board of directors' composition is essential for banking organizations.

Oyedokun (2019) has analyzed the effect of board features on the financial performance of quoted commercial banks in Nigeria for the 2013-2017 period. The Ex-post Facto research design was approved. The data was gathered from the annual reports of the quoted commercial banks. Multiple panel regression analysis was used for analyzing the findings. The result shows that board gender diversity had a significant positive effect, and board meetings had a significant negative impact on board features, while board independence had a negative impact on financial performance.

Lungatso and Otuya (2019) have reviewed the relation between corporate governance and the financial performance of commercial banks in Kenya. The thesis, both theoretical and empirical, analyzed literature. Three theories were focused on the study; agency theory, stewardship, and resource dependency theory. These studies have shown that the board's size, the board's independence and that of the audit committee have a positive and meaningful relationship with the financial performance of commercial banks in Kenya. However, the makeup of the board and the gender of the board is negatively linked to the financial performance.

The impact of board independence on the organization's performance from the perspective of the theory of stewardship as reviewed by Hamdan and Mubarak (2017); the scholarly work used panel data from 162 registered trading companies from the Bahrain Bourse and Saudi Stock Exchange during the period 2013-2015, and methods of data analysis of a fixed effect. The study found that the board's impartiality had an inverse effect on corporate results. The study also found that internal managers are more successful in increasing the competitiveness of the organization than independent managers as the issue in asymmetry

in experience and lack of company-specific knowledge hinders the ability of independent managers to take appropriate decisions that improve business efficiency.

Owande (2016) analyzed the effect of the board's composition at the monetary overall performance of industrial banks in Kenya. The duration from 2013 to 2015 was covered by the study. A descriptive research layout was used in the study and all forty-two industrial banks in Kenya were included over time in the study population. Using descriptive statistics, correlation and regression assessments and conclusions drawn, record evaluation was then performed. The investigator concludes that, due to the general composition of the board, there may be a beneficial effect at the monetary overall performance of the industrial banks in Kenya. Board length and board impartiality have a positive effect on return on assets (the monetary overall performance proxy), while gender diversity (the monetary overall performance proxy) has a poor impact on return on assets.

The relationship between the composition of the board and the financial results of NSE listed financial institutions was examined by Waweru and Assumptah (2015). A descriptive research approach was utilized and information was collected from the institution through the administration of the questionnaire. For examination, correlation and multiple regression analysis were used. The study found that the composition of the board had a positive impact on the monetary execution of the NSE-listed commercial banks.

Chatterjee and Nag (2015) tended to the relationship between the composition of the board and the money related comes about of the Indian and Chinese firms reported from 2010 to 2014. The study found that the separation between the Chief Executive Officer (CEO) and the Chairman had a positive effect on the return on equity (ROE) of the company for Indian companies, whereas the extent of autonomy of board members had an enormous effect on the ROE of the company for Chinese companies. Increased ROE is experienced by companies with a larger share on their boards of independent directors. However, the standard and board size of auditors are not found to have any impact on the ROE of either region's businesses.

Based on the yearly reports of forty-two banks in Kenya in 2014, Manini and Abdillahi (2015) analyzed the effect of corporate administration structures on banks ' productivity. The consider utilized a correlational examination structure and was based on the theory of the organization. Utilizing different relapse as an estimation apparatus, the findings show that in the selected sample, board composition and bank capital do not have a major impact on bank productivity. The findings of the regression show that the size of the board has a negative effect on the financial performance, while the size of the bank has a favorable relationship with the money related execution.

Matanda, Luke, and Lishernga (2015) analyzed the effect of corporate board independence on the performance of commercial banks in Kenya for the period from 2001 to 2013. The research used primary information gathered through questionnaires and the regression model for analysis. The study found that the composition of boards was not important in relation to the composition of boards and the output of commercial banks in Kenya. The findings further indicated that when banking-specific features were excluded, there was no linear correlation between the board composition and the TBQ quotient for commercial banks in Kenya.

2.3.3 Financial Expertise and Commercial Banks' Financial Performance

Arumona, Onmonya, and Omotayo (2019) have explored the relationship between the financial education board and the market performance of healthcare companies in Nigeria. The study looks at six (6) healthcare companies listed for the period 2011 to 2017. The

results showed that board financial education had a positive and meaningful link with the company's success.

Karkowska and Acedański (2019) examined the board structure of the bank and the solidness of the bank empirically. A cross-country sample of 239 commercial and freely exchanged banks spanning 1997-2016 and a regression panel for 40 countries was utilized for the analysis. A negative affiliation between board monetary understanding, board estimate, and bank stability was found in the report.

The impact of board highlights on the monetary execution of listed firms in Tanzania was examined by Assenga, Aly and Hussainey (2018). The paper employed balanced panel data regression analysis on 80 company-year outcomes (2006-2013) from yearly reports and was conducted in semi-structured interviews with 12 essential stakeholders. The results show that gender diversity has had an advantageous effect on money related effectiveness. Furthermore, the results don't embolden a correlation between money related comes about and estimate of the board, PhD qualification, and outside executives.

Gafoor, Mariappan and Thyagarajan (2018) analyzed the effect of board structure highlights on bank execution employed a test of 36 scheduled commercial banks in India during the period 2001-2014. A solid and crucial relationship between board independence and bank outcomes was discovered in the study. Moreover, the study found that the number of board meetings and a bigger number of board financial specialists are vital to bank performance.

The effect of board characteristics and firm outcomes was investigated by Johl, Kaur and Cooper (2015). The paper utilized both money related and non-financial data from the 2009 yearly reports of Malaysia's 700 freely trading companies. The outcome indicated that board independence does not affect the performance of the company, in spite of the fact that board size and board accounting / financial expertise are positively related to the performance of the company. Board diligence is found to have a negative influence on firm performance in terms of board meetings.

Mutunga (2015) examined how the profile of the board is affected by NSE-listed companies' financial success. The time under review was 2008-2014, and for analysis, the

linear regression model was adopted. It was not statistically significant, the study decided, although the relationship between financial results and board expertise was positive. The study also showed that the relationship between the boards of directors was marginal in the context of financial outcomes and independence. Additionally, the study finds a negative and substantial correlation amid the boards' remuneration and their results.

Minton, Taillard and Williamson (2014) assessed the board's financial experience, risk taking, and the effectiveness of bank holding companies. The study found that in the run-up to the 2007-2008 budgetary crisis, financial expertise among autonomous executives of U.S. banks related favorably with balance sheet and market-based risk measures. The study also found that while financial experience was weakly linked to better pre-crisis performance, it was strongly linked to lower-crisis performance. Overall, the outcomes are consistent with the financial expertise of independent directors promoting higher risk taking prior to the crisis.

The effects of the board's effectiveness on the financial performance of the Kenyan banking industry was examined by Waithaka (2014). The research used a descriptive template and, through questionnaires, collected data from 39 banks in Kenya. The study found, using regression analysis, that there was no significant association between educational qualifications and Kenyan banks' financial performance.

The independence and financial expertise of the board affects risk-taking and efficiency, as examined by Minton, Taillard, and Williamson (2011); data was collected and analyzed using a regression model. The results showed that financial experience among independent commercial bank managers was negatively associated with differences in both the valuation of the business and the cumulative returns on stocks. The study also found that in the run-up to the crisis, using the financial position statement and market-based risk indicators, financial awareness was positively linked to risk-taking levels.

2.3.4 Audit Committee Size and Commercial Banks' Financial Performance

Agyemang (2020) analyzed the relationship between the characteristics of the audit committee and the financial performance of Ghana's listed banks. An overview of the results of eight banks listed on the Ghana stock exchange was provided in this paper, using equity return and asset return as performance indicators. Over a span of five years,

aggregate information was also given on the results of these eight banks. The study found that ROE was positively related to the scale review and to the competence and skill of the audit members, but adversely related to the independence of the review committee and the review committee's gender diversity. ROA was too positively connected to the audit size and the competence and experience of the audit members, but was negatively linked to the impartiality of the audit committee and the gender diversity of the audit committee.

The impact of the audit committee's characteristics on the financial performance of companies listed on the Indonesian Stock Exchange was examined by Ashari and Krismiaji (2020). For the fiscal year ending December 31, 2016 through 2017, the examination utilized a test sample of 466 outcomes from publicly traded companies on the Indonesian Stock Exchange that were obtained for the population of 660 listed companies. The analysis showed that the company's results were positively influenced by all the characteristics of the audit committee, including scale.

The efficacy of the effects of a review committee on the financial performance of deposit money banks in Nigeria was investigated by Osemene and Fakile (2019). The use of return on equity (ROE) has been distinguished as possibly having an effect on financial performance as a measure of financial quality, independence, financial awareness and meeting frequency. Correlation and ordinary least square regression (OLS) were used to estimate the relationship between audit committee features and financial performance. The findings have shown that the audit committee's financial expertise and the audit committee's size have had a significant effect on the financial performance of deposit money banks.

The impact of board features on the firm financial performance of listed companies on the Colombo Stock Exchange (CSE) during the 2015/2016-2016/2017 period was explored by Somathilake (2018). The information was analyzed and hypotheses tested using SPSS using descriptive statistics, correlation analysis and regression analysis. The results showed that education credentials had a favorable but minimal effect on the company's performance, while board size had a significant negative impact on the company's performance.

Somathilake (2018) investigated the impact of board characteristics on the firm money related execution recorded companies on the Colombo Stock Exchange (CSE) amid the 2015/2016-2016/2017 period. Using descriptive statistics, correlation analysis and regression analysis, the data was analyzed and hypotheses evaluated using SPSS. The discoveries appeared that educational qualifications had a positive but marginal impact on the performance of the organization, while the board size had a major negative impact on the company's performance.

Maina and Oluoch (2018) discussed how the audit committee's characteristics affect Kenyan manufacturing companies' financial results. The academic study used a descriptive prototype and gathered from 766 manufacturing firms with the regression model being used for analysis for 5 years from 2013 to 2017. The research found that large audit committees seem to be losing emphasis and becoming less participatory than smaller committees. The study concluded that the demographics of the audit committee and the audit of the Frequency Committee meetings and the financial performance of the audit committee meetings are closely linked to the audit committee.

The impact of corporate administration between the United States (Developed Country) and Pakistan (Developing Country) on the monetary execution of companies was contrasted by Ali (2018). A sample of 100 listed companies from the Karachi Stock Exchange of Pakistan and the New York Stock Exchange of the USA were investigated in order to examine the relationship during the period from 01 Jan 2010 to 31 Dec 2015. The study found that corporate governance codes are practiced in both nations, but they are stronger in developing countries. The study also showed that there is a positive association between board education & experience, productivity and CEO duality with the organization's performance, but there was a negative link between board sizes.

Bhattra (2017) explored the relationship between the financial performance and corporate governance of commercial banks in Nepal. The study was based on auxiliary data collected from yearly reports by 13 Nepalese commercial banks. Samples for this examination were taken from 65 observations in the study period from 2010 to 2015. Research shows that the board's size had a negative effect on the financial performance of commercial banks in Nepal, while the size of the audit committee and some independent directors had a positive impact on the financial performance of commercial banks in Nepal.

Gacheru (2013) inspected how the review committee's effectiveness affected commercial banks' financial results in Kenya between 2007 and 2011. The thesis followed a cross-sectional sample and the regression model for analysis. The consider showed there was a significant positive correlation between the rate of review Committee members and the ROE, and that there was a considerable positive correlation between the autonomy of the Board and the ROE.

2.4 Summary of Literature Review and Research Gaps

CG practices and their part in corporate financial results have been thoroughly investigated. Kenya's NSE-listed commercial banks also have increasing literature on corporate governance. This study will fill this gap by identifying how board compensation, composition, disclosures, and audit committees account for differential financial performance among NSE, Kenya listed commercial banks.

Table 2.1: Summary of Literature Review and Research Gaps

Author	Objective	Findings	Research gaps
Muriuki and Kariuki (2018)	Executive compensation and performance of listed banks in Kenya	Executive compensation significantly affects bank performance	The study only considered executive compensation
Omoriegbe and Kelikume (2017)	Executive compensation and Nigerian bank performance	Executive compensation positively affects return on equity	The study only considered executive compensation
Sarkar and Sarkar (2018)	How board governance affects financial performance	A strongly positive association between Board impartiality and success has been found.	Only board independence concerning financial performance was considered
Hamdan and Mubarak (2017)	Impartiality of the Board and firm's performance	An inverse impact on company results of board impartiality	Focus was on a different sector and not banking sector.
Arumona, Onmonya and Omotayo (2019)	Board financial education and firm performance	Between financial education and firm results, there was a positive and significant relationship.	study focused on the healthcare sector in Nigeria
Minton, Taillard and Williamson (2011)	Whether the board's independence and financial experience influences risk taking and outcomes	Financial experience was negatively associated to variations in firm value	The study focused firms in different sectors and not the banking sector

Maina and Oluoch (2018)	Audit committee characteristics and financial performance	Broad audit committees tend to lose concentration and become less participatory than smaller-sized committees	The study focused on the manufacturing sector
Riany and Wagude (2018)	How the audit committee's technical proficiency impacts financial results	Audit committee's technical proficiency significantly affected financial performance	The study focused on sugar milling companies
Mavrakana and Psillaki (2019)	Impact of bank governance on European bank performance and risk taking	Board compensation was positively related with bank performance	The study was undertaken in the European context thus the findings may not be generalized to the Kenyan context
Omoriegbe and Kelikume (2017)	How executive compensation affects the performance of the banking sector in Nigeria	Executive compensation positively affects customers' deposits and equity-asset ratio but it adversely affects return on equity (ROE)	The study was undertaken in the Nigerian context thus the findings may not be generalized to the Kenyan context
Oyedokun (2019)	Effect of board characteristics on financial Performance of quoted commercial banks in Nigeria	A negligible negative effect of Board independence on financial performance was recorded	The study was undertaken in the Nigerian context thus the findings may not be generalized to the Kenyan context
Lungatso and Otuya (2019)	The relationship between corporate governance and	The size of the audit committee's leadership,	The study utilized primary data obtained

	the financial performance of commercial banks in Kenya	board independence and independence have a constructive and vital relationship with financial performance.	using questionnaires as opposed to secondary data
Owande (2016)	The effect of board composition on financial performance of banks in Kenya	positive effect on return on assets was realized on board impartiality and size	The study utilized primary data obtained using questionnaires
Waweru and Assumptah (2015)	The relationship between the composition of the board and the financial results of NSE listed financial institutions	Board composition positively affected financial performance	The study utilized primary data obtained using questionnaires as opposed to secondary data
Karkowska and Acedański (2019)	Bank's board structure and bank stability	A negative correlation between the management 's financial competence, board size and bank stability	The study focused on bank stability and not bank performance
Assenga, Aly and Hussainey (2018)	Board characteristics and the financial performance of listed firms in Tanzania	The data does not encourage a correlation between financial results and the size of the board, PhD qualification, and international directors.	The study was undertaken in the Tanzanian context thus the findings may not be generalized to the Kenyan context
Ashari and Krismiaji (2020)	Effects of the features of the audit committee on the financial performance of companies listed on the	the company's efficiency was positively influenced by the scale of the audit committee	The study focused on listed firms and not banking entities thus a contextual gap

	Indonesian Stock Exchange		
Osemene and Fakile (2019)	An audit committee 's effectiveness affects the financial performance of Nigeria's deposit money banks	The financial performance of deposit money banks was heavily influenced by the size of the audit committee.	The study was undertaken in the Nigerian context thus the findings may not be generalized to the Kenyan context

Source: Researcher (2019)

2.5 Conceptual Framework

Figure 2.1 under shows the association amongst the variables and analysis indicators and the measurability measure of the variables. The arrows indicate impact direction.

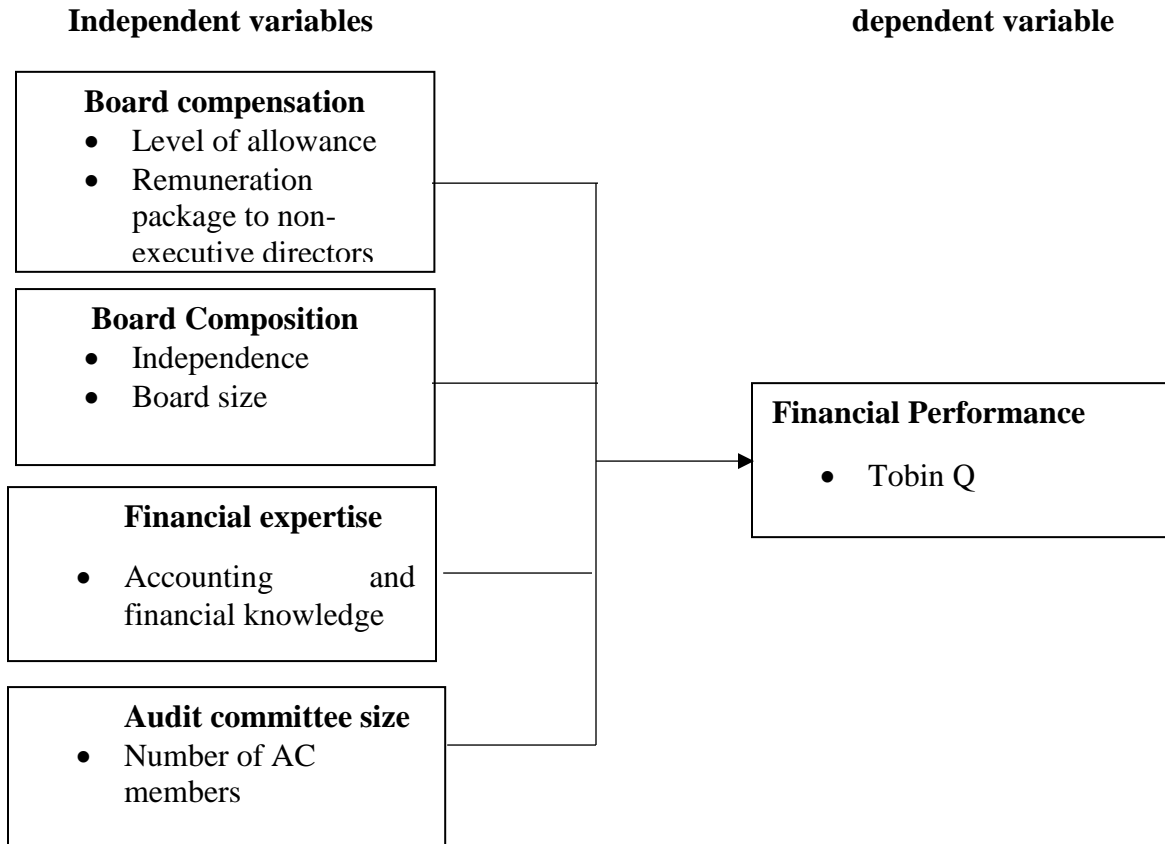


Figure 2.1: Conceptual Framework

Source: Researcher (2019)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Methods, procedures undertaken when studying the subject, and they include study design, the targeted population along with variables measures, the process of collecting data, the test of assumptions, analysis, and presentation of data and finally the ethical concerns are outlined in this section.

3.2 Research Design

A research design is the arrangement through which the scholar answers problem under study and entails the tools of collecting data and the techniques of data analysis a researcher intends to use (Yin, 2014). Descriptive design was employed. Coolican (2017) observed that descriptive research design defines information and features about the phenomena under study, as they exist in their natural environment. Descriptive studies rather than just describing entities of interest enable the researcher to summarize the data and observe relationships between the variables of interest (Mugenda 2008). According to Cooper (2003), a descriptive survey is used to collect information from a group of individuals by questioning or conducting a questionnaire. The author did not modify the variable under analysis in this process, but rather explores the variables in their current condition. The design was considered appropriate, as the key focus was to discover the possible relationship between topics being examined. The researcher used this study layout to test the effect on the financial results of corporate governance policies

3.3 Target Population

Target populace, according to Mugenda (2008), is a whole set of individual cases with certain shared features to which researchers intend to generalize the study results. Population relates to the whole set of persons or things under concern in the fields of analysis with a common goal. In this research, all the twelve NSE-listed commercial banks formed the target populace the study thus undertook a census of the twelve listed banks as at 30th December 2019.

3.4 Variable Definitions and Measurements

This section analyzes the practical definition of variables impacting the effect of corporate governance and the financial performance of the NSE-listed commercial banks in Kenya. The variables were operationalized as highlighted below:

Table 3.1: Variables Measurement

Variable	Category	Indicators	Measure
Financial performance	Dependent	Quotient of the equity market value to equity book value	Tobin Q
Board compensation	independent	Level of Allowance	Ln of annual commissions and fees waged to directors
Board composition	independent	Impartiality of the board	The proportion of independent directors to total directors
Financial expertise	independent	Entails the board committee members industry professional, skills, effectiveness, and managerial skills	The number of members of the total members of the board with financial and accounting expertise
Audit committee size	independent	Audit committee proportion	Totals of audit committee members

Source: Research (2019)

3.5 Data Collection

Secondary data collection was achieved by deploying data collection sheets, use of content analysis of the various financial statements and the annual integrated report prepared by the listed banking entities. The collected secondary data composed of data on financial performance, boards' compensation, board composition, board financial expertise, and audit committee size. The data was collected for a time frame of 6 years 2014-2019.

3.6 Data Analysis

The secondary data collected was entered in code form, then entered for analysis in the SPSS model. In order to explore results, descriptive statistics such as the standard deviation means and frequency allocation were used while inferential statistics, including regression and correlation analysis, were used to examine the connection connecting the dependent to the independent variables. The regression model was as follows

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Where,

Y = Financial performance

X_1 = Board compensation

X_2 = Board composition

X_3 = Board financial expertise

X_4 = Audit committee size

β_0 = Constant

$\beta_1 - \beta_4$ = Regression coefficients

ε = error term

3.7 Diagnostics Tests

Various diagnostics tests were undertaken to measure the appropriateness of the adopted analytical tool. The undertaken diagnostic tests included normality tests, multicollinearity test,

3.7.1 Normality Test

The Shapiro Wilk Tests were used for normality evaluation. Islam et al. used the Schapiro Wilk test in 2014 to test the null hypothesis that it was natural for residual distribution. The analysis will not reject the null (95 percent) if the p-value reaches 0.05 ($p > 0.05$) and will assess that the residuals were normally distributed.

3.7.2 Multicollinearity Test

Multi-collinearity alludes to when your indicator factors are exceptionally associated with one another. In case of multi-collinearity, the study model will not precisely connect fluctuation in result variable with the right indicator variable, prompting jumbled outcomes and inaccurate surmising. To test for multi collinearity, the variance inflation factors (VIF) and tolerance were added. A multi collinearity problem will be suggested by statistical tolerance values of below 0.20 ($1 / \text{vif} < 0.10$).

3.7.3 Homoscedasticity Test

The homoscedasticity assumption needs that within the population, the variance or standard deviation of the dependent variable is equal to. The Breusch Pagan/Cook-Weisberg test was used in this study to assess for homoscedasticity where an insignificant p value indicated the absence of heteroscedasticity.

3.7.4 Autocorrelation

Autocorrelation (serial correlation) occurs when the error terms of the observation pair are not independent of each other. The study assessed for serial correlation using the Durbin Watson test where a value of between 1.5 and 2.5 indicated that there exists no auto-correlation.

3.8 Ethical Considerations

Ethics of the research was adhered to through recognition and acknowledgment of all cited research materials and as such, plagiarism was avoided. In addition, appropriate authorization was be obtained from the school of business in Kenyatta University and information and data which was obtained for the analysis was used mainly for scholarly purposes.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

Study findings along with research outcomes are discussed in this section outlining the descriptive analysis outcomes, the analysis of assumptions under the diagnostic tests, correlation analysis results and finally the regression analysis results.

4.2 Descriptive Results

The study targeted 12 listed Kenyan banks as at 31 December 2019 from 2014 to 2019. Complete data from all the 11 listed banks that had been listed at the bourse within the considered study period was obtained. The descriptive analysis findings comprising of the standard deviation, mean, minimum value, maximum value, kurtosis and skewness are revealed in table below;

Table 4.1: Descriptive Statistics

Variable	N	Mean	Minimum	Maximum	Std. Dev.	Skewness	Kurtosis
Tobin Q	66	3.0383	0.06	4.844	1.2091	-0.141	-0.694
Board compensation	66	11.7723	8.94	17.28	1.89479	1.475	2.495
Board composition	66	.7523	.50	1.14	.10436	-.273	3.926
Financial expertise	66	.4667	.30	.67	.10170	.162	-.828
Audit committee size	66	4.0000	3.00	6.00	.96077	.644	-.530

Source: Study Data (2020)

Table 4.1 indications are that the average value for Tobin Q was 3.0383 with least and maximum values of 0.06 and 4.844 correspondingly hence an indication that the average market value to book value was 3.0383. The table further shows that the average value for board compensation was 11.7723 with 8.94 and 17.28 is the minimum and maximum values respectively. Board composition had an average value of 0.7523 with 0.50 and

1.14 being the minimum and maximum values respectively whereas the average value for financial expertise was 0.4667 with 0.30 and 0.67 being the minimum and maximum values correspondingly. Audit size committee had an average value of 4 with 3 and 6 being the minimum and maximum values correspondingly.

4.3 Diagnostic Tests

Diagnostic tests included the normality test tested using the Shapiro wilk test, the multicollinearity test using variance inflation factors (VIF), the homoscedasticity test using the Breusch-Pagan test, and the serial correlation test using the Durbin Watson test. Table 4.2 shows a summary of the diagnostic tests.

Table 4.2: Diagnostic Tests

Test	Criteria	Findings	Interpretation
Normality	Shapiro-Wilk test	P value = 0.290 > 0.05	Data normally distributed
Multicollinearity Test	Variance Inflation Factors (VIF)	Overall VIF = 1.242 < 10	No multicollinearity
Homoscedasticity Test	Breusch-Pagan test	P value = 0.061 > 0.05	Data is homoscedastic
Autocorrelation Tests	Durbin Watson test	DW = 2.410	No serial correlation

Source: Study Data (2020)

Normality was assessed through the Shapiro-Wilk tests as well as normal distribution graph. The Shapiro-Wilk test of residual results indicate the p values is 0.290 < 0.05 respectively. The results hence illustrated that the data has a normal distribution. Conversely, the normal distribution graph indicates that the standardized residuals are normally distributed. Multicollinearity results show that the overall VIF value was 1.242 which is less than the recommended values of 10 indicating no multicollinearity among the variables. The Breusch-Pagan test for heteroscedasticity reflected the p-value to be; 0.061004 > 0.05 indicating the data was homoscedastic and the supposition of homogeneity of variances had not been violated. The Durbin-Watson statistics value was 2.410 which

is within the recommended threshold of 1.5 and 2.5 respectively thus an indication there was no serial correlation in the study data.

4.4 Correlation Analysis

Correlation were made between the study variables to determine the relationship as indicated below;

Table 4.3: Correlation Matrix

	Tobin Q	Board compensation	Board composition	Financial expertise	Audit committee size
Tobin Q	1				
Board compensation	.160	1			
Board composition	-.145	-.077	1		
Financial expertise	-.081	.351**	.354**	1	
Audit committee size	-.518**	.187	.195	.271*	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Source: Study Data (2020)

Correlation results on table 4.6 indicate that the correlation between the Tobin Q and board compensation was weak and positive ($r=0.160$) while the correlations between Tobin Q and board composition and financial expertise were weak and negative (-0.145 and -0.081) respectively. The correlation between audit committee size was however strong and negative

4.5 Regression Analysis

The relation between the dependent variable and the independent variables was investigated by regression analysis. The results were as follows

4.5.1 Model Summary

Table 4.4 shows the model summary results

Table 4.4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.581 ^a	.337	.294	1.01591

a. Predictors: (Constant), Audit committee size, Board compensation, Board composition, Financial expertise

b. Dependent Variable: Tobin Q

Source: Study Data (2020)

Table 4.4 shows that the R square value is 0.337, which means that the independent variables (audit committee size, board compensation, board composition and financial expertise) are clarified by a 33.7 percent variance of the dependent variable (financial performance). Other variables and the term of error account for the other 66.3 per cent. The value of R (correlation coefficient) of 0.581 implies a good correlation between the variables.

4.5.2 Test for Omitted Variables

Since the R square value of 0.337 on table 4.4 is low the study undertakes an omitted variables tests to whether there are any missing variables. The Ramsey RESET test was used as indicated under table 4.5

Table 4.5: Test for Omitted Variables

Ramsey RESET test using powers of the fitted values of Tobin Q
Ho: model has no omitted variables
F(3, 58) = 0.89
Prob > F = 0.140

Source: Study Data (2020)

The Ramsey RESET test results indicate that the P value of 0.140 > 0.05 a pointer that the model is fit and good hence there are no omitted variables.

4.5.3 Analysis of Variance

Table 4.6 shows the analysis of variance results

Table 4.6: Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	32.070	4	8.017	7.768	.000 ^b
Residual	62.956	61	1.032		
Total	95.026	65			

a. Dependent Variable: Tobin Q

b. Predictors: (Constant), Audit committee size, Board compensation, Board composition, Financial expertise

Source: Study Data (2020)

The above results indicate that the F statistics value of 7.768 is statistically relevant as highlighted by the P value of $0.000 < 0.05$. The findings indicate the relevancy and fitness of the model in explaining the relationship among the study variables.

4.5.4 Regression Coefficients

Table 4.7: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.005	1.272		3.149	.003
Board compensation	.174	.074	.272	2.359	.022
Board composition	-.850	.133	-.007	-6.391	.000
Financial expertise	-.256	1.467	-.022	-.175	.862
Audit committee size	.707	.138	.562	5.113	.000

a. Dependent Variable: Tobin Q

Source: Study Data (2020)

Table 4.7 reflects the link between financial performance and board compensation as positive ($B=0.272$) and statistically significant ($0.022 < 0.05$) respectively. Thus, the results indicate that a unit increase in board compensation (level of allowance) increases listed banks financial performance by 0.272 units an indication that board compensation positively affects listed banks performance. Similar results were also obtained by Omoregie and Kelikume (2017) who obtained that executive compensation positively affects bank performance. In addition, a bi-directional affiliation between CEO pay and firm performance was reported by Olaniyi, Obembe and Oni (2017).

In addition, Aduda and Musyoka (2011) found a negative association between executive compensation and financial performance, while Muriuki and Kariuki (2018) found that the financial performance of NSE-listed commercial banks was positively influenced by executive allowances. Mavrakana and Psillaki (2019) found that bank efficiency was positively correlated with board compensation. An important link between the basic fees of non-executive directors, the salaries paid in shares and the additional remuneration for membership of the board of directors and the present and potential success of the financial business was found by Müller (2014).

The board composition, reported in the report, had a negative ($B=-0.007$) and meaningful ($0.000 < 0.05$) relationship to financial performance. The result thus shows that the composition of the board has a negative effect on the financial performance of the listed banks, which means that a decline in the independence of the board has a negative impact of 0.007 units on the performance of the banks. Similarly, Sarkar and Sarkar (2018) released results that found that board impartiality had an affirmative correlation with the performance of private banks, but a negative correlation with the performance of state-run banks.

In addition, Hamdan and Mubarak (2017) found that independence from the board had an inverse effect on firm outcomes. The independence of the board from Oyedokun (2019) had a negative effect on financial performance that was negligible. Lungatso and Otuya (2019) discovered that the composition of the board and financial results had a negative association. Owande (2016) found that the overall makeup of the board had a positive impact on the financial performance of Kenya's commercial banks. Waweru and

Assumptah (2015) found that the board's composition had a positive impact on the financial performance of the NSE-listed commercial banks.

Lastly, the size of the audit committee was correlated favorably ($B=0.562$) and substantially ($0.000 < 0.05$) with financial results. The findings thus indicate that the size of the audit committee has a positive effect on the financial performance of the listed banks and that an increase in the size of the audit committee has a positive impact of 0,562 units on the performance of the banks. Similarly, a report by Riany and Wagude (2018) found that the audit committee's size greatly influenced the financial performance of the sugar milling companies. Gacheru (2013) discovered a significant affirmative relationship between the percentage of audit committee members and the ROE.

Moreover, Ashari and Krismiaji (2020) found that the results of the business were positively influenced by the scale of the audit committee. Osemene and Fakile (2019) revealed that the financial competence and audit committee size of the audit committee had a significant impact on the financial performance of deposit money banks. The financial performance of the commercial banks in Nepal has been positively influenced by the scale of the Bhattra (2017) audit committee.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter comprises of the findings summary, conclusions and recommendations.

5.2 Summary of the Findings

Findings on the financial performance effects of board compensation formed a weak and positive relationship between the two variables. The results also showed that there was a strong and statistically meaningful link between board compensation and the financial performance of the banks quoted.

Secondly, the findings on the influence of the composition of the board on the financial performance of the commercial banks listed by the NSE revealed a poor and negative relationship between variables. A negative and important relationship between the composition of boards and the financial performance of NSE-listed commercial banks was established as a result of the regression.

Thirdly, the results of the financial knowledge effect on the financial performance of the NSE-listed commercial banks showed that both variables were poor and negative. The report also found a negative and insignificant correlation between NSE-listed commercial banks' financial knowledge and financial performance.

Finally, the results of the impact of the size of the audit committee on the financial performance of the commercial banks listed by the NSE formed a clear and negative relation between the two variables. The findings of the regression showed a clear positive correlation between the size of the audit committee and financial performance.

5.3 Conclusion

The study results showed that the compensation of the board had an affirmative and substantial effect on the financial performance of the listed Kenyan bank. As such a unit rise in the pay of the board positively enhances the efficiency of the listed banks. Secondly, it was found that the composition of the board significantly but negatively affects the performance of Kenya's listed banks. The study based on this finding concludes that the composition of the board therefore has a direct impact on the performance of the Kenyan banks listed; a decrease in the independence of the board significantly reduces the performance of the bank.

The study results further indicated that financial expertise negatively and insignificantly affects Kenyan listed banks' financial performance. The study thus concludes that financial expertise does not have a significant impact on the performance of Kenyan listed banks. The study also documented that the size of the audit committee significantly and positively affects financial performance. The study based on this finding conclude that audit committee size significantly affects Kenyan banks' financial performance.

5.4 Recommendations

The study results led to the conclusion that Kenyan listed bank's financial performance was positively and significantly affected by board compensation. The study thus recommends that shareholders of listed banks should adequately compensate its board members as good compensation motivates them to work towards enhancing the banking entities' financial performance.

The study concluded that Kenyan listed bank's financial performance was also positively and significantly affected by board composition. From this observation recommends that shareholders of Kenyan listed banks should ensure that most of the members among the boards are independent and non-executive to check the actions of the management and reduce agency conflicts.

The results led to the conclusion that financial expertise had a marginal impact on the success of listed Kenyan banks. However, the study advises that shareholders of quoted Kenyan banking organizations should ensure that their board members have a range of

educational backgrounds and expertise from various fields in order to have different views and skills that boost financial efficiency.

Finally, the study found that Kenyan banks' financial output is substantially and positively affected by the size of the audit committee. Therefore, the study welcomes the need for the board of directors of listed banks to ensure that the size of the audit committee is optimal and that it contains a sufficient number of members, as this will ensure that the quorum needed is available to the committee.

5.5 Suggestions for Further Research

The research model summary indicated that the independent variables (audit committee size, board compensation, board composition, and financial expertise) were explained by 33.7% of the variance in the dependent variable (financial performance). This is a denotation that other factors clarify the financial results of listed Kenyan banks. Thus, more study is suggested in the report on the other factors affecting the success of banking organizations.

As the only corporate governance activities, the study concentrated on audit committee size, board compensation, board composition and financial expertise. The study thus did not focus on other CG practices hence a recommendation that future researchers should consider other CG practice that affect bank performance. Additionally, the study focused only on listed banking entities. The study thus recommends that a similar study but on all banking entities in Kenya.

REFERENCES

- Aduda, J., & Musyoka, L. (2011). The relationship between executive compensation and firm performance in the Kenyan banking sector. *Journal of Accounting and Taxation*, 3(6), 130-139.
- Agyemang, J. K. (2020). The relationship between audit committee characteristics and financial performance of listed banks in Ghana. *Research Journal of Finance and Accounting*, 11(10), 22-25
- Ali, M. (2018). Impact of corporate governance on firm's financial performance (A comparative study of developed and non-developed markets). *Economic Research*, 2(1), 15-30.
- Chatterjee, C., & Nag, T. (2015). Board composition and financial performance: Evidence from Indian and Chinese Listed Firms. *South Asian Survey*, 22(2), 127-135.
- Arumona, J., Erin, O., Onmonya, L., & Omotayo, V. (2019). Board financial education and firm performance: Evidence from the healthcare sector in Nigeria. *Academy of Strategic Management Journal*, 8(4), 15-21.
- Kyalo, B. M. (2015). Relationship between executive compensation and financial performance of commercial state owned enterprises in the energy sector in Kenya. *Unpublished MBA Project*, University of Nairobi.
- Somathilake, H. (2018). The effect of board characteristic on firm financial performance. *Global Scientific Journal*, 6(5), 117-127
- Asfaw et al, (2015). The impact of training and development on employee performance and effectiveness: a case study of district five administration office, bole sub-city, Addis Ababa, Ethiopia. *Journal of Human Resource and Sustainability Studies*, 3(04), 188.
- Ashari, S., & Krismiaji, K. (2020). Audit committee characteristics and financial performance: Indonesian Evidence. *Equity*, 22(2), 139-152.

- Bassem, B. S. (2009). Governance and performance of microfinance institutions in Mediterranean countries. *Journal of Business Economics and Management*, 10(1), 31–43.
- Bhattra, H. (2017). Effect of corporate governance on financial performance of bank in Nepal. *ZENITH International Journal of Multidisciplinary Research*, 7(3), 97-110.
- Biers taker et al, (2004). Does the adoption of a business risk audit approach change internal control documentation and testing practices? *International Journal of Auditing*, 8(1), 67-78.
- Biers taker, (2001). A research note concerning practical problem-solving ability as a predictor of performance in auditing tasks. *Behavioral Research in Accounting*, 13(1), 49-62.
- Bierstaker, (2013). The role of problem representation shifts in auditor decision processes in analytical procedures. *Auditing: A Journal of Practice & Theory*, 18(1), 18-36.
- Coolican, (2017). *Research methods and statistics in psychology*. Psychology press.
- Cooper, (2003). *Business research methods*. New York, 10020.
- Flodberg, (2013). The link between corporate governance and firm performance in the Nordic countries.
- Gafoor, C. A., Mariappan, V., & Thyagarajan, S. (2018). Board characteristics and bank performance in India. *IIMB Management Review*, 30(2), 160-167.
- Hamdan, A. & Mubarak, M. (2017). The impact of board independence on accounting-based performance: Evidence from Saudi Arabia and Bahrain. *Journal of Economic and Administrative Sciences*, 33(2), 114-130.
- Hillman et al, (2000). The resource dependence role of corporate directors: strategic adaptation of board composition in response to environmental change. *Journal of Management Studies*, 37(2), 235-256.
- Islam et al, (2014). How earning per share (eps) affects on share price and firm value. *European Journal of Business and Management*, 6(17), 97-108.

- Jebet, (2001). A study of corporate governance. The case of quoted companies in Kenya. *Unpublished project*, University of Nairobi.
- Jensen, (1976). "Theory of the firm: managerial behavior, agency cost and ownership structure". *Journal of Financial Economics*, 3(4), 305-360.
- Johl, S. K., Kaur, S., & Cooper, B. J. (2015). Board characteristics and firm performance: Evidence from Malaysian public listed firms. *Journal of Economics, Business and Management*, 3(2), 239-243.
- Kamar, (2009). Industrialized building system: the critical success factors. In 9th international postgraduate research conference (ipgrc), university of Salford, Salford (pp. 29-30).
- Karkowska, R., & Acedański, J. (2019). The effect of corporate board attributes on bank stability. *Portuguese Economic Journal*, 19, 99–137.
- Kim, (2010). Relationship between corporate governance and bank performance in Malaysia during the pre and post Asian crisis. *The European Journal of Economics Finance and Administrative Finance*, 2(1), 39-64.
- Kimaite, K. (2016). Corporate governance and organizational performance of commercial banks in Uganda: a case of stanbic bank Uganda limited. *Thesis*, Uganda technology and Management University.
- Kopp, (2006). Auditors' memory of internal control information: the effect of documentation preparation versus review. *In advances in accounting behavioral research* (pp. 27-50). Emerald group publishing limited.
- Kwambai, (2013). Effects of credit information sharing on nonperforming loans: the case of Kenya commercial bank Kenya. *European Scientific Journal*, 9(13).
- Limperg, (1932). *Theory of inspired confidence*. University of Amsterdam, Amsterdam, 1933.

- Lungatso, M. S., & Otuya, D. (2019). Corporate governance and financial performance of commercial banks in Kenya: A critical review of literature. *American Based Research Journal*, 8(12), 01-05
- Maina, L. K., & Oluoch, O. (2018). Effect of corporate audit committee characteristics on financial performance of manufacturing firms in Kenya. *International Journal of Social Sciences and Information Technology*, 4 (6), 684-701
- Manini, K. (2015). Corporate governance mechanisms and financial performance of commercial banks in Kenya. *Journal of Business and Management*, 17(3), 25-40.
- Manini, M. M., & Abdillahi, U. A. (2015). Corporate governance mechanisms and financial performance of commercial banks in Kenya. *IOSR Journal of Business and Management*, 17(3), 25-40.
- Manyuru, L. (2005). Corporate governance and organizational performance: the case of companies quoted at the Nairobi stock exchange (doctoral dissertation, university of Nairobi.).
- Matanda, J. W., Luke, O., & Lishenga, L. J. (2015). Relationship between board composition and performance of commercial banks in Kenya. *Research Journal of Finance and Accounting*, 6(14), 78-88.
- Matengo, (2008). The relationship between corporate governance practices and performance: the case of banking industry in Kenya. *Doctoral Dissertation*, University of Nairobi.
- Mavrakana, C., & Psillaki, M. (2019). *Do board structure and compensation matter for bank stability and bank performance? Evidence from European banks.*
- Minton, B. A., Taillard, J. P., & Williamson, R. (2014). Financial expertise of the board, risk taking, and performance: Evidence from bank holding companies. *Journal of Financial and Quantitative Analysis*, 49(2), 351-380.
- Minton, B. A., Taillard, J., & Williamson, R. (2011). *Do independence and financial expertise of the board matter for risk taking and performance?* Available at SSRN 1787126.

- Mugenda, (2008). *Social science research: theory and principles*. Nairobi: applied.
- Mulili, (2010). Corporate governance in developing countries, the case for Kenya *International Journal of Business Administration*, 2(1), 1-15.
- Müller, V. O. (2014). Do corporate board compensation characteristics influence the financial performance of listed companies? *Procedia-Social and Behavioral Sciences*, 109, 983-988.
- Muriithi, (2005). A framework for integrating ICT in the teaching and learning process in secondary schools in Kenya. *Unpublished MSc thesis: university of Nairobi, Kenya*.
- Muriuki, S. M. & Kariuki, P. (2018). Effect of executive compensation on the financial performance of listed commercial banks in Kenya. *International Journal of Management and Commerce Innovations*, 6(2), 770-782
- Mutunga, M. J. (2015). The effects of board profile on financial performance of firms listed at the Nairobi Securities Exchange. *Unpublished Thesis, University of Nairobi*.
- Nichitean, (2011). Corporate governance and bank performance in Romanian banking system. *The USV Annals of Economics and Public Administration*, 11(1), 219-225.
- Oghojafor, (2010). Poor corporate governance and its consequences on the Nigerian banking sector.
- Olaniyi, C. O., Obembe, O. B., & Oni, E. O. (2017). Analysis of the nexus between CEO pay and performance of non- financial listed firms in Nigeria. *African Development Review*, 29(3), 429-445.
- Omoriegie, O. K., & Kelikume, I. (2017). Executive compensation and banking sector performance: Evidence from Nigeria. *The Journal of Developing Areas*, 51(2), 1-15.
- Osemene, O. F., & Fakile, O. G. (2019). Effectiveness of audit committee and financial performance of deposit money banks in Nigeria. Fountain University Osogbo *Journal of Management*, 3(3), 23-34

- Owande, L. A. (2016). The effect of board composition on financial performance of commercial banks in Kenya. *Doctoral Dissertation*, University of Nairobi.
- Oyedokun G. O. (2019). Board characteristics and financial performance of Commercial Banks in Nigeria. *Accounting and Taxation Review*, 3(2), 31-48
- Riany, E. O. & Wagude, J. A. (2018). Effect of audit committee technical competence on financial performance of sugar milling companies in western Kenya. *International Journal of Novel Research in Humanity and Social Sciences*, 5(6), 98-107.
- Sanda, (2004). Director shareholding, board size and financial performance of firms in the Nigerian stock exchange. *Nigerian Journal of Accounting Research*, 1(1), 22-34.
- Sarkar, J., & Sarkar, S. (2018). Bank ownership, board characteristics and performance: Evidence from commercial banks in India. *International Journal of Financial Studies*, 6(1), 17-47
- Tosuni, (2013). The impact of corporate governance on the performance of financial institutions. *Doctoral Dissertation*, Staffordshire University.
- Waithaka, W. (2014). Influence of Board Effectiveness on Financial Performance in the Banking Industry in Kenya. *Doctoral dissertation*, United States International University-Africa.
- Waweru, H. M., & Assumptah, W. K. (2015). Effects of board composition on financial performance of banking institutions listed at NSE. *International Journal of Science and Research*, 4(7), 931-957.
- Yaron, (2012). Assessing development finance institutions; a public interest analysis (no. 174).

APPENDICES

Appendix I: Data Collection Sheet

Bank _____

YEAR	Remuneratio n package to executive directors	Remuneratio n package to non-executive directors	Financial Expertise	Independent member	Board size	AC size	MVE	BVE
2019								
2018								
2017								
2016								
2015								
2014								

Source; Researcher (2020)

Appendix II: The Research Budget

ITEMS	JUSTIFICATION	COST
Stationery	Pens, paper, files, and notebooks	2,000
Internet charges	Browsing along with printing	4,000
Document production	Typesetting, printing and binding	10,000
Library charges	Review previous works	2,500
Travel	Research supervisors meeting	3,500
Research Assistants	Data collection	15, 000
Miscellaneous	Other costs	3,000
Total		40,000

Source; Researcher (2020)

Appendix III: Listed Commercial Banks

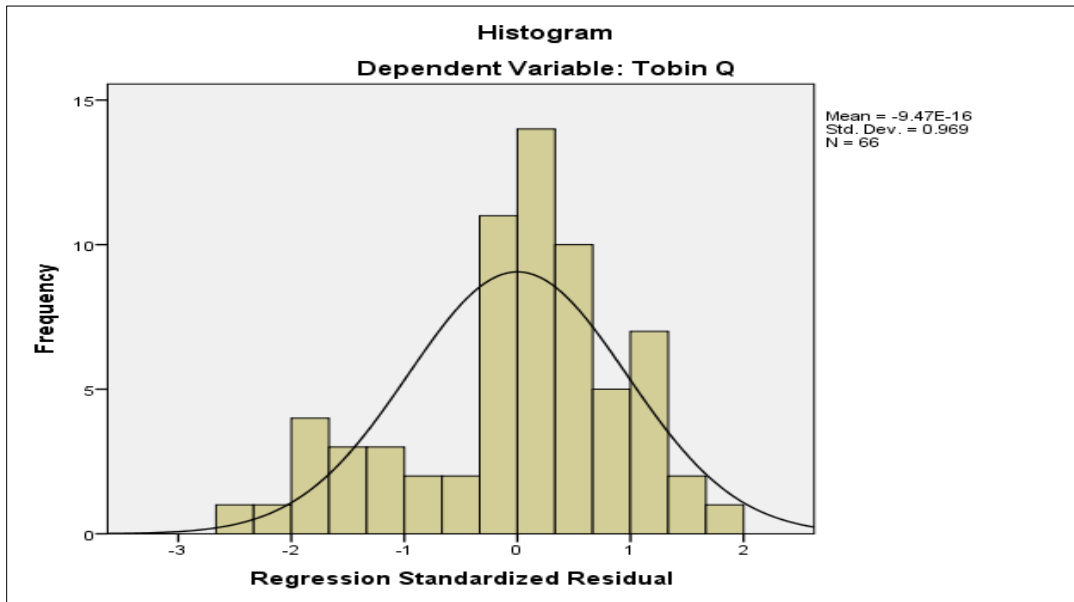
- 1) Absa Group Limited
- 2) BK Group PLC
- 3) Diamond Trust Bank Kenya Ltd
- 4) Equity Group Holdings
- 5) HF Group Ltd
- 6) I&M Holdings Ltd
- 7) KCB Group Ltd
- 8) National Bank of Kenya Ltd
- 9) NCBA Group PLC
- 10) Stanbic Holdings Plc
- 11) Standard Chartered Bank Ltd
- 12) The Co-operative Bank of Kenya Ltd

Source; NSE (2020)

Appendix IV: Diagnostic Tests

Normality Test			
Shapiro-Wilk			
	Statistic	df	Sig.
Standardized Residual	.959	66	.290
Multicollinearity Test			
Variable	Tolerance	VIF	
Board compensation	.816	1.225	
Board composition	.813	1.231	
Financial expertise	.714	1.401	
Audit committee size	.900	1.112	
Mean VIF		1.242	
Homoscedasticity Test			
Breusch-Pagan test for heteroscedasticity			
Test statistic: LM = 9.439542			
with p-value = $P(\text{Chi-square}(4) > 9.439542) = 0.061004$			
Autocorrelation Tests			
Model	Durbin-Watson		
1	2.410		

Source: Study Data (2020)



Source: Study Data (2020)