EFFECT OF CORPORATE GOVERNANCE ON CREDIT RISK MANAGEMENT AMONG COMMERCIAL BANKS IN KENYA

BY

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DECLARATION

This research project is my original work and it has not been presented and submitted to any College or University for examination.

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This research project has been submitted for examination with my authority and approval as the University supervisor

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DEDICATION

I dedicate this project to my father Osman Abukar and mother Sahra Ibrahim for their support and encouragement.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

BOD - Board of Directors

CEO - Chief Executive Officer

CG - Corporate Governance

CMA - Capital Markets Authority

CRM - Credit Risk Management

CRO - Credit Risk Officer

FP - Financial Performance

RDT - Resource Dependency Theory

ROA - Returns on Assets

ROE - Returns on Equity

ABSTRACT

Numerous challenges involving corporate governance have been recognized in Kenya. The problems range from fraud to errors and mistakes. The issues are brought about by an array of variables relating to board size, board composition, corporate disclosures, and a lack of audit committees, which are essential in keeping company management in check. Kenyan banks like Chase Bank, Imperial Bank and Dubai Bank have gone under because of weak corporate governance mechanisms that have failed to keep credit risk in check. When an organization has effective corporate governance it is able to efficiently allocate its resources, have a sustainable management performance, report reliably and have proper investment strategy. These factors collectively lead to improvement in the financial position of the organization, its credit worthiness, decrease the information asymmetry existing amongst the organization and external investors, minimize the default risk, and eventually benefits debt holders. Therefore, the broad research objective was to determine the effect of corporate governance on credit risk management of commercial banks in Kenya. The main focus of the research was on board independence, audit and risk management committees and board size in relation to credit risk management of commercial banks in Kenya. The research utilized a descriptive research design targeting commercial banks, which are forty two in number. The research collected secondary data covering the period from 2016 to 2020. Panel data methodology was adopted and the analysis was done through SPSS. It was established that board independence and board size have significant impact on credit risk management. The research concludes that corporate governance significantly enhances credit risk management. The research thus proposes that shareholders of commercial banks in Kenya should increase the number of independent directors on the board while optimizing the board size so as to contribute towards credit risk management. The persona responsible for making policies at the central bank of Kenya should strengthen the corporate governance mechanisms of the respective banks so as to contribute towards credit risk management. The results of study will enable the government and the financial institutions regulatory agencies in coming up with policies that ensure proper composition of the boards of commercial banks, which may protect the public deposits and stakeholder's welfare. Also, the study also assists the legislators in formulating better regulations to improve the operations of commercial banks and support contemporary practices to safeguard deposits made by the public and the resources of the investors. The research will also be a significant addition to the management, consultants, shareholders of commercial banks as well as the public. This is because it may enable them to appreciate the significance of proper board composition on credit risk management that may empower them in making decision that are informed on the expertise, diversity and independence of board members.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

In the scenario where an organization consists of an effective corporate governance, it is able to efficiently allocate its resources, have a sustainable management performance, report reliably and have proper investment strategy. These factors collectively lead to improvement in the financial position of the organization, its credit worthiness, decrease the information asymmetry existing amongst the organization and external investors, minimize the default risk and eventually benefits debt holders (Bekkum, van-Hijink, Schouten & Winter, 2010). On the contrast corporate governance that is more shareholders oriented may overlook the depositor's interests. Particularly when faced with financial distress, adapting shareholder's wealth maximization strategies might result into decisions that destroy value and ultimately leading to harming debt holders. Despite the fact that depositors and providers of non-deposit liabilities have the first priority when a bank faces financial distress, highly leveraged banked about to be liquidated are more motivated to gamble with the lenders money in favour of the stockbrokers (Fahlenbrach & Stulz, 2010).

The study was majorly influenced by the Resource Dependency Theory, which was advanced, by Pfeffer and Salancik (1978). The theory postulates that the board is an important linkage between the company and the crucial resources required to achieve superior financial results and that organizations act in manner related with their dependence level upon different resources. Another study guiding this study is the stakeholder theory pioneered by Freeman (1984). The theory advocates for corporate accountability measures for the numerous investors in a company. The final theory anchoring this research is the agency theory, which was advanced by Jensen together with Meckling in 1976. Agency theory postulates that an association is present amongst a company's principals (shareholders) and their agents (managers and executives).

Kenya has encountered several scandals, which have led the dismissal of directors and liquidation of firms. These scandals depict that corporate governance is significant for the going concern of a company. For instance, the closure of Dubai bank and the placing of Imperial bank under receivership were due to the infringement of Central Bank regulation. The failures of these institutions necessitate the formulation and implementation of robust Corporate Governance policies (Waweru, 2014). Hence, an analysis of Corporate Governance by utilizing board composition and addressing its influence on the management of credit risk of commercial banks, while incorporating the moderating effect of firm size, will be useful in addressing the gaps.

1.1.1 Corporate Governance

According to the National Association of Corporate Directors (2006), corporate governance denotes how an establishment or organization is governed. Systems of good governance, may therefore, be considered as apparatuses for instituting the foundation of control and ownership of institutions within the economy. Company law and other forms of regulations enforce adherence to the existing systems of corporate governance.

Bairathi (2009) characterizes corporate governance as the mechanism in which organizations are managed and directed for the benefit of all its stakeholders. There is need for organizations to have commitment on safe professional behaviour and practices that adhere to the legislations and regulations (Adams & Mehran, 2003). Following the failure of the high profile companies in the United States for instance Enron corporations and Worldcom, modern organization has developed an interest in the corporate governance practices and has been on a growing trend (Nambiro, 2007).

The corporate governance practices to be considered in the current study comprise of; board independence, gender diversity in the board, CEO duality, and lastly board size. Board independence will be measured by the proportion of directors that are independent verses the total number of directors in the company's board (Campbell & Mínguez-Vera, 2008). The proportion of the female gender that constitutes the board will measure board diversity (Kang et. al., 2007). The logarithm of number of board members will measure board size (Lipton & Lorsch, 1992).

1.1.2 Credit Risk Management

Credit risk is the current or projected risk to earnings and money coming from obligators letdown to fulfill the standings of a contract with a bank. Credit risk can be defined as likelihood of misplacing cash as a result of incapability, disinclination or non-timeliness of a part not upholding a financial responsibility. It represents instability of costs on credit contacts; damage in the worth of credit asset and loss in remunerations from the payment (Griffith & Persuad, 2002). Management of risk entailing credit is a method by financial institutions to coping with doubts via risk valuation, growing plans to control such risks, and curb risk by executing administration doings. Banks in Kenya generally adopt different management credit risk practices informed by governance principles of banks, credit rules of banks, credit-scoring schemes; banks control mechanisms, and calibre of administration of banks (Kimeu, 2008).

Banks should devise a robust credit risk controlling procedure that permits to actively succeed the loans control damages and make commendable returns to its shareholders (Saunders & Cornett, 2003). A bank having weak credit risk management guidelines can lead to big losses. Banks ought to dedicate noteworthy thoughtfulness and assets to credit administration for their existence, viability and yield on equity. Subjective decision making by banks top retail management may lead to the extension of loan facilities to their own

business entities or that associated to household or private associates with a status for non-economical expertise or for individual advantage. An answer could be usage of loaning methods, which filter out subjectivity (Griffith & Persuad, 2002). To be able to cope with these risks, banks must institute a comprehensive risk documentation procedure. Banks ought to be in a position to identify magnitude of the risk. Thus, commercial banks should devise ways and guidelines on how to handle large corporations since most big companies tend to seek credit facilities from several banks. Banks are unable to know how much credit facilities large companies are enjoying in the whole banking systems (Pandey, 2004).

The Central Bank of Kenya (CBK) developed risk controlling strategies for resolve of giving banks directions concerning risk management. Banks are required to have a fully independent and a functional risk controlling for monitoring together with escalating non- accompling advances (CBK, 2013). Exhibiting prudent credit risk management to minimize losses on credit exposures is referred to as asset quality. It can be measured by the loan loss provision coverage ratio, which shows the level that the banks protect themselves against future unexpected losses. Banks having high ratios indicates that the can better manage future losses including those originating from unexpected losses which may exceed the loan loss provisions (Sangmi & Nazir, 2010).

1.1.3 Corporate Governance and Credit Risk Management

The association that exists amongst Credit Risk Management (CRM) and corporate governance can be said to be complementary since it is by utilizing good governance practices where credit risk can be eliminated in commercial banks. The proponents of stakeholders' theory hold the position that in order to attain sustainability, all the common interest of all stakeholders need to be taken in to account that is, the interest of customers, employees, stockholders and the society. On the contrast however, the opponents of the theory argue that it is not possible to have all the interest of the various stakeholders together.

Although this approach is close to the normal theoretical principle, most real findings in finance indicates that's the main goal of corporate governance is shareholder's wealth maximization. This implies that business community at large are in agreement that the main purpose of a corporation is its shareholders (Asquith & Wizman, 2010).

However, corporate governance that is highly inclined on maximizing the shareholders will lead to enhanced management performance, proper resources allocation, good investments strategy as well as reporting that is reliable. This will result into positive effect on the financial health of an organization, guaranteeing availability of the needed information amongst the firm and the industry, benefit debt holders, and minimize the default risk in the long run (Warga & Welsh, 2003).

Consequently, weak governance, for instance an inactive management control or board of directors will lead to default on firm's debt commitments or even destroy shareholder value. Holders of debt may be knowledgeable of corporate ownership changes and even any looming form of bankruptcy. Antitakeover provisions limit shareholders' rights and the ability to interfere with management. This has an effect on both debt and equity holders left at the executive speculation risk. Nevertheless, shareholder rights, employed as a disciplining device to ensure robust management, may not in all cases profitable to the creditors. Kirkpatrick (2009) while undertaking a Survey commissioned by and for World Bank revealed that the recent financial crisis encountered international were largely attributed to weak governance structures. Further he revealed that weak corporate governance practices that was not sufficient to safeguard extreme risk taking were the cause of the big volume of non-performing loans.

1.1.4 Commercial Banks in Kenya

The Kenyan banking sector is regulated by the Central Bank of Kenya (CBK), the Banking Act, and the Companies Act. The CBK is given the mandate of financial policies formulation and implementation, managing the banks liquidity, credit worthiness as well as maintain a proper monetary policy system. Commercial banks are financial institutions that are licensed by the CBK for accepting deposits and issuing loan advances to their clients (Githaiga, 2015). As at June 30 2018, in Kenya there were 43 licensed commercial banks and one mortgage finance bank. Thirty banks were owned by locals while 13 were foreign owned.

The banks in the country serve not only the retail customers but also the corporate customers. Some of the functions, which they perform, are community savings, creation of money, ensuring the payment mechanisms run smoothly, ensuring international transactions flow smoothly, advancing credit facilities and storage of precious goods (Githaiga, 2015). In Kenya, the central bank is mandated by the national treasury with formulating and executing monetary policies, and fostering liquidity as well as ensuring the commercial banks operates properly (CBK, 2018). The banking sector in Kenya has experienced several financial as well as regulatory reforms in the past. Those kinds of reforms have led to many significant changes within the industry, which has inspired foreign banks to start operating in the Kenyan marketplace (Irungu, 2013).

The banking industry is regulated by the Banking Act and majorly through the Prudential Guidelines. The CBK as the regulator of the commercial banks in Kenya requires them to provide audited annual reports that comprise the banks financial performance and additional disclosures on the financial risks on their reports consisting of credit risk, liquidity risk among others and the way to manage the risks. In 1984, the Central Bank and the International Finance Corporation (IFC) carried out a Kenyan research conducted on the

advancements of Money and Capital Markets. The objective of the research was to make endorsements on measures that would ensure active growth together with strengthening corporate governance in the financial sector. This research in the financial marketplace became a blueprint for structural transformations.

Kenya has encountered several scandals, which have led the dismissal of directors and liquidation of firms. These scandals depict that corporate governance is significant for the going concern of a company. For instance, the closure of Dubai bank and the placing of Imperial bank under receivership were due to the infringement of Central Bank regulation. The failures of these institutions necessitate the formulation and implementation of robust Corporate Governance policies (Waweru, 2014). Hence, an analysis of Corporate Governance by utilizing board composition and addressing its effect on management of credit risk of banks which are commercial, while incorporating the moderating effect of firm size, will be useful in addressing the gaps.

1.2 Research Problem

When an organization has effective corporate governance it is able to efficiently allocate its resources, have a sustainable management performance, report reliably and have proper investment strategy. These factors collectively lead to improvement in the financial position of the organization, its credit worthiness, decrease the information asymmetry existing amongst the organization and external investors, minimize the default risk, and eventually benefits debt holders (Bekkum, van Hijink, Schouten & Winter, 2010). It is evident that a number of independent factors resulted to the global financial crisis for instance inadequate financial regulations, high leverage, low interest rates, unsatisfactory rating practices and improper investment allocation, and many others. Nonetheless, it has been identified that inadequate corporate governance structures also to a huge level resulted into the occurrence

of the financial crisis, that lead to over issuance of credit by banks leading to high credit risks.

Numerous challenges involving corporate governance have been recognised in Kenya. The problems range from fraud to errors and mistakes (Upadhyaya, 2017). The issues are brought about by an array of variables relating to board size, board composition, corporate disclosures, and a lack of audit committees, which are essential in keeping company management in check (Matanda, 2016). Kenyan banks like Chase Bank, Imperial Bank, and Dubai Bank have gone under because of weak corporate governance mechanisms that have failed to keep credit risk in check (Upadhyaya, 2017).

Many researchers have attempted to examine corporate governance and risks. In the global arena, Chen, (2003) studied the association amongst risk-taking behavior and corporate governance in the Taiwanese Banking Industry. Hollis, Daniel and Ryan (2004) examined the Corporate Governance effects on Firms' Credit Ratings. Truong, Trin, Duyen and Nguyen (2015) examined Corporate Governance impact on Financial Risk among Commercial Banks in Vietnam. There is a contextual gap in these studies since the studies were outside the context of Kenya.

In the regional front, Andrew (2012) undertook an investigation on the connection amongst insolvency risk and corporate governance among Liberian commercial banks Seyram, Yakubu and Bawuah (2014) examined the management of risk and corporate governance in the Ghanaian banking sector. There is a contextual gap in these studies since the studies were outside the context of Kenya.

In Kenya, Jebet (2001) explored corporate management with reference to quoted firms in Kenya while Muriithi (2005) studied the association between firm performance of NSE

quoted firms and corporate governance mechanisms. Manyuru (2005) assessed organizational performance and corporate governance with reference to companies listed at the NSE while Matengo (2008) examined the association between organizational performance and corporate governance with reference to the banking industry in Kenya. There is a conceptual gap in the local studies reviewed since the related corporate governance with bank performance and not credit risk management.

Further, there a mixed reaction from the academic literature on the effect of high quality corporate governance on the credit risk of commercial banks. This mixed reaction can be backed by the fact that authors take different view on shareholders-providers of credit, utilized varied approximation of corporate governance quality and varied measures of credit risk. The depth discussion on this area and the notable variances in the findings creates a room for further studies. As a result, the researcher aimed on filling the research gaps by responding to the research question: What is the influence of corporate governance on credit risk management of commercial banks in Kenya?

1.3 Research Objectives

The broad research objective was to establish the effect of corporate governance on credit risk management of commercial banks in Kenya.

The specific objectives of the study were;

i. To determine the influence of board independence on credit risk management of commercial banks in Kenya
ii. To analyze the effect of audit and risk management committees on credit risk management of commercial banks in Kenya
iii. To assess the relationship between board size and credit risk management of commercial banks in Kenya

1.4 Value of the Study

The study discoveries are quite important to scholars, academicians and more so researchers since it will add on the current knowledge base, in addition to being a reference source. Additionally, the study provides a suggestion of areas that further research should be done on, which could benefit both academicians and scholar's knowledge on gaining better insights in the field of corporate governance together with its impacts on credit risk management.

This study is further an enabler to the government and the financial institutions regulatory agencies, mainly CBK, in coming up with policies that ensure proper composition of the boards of commercial banks, which may protect the public deposits and stakeholder's welfare. Also, the study also assists the legislators in formulating better regulations to improve the operations of commercial banks and support contemporary practices to safeguard deposits made by the public and the resources of the investors.

The study is of great importance to the management, consultants, shareholders of commercial banks as well as the public. This is because it may enable them to appreciate the significance of proper board composition on credit risk management that may empower them in making decision that are informed on the expertise, diversity and independence of board members. The study may give a more understanding of the association and effects of corporate governance on credit risk management, and commercial banks can utilize this knowledge to establish better practices to carry out their operations. The study may also equip investors and the public intending to deposit their funds in commercial banks with best corporate governance practices so that they can protect their wealth.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The purpose of the chapter is to create insights on the theories of corporate governance to help in the comprehension of its concepts, structures, and the empirical literature on how it influences credit risk management of licensed commercial banks in Kenya. The significance of the chapter is to establish the probable knowledge gaps in the studies undertaken previously by scholars on the effect of board composition on credit risk management and the moderating impact of size of the firm size on the relationship.

2.2 Theoretical Foundation

The literature review explores the work conducted by other scholars concerning the impact of governance on the value of listed firms. The section encompasses the detailed knowledge of related concepts and provides a platform on which the results will be built upon and in addition overcome the shortcomings of the study. Theories are essential in the various sections as they establish the phenomena and principles that relate to the topic. The theoretical framework depicts the interrelationship between different ideologies and provides the guidelines for the project or business endeavour (Lyon, 1977). The study will focus on the resource dependency, stakeholder, and agency theories.

2.2.1 Resource Dependency Theory

Pfeffer and Salancik (1978) postulated the Resource Dependency Theory (RDT). The theory deduced the board is a critical linkage between the firm and the crucial assets required to achieve superior financial results and that organizations function depending on its dependence level on its resources. In endeavouring to lessen dependency on specific resources as well as maintaining independence over other resources, organization operates upon their environments. Thus, the appointment of directors represents an organization's need for the skill set and resources such as financing (Pfeffer & Salancik, 1978). The theory

opined that organizations have a way in which they select individuals with resources and qualities that they need and the organization is willing to pay them for their efforts and connections.

Pfeffer (1972) opines that a board allows a firm to keep its dependence on the lowest level or attain resources. Pfeffer and Salancik (1978) further notes that there are four benefits which are brought about by directors to organizations; Legitimacy, preferential access to resources, information which comes through counsel and advices and accessibility to information channels between environmental contingencies and the firm. Provan (1980) discovered that firms which have the ability attracting and appointing influential member of community to join their board have the capability of gaining important resources from the surroundings. Precisely, Pfeffer and Salancik (1978) discover that organizations that are subject to regulation ought to have more board members who are outsiders and mainly those who possess experience that is relevant. Luoma and Goodstein (1999) gives an affirmation to this, discovering that firms in industries that are more regulated usually have a bigger percentage of stakeholder's directors, while Johnson and Greening (1999) opine that corporate social performance is improved by having stakeholder's directors.

This theory is applicable to the present research as directors or members of the board are presumed to have different expertise in different fields, which is very important when making decisions on behalf of the company. In the past reviews on the literature of corporate governance, it has been concluded that RDT is supported in many cases than other perspectives of the board (Zahra & Pearce, 1989; Johnson et al., 1996). Therefore, despite agency theory being used more than RDT in studying boards, the empirical literature up to now is of the opinion that RDT is a better theory for gaining understanding of boards.

2.2.2 Stakeholder Theory

Freeman (1984) coined the Stakeholder Theory advocating for the insertion of corporate answerability for the varied shareholders in an institution. The association is key in influencing the financial outcomes of a company. In perspective, the theory perceives the organization as an input-output model encompassing numerous shareholders of the company, such as the suppliers, employees, stockbrokers, administrative bodies, audit committee, and community with the stakeholders playing an input role and the output being a company's financial outcomes. The fundamental suggestion of the theory is that the organization's success in achieving accountability standards relies on how relationships with the firm stakeholders are successfully managed. When viewed as such, the conventional view that success is dependent only upon maximising shareholder wealth is left insufficient.

A stakeholder, according to Fernando (2009), is either an individual whose actions affect positively or negatively the attainment of business goals and objectives. Due to increased awareness, there is need for organizations to extend their financial planning through the use of audit committees in order to adapt to changing demands. The same applies for corporate disclosure, which should be incorporated in periodic or annual reports. Other stakeholder theory scholars argue that the management in the organization has a relationship with the employees, suppliers, business partners, and are responsible for guiding the activities between the groups both externally and internally. The theory further stipulates that in a typical business environment, all the stakeholders are equal and should not be discriminated by the management since it creates a bad relationship, which can negatively affect productivity and decision-making (Sendjaya, Sarros, and Santora, 2016).

The theory links to the current study because managers must develop relationships and inspire their stakeholders, who are mainly shareholders and the public who deposit funds in

the financial institutions. To achieve this, concrete corporate governance measures ought to be implemented, which includes setting up suitable board composition with the goal of maximizing shareholders wealth and safeguarding depositors' funds. Definitely, shareholders are a significant component and profits are significant part of this activity, however the other major stakeholders are the depositors and holders of non-deposit securities and credit risk should be enhanced through corporate governance to safeguard them.

2.2.3 Agency Theory

Jensen and Meckling advanced the Agency Theory in 1976. According to the theory, an association exists amongst the firm's shareholders (principals) and the managers and executives (agents) of the firm. Jensen and Meckling's (1976) von agency viewpoint on the theory commends that the separation amongst possession and management could lead in agency difficulties being witnessed by modern firms. The principal who provides the agent with policymaking authority agency bears the expenses emanating from the discrepancy of shareholder's interest with those of firm's bosses.

The agency cost is defined as the cumulative of bonding expenses, costs of monitoring, damages that are residual. Monitoring expenses refers to the cost incurred by the principal in constraining the negative actions of the agent. Bonding cost refers to the cost, which is made by the agent in effort of convincing the principal of their commitment. The residual loss can be defined as the differential amongst ownership input and the agent output. In spite of monitoring together with bonding expenses, experienced, residual loss will still be incurred because bosses together with stockholder interests not being completely unified. As per Jensen and Meckling (1976), alignment of interests happens when harmony exists amongst objectives of agents acting within a firm together with those of the firm in totality. Incentives like share options, gratuities, and earnings associated pay could be employed as a mechanism of bring into line the agents interest together with those of the principal interests since these

are unswervingly connected to how well the findings of administration decision aids the shareholders. This requires for agents to carry out their jobs while maintaining in the mind the interest of the principal. The intermediaries are managed by regulations established via the principals with maximisation of shareholder value as the core aim (Jensen & Meckling, 1976). However, Fama and Jensen (2005) caution that the managements' earnings should not be based on the company earnings as creates a toxic environment for managing the earnings of the company. To counter this aspect, audit committees have been established as a watchdog to ensure executives are kept in check.

This theory is applicable to this study as it brings out the role of corporate governance and audit and risk committees as a go-between the ownership and management of companies and in solving agency conflict in the event it arises. Outside shareholders cannot costlessly observe the managers' actions, and the costs of adhering to the corporate governance code and constituting a BOD are some of the monitoring costs to ensure shareholders wealth is maximized and both deposit and non-deposit liabilities are safeguarded.

2.3 Determinants of Credit Risk Management

The various management of credit risk determinants will be elaborated in this section. These are: corporate governance, bank ownership structure, asset quality, management efficiency, and firm size.

2.3.1 Corporate Governance

Corporate governance denotes to a number of policies, practices and rules that are used by the board of directors of an organization to manage and to oversee the organizations operations; Corporate governance is comprise of the values of security, accountability and transparency (Bairathi, 2009). The association that exists between Credit Risk Management (CRM) and corporate governance can be said to be complementary since it is by applying good governance practices where credit risk can be eliminated in commercial banks. Consequently,

weak governance, for example a dormant management control or board of directors will result to default on firm's debt commitments or even destroy shareholder value. Holders of debt may be knowledgeable of corporate ownership changes and even any looming form of bankruptcy (Kirkpatrick, 2009).

2.3.2 Bank Ownership Structure

This is defined as the way in which an organization is internally organized and the rights as well as duties of the individual who have the legal or the equitable interest in that business (Bashir, 2000). Demirguc-Kunt and Huizinga (1998), established that foreign banks in comparison to domestic banks reports high margins and profits in developing countries, whereas the contrary is true in the countries already developed. Garcia-Herrero (2006), in addition reveals that foreign banks are usually ahead of domestic banks owing to their advanced technology of production that enables them to become extra efficient and consequently able to make more profits. Secondly, it was revealed that there are chances that foreign banks may have better tax and regulatory conditions that lead to the improvement in their profitability. On the contrast foreign banks might be disadvantaged in terms of information. Dietrich and Wanzenried (2009) notes that in Switzerland, foreign banks are less profitable in comparison to Banks that are Swiss owned. Bashir (2000) in a study amongst Islamic banks opines that in comparison to domestic banks, foreign banks are mostly more profitable.

2.3.3 Asset Quality

Asset quality ratings shows the volume of current and likely credit risk linked to the loan and investment portfolios, real estate owned, off balance sheet transactions and other assets. Management ability to identify and manage credit risk is also shown (Bashir, 2000). Angbazo (1997) and Maudos and Fernández de Guevara (2004) indicates management that is proper involves selecting top notch assets (low risks with assets earning highly) and liabilities

from cost at lowest. Garcia-Herrero (2006) and Ramlall (2009) on the other hand refers to poor asset quality as those having high Nonperforming Loans (NPLs) levels attributable to less profitability. Sarpong et al. (2011) revealed a negative impact of NPLs on the profitability of banks, which was in the context of Ghanaian banks; Bashir (2000) noted that there was a positive correlation between loan to asset ratios and profitability.

2.3.4 Management Efficiency

Management efficiency is the percentage of total resources of organizations contributing to productivity during the production process. The higher the percentage, the higher the management efficiency (Maudos & Fernández de Guevara, 2004). Molyneux and Thorton (1992) established existence of positive association amongst profitability and efficiency. Al-Smadi and Ahmed (2009) stated that the precautionary credit polices applied by banks at micro level during times of high loan demands minimizes the credit risk exposures of banks. Ramlall (2009), also found out that banks efficiency level is positively related to its profitability. Angbazo (1997), and Maudos and Fernández de Guevara (2004) states that having a good management implies the ability of selecting high quality assets which have low risk, low liabilities costs and have a high return.

2.3.5 Firm Size

Firm size denotes the scale of firms' operations (Ehikioya, 2009). Three main measures are applied when measuring firm size and they include, sales, market value of equity and total assets. The three measures are the mostly used measure of firm size in empirical studies done on corporate finance (Guest, 2008). Hassan and Farouk (2014) established that the bigger the firm size, the bigger the agency problem that firms may encounter. As indicated by the agency theory advanced by Jensen and Meckling (1976) the management and the ownership of an organization have divergent goals where management are mandated the task of conducting the firm's operations on behalf of the ownership. The theory in a nutshell suggest

that both the management and the owner's decisions are inclined to benefiting each interests. Consequently, as the firm size increases its might lead to the management have personal interest to build their empires and hence the reason for large firms experiencing bad governance. Thus, due to bad governance, banks may also experience poor credit risk management.

2.4 Empirical Review

In the global arena, Chen (2003) examined the association of corporate governance and risk taking behaviour in the banking sector in Taiwan. A total of 39 local banks were sampled. 54.1% of the responses of the credit union reports revealed that over 60% of the internal audit activities are risk oriented. It was established 8 of the 24 (33.3%) surveyed said that their internal risks audit (RBIA) are relatively high and 61% -80%, compared to 6% (25%) for the domestic banking sector, while 6% -40% of internal audit activities were risk-based. There is a contextual gap emanating from the study, as it was not done in the Kenyan context. There is also a methodological gap emanating from the study as it collected primary data and it conducted descriptive statistics and not inferential statistics.

Yin-Hua Yeh et al. (2011) in their study where they examined 20 largest financial institutions from the G8 countries revealed that financial institutions that have larger number of independent directors and external directors in the various board committees exhibit higher performance. The study sample covered two years (2007-08). They study performance using Return on Equity (ROE), Return on Assets (ROA) and stock return in analysing the impact audit, nomination and compensation committees. The study findings established that the independence/performance association is more significant in financial institutions with excessive risk taking behaviour. There is a conceptual gap emanating from this study because it did not relate corporate governance with credit risk management.

Aebi et al (2012) did an investigation to establish whether risk management as a corporate governance mechanism performs a significant part. Precisely, the study investigated mechanisms for instance whether a bank had a Chief Risk Officer (CRO) who is a member of the board and the reporting line of the CRO whether he reports to the board of directors or to the CEO and if these had a relationship with superior banks performance in the financial crisis period. A total of 573 banks were sampled in North America and performance was measured using ROE and buy and hold. It was established from the findings that standard corporate governance factors mainly have insignificant or at times negative relationship with performance of banks in financial crisis times. This was unusual because the authors used various relevant variables. Further results indicated that in banks where the CRO do not report directly to the CEO but to the board of directors, there was a positive and significant stock return in times of crisis. The justification for this was that the when the CRO directly reports to the board of directors, the CEO is unable to manipulate or acts as a hindrance of CRO to give information to the board. There is a conceptual gap emanating from this study because it did not relate corporate governance with credit risk management.

Truong, Trinh, Duyen and Nguyen (2015) studied the effect of corporate governance on the on the financial risk of commercial banks in Vietnam. The study aimed on investigating corporate governance practices through examining the effect of corporate governance dynamics on the liquidity risk, credit risk and capital risk of the commercial banks in Vietnam. Corporate governance was separated into two; internal mechanism and external mechanism. The period of study spanned the year 2009-2013 and 26 joint stock commercial banks were studied. The empirical study indicated that information disclosure, board strength, stakeholders' roles and foreign capital significant affect the financial risk management in the banking systems. There is a contextual gap emanating from the study, as it was not conducted in the Kenyan context.

Muhammad, Muhammad, Muhammad & Muhammad (2019) examined the effect of risk management on financial performance of firms listed at Pakistan Stock Exchange. Corporate governance was used as the study's control variable. A cross-sectional analysis was conducted on three sectors namely; the financial, industrial and services sector. The study findings exhibited that liquidity risk has a negative significant impact on financial performance. In financial sector however, the study findings established that operational risk has a positive significant relationship with financial performance but when the moderating effect of corporate governance was introduced, the relationship turned out to be negative and significant. Further study findings indicated that credit risk has a negative significant relationship with financial performance. The final study findings showcased that liquidity risk has a negative significant relationship with financial performance for all the sectors examined apart from the financial sector. The study related risk management to financial performance and included corporate governance as the moderating variable and it did not link corporate governance to credit risk management. Therefore, this presents a conceptual gap.

Permatasari (2020) examined the relationship between corporate governance and risk management of banks in Indonesia. The study findings established that good corporate governance practices in the Indonesian banks was able to influence the risk of the banks. The study findings specifically that corporate governance positively and significantly influences credit risk, liquidity risk and operational risk in the Indonesian banks. However, corporate governance was found not to significantly influence market risk of the Indonesian banks. There is a contextual gap emanating from the study, as it was not conducted in the Kenyan context.

In the regional front, Andrew (2012) did a study on the linkage existing amongst corporate governance and insolvency risk within commercial banks in Liberia. The study employed a

cross-sectional survey design. The population of the survey was composed of eight commercial banks, which had been operating during the period from 2006 to 2010. Data was gathered from the banks' annual statements and then sorted on board dimensions like duality, size, and cognitive diversity, under the focus of corporate governance. The data was, subsequently, analyzed using regression and correlation analysis. The outcome of the study showed that there were small insolvency risks in the banking industry in Liberia. The study also found that corporate governance within the study scope was negatively correlated with bankruptcy. The study concluded that larger boards do not automatically lead to an eventual increase in insolvency risk and lack of coordination. There is an inherent conceptual gap in the study as it focused on insolvency risk and not credit risk management. There is a contextual gap emanating from the study, as it was not done in the Kenyan context. There is also a methodological gap inherent in the study because it was a cross-sectional study and it did not utilize panel data.

Seyram, Yakubu and Bawuah (2014) studied the corporate governance and risk management in the banking sector of Ghana. The data for the selected banks was collection from the selected staff, senior risk management officer, and board of directors through the aid of a questionnaire. The outcomes of the study revealed that senior staff and board of directors are actively engaged in management of risks. However, on the contrast, it was revealed that only a few employees were involved in management of risk. From the findings of the sampled banks it was revealed that the main types of risk the banks encountered were liquidity risk, solvency risk, interest rate risk, credit risk and operating risk. The findings also revealed that the sampled banks had not proper mechanism of managing risk. There is a contextual gap emanating from the study, as it was not conducted in the Kenyan context. There is also a methodological gap emanating from the study as it collected primary data and not secondary data.

Locally, Nyakoe (2012) investigated how corporate governance relates with risk management practices amongst Kenyan commercial banks. To undertake the research a cross sectional survey was adopted. All the 42 licensed commercial banks that have operated for at least 5 years in Kenya were considered the study populace. The researcher used both secondary and primary data where questionnaire were used to collect risk management data and were administered to the risk managers in the various banks. Details on corporate governance were obtained from the banks published annual reports, where data entailing the CEO Duality, board size and board diversity were extracted. The research conducted regression analysis on the data. It was revealed that the corporate governance level was moderate. It was further revealed that highest risked managed in the banking industry is the foreign currency risk, followed by interest risk and lastly equity price risk. Commodity price risk was the least managed risk. It was further revealed that a positive and significant association existed amongst risk management and corporate governance. The conclusion of the study was that corporate governance significant influence the risk management mechanism of Kenyan commercial banks. There is an inherent conceptual gap in the study as it focused on general risk management and not credit risk management. There is also a methodological gap inherent in the study because it was a cross-sectional study and it did not utilize panel data.

Wangui (2014) conducted an investigation of corporate governance on enterprise risk in commercial banks in Kenya. The study employed a cross-sectional study to fill the research gap. Data was collected using questionnaires. The questionnaires were administered to the internal audit managers for them to give their responses. The findings proved that the board size, CRO presence in executive council, as well as board independence, affected the CAMEL rating in an active modus, while board diversity itself had an adverse effect on the same score. There is an inherent conceptual gap in the study as it focused on enterprise risk management and not credit risk management. There is also a methodological gap inherent in

the study because it was a cross-sectional study and it did not utilize panel data and it employed primary sources of data instead of secondary sources.

2.5 Conceptual Framework

Rocco and Plakhotnik (2009) opine that a conceptual framework establishes the basis for research questions and objectives of a study through anchoring the study in the appropriate knowledge constructs. Clearly illustrated, the structure gives the researcher the ability to deduce information. For this research, the independent variable is corporate governance; the moderating variable will be the bank size, while the dependent variable is credit risk management. Figure 2.1 below exhibit the conceptual framework developed for this study.

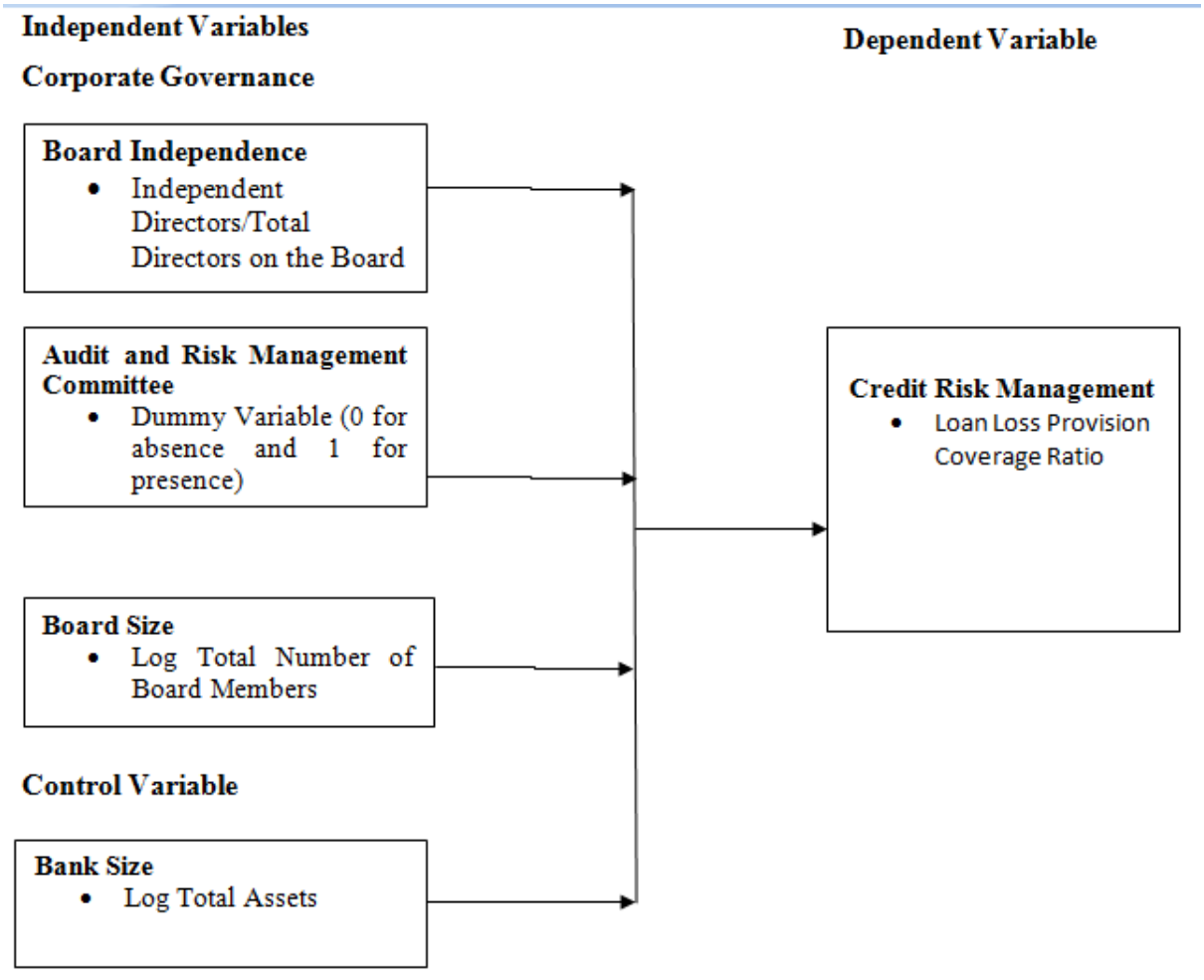

Figure 2.1: Conceptual Model

2.6 Summary of Research Gaps

Generally, corporate governance has a significant positive relationship with management of credit risk. Some studies reviewed did not relate corporate governance and credit risk management. The studies that related corporate governance and credit risk management did not use the same measures used in the current study. This shows a conceptual gap that this study is intending to fill. Some studies did not fit the criteria of the Kenyan context and this shows a contextual gap. Some studies used different methodology from the current study. Some studies were cross-sectional and did not use panel data. Some studies utilized primary sources of data instead of secondary sources and utilized descriptive statistics instead of inferential statistics.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter is the blueprint of the research work where it lays out the methodology of the study. The chapter consists of several subsections which include research design expounding on the design applicable to the study, target population detailing the population of interest and sampling method applicable if any. Data collection is also looked into where data required is specified and how it is going to be collected. Finally, the chapter show the data analysis technique that was applied by the researcher.

3.2 Research Design

The study utilized a descriptive research design in a bid to measure the data trends that exists in reference to the topic of study. According to Nassaji (2015), the descriptive method gives the researcher a way to compare and contrast the varied types of data in order to ascertain the trends that exist therein. The study employed the descriptive research design since it could be utilized to explain variety of phenomenon and their characteristics. In addition, the data sets produced through the descriptive method help to summarize and support assertion of facts.

Additionally, the current study was formal study since it borrowed from applicable theories and it used different literatures to direct it. Furthermore, it was an ex-post factor research since the variables were measured, rather than manipulated. It was a field environment with commercial banks as the unit of study. This design considers factors such as the method of study, the variables applied in the research, and data collection methods.

3.3 Target Population

Zikmund, Babin, Carr, and Griffin (2010) refers population to the cumulative number of individuals or people in a study. The population normally have characteristics that are alike. Grabich (2012) opines that a grouping of elements, events or people which are being examined with the goal being provision of answer to research question denotes a study

population. In this research, the population of the research encompassed all the 42 licensed commercial banks as at December 31st 2020, as shown in Appendix I. Since all the whole population was studied, the study was census.

3.4 Data Collection

Data collection process is very important because of the fact that it has an impact on the authenticity of the study findings. The secondary data was gathered from the individual listed firm's annual reports and financial statements. The annual unit of analysis was used. Data was collected on an annual basis from 2016 to 2020. Data on pre-tax income, loan loss provisions, net charge offs, total assets, number of independent directors, total directors in the board, and presence/absence of a risk and audit committee was gathered.

3.5 Data Analysis

In order to simplify the analysis, interpret and comprehend the data collected, it was arranged, tabulated, and simplified. Upon organizing the data, the panel data was analyzed through aid of SPSS. Multiple linear regression and correlation analysis were done. Correlation analysis was able to establish the magnitude and association of firm size and corporate governance on the credit risk management of commercial banks in Kenya. Looking at the other side, regression analysis was utilized to establish the significance of the association amongst the study variables. The usage of Tables enabled presentation of the quantitative results discovered.

The research maintained the confidence level at 95%. At 0.05 level, the findings are set to be statistical significant and this means that for values to be significant they ought to be below 0.05 In forecasting financial reporting quality a statistical inference technique is used in concluding the accuracy of the model. The 95% confidence level was applied in testing the model significance. The significance values determined how the predictor variables relates to the response variables.

3.5.1 The Study Analytical Model

The study objectives were accomplished by undertaking multiple linear regression analysis, which examined if the independent variables do possess any impact on credit risk management. The undertaking of statistical tests were at a significance level of 95% which implies that the margin of error is up to 5%. The below model will be applied;

$$\mathbf{Y_{i(t+1)} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \epsilon}$$

Where:

$Y_{i(t-1)}$ = Credit Risk Management

α = Constant

$\beta_1 - \beta_4$ = Beta coefficients

X_{1it} = Board Independence

X_{2it} = Audit and risk management committees

X_{3it} = Board Size

X_{4it} = Bank Size

ϵ = error term

Table 3.1: Operationalization of the Research Variables

Variable	Calculation
Credit Risk Management	Credit risk management denoted by the loan loss provision coverage ratio is computed as; ((pretax income + loan loss provision) / net charge-offs)
Board Independence	Denoted as; Independent Directors/Total Directors on the Board (Campbell & Mínguez-Vera, 2008).
Audit and risk management committees	Dummy variable (0 for absence, 1=present) (Kang et. al., 2007).
Board Size	Logarithm of total directors on the board (Lipton & Lorsch, 1992).
Bank Size	Natural logarithm of average value of book of entire properties of a bank during the period (Munyambonera, 2011).

3.5.2 Diagnostic Tests

Various assumptions are made so as to ensure the validity of the linear regression models. The assumption includes; No Multi-collinearity, random sampling of observation, zero

conditional mean, linear regression model is “linear in parameters”, spherical errors: no auto correlation and there is homoscedasticity and finally the optional assumption; normal distribution of error terms. The first five linear regression model assumptions, OLS Regression estimators as indicated by Gauss-Markov Theorem are the best linear non-biased estimators (Grewal et al., 2004). These presumptions are paramount when undertaking regression and violation of any of them would me that the regression estimates are rendered unreliable and incorrect. Precisely violation would lead to incorrect meaning of the regression estimates of the variation of the estimate would be unreliable leading to confidence intervals which are extreme, either too wide or too narrow (Gall et al., 2006).

To guarantee that the assumptions are met such that the best linear unbiased estimators are available, the researcher ought to undertake diagnostic tests. Regression diagnostics evaluate model assumptions and test whether or not there are interpretations with a large, unjustified impact. The data collected will subjected to diagnostic test such as autocorrelation, multicollinearity, linearity and normality so as to find if it is appropriate for conducting linear regression model. Shapiro-Francia test will be applied to test for normality, this is appropriate to test distributions of Gaussian nature that have a specified variance and mean. Linearity implies a direct proportional link between the dependent and independent variable, which follows a corresponding variance in the dependent variable (Gall et al., 2006). To test for linearity, homoscedasticy was determined and was established through the the Breusch-Pagan Cook-Weisberg Test for Homoscedacity.

Variance Inflation Factors (VIF) was applied in testing for multicollinearity and they showed whether the predictor variables have a significant correlation on each other. Grewal *et al*. (2004) notes that the primary reason for existence of multicollinearity is having small sample sizes, low measure reliability and low explained variables in the independent variables. Durbin-Watson Statistic tested for existence of autocorrelation.

CHAPTER FOUR: DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter is geared towards detailing the analyzed discoveries based on the data that was gathered from secondary sources. From the 42 commercial banks that were targeted, complete data was obtained from 39 institutions. Some of the institutions that were excluded from the analysis include Chase Bank, Imperial Bank Ltd and Charterhouse Bank Ltd.

4.2 Descriptive Statistics

Descriptive statistics covering means and standard deviations were computed to provide a description of the variables. The findings are as shown in Table 4.1.

Table 4.1: Descriptive Statistics

	n	Minimum	Maximum	Mean	Std. Dev
Credit Risk Management	195	.01	1.00	.2148	.14422
Board Independence	195	.03	3.00	.2883	.20782
Audit and risk management committees	195	.0	1	.2621	.32828
Board Size	195	.0002	2.04	1.0487	.11339
Bank Size	195	2.12	6.99	4.7793	.94317

Source: Research Data (2021)

From Table 4.1, the mean of credit risk management stood at .2148 board independence had .2883, audit and risk management committees had .2621, and board size had 1.0487 while bank size had 4.7793. In terms of standard deviations, bank size had the highest value at .94317 while the least value of .11339 was represented by board size. This implies that there was greater variation in bank size as compared to board among commercial banks under the period of consideration.

4.3 Diagnostic Tests

Diagnostic tests were undertaken to validate the presumptions of regression analysis. These covered multicollinearity test, autocorrelation and normality test as well as Breusch and Pagan test as summarized in the subsequent sections.

4.3.1 Test for Multicollinearity

The values of VIF were computed and appropriately interpreted to test for multicollinearity. Table 4.2 gives the breakdown of the discoveries.

Table 4.2: Test for Multicollinearity

	Collinearity Statistics	
	Tolerance	**VIF**
Board Independence	.949	1.054
Audit and risk management committees	.998	1.002
Board Size	.973	1.028
Bank Size	.937	1.067
Mean VIF	**.964**	**1.038**

Source: Research Data (2021)

The discoveries in Table 4.2 show the value of Mean VIF as 1.038 with the respective values for the variables falling within the range of 1-10. This is an indication that there was no multicollinearity in the data.

4.3.2 Test for Serial Correlation

Durbin Watson statistic was computed to test for presence of serial correlation in the data. The findings are as summarized in Table 4.3.

Table 4.3: Test for Serial Correlation

Model	Durbin-Watson
1	1.587

Source: Research Data (2021)

The results in Table 4.3 give the Durbin Watson as 1.587, this approximately taken as 2. This is a clear indication that serial correlation was absent in the data used in this study and thus it was suited in carrying out regression analysis.

4.3.3 Breusch and Pagan Test

The presence of homoscedasticy was determined through Breusch and Pagan Test with the discoveries as presented in Table 4.4.

Table 4.4: Breusch and Pagan Test

```
Test:   Var(u) = 0
                        chibar2(01) =   135.34
                    Prob > chibar2 =   0.3345
```

Source: Research Data (2021)

From Table 4.4, the p-value is given as 0.3345, i.e. p>0.05. Thus, the null hypothesis is rejected in favour of the alternative hypothesis thus favouring presence of homoscedasticy which is desirable for regression analysis.

4.3.4 Normality Test

Shapiro-Francia test was used to determine presence of normality in the data. The findings were determined and summarized as shown in Table 4.5.

Table 4.5: Shapiro-Francia test

Variable	Obs	W'	V'	z	Prob>z
Credit Risk Management	195	0.96758	7.267	4.201	0.609
Board Independence	195	0.13020	194.363	11.159	0.807
Audit & risk management	195	0.03070	217.245	11.398	0.104
Board Size	195	0.11726	197.845	11.200	0.403
Bank Size	195	0.11726	197.845	11.200	0.203

Source: Research Data (2021)

Table 4.5 gives the p-values of the respective variables that were covered by the study to be greater than 0.05 (p>0.05). Thus, the null hypothesis is rejected such that normality is assumed in the data.

4.4 Correlation Matrix

Correlation analysis was undertaken to establish the relationship between the variables of the study. Table 4.6 gives an overview of the findings.

Table 4.6: Correlation Results

		Credit Risk Management	Board Independence	Audit and risk management committees	Board Size	Bank Size
Credit Risk Management	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	195				
Board Independence	Pearson Correlation	.635	1			
	Sig. (2-tailed)	.000				
	N	195	195			
Audit and risk management committees	Pearson Correlation	.062	.018	1		
	Sig. (2-tailed)	.388	.807			
	N	195	195	195		
Board Size	Pearson Correlation	.391	.105	.010	1	
	Sig. (2-tailed)	.000	.145	.886		
	N	195	195	195	195	
Bank Size	Pearson Correlation	.260	.213**	.047	.147*	1
	Sig. (2-tailed)	.000	.003	.515	.040	
	N	195	195	195	195	195

Source: Research Data (2021)

The findings in Table 4.6 indicate that while board independence (r=.635) has a strong and positive relationship with credit risk management, board size (r=.391) audit and risk management committees (r=.388) have a moderate relationship while bank size (r=.260) has a weak but positive relationship. This infers that corporate governance has a direct contribution towards credit risk among commercial banks in Kenya.

4.5 Regression Results and Hypotheses Testing

Regression analysis was undertaken to predict the effect of corporate governance and bank size on management of credit risk among commercial banks in Kenya. The results were measured and summarized as indicated in the subsequent sections.

4.5.1 Regression Model Summary

Table 4.7 is the regression model summary of the study.

Table 4.7: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.715[a]	.512	.504	.10156	.512	66.731	3	191	.000
2	.720[b]	.519	.509	.10108	.007	2.848	1	190	.093

a. Predictors: (Constant), Board Size, Audit and risk management committees, Board Independence
b. Predictors: (Constant), Board Size, Audit and risk management committees, Board Independence, Bank Size

Source: Research Data (2021)

Model 1 is utilized to predict the impact of corporate governance on credit risk management without factoring in controlling effect of bank size. The value of R square of model 1 is .512, this means that 51.2% change in credit risk management among commercial banks in Kenya is explained by the corporate governance practices in place. On considering the controlling effect of bank size, the value of R squared became .519, representing a change of .007. Thus, the controlling effect of bank size is equivalent to 0.7% in the model.

4.5.2 Analysis of Variance

ANOVA was undertaken at 5% level of significance and the results are as displayed in Table 4.8.

Table 4.8: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.065	3	.688	66.731	.000[b]
	Residual	1.970	191	.010		
	Total	4.035	194			
2	Regression	2.094	4	.524	51.245	.000[c]
	Residual	1.941	190	.010		
	Total	4.035	194			

a. Dependent Variable: Credit Risk Management
b. Predictors: (Constant), Board Size, Audit and risk management committees, Board Independence
c. Predictors: (Constant), Board Size, Audit and risk management committees, Board Independence, Bank Size

Source: Research Data (2021)

Model 1 and 2 give the value of F calculated as 66.731 and 51.245 respectively with the associated p-values ($p<0.05$). The implication of this is that the overall regression models were significant.

4.5.3 Beta Coefficients and Significance

Table 4.9 gives the findings of the regression beta coefficients and significance.

Table 4.9: Beta Coefficients and Significance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.348	.068		-5.104	.000
	Board Independence	.416	.035	.600	11.796	.000
	Audit and risk management committees	.021	.022	.048	.954	.341
	Board Size	.416	.065	.327	6.440	.000
2	(Constant)	-.393	.073		-5.389	.000
	Board Independence	.404	.036	.582	11.274	.000
	Audit and risk management committees	.020	.022	.045	.884	.378
	Board Size	.402	.065	.316	6.202	.000
	Bank Size	.013	.008	.088	1.687	.093

a. Dependent Variable: Credit Risk Management

Source: Research Data (2021)

From model 1, board independence ($p<0.05$) and board size ($p<0.05$) are the constructs of corporate governance that significantly enhances management of credit risk among commercial banks in Kenya. This means that corporate governance through board independence and board size plays an important role as far as credit risk management among Kenyan commercial banks is concerned. In model 2, the controlling effect of bank size was tested and the resultant p-value was 0.093 ($p>0.05$). This means that bank size does not significantly control the relationship between corporate governance and credit risk management.

4.6 Interpretation of the Findings

This research was set out to document the effect of corporate governance on credit risk management of commercial banks in Kenya. The main indicators of corporate governance that were examined include board independence, audit and risk management committees as well as the board size. Based on correlation results, board independence (r=.635) had a strong

and positive relationship with credit risk management, board size (r=.391) audit and risk management committees (r=.388) have a moderate relationship. This indicates that independent directors on the board strongly contribute towards credit risk management among commercial banks in Kenya. This finding is consistent with Yin-Hua Yeh et al. (2011) who revealed that financial institutions that have larger number of independent directors and external directors in the various board committees exhibit higher performance.

Regression analysis was undertaken to predict the effect of corporate governance on credit risk management with consideration of bank size. From the findings, board independence ($p<0.05$) and board size ($p<0.05$) are relevant constructs of corporate governance that significantly contribute towards management of credit risk among commercial banks in Kenya. This finding contradict with Aebi et al (2012) who established that standard corporate governance factors mainly have insignificant or at times negative relationship with performance of banks in financial crisis times. However, the finding agree with Truong, Trinh, Duyen and Nguyen (2015) who indicated that information disclosure, board strength, stakeholders' roles and foreign capital significant affect the financial risk management in the banking systems.

The controlling effect of bank size was analyzed and the findings showed a p-value of 0.093 i.e $p>0.05$. The inference drawn was that bank size does not significantly control how corporate governance mechanisms affect credit risk management among commercial banks in Kenya. This means that irrespective of the size of the banks, corporate governance mechanisms in place will significantly contribute towards credit risk management. This view is in line with the agency theory by Jensen and Meckling (1976) that suggest that both the management and the owner's decisions are inclined to benefiting each interest. Consequently,

as the firm size increases its might lead to the management have personal interest to build their empires and hence the reason for large firms experiencing bad governance.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter is geared towards providing a summary of the analyzed discoveries based on the data that was gathered. The conclusion drawn from the key findings are also provided with relevant recommendations. The limitations of the research as well as areas for further research are also indicated.

5.2 Summary

This research was set out to document the effect of corporate governance on credit risk management of commercial banks in Kenya. The main indicators of corporate governance that were examined include board independence, audit and risk management committees as well as the board size. Based on correlation results, board independence had a strong and positive relationship with credit risk management, board size audit and risk management committees have a moderate relationship. This postulates that directors who are independent directors on the board strongly contribute towards management of credit risk among commercial banks in Kenya.

Regression analysis was undertaken to predict the impact of corporate governance on management of credit risk with consideration of bank size. From the findings, board independence and board size are relevant constructs of corporate governance that significantly contribute towards management of credit risk among commercial banks in Kenya. The controlling effect of bank size was analyzed and the inference drawn was that bank size does not significantly control how corporate governance mechanisms affect credit risk management among commercial banks in Kenya. This means that irrespective of the size

of the banks, corporate governance mechanisms in place will significantly contribute towards credit risk management.

5.3 Conclusions

The functionality played by corporate governance in management of credit risk cannot be overlooked especially in a financial institution that aims to remain resilient and stable. This means that banks with strong corporate governance mechanisms will automatically enhance their credit risk management processes as compared to low corporate governance practices. Specifically, board independence and board size are critical aspects of corporate governance that contribute towards management of credit risk among commercial banks in Kenya.

Having directors who are independent on the board enhances the decision making process through increased objectivity and reduced biasness. Independent directors are mostly external; this brings in new skills and knowledge that is critical in credit risk management processes of the bank. An optimally constituted board is also an enabler of credit risk management among commercial banks. Relatively larger boards would slow down the coordination of activities with slow decision making process and this may negatively contribute towards credit risk management.

The size of the bank does not matter when the focus is on leveraging corporate governance to improve credit risk management. In Kenya, CBK has classified commercial banks in three tiers pegged on a variety of indicators like asset base and deposits as well as their relative share in the markets. While Tier I comprises of the largest stable banks like the Kenya Commercial Bank, Equity Bank and Cooperative Bank of Kenya, tier III are the least ones. Thus, irrespective of these tiers of commercial banks, corporate governance will stay remain relevant when it comes to credit risk management.

5.4 Recommendations for Management and Policy

The research has shown that corporate governance is a critical practice that enhances independent among commercial banks in Kenya. In particular, board independence and board size were the two significant constructs of corporate governance that the study developed. Based on these findings, the study recommends that the shareholders of commercial banks in Kenya should increase the number of independent directors on the board while optimizing the board size so as to contribute towards credit risk management.

The policy makers at the CBK should strengthen the corporate governance mechanisms of the respective banks so as to contribute towards credit risk management. The policy makers at the Capital Market Authority (CMA) should formulate strict policies and guidelines to guide corporate governance among the listed banks in Kenya. The policy makers of the respective commercial banks in Kenya have a critical role to play by formulating policies that guide corporate governance of these banks.

5.5 Limitations of the Study

The research was limited to commercial banks operating in Kenya. Thus, the specific context of this study was the banking sector. In total, 42 commercial banks were studied. Given the limited number of these firms, census was utilized and thus all these institutions were part and parcel of the inquiry. However, there are other institutions within Kenya within the banking industry that the focus of further studies should be directed for instance the insurance firms.

The study covered corporate governance and credit risk management. The specific constructs of corporate governance that were examined include board independence, audit and risk management committees and board size. The controlling effect of bank size was also examined. Thus, three variables were covered in this.

Theoretically, the study was limited to three theories: resource dependence, stakeholder and the agency theory. The agency theory of the study was key in this study as it underpinned corporate governance. Methodologically, the study was limited to panel data that involved simple ordinary least square (OLS) method.

5.6 Suggestions for Further Research

Future researches should be conducted to also include other firms in the financial sector for instance the SACCOs or insurance firms. The focus of the future studies should be on corporate governance and how it affects other parameters like profitability or financial stability. Future studies can also be conducted to cover other indicators of corporate governance like board gender diversity. This will avail the chance of contrasting the discoveries the findings to make relevant decisions.

The main emphasis of further studies should be on adoption of more robust means of analysis. This can include panel data methodologies and more advanced analytical tools like Stata or R. In addition, structural equation modeling can be embraced by further studies for comparison of the evidence.

Apart from credit risk, future studies can be conducted covering other dependent variables. These can include operational performance, investment or even profitability. Future inquiries can also be done covering other indicators of corporate governance apart from board independence, size and audit committee. These other corporate governance constructs can include diversity, CEO duality as well as tenure among others.

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APPENDICES

Appendix 1: List of Commercial Banks in Kenya as at 30th December 2020

1. Absa Bank Limited
2. African Banking Corp. Ltd
3. Bank of Africa Kenya Ltd
4. Bank of India
5. Bank of Baroda (K) Ltd
6. Stanbic Bank Ltd
7. Chase Bank (K) Ltd (In Receivership)
8. Citibank N.A.
9. Consolidated Bank of Kenya Ltd
10. Co-operative Bank of Kenya Ltd
11. Credit Bank Ltd
12. Development Bank (K) Ltd
13. Diamond Trust Bank (K) Ltd
14. Dubai Bank Ltd (In Receivership)
15. Dubai Islamic Bank (Kenya) Ltd
16. Ecobank Limited
17. Spire Bank
18. Equity Bank Ltd
19. Family Bank Ltd
20. Guaranty Trust Bank
21. First Community Bank Ltd
22. Guardian Bank Ltd
22. Gulf African Bank Ltd

24. Habib Bank A.G. Zurich
25. HFC Ltd
26. Imperial Bank Ltd (In Receivership)
27. I & M Bank Ltd
28. Jamii Bora Bank Ltd
29. KCB Bank Kenya Ltd
30. Mayfair Bank Ltd
31. Middle East Bank (K) Ltd
32. M Oriental Bank Ltd
33. National Bank of Kenya Ltd
34. NCBA Bank Kenya
35. Paramount Universal Bank Ltd
36. Prime Bank Ltd
37. Sidian Bank
38. Standard Chartered Bank (K) Ltd
39. SBM Bank (Kenya) Ltd
40. Transnational Bank Ltd
41. UBA Kenya Bank Ltd
42. Victoria Commercial Bank Ltd

Source: Kenya Bankers Association Website (2020)

Appendix II: Data Collection Form

Name of Commercial Bank					
	Year				
Data	**2016**	**2017**	**2018**	**2019**	**2020**
Pre-tax Income					
Loan Loss Provision					
Net Charge Offs					
Loan Loss Provision Ratio					
Number of Independent Directors					
Total Directors on the Board					
Board Independence					
Audit and Risk Committee					
Board Size (Log Total Directors on the Board)					
Total Assets					
Bank Size (Ln Total Assets)					

Appendix III: Secondary Data Collected

Bank Name	Years	Credit Risk Management	Board Independence	Audit and risk management committees	Board Size	Bank Size
KCB Bank Kenya Ltd	2016	0.152	0.250	1.000	1.079	6.668
Equity Bank Kenya Ltd	2016	0.150	0.400	1.000	1.000	5.609
NCBA Bank Kenya PLC	2016	0.197	0.375	1.000	0.903	4.876
Co-operative Bank of Kenya Ltd	2016	0.126	0.333	1.000	0.954	6.332
Absa Bank Kenya Plc	2016	0.240	0.273	1.000	1.041	6.337
Standard Chartered Bank (K) Ltd	2016	0.232	0.333	1.000	1.079	6.176
Diamond Trust Bank Kenya Limited	2016	0.068	0.400	1.000	1.000	4.706
I & M Bank Limited	2016	0.162	0.364	1.000	1.041	5.592
Stanbic Bank Kenya	2016	0.215	0.300	1.000	1.000	5.745
Bank of Baroda (K) Limited	2016	0.272	0.273	1.000	1.041	5.752
Prime Bank Ltd	2016	0.192	0.364	1.000	1.041	4.903
Citibank N.A. Kenya 2	2016	0.170	0.250	1.000	1.079	5.101
National Bank of Kenya Ltd	2016	0.165	0.231	1.000	1.114	6.246
Family Bank Ltd	2016	0.166	0.273	1.000	1.041	6.540
Bank of India	2016	0.179	0.400	1.000	1.000	3.574
Ecobank Kenya Ltd	2016	0.121	0.231	1.000	1.114	4.830
SBM Bank Kenya Ltd	2016	0.215	0.364	1.000	1.041	5.417
HFC Ltd	2016	0.176	0.333	1.000	1.079	5.396
Victoria Commercial Bank Limited	2016	0.159	0.364	1.000	1.041	5.762
Guaranty Trust Bank Limited	2016	0.149	0.200	1.000	1.000	4.623
Bank of Africa Ltd	2016	0.208	0.250	1.000	1.079	5.763
Gulf African Bank Limited	2016	0.149	0.182	1.000	1.041	4.648
African Banking Corporations Ltd	2016	0.072	0.182	1.000	1.041	5.030
Sidian Bank Ltd	2016	0.116	0.231	1.000	1.114	5.629
Habib Bank A.G Zurich	2016	0.085	0.273	1.000	1.041	5.264
Credit Bank Ltd	2016	0.088	0.167	1.000	1.079	5.896
First Community Bank Ltd	2016	0.095	0.250	1.000	1.079	6.132
UBA Kenya Bank Ltd	2016	0.155	0.300	1.000	1.000	5.398
Development Bank of Kenya Ltd	2016	0.047	0.273	1.000	1.041	5.084
Guardian Bank Limited	2016	0.012	0.273	1.000	1.041	3.534
Mayfair CIB Bank Ltd	2016	0.099	0.286	1.000	1.146	4.253
M Oriental Commercial Bank Limited	2016	0.046	0.273	0.000	1.041	4.699
Kingdom Bank Limited	2016	0.119	0.167	1.000	1.079	4.000
DIB Bank Kenya Ltd	2016	0.092	0.182	1.000	1.041	5.928
Consolidated Bank of Kenya Limited	2016	0.069	0.400	1.000	1.000	5.019
Paramount Bank Ltd	2016	0.197	0.333	1.000	0.954	5.754
Middle East Bank (K) Ltd	2016	0.143	0.182	1.000	1.041	4.778
Access Bank Plc	2016	0.135	0.250	0.000	1.079	4.348

Spire Bank Limited	2016	0.127	0.300	1.000	1.000	5.384
KCB Bank Kenya Ltd	2017	0.142	0.250	1.000	1.079	6.454
Equity Bank Kenya Ltd	2017	0.171	0.200	1.000	1.000	3.997
NCBA Bank Kenya PLC	2017	0.155	0.182	1.000	1.041	3.698
Co-operative Bank of Kenya Ltd	2017	0.153	0.333	1.000	0.954	4.194
Absa Bank Kenya Plc	2017	0.243	0.182	1.000	1.041	3.301
Standard Chartered Bank (K) Ltd	2017	0.299	0.167	1.000	1.079	5.069
Diamond Trust Bank Kenya Limited	2017	0.501	0.182	1.000	1.041	4.477
I & M Bank Limited	2017	0.269	0.200	1.000	1.000	5.274
Stanbic Bank Kenya	2017	0.180	0.333	1.000	1.079	6.940
Bank of Baroda (K) Limited	2017	0.136	0.300	1.000	1.000	4.312
Prime Bank Ltd	2017	0.176	0.273	1.000	1.041	5.079
Citibank N.A. Kenya 2	2017	0.092	0.333	1.000	1.079	6.223
National Bank of Kenya Ltd	2017	0.050	0.333	1.000	1.079	6.580
Family Bank Ltd	2017	0.094	0.455	1.000	1.041	4.169
Bank of India	2017	0.096	0.300	1.000	1.000	4.633
Ecobank Kenya Ltd	2017	0.094	0.200	1.000	1.000	5.144
SBM Bank Kenya Ltd	2017	0.087	0.444	1.000	0.954	3.932
HFC Ltd	2017	0.118	0.364	1.000	1.041	4.534
Victoria Commercial Bank Limited	2017	0.156	0.400	1.000	1.000	4.000
Guaranty Trust Bank Limited	2017	0.132	0.364	1.000	1.041	5.997
Bank of Africa Ltd	2017	0.089	0.250	1.000	1.079	5.324
Gulf African Bank Limited	2017	0.155	0.231	1.000	1.114	5.276
African Banking Corporations Ltd	2017	0.110	0.250	1.000	1.079	4.575
Sidian Bank Ltd	2017	1.121	3.000	1.000	0.000	5.286
Habib Bank A.G Zurich	2017	0.308	0.182	1.000	1.041	5.204
Credit Bank Ltd	2017	0.292	0.182	1.000	1.041	5.042
First Community Bank Ltd	2017	0.388	0.273	1.000	1.041	3.704
UBA Kenya Bank Ltd	2017	0.329	0.273	1.000	1.041	4.493
Development Bank of Kenya Ltd	2017	0.422	0.273	1.000	1.041	4.301
Guardian Bank Limited	2017	0.308	0.364	1.000	1.041	5.324
Mayfair CIB Bank Ltd	2017	0.268	0.364	1.000	1.041	4.176
M Oriental Commercial Bank Limited	2017	0.249	0.300	1.000	1.000	3.700
Kingdom Bank Limited	2017	0.190	0.250	1.000	1.079	4.845
DIB Bank Kenya Ltd	2017	0.241	0.333	1.000	1.079	4.613
Consolidated Bank of Kenya Limited	2017	0.132	0.333	1.000	1.079	4.230
Paramount Bank Ltd	2017	0.265	0.300	1.000	1.000	5.400
Middle East Bank (K) Ltd	2017	0.176	0.400	1.000	1.000	4.301
Access Bank Plc	2017	0.206	0.364	1.000	1.041	4.754
Spire Bank Limited	2017	0.238	0.333	1.000	1.079	4.730
KCB Bank Kenya Ltd	2018	0.383	0.273	1.000	1.041	4.778
Equity Bank Kenya Ltd	2018	0.115	0.154	1.000	1.114	4.637

NCBA Bank Kenya PLC	2018	0.096	0.300	1.000	1.000	3.607
Co-operative Bank of Kenya Ltd	2018	0.142	0.250	1.000	1.079	4.726
Absa Bank Kenya Plc	2018	0.113	0.300	1.000	1.000	5.089
Standard Chartered Bank (K) Ltd	2018	0.304	0.154	1.000	1.114	3.654
Diamond Trust Bank Kenya Limited	2018	0.297	0.182	1.000	1.041	4.531
I & M Bank Limited	2018	0.130	0.154	1.000	1.114	2.185
Stanbic Bank Kenya	2018	0.223	0.214	1.000	1.146	5.048
Bank of Baroda (K) Limited	2018	0.326	0.250	1.000	1.079	4.187
Prime Bank Ltd	2018	0.130	0.364	1.000	1.041	3.455
Citibank N.A. Kenya 2	2018	0.331	0.273	1.000	1.041	5.518
National Bank of Kenya Ltd	2018	0.322	0.250	1.000	1.079	3.908
Family Bank Ltd	2018	0.388	0.250	1.000	1.079	3.103
Bank of India	2018	0.318	0.231	1.000	1.114	5.004
Ecobank Kenya Ltd	2018	0.497	0.250	1.000	1.079	4.000
SBM Bank Kenya Ltd	2018	0.548	0.273	1.000	1.041	4.118
HFC Ltd	2018	0.570	0.250	1.000	1.079	3.444
Victoria Commercial Bank Limited	2018	3.295	0.250	1.000	1.079	3.917
Guaranty Trust Bank Limited	2018	0.309	0.250	1.000	1.079	5.043
Bank of Africa Ltd	2018	0.419	0.182	1.000	1.041	4.583
Gulf African Bank Limited	2018	0.364	0.222	1.000	0.954	5.709
African Banking Corporations Ltd	2018	0.177	0.200	1.000	1.000	4.266
Sidian Bank Ltd	2018	0.342	0.182	1.000	1.041	4.273
Habib Bank A.G Zurich	2018	0.220	0.273	1.000	1.041	4.669
Credit Bank Ltd	2018	0.077	0.250	1.000	1.079	5.314
First Community Bank Ltd	2018	0.245	0.027	1.000	2.041	2.121
UBA Kenya Bank Ltd	2018	0.302	0.182	1.000	1.041	5.180
Development Bank of Kenya Ltd	2018	0.173	0.182	1.000	1.041	4.807
Guardian Bank Limited	2018	0.173	0.273	1.000	1.041	5.239
Mayfair CIB Bank Ltd	2018	0.169	0.333	1.000	1.079	4.773
M Oriental Commercial Bank Limited	2018	0.184	0.182	1.000	1.041	2.201
Kingdom Bank Limited	2018	0.146	0.250	1.000	1.079	3.507
DIB Bank Kenya Ltd	2018	0.158	0.231	1.000	1.114	3.774
Consolidated Bank of Kenya Limited	2018	0.265	0.286	1.000	1.146	4.813
Paramount Bank Ltd	2018	0.364	0.250	1.000	1.079	4.212
Middle East Bank (K) Ltd	2018	0.372	0.273	1.000	1.041	5.684
Access Bank Plc	2018	0.178	0.333	1.000	1.079	4.383
Spire Bank Limited	2018	0.153	0.250	1.000	1.079	3.602
KCB Bank Kenya Ltd	2019	0.099	0.167	1.000	1.079	5.453
Equity Bank Kenya Ltd	2019	0.160	0.364	1.000	1.041	5.010
NCBA Bank Kenya PLC	2019	0.203	0.300	1.000	1.000	3.397
Co-operative Bank of Kenya Ltd	2019	0.049	0.364	1.000	1.041	5.001
Absa Bank Kenya Plc	2019	0.046	0.250	1.000	1.079	3.574

Standard Chartered Bank (K) Ltd	2019	0.181	0.308	1.000	1.114	4.699
Diamond Trust Bank Kenya Limited	2019	0.192	0.231	1.000	1.114	4.672
I & M Bank Limited	2019	0.148	0.167	1.000	1.079	3.176
Stanbic Bank Kenya	2019	0.113	0.250	1.000	1.079	2.883
Bank of Baroda (K) Limited	2019	0.094	0.200	1.000	1.000	5.382
Prime Bank Ltd	2019	0.155	0.167	1.000	1.079	3.338
Citibank N.A. Kenya 2	2019	0.117	0.333	1.000	0.954	4.172
National Bank of Kenya Ltd	2019	0.137	0.200	1.000	1.000	4.819
Family Bank Ltd	2019	0.153	0.273	1.000	1.041	5.988
Bank of India	2019	0.081	0.200	1.000	1.000	4.447
Ecobank Kenya Ltd	2019	0.035	0.167	1.000	1.079	3.924
SBM Bank Kenya Ltd	2019	0.255	0.300	1.000	1.000	5.923
HFC Ltd	2019	0.043	0.150	1.000	1.301	5.007
Victoria Commercial Bank Limited	2019	0.060	0.273	1.000	1.041	4.301
Guaranty Trust Bank Limited	2019	0.063	0.400	1.000	1.000	6.922
Bank of Africa Ltd	2019	0.069	0.273	1.000	1.041	6.302
Gulf African Bank Limited	2019	0.046	0.250	1.000	1.079	5.713
African Banking Corporations Ltd	2019	0.052	0.182	1.000	1.041	5.975
Sidian Bank Ltd	2019	0.138	0.300	1.000	1.000	4.953
Habib Bank A.G Zurich	2019	0.245	0.273	1.000	1.041	6.495
Credit Bank Ltd	2019	0.103	0.250	1.000	1.079	2.748
First Community Bank Ltd	2019	0.089	0.250	1.000	1.079	4.848
UBA Kenya Bank Ltd	2019	0.293	0.273	1.000	1.041	6.366
Development Bank of Kenya Ltd	2019	0.175	0.273	1.000	1.041	5.675
Guardian Bank Limited	2019	0.194	0.333	1.000	1.079	5.365
Mayfair CIB Bank Ltd	2019	0.187	0.300	1.000	1.000	5.495
M Oriental Commercial Bank Limited	2019	0.152	0.375	1.000	0.903	2.886
Kingdom Bank Limited	2019	0.088	0.333	1.000	0.954	4.926
DIB Bank Kenya Ltd	2019	0.349	0.333	1.000	1.079	6.604
Consolidated Bank of Kenya Limited	2019	0.322	0.364	1.000	1.041	4.634
Paramount Bank Ltd	2019	0.505	0.231	1.000	1.114	6.205
Middle East Bank (K) Ltd	2019	0.467	0.182	1.000	1.041	6.358
Access Bank Plc	2019	0.896	0.250	1.000	1.079	4.284
Spire Bank Limited	2019	0.296	0.273	1.000	1.041	6.988
KCB Bank Kenya Ltd	2020	0.182	0.167	1.000	1.079	5.270
Equity Bank Kenya Ltd	2020	0.168	0.364	1.000	1.041	4.994
NCBA Bank Kenya PLC	2020	0.305	0.400	1.000	1.000	5.120
Co-operative Bank of Kenya Ltd	2020	0.428	0.333	1.000	1.079	4.060
Absa Bank Kenya Plc	2020	0.351	0.273	1.000	1.041	5.530
Standard Chartered Bank (K) Ltd	2020	0.445	0.250	1.000	1.079	5.266
Diamond Trust Bank Kenya Limited	2020	0.110	0.250	1.000	1.079	4.000
I & M Bank Limited	2020	0.354	0.333	1.000	1.079	3.654

Stanbic Bank Kenya	2020	0.304	0.364	1.000	1.041	4.194
Bank of Baroda (K) Limited	2020	0.385	0.300	1.000	1.000	4.550
Prime Bank Ltd	2020	0.308	0.364	1.000	1.041	4.737
Citibank N.A. Kenya	2020	0.425	0.200	1.000	1.000	4.972
National Bank of Kenya Ltd	2020	0.437	0.333	1.000	1.079	5.502
Family Bank Ltd	2020	0.440	0.273	1.000	1.041	3.779
Bank of India	2020	0.406	0.250	1.000	1.079	3.755
Ecobank Kenya Ltd	2020	0.382	0.273	1.000	1.041	4.596
SBM Bank Kenya Ltd	2020	0.188	0.300	1.000	1.000	5.444
HFC Ltd	2020	0.358	0.444	1.000	0.954	4.399
Victoria Commercial Bank Limited	2020	0.182	0.333	1.000	1.079	4.364
Guaranty Trust Bank Limited	2020	0.204	0.250	1.000	1.079	3.708
Bank of Africa Ltd	2020	0.146	0.364	1.000	1.041	4.332
Gulf African Bank Limited	2020	0.226	0.250	1.000	1.079	4.565
African Banking Corporations Ltd	2020	0.147	0.308	1.000	1.114	4.301
Sidian Bank Ltd	2020	0.256	0.250	1.000	1.079	5.005
Habib Bank A.G Zurich	2020	0.286	0.182	1.000	1.041	4.031
Credit Bank Ltd	2020	0.198	0.300	1.000	1.000	4.006
First Community Bank Ltd	2020	0.163	0.333	1.000	1.079	2.559
UBA Kenya Bank Ltd	2020	0.180	0.364	1.000	1.041	4.174
Development Bank of Kenya Ltd	2020	0.093	0.250	1.000	1.079	5.119
Guardian Bank Limited	2020	0.142	0.400	1.000	1.000	4.326
Mayfair CIB Bank Ltd	2020	0.139	0.231	1.000	1.114	3.688
M Oriental Commercial Bank Limited	2020	0.143	0.364	1.000	1.041	4.579
Kingdom Bank Limited	2020	0.101	0.250	1.000	1.079	4.954
DIB Bank Kenya Ltd	2020	0.133	0.364	1.000	1.041	5.253
Consolidated Bank of Kenya Limited	2020	0.212	0.167	1.000	1.079	4.086
Paramount Bank Ltd	2020	0.162	0.250	1.000	1.079	4.358
Middle East Bank (K) Ltd	2020	0.260	0.364	1.000	1.041	5.041
Access Bank Plc	2020	0.134	0.273	1.000	1.041	4.464
Spire Bank Limited	2020	0.175	0.200	1.000	1.000	5.248