

**FIRM SIZE, CORPORATE GOVERNANCE AND FINANCIAL
PERFORMANCE OF MICROFINANCE INSTITUTIONS IN NAIROBI CITY
COUNTY, KENYA**

BY

BENADETTA MUNYIVA KIVAYA

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DECLARATION

Declaration by the student

This research thesis is my original work and has not been presented for examination to any other University.

Signature.....

Date.....

Benadetta Munyiva Kivaya

MU/MBM/014/14

Declaration by the Supervisors

This thesis has been submitted with our approval as University Supervisors

Signature..... Date.....

Dr. Robert Odunga

Department of Accounting and Finance

School of Business and Economics, Moi University.

Signature..... Date.....

Dr Ambrose Kemboi

Department of Management Science

School of Business and Economics, Moi University.

DEDICATION

I would like to dedicate this research thesis to my family, classmates and friends for their support and inspiration during the entire period of the study.

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I thank God for granting me the opportunity, time and resources to carry out this research thesis. The completion of this thesis would have not been possible without the support of my supervisors Dr. Robert Odunga and Dr. Ambrose Kemboi who offered me guidance and support during the entire thesis writing. I appreciate my family for the input and accommodating me when I worked late. I wish to thank also my classmates in Moi University for the assistance offered to me during this process of writing this thesis. Special thanks also go to my friends and colleagues who continue to inspire and encourage me positively. Their support energized and molded my skills in the approaches to the research field.

ABSTRACT

Microfinance industry is a key to the Economic Pillar of Kenya's Vision 2030. The declining performance of microfinance institutions in terms of profitability measured using return on assets is a concern in Kenya and majority of these institutions are beginning to embrace corporate governance to enhance acceptable financial management practices. Microfinance institutions continue to face a myriad of challenges in their quest to enhance financial accessibility in the country. Some of the microfinance institutions have left the market as a result of serial poor performances. The study main objective was to examine the moderating effect of firm size on the relationship between corporate governance and financial performance. The study also investigated the role of firm size as a moderator of the relationship between board size, board duality, board composition and board independence on Central Bank regulated microfinance institutions financial performance in Nairobi City County. This study was anchored on shareholder theory which states that the sole responsibility of business is to increase profits, and is further guided by the Agency theory, Stewardship theory and Stakeholder Theory. The study adopted causal research design. The target population of the study comprised the thirteen Central Bank of Kenya regulated microfinance institutions in Nairobi City County, a census of all the thirteen Central Bank regulated microfinance institutions in Nairobi City County was selected as the sample size. Secondary data was obtained from financial reports for the period 2012 - 2019. The Data were analyzed using Stata SE 14 software. Pearson correlation results revealed that board size, board duality Board composition have a positive significant association with financial performance of Central Bank of Kenya regulated microfinance institutions. Coefficient results of board composition has a positive and significant effect on financial performance of microfinance ($\beta=0.142$, $p=0.009$). Firm size moderates corporate governance and financial performance where the explanatory power of R^2 improved from 46.72% before moderation to 52.68% after moderation implying that firm size as a moderator strengthens the relationship between corporate governance and financial performance. Based on research finding it can be concluded that board size, board duality, board composition and board independence influences financial performance of Microfinance Institutions in Nairobi County. It was also concluded that firm size is a significant moderator on board duality, board composition and financial performance of microfinance institutions. Firm size strengthens the relationship between corporate governance and financial performance thus the study recommends that firm size should be considered in the aspect of financial performance and corporate governance. The study also recommends for moderately sizeable board of management that is neither too large nor too small. Microfinance institutions that have large boards may incur more cost in remunerating the board members. Likewise, a very small board size may lead to the biased decisions or weak decisions. The study recommends the consideration of gender diversity when constituting the board. The study also recommends for an independent board characterized by executive and non-executive directors. The results support the propositions of the agency theory in reducing the agency problem which lead to increase value maximization. It provides a direct link between firm size, corporate governance and financial performance.

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OPERATIONAL DEFINITION OF TERMS

Board composition - This refers to the ratio of one particular gender to the total number of directors in a board sitting in the board of a firm (Conelly, 2014).

Board duality - Refers to the situation when one person holds the two most powerful positions on the board of directors namely the chairman also takes a role of being a CEO/director (AlManaseer *et al.*, 2012).

Board Independence - This refers to the ratio of non-executive verses executive directors. (Company act, 2013 Section 149(6))

Board size - This refers to the Number of directors sitting in a given board of micro finance (Weisbach, 2013).

Central Bank of Kenya regulated - refers to deposit taking Micro Finance Institutions (Microfinance Act, 2006)

Corporate governance - Refers to the processes and structures by which the business and affairs of institutions are directed and managed, in order to improve long term shareholders' value by enhancing corporate performance and accountability, while taking into account the interest of other stakeholders (OECD, 2004).

Financial Performance - Is the measure of organizations achievement on the goals, policies and operations stipulated in monetary terms. It involves the financial health and can be compared between similar firms in the same industry (Tilahun & Dereje, 2012).

Firm size - refers to the quantity or array of resources in terms of assets controlled and managed by a firm (Vijayakumar & Tamizhselvan, 2010).

Micro finance institutions - refers to institutions that offer financial services such as credit, savings, insurance, and money transfer services to the poor, low-income households, and small and medium enterprises that do not qualify for, and therefore lack access to traditional formal financial institutions (CBK, 2020).

Return on Asset - is an important financial performance ratio it measures the efficiency with which the company is managing its investment in assets and using them to generate profit (Bhunja, Mukhuti & Gautam, 2011).

ABBREVIATIONS AND ACRONYMS

AMFIK-	Association of Microfinance Institutions of Kenya
AMFIs-	Association of Microfinance institutions
CBK-	Central Bank of Kenya
CBN-	Central Bank of Nigeria
CEE & NIS-	Central and Eastern Europe and the Newly Independent States
CEO-	Chief Executive Officer
CG-	Corporate Governance
CLRM-	Classical Linear Regression Model
ERC-	Ethical Review Committee
FGLS-	Feasible Generalized Least Squares
ICASL-	Institute of Chartered Accountants of Sri Lanka
MFBS-	Microfinance banks
MFI-	Micro Finance Institutions
NACOSTI-	National Commission for Science, Technology and Innovation
NEDs-	Non-Executive Directors
NPLs-	Non-Performing Loans
NSE-	Nairobi Securities Exchange
OECD-	Organisation for Economic Co-operation and Development
OLS-	Simple Ordinary Least Square
RDT-	Resource dependence theory

ROA-	Return on Asset
ROE-	Return on Equity
SACCOS-	Savings and Credit Cooperative Organizations
SASRA-	Sacco Societies Regulatory Authority
SECP-	Securities and Exchange Commission of Pakistan
SMEP-	Small and Micro Enterprise Programme
SMEs-	Small and Medium-Sized Enterprises
UK-	United Kingdom
VIF-	Variance Inflation Factor

CHAPTER ONE

INTRODUCTION

1.0 Overview

The chapter comprised of the background of the study, the statement of the problem, objectives of the study, research hypotheses, significance of the study and scope of the study.

1.1 Background of the Study

In the MFI context, financial performance is the ability of a MFI to keep on going towards microfinance objective without donor support, a good performance in microfinance is vital in sustaining the stability of the firm (Tilahun & Dereje, 2012). Poor financial performance deteriorates the capacity of MFIs to absorb negative shocks, which subsequently affect solvency (Almazari, 2011). Financial performance is the measure of organizations achievement on the goals, policies and operations stipulated in monetary terms. It involves the financial health and can be compared between similar firms in the same industry (Adhikary, 2014).

The main aim of every micro-finance institution is to have operations that are profitable in order to maintain stability and improve on sustainability and growth (Agola, 2014). Thus, Microfinance Institutions (MFIs) should seek to maximize performance in many areas, whether it is social or economic (Jørgensen, 2011). Financial performance can be measured through various financial measures such as profit after tax, return on assets (ROA), return on equity (ROE), earnings per share and any market value ratio that is generally accepted (Yenesew, 2014). The return on assets ratio (ROA) is an important financial performance ratio because it measures the efficiency with which the company

is managing its investment in assets and using them to generate profit (Bhunias, Mukhuti & Gautam, 2011).

In the recent past a number of large companies around the world have collapsed most of them as a result of largescale fraud by the directors. The failures reduce public confidence in financial reporting and auditing. Many people believe that company directors were circumventing accounting standards and rules and they were involved in creative accounting. The directors were reluctant in their oversight role, as a result the establishment of the Cadbury committee in the UK chaired by Adrian Cadbury. The Cadbury report was titled Financial Aspects of corporate governance, was published in 1992 and it set out the recommendations on the arrangement of company boards and accounting to mitigate corporate governance risks, wastage and failures.

The performance of micro finance institution is depended on corporate governance structure. It is believed that good governance brings investor goodwill and confidence. Good corporate governance is important in increasing investor confidence and market liquidity that enhance the performance of the firm (Donaldson, 2003). Good corporate governance practices are important in reducing risk for investors; attracting investment capital and improving the performance of companies (Velnampy & Pratheepkanth, 2012). Corporate governance (CG) mechanisms assure investors in MFIs that they will receive adequate returns on their investments. According to Priyanka Aggarwal (2013), corporate governance rating exerts positive impact on financial performance of firms. In this study, corporate governance practices include board size, board duality, board composition and board independence. CG is therefore, about building credibility, ensuring transparency and accountability as well as maintaining an effective channel of information disclosure that fosters good corporate performance (Labis & Mersland, 2011).

In Central and Eastern Europe and the Newly Independent States (CEE & the NIS) the asset bases of the microfinance institutions have been increasing (Nawaz & Iqbal, 2015). However, the recent waves of corporate scandals in other developed European countries indicate that there is much room for improvement of governance practices even in countries with well-functioning markets and in industries with established mechanisms of control. Corporate governance mechanisms impact outreach and sustainability of MFIs differently. According to Taggart and Szczerbiak (2014), the board is an effective internal governance mechanism and MFIs with local boards have higher sustainability. Board diversity improves both outreach and sustainability. The pursuit of both outreach and sustainability, it seems, may create difficulties for stakeholders who, by being represented on the board, hope to protect their interest.

In Nigeria, the emergence and proliferation of MFIs has enabled increase in financial access. However, financial systems in Nigeria are underdeveloped because of weak adherence to corporate governance practices (Ibadin, & Dabor, 2015). Due to these reasons, MFIs serve as an important alternative in extending credit and even in providing other banking services when there's limited access to formal financial institutions (Umoren, 2010). The rapid failure of Microfinance banks (MFBs) in Nigeria in 2010 led to the withdrawal of 103 microfinance banks licenses by Central Bank of Nigeria (CBN). This failure has cast doubt on the ability of MFBs in Nigeria to be financially sustainable (Adeyemi & Fagbemi, 2010). The persistent failure of MFBs resulting from weak management, poor internal control mechanism and lack of adequate risk management necessitated the need for setting up good corporate governance structure and improvement in financial sustainability (Adeyemi & Fagbemi, 2010; Umoren, 2010; Chenuos *et al.*, 2014).

In South Africa, the King's Committee Report and Code of Practice for Corporate Governance was established in 1994 continue to stimulate corporate governance in Africa. The initial King Report drew attention to the importance of a properly functioning board of directors as a key ingredient of good corporate governance (Amstrong 2003). The King committee, 1994 had focused on the Board and was hailed as being more inclusive than the ones in the West. The code was revised with the King Committee II, which addressed the issues of listed companies, banks, public enterprises and the regulators with greater emphasis on the qualitative aspects of corporate governance that sets it apart from the rest in the world (Tshipa & Mokoaleli-Mokoteli, 2015). Listed firms in South Africa were encouraged to adopt the code. Arising from the Committee's emphasis on the need for director training, there have notable initiatives to impart training and education in Corporate Governance (Hove-Sibanda, Sibanda & Poee, 2017). The experience of corporate governance for Micro Finance Institutions (MFIs) is drawn from best practices of any organization which should be customized to features and environment and address the specific problems of these institutions (Rezaee, 2009). Corporate governance guides an MFI in fulfilling its corporate mission and protects the institution's assets over time (Mersland & Strom 2009). Good governance in the Kenyan MFIs plays an important role in increasing outreach, improving transparency, accountability, sustainability, profitability, efficiency, effectiveness, responsibility and responsiveness to the changing environments (Chenuos *et al.*, 2014), (Otieno, Mugo, Njeje & Kimathi, 2015). However, micro finance institutions in Kenya lack clear basing and legal guidelines in constituting a board. For those micro finance institutions that have board of management, board composition fails to follow generally acceptable guidelines and standards of constituting viable and acceptable board membership composition and

structure (Waithaka et al., 2015). Poorly constituted boards may have graving problems related to the overall management of the MFIs, monopoly of ideas, operations, decisions making and accountability. Such board management problems will have a significant impact on the operational sustainability and performance of micro finance institutions.

The performance of some of MFIs in Kenya has been on decline with some recording very poor financial performance with negative Return on Assets (ROA) (CBK, 2019). Some scholars have argued that the unstable financial performance of micro finance institutions is as a result of ineffective management of the institutions (Moenga, 2015; Waithaka et al., 2015) though it is yet to be confirmed through an empirical study. Most micro finance institutions are devoid of clear baseline and guidelines in constituting a board. For those micro finance institutions that have board of management, board structure fails to follow generally acceptable guidelines and standards of constituting viable and acceptable board members (Chenuos, Mohamed & Bitok, 2014). Some boards of the MFIs in Kenya comprise only one gender particularly male with little or no consideration of diversifying board composition by selecting female directors as members. Some of the microfinance institutions left the market or rebranded itself owing to serial declining performances perceived to have been caused by governance problems.

Effective governance depends on both forms- the structures and processes of control, and content-and the specific individuals involved, particularly in the leadership. Kenyan government introduced the MFI Act 2006 that stipulates the desired governance structure for the micro finance institutions (Olick, 2015). Apart from the Act, AMFI (Association of Microfinance institutions) provides a guideline on how the

MFI should be governed. The need for Kenyan MFIs to transform into large financial institutions necessitated these institutions to embrace good governance practices.

The CG plays a key role in as far as the growth of economies is concerned. It is essential that external forces are used to tame interests of the managers of the microfinance organizations. There are many justifications why microfinance institutions (MFI) should be well governed. Whenever there are instances of fraud in the MFI, the industry is tainted in the eyes of the international stakeholders such as investors. Bearing in mind that Kenya's economy is largely supported by the small and micro-enterprises, withdrawal of foreign investors would lead to negative effects on the economy. Examples of such scandals happened in Uchumi and CMC Motors (Murigi *et al.*, 2014).

1.1.1 Microfinance Industry in Kenya

The Kenyan Microfinance sector is one of the most vibrant in Sub-Saharan Africa. Microfinance industry in Kenya is under the umbrella of Association of Microfinance Institutions of Kenya (AMFI). The main objective of AMFI is provision of general policy guidelines, adherence to ethical practices and to build capacity of the microfinance industry. Kenya has 52 microfinance institutions who are members of AMFI in 2019. The microfinance business takes different forms ranging from those who are regulated as deposit taking MFIs, those registered as Non-governmental organizations, Church based, Merry go round (Chamas), Rotating Savings and Credit Associations (ROSCAs), accumulative savings and credit associations (ASCAS) and investments groups. Delivery of the microfinance products and services takes different forms from group lending, individual, corporate, and non-formal lending. The Economic Pillar of Kenya's Vision 2030 objective of enhancing deposit mobilization, increasing savings levels and improving the general quality of life for all citizens, has seen the government introduce regulations through the Microfinance act 2006 and the

continued amendment to ensure the industry is able to meet their objectives of serving the poor. Section 3(2) of the Act, empowers the Minister for Finance to make regulations specifying the credit only Microfinance business and prescribes measures for the conduct of the specified business (MF Act, 2006).

In Kenya the formal providers are financial institutions licensed by Banking Act and Central Bank of Kenya. There are thirteen (13) Microfinance institutions in Kenya licensed and regulated by the CBK to conduct the microfinance business. They include Faulu Microfinance Bank, Kenya Women Finance Microfinance Bank, SMEP Microfinance Bank, Remu Microfinance Bank, Rafiki Microfinance Bank, UWEZO Microfinance Bank, Century Microfinance Bank, SUMAC Microfinance Bank, U&I Microfinance Bank, Maisha Microfinance Bank, Choice Microfinance Bank, Daraja Microfinance Bank and Caritas Microfinance Bank (CBK, 2019).

The accessibility to bank services in the country is estimated to be 60% while 30% of citizens in the countryside have no access to banks/financial institutions (Financial Sector Deepening, 2010). Inadequacy supply of financial services on credit in comparison to demand is also prevalent (Hartarska, 2014). Microfinance institutions therefore bridges this gap in the financial sector industry by offering micro credit loans preferably to the people who do not have a potential to access conventional loans (Gatuhu, 2013). Therefore, this study seeks to examine the moderating effect of firm size on the relationship between corporate governance and financial performance of CBK regulated microfinance institutions in Nairobi city county Kenya.

1.2 Statement of the Problem

Microfinance institutions should be playing a critical role in enhancing financial inclusion. The performance in terms of return on assets should be sustainable. However,

the performance of some of MFIs in Kenya has been on decline. As a result, most MFIs are recording very poor financial performance with negative Return on Assets (ROA) (CBK, 2019). Microfinance banks number of active deposit and loan accounts has dropped to over a decade low as large banks and digital lenders raid their turf through innovative products. The 13 Central Bank of Kenya (CBK)-regulated microfinance banks in 2020 lost 396,800 or 37 percent of their active deposit accounts, drifting far apart from the peak of 2013 when they held 1.946 million accounts. The fall in deposit accounts also came in the period that active loan accounts fell by 46,900 or 17.8 percent to 219,400—the lowest in over eleven years. The mounting microfinance losses has seen core capital nearly half from Sh10.4 billion in 2016 to Sh5.49 billion at the end of 2020.

CBK data shows the value of loan book shrunk by Sh2.48 billion to Sh44.18 billion but deposits increased by 12 percent to Sh49.3 billion. Microfinance banks lost Sh1.66 billion deposits between 2015 and 2017 on the back of increased preference for large banks following the collapse of Chase, Imperial and Dubai Bank in quick succession.

Banks depend on deposits to finance loan book in order to earn interest income and therefore a fall in any of the two affects the performance. The microfinance banks' pre-tax loss last year rose from Sh339 million to Sh2.2 billion—the worst ever and the fifth consecutive year without a profit. Four micro financiers reported profits, while the remaining nine registered losses, with the main contributors to the loss-making position being Kenya Women Microfinance (Sh1.5 billion) and Faulu Microfinance Bank (Sh476 million). (CBK 2020)

MFIs in Kenya face numerous corporate management practices hampering their performance (Githinji, 2017). In case of a malpractice or fraud, most MFIs do not have

the legal back up to protect them from these. As a result most MFIs collapse in their third or fourth birthday (AMFI, 2016). Therefore, poor performance of microfinance institutions is a concern of MFIs in Kenya and majority of these institutions are beginning to embrace corporate governance to enhance acceptable financial management practices. Microfinance institutions continue to face a myriad of challenges in their quest to enhance financial accessibility in the country (Githinji, 2017). Some of the microfinance institutions have left the market as a result of serial poor performances. Furthermore, cases of financial fraud characterize majority of micro finance institutions hampering their ability to finance their operations. As a result of poor performance, majority of micro finance institutions do not grow to big financial institutions.

The corporate governance practices among MFIs in Kenya are not well documented. It is important therefore for research of this nature to undertake a two-fold mission; first to describe the CG practices of MFIs in Kenya and then second, quantify the effect of these practices on financial performance of the MFIs in Kenya. According to Korir and Cheruiyot (2014), there have not been recent efforts to investigate quantitatively the consequences of the practices of business leaders in the MFI in Kenya. A number of studies on corporate governance practices have been conducted in Kenya. In-fact, most studies have focused on documenting the effect of CG practices on public organizations or those listed at the Nairobi Securities Exchange (NSE), leaving out the important microfinance institutions (Mang'unyi, 2011; Manini & Abdillahi, 2015; Mulili, 2011; Muriithi, 2009; Ongore & K'Obonyo, 2011; Nyamongo & Temesgen, 2013; and Murigi & Kamau, 2014). On this basis, it is critical to update the empirical and quantitative effect of the corporate governance variables on the performance of MFIs in Kenya, especially taking into account the recent capping of interest rates in the country.

A study by Chenuos, Mohamed and Bitok (2014) on effects of corporate governance on Microfinance Institutions financial sustainability in Kenya, established that board size, CEO gender, board duality and board composition influenced financial sustainability of MFIs. However, there are other financial components for instance firm sizes that affect the sustainability of MFIs firms. This study included firm size as a moderating variable. In addition, the study only relied on agency theory to anchor the study. Agency theory assumes that the market is in no way influenced by social relations. Agency theory is not only expensive, but also economically ineffective thus theoretical argument. This study introduces stewardship theory as a remedy to the weakness of the agency theory.

Githinji (2017) did a study to establish the effects of corporate governance practices on the performance of commercial banks in Kenya and found that corporate governance is the key to the global integrity especially for financial institutions. The study focused on commercial banks. The structure of a commercial bank is significantly different from micro finance institution. A study by Momanyi, Ragama and Kibati (2018) to analyze the effect of corporate governance practices on the growth of microfinance institutions in Kenya and found out that only financial transparency was a statistically significant predictor of asset growth among institutions registered with Association of Microfinance Institutions. The study focused on MFIs in general; however, the current study is specific to the 13 Central Bank of Kenya (CBK)-regulated microfinances institutions. A study by Otieno, Mugo, Njeje and Kimathi (2015) on the effect of corporate governance on financial performance of Saccos in Kenya found out that there was a significant relationship between financial reporting, management style, board size and financial performance of savings and credit cooperatives. The study focused on Saccos that do deposit this contextual gap as the current study focuses on

microfinance institutions. This study closed this knowledge gap by establish the moderating role of firm size on corporate governance and financial performance of microfinance institutions in Nairobi city county, Kenya. The establishment of board in a firm depends on the size of the firm. Firm size indicates the efficiency of a firm in using the available resources to generate revenue for the firm. The size of the board, the composition, board duality and presence of outside directors may be informed by the size of the firm hence the selection of firm size as a moderator in this study is justified.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of this study was to establish the moderating role of firm size on corporate governance and financial performance of microfinance institutions in Nairobi city County, Kenya.

1.3.2 Specific Objectives

- i. To establish the influence of board size on financial performance of Microfinance Institutions in Nairobi city County, Kenya.
- ii. To determine the influence of board duality on financial performance of Microfinance Institutions in Nairobi city County, Kenya.
- iii. To assess the influence of board composition on financial performance of Microfinance Institutions in Nairobi city County, Kenya.
- iv. To examine the influence of board independence on financial performance of Microfinance Institutions in Nairobi city County, Kenya.

- v. a) To determine the moderating effect of firm size on the relationship between board size and financial performance of Microfinance Institutions in Nairobi city County, Kenya.
- b) To determine the moderating effect of firm size on the relationship between board duality and financial performance of Microfinance Institutions in Nairobi city County, Kenya.
- c) To determine the moderating effect of firm size on the relationship between board composition and financial performance of Microfinance Institutions in Nairobi city County, Kenya.
- d) To determine the moderating effect of firm size on the relationship between board independence and financial performance of Microfinance Institutions in Nairobi city County, Kenya.

1.4 Hypotheses of the Study

- i. **H₀₁**: There is no significant relationship between board size and financial performance of Microfinance Institutions in Nairobi city County, Kenya.
- ii. **H₀₂**: There is no significant relationship between board duality and financial performance of Microfinance Institutions in Nairobi city County, Kenya.
- iii. **H₀₃**: There is no significant relationship between board composition and financial performance of Microfinance Institutions in Nairobi city County, Kenya.
- iv. **H₀₄**: There is no significant relationship between board independence and financial performance of Microfinance Institutions in Nairobi city County, Kenya.

- v. **H₀₅**: a) Firm size does not significantly moderate the relationship between board size and financial performance of Microfinance Institutions in Nairobi city County, Kenya. **H₀₅**: b) Firm size does not significantly moderate the relationship between board duality and financial performance of Microfinance Institutions in Nairobi city County, Kenya.

H₀₅: c) Firm size does not significantly moderate the relationship between board composition and financial performance of Microfinance Institutions in Nairobi city County, Kenya.

H₀₅: d) Firm size does not significantly moderate the relationship between board independence and financial performance of Microfinance Institutions in Nairobi city County, Kenya.

1.5 Significance of the Study

The Microfinance industry is the Economic Pillar of Kenya's Vision 2030. According to Robinson (2002), microfinance enables clients to protect, diversify and increase their incomes as well as to accumulate assets and reduce vulnerability to income and consumption shocks. Improvement in the financial performance of this industry will be a great benefit to the Kenyan economy and the achievement of the millennium development goals.

The study will help in promoting and enhancing good corporate governance practice among micro finance institutions in Kenya where the directors of micro finance institutions will adopt the best corporate governance practices. The study will also be of value to boards of directors in benchmarking the financial performance of their institutions against that of their peers. It will also enable the board to reexamine the role of corporate governance in enhancing performance of microfinance institutions by

minimizing conflict of interest between the agents (managers) and principals (owners) of the institution.

The findings are also a source of valuable information to MFIs board of management on how to enhance proper monitoring of firm activities by properly constituting their board in terms of composition, independence and size. This ensures effective governance and hence better services and leadership that may catalyze financial performance of the MFIs.

The study findings are also important to the MFIs regulators. The regulator can highlight the successes and challenges facing corporate governance in microfinance institutions and thereby helping policy makers like the Association of Microfinance Institutions of Kenya (AMFIK) to make informed decisions. Using the formation from the individual MFI boards, policy makers can detect loopholes within the management of the institution and thus advice the Microfinance Institutions or take further action. It further provides an insight in understanding the degree to which the microfinance institutions are compliant with different sections of the codes of best practice and where they are experiencing difficulties.

The study findings also contribute to knowledge and further the frontiers of knowledge in the area of corporate governance performance; concepts, principles and processes to make informed decisions in the academic and business world. Scholars will find this work relevant for further studies.

1.6 Scope of the Study

The study was conducted in Nairobi City County, Kenya an indication of place scope. Nairobi City County hosts a number of MFIs hence justifying the study. The specific objectives of the study were to assess the relationship between board size, board duality,

board independence and board composition on the financial performance of microfinance institutions in Nairobi city county and to establish the moderating role of firm size on the relationship between corporate governance and financial performance of microfinance institutions in Nairobi city County, Kenya covering the period 2012-2019 presenting time scope. Most of the microfinance institutions were licensed after the year 2012 by CBK, thus material financial data are available from the year 2012-2019. The study targeted 13 microfinance institutions regulated by CBK. A causal research design was adopted and a census survey was conducted since the target population was small and manageable. Secondary data were extracted from the MFIs financial records. The study was limited to board size, board duality, board composition, board independence and firm size as moderator hence conceptual scope.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the concept of Financial performance, corporate governance, board size, board duality, board composition, board independence and firm size., theoretical framework, empirical review, summary of literature gaps and the conceptual framework.

2.2 Concept of Financial Performance

Performance refers to the extent to which organization's goals and objectives are achieved efficiently and effectively. Financial performance is an indicator of how profitable a company is relative to its total assets. There has been a wide variety of definitions of financial performance that have been proposed in the literature. Performance is the ability to sustain income stability and growth. Hassan *et al.* (2011) identified two broad categories of financial performance measures; investor returns and accounting returns. The basic idea of investor returns is that the return should be measured from the perspective of shareholders. Whereas accounting returns measures of financial performance focus on how firm earnings respond to different managerial policies.

Accounting-based performance measures are; return on assets (ROA), total assets, sales growth, asset growth and operating income growth. Investment based returns measures are dividend yield, price earnings ratio among others. Ngatia (2012) identified firm size, return on assets (ROA), return on equity (ROE), asset age, and return on sales as the frequently used financial performance measures. Wanjau (2007) identified four indicators namely; market share, turnover or disbursement, portfolio quality and profitability as measures of microfinance performance. Good governance in the Kenyan MFIs plays an important role

in increasing outreach, improving transparency, accountability, sustainability, profitability, efficiency, effectiveness, responsibility and responsiveness to the changing environments. Particularly, ROA is consistently claimed to be an authentic measure of Financial Performance (Berman *et al.*, 1999). Unlike other accounting measures such as return on equity or return on sales, ROA is not affected by the differential degree of leverage present in firms. Because ROA is positively correlated with the stock price, a higher ROA implies higher value creation for shareholders. The ROA measures not only profit aspect but also those related to assets employed to generate the profit. Scholars have recommended the use of ROA and ROE as measures of MFI profitability (Moenna, 2014; Aras, *et al.*, 2010).

2.3 Concept of Corporate governance

Corporate governance (CG) is the process and structure used to direct and manage business affairs of the company (Capital Markets Authority, 2011). CG seeks to enhance prosperity and corporate accountability with the ultimate objective of realizing shareholders long-term value while taking into account the interest of other stakeholders (Akpan, 2015). CG emphasizes the responsibility of the board to attend to strategic positioning and planning in order to enhance the performance and sustainability of the company. The control side of the definition emphasizes on the responsibility of the board to oversee the executive management of the company in the execution of plans and strategies. It provides a mechanism for setting goals and objectives of company and means for achieving those goals and objectives (OECD principles of corporate governance, 2004). Corporate governance provides solution to the agency problems and is defined as the mechanism which forces managers to act in the best interest of shareholders (Denis, 2001). Aboagye and Otioku (2010); Hartarska

and Mersland (2012) and Galema et al. (2012) found the significant impact of different corporate governance indicators on performance of MFIs.

Corporate governance seeks to promote responsive and accountable firms, legitimate organizations that are managed with integrity, probity, transparency, recognition and protection of stakeholders' rights. Good corporate governance ensures efficient, effective and sustainable firms that contribute to the welfare of society by creating wealth, employment and solutions to emerging challenges. A well-functioning corporate governance system helps a firm to attract investment, raise funds and strengthen the foundation for firm financial performance (Donaldson, 2003). The connection between corporate governance and organizational performance lies in the multi-dimensional nature of good governance. According to Brickley (1994), Byrd and Hickman (1992) good corporate governance enhances the performance of micro finance. In spite of the generally accepted notion that effective corporate governance enhances MFB performance, other studies have reported a negative relationship between corporate governance and MFB performance (Hutchinson, 2002).

There have been mixed results concerning the association between corporate governance and financial performance. For instance, Klapper and Love (2004) found a high positive association between better governance and operating performance. Likewise, some other researchers Brown and Caylor (2004), Beiner *et al.* (2004) and Gompers *et al.* (2001) reported a positive relationship between the quality of CG and their measures of profitability. Also, there is international evidence linking these positive relationships to certain developed markets. For instance, Selvaggi and Upton (2008) claimed that good CG enhances financial performance for the United Kingdom firms and found the presence of a strong correlation between the two variables.

Similarly, Black (2001) reported the same conclusions in the case of Russian firms. In contrast, other studies reported no significant positive relationship between financial performance and CG. For instance, Bauer *et al.* (2004) argued that initially an insignificant relationship was reported which afterwards turned to a significantly and statistically negative relationship. A similar outcome was also observed by Beiner *et al.* (2004). Moreover, other studies (Park & Shin, 2004; Prevost *et al.*, 2002) did not find any evidence of any relationship between the two variables. According to Chenuos, Mohamed and Bitok (2014), corporate governance comprises of board size; board duality; composition of the board and CEO gender. In this study, corporate governance was measured using board size, board duality, board composition and board independence.

Bhagat and Black (1998) and Kahan and Rock (2003) highlighted the role of different instruments in implementing corporate governance. These instruments included the board of directors, board size, independent directors, CEO, managers, government, political regime, judiciary and regulatory authority. As far as the corporate governance is concerned, the size of the board is an important factor to be considered. The board size should not be very large that it costs huge financial burden which is higher than the agency cost nor the board should be too small that it may lead to the biased decisions or weak decisions (Adekunle & Aghedo, 2014). The diversity of the board defines corporate governance. Siele (2009) observe that large boards can be less effective than small boards for a CEO to control. The idea is that when boards become too big, agency problems, such as director free-riding, increase within the board and the board becomes more symbolic and less a part of the management process. To add on that, Raheja (2005) observes that larger boards have higher coordination costs and decision making process takes long time though the decision is of equality.

Board's independency is very important aspect in the corporate governance because when the organization's board is independent, they suggest better and unbiased decisions that are useful to the growth of the firm (Abdulazeez, Ndibe & Mercy, 2016). Those firms which have their board as an independent they tend to face less financial pressure (Bayero, 2018). Higher number of independent directors in the board in the companies can enhance the decision credibility and objectivity. When there is an independent system exists regarding the board of directors, there would be a transparency in financial statements and value. Independency of the board also tends to have better supervision and protection of shareholder's equity increases (Adjaoud, Zeghal & Andaleeb, 2010). Non-executive directors takes the efforts and measures in order to ensure that the organization is running effectively and they monitor the performance of the management in order to retain the firm's reputation in the market. Non-executive (external) directors may act as professional referees to ensure that competition among insiders stimulates action consistent with shareholder value maximization. According to Thomsen and Conyon (2012), executive directors are more familiar with MFI activities and therefore are in a better position to act as monitors with regard to the top management.

According to Mersland and Strom (2007) having a high fraction of women on the board would help the MFI understand its customers better; which is expected to translate into better MFI performance due to the fact that many clients in MFI are women. Weisbach, Hermalin and Weisbach (2010), posited that the proposition of board composition is to help reduce agency problem. A board should be gender sensitive comprising both male and female directors.

Duality of CEO means that one person is having both responsibilities in the company i.e., CEO and Chairman of the Board. This lead to the highly biased decision and

monopoly of a single person arises which tends to have lack of confidence of other board members and as well as the performance of the company also reduces (Baker & Anderson, 2010). This creates an imbalance of the power within the firm and the influence of one person in all matters of the organization results in highly biased and ineffective decisions (Brown & Caylor, 2004). Keeping this aspect of duality, much organization has followed this point, that they made their CEO and Board's Chairman, separate and hence moved from duality to a non-duality structure of the organization. Duality of the board reduces the supervision and monitoring process on the management of the organization.

The effect of corporate governance on financial performance is normally associated with firm size. Firm size is used as the moderating variable which is measured by the total value of each bank's assets. Because the values for total assets were too large for the regression analysis, then log of the assets was used to reduce the values. This moderator was introduced because of the notion that performance may also be affected by other factors not captured in the independent variables in which firm size is one (Adeusi, Akeke, Aribaba, Adebisi, 2013).

Various empirical studies have provided the nexus between corporate governance and firm performance. Bebchuk, Cohen, and Ferrell (2009) indicate that well-governed firms have higher firm performance. Research has also shown that there is a strong link between the performance of corporations and the governance practices of their boards (Kiel & Nicholson, 2013). Similarly, a study carried out in the United States by Gompers, Ishii and Metrick (2013) found a strong correlation between good board characteristics and superior shareholder performance. The study also revealed that two-thirds of investors were prepared to pay more for shares of companies that had good board characteristics.

The importance of corporate governance lies in its contribution transparency and accountability of business corporations. Deficiency of corporate governance in an organization can lead to its ultimate collapse (Akpan, 2015). The sustainability and growth of an organizational is highly depended on corporate governance practices. The fall of Enron, the Houston, Texas based energy giant and WorldCom the telecom behemoth illustrated the critical role corporate governance in an organization. Because of the role played by corporate governance, no organization regardless of the size; small, medium or big firms can afford to underestimate the dangers of not adhering to good corporate governance practices (Momanyi, Ragama & Kibati, 2018).

Many international organizations of known reputable firms have been involved in famous financial scandals, such as the leaders of Enron, Anderson, WorldCom, Xerox, Parmalat, Merrill Lynch, Maxwell, Allied Irish Bank, and Sellafield (Alimehmeti & Paletta, 2014; Cretu, 2012). The financial scandals caused stock markets to drop sharply, employees to lose their jobs, capital providers to lose their investments, and tax collections to shrink. A common cause for this failure resulted from weak internal control which arises from poor corporate governance of organizations (Darus & Mohamed, 2011).

Furthermore, auditors' failure to reveal inadequacies in financial records and increase reliability and confidence in the use of financial reports was significant factor among these scandals (Bonna, 2011). The financial scandals have placed a significant doubt on the abilities of stock market authorities, policy makers, and professional accounting and auditing associations to regulate the proper corporate behavior (Adegbite, 2012). These high profile corporate failures intensified the debate on the effectiveness of corporate governance as a tool for improving firm performance and protecting investors (Mangunyi, 2011).

2.3.1 Board Size

The board size represents the total head counts of directors seating on the corporate board. The board can be large, moderate or small. According to Weisbach (2013) there is a possibility that larger boards can be less effective than small boards, when boards consist of too many members agency problems may increase, as some of the directors may be tagged along as joy-riders. A large board could also result in less meaningful discussion, since expressing opinions within a large group is generally time consuming and difficult and frequently results in a lack of cohesiveness on the board.

Mak (2013) in his opinion, when the board size is big the problem of coordination outweighs the advantages of having more directors and when a board becomes too big, it often moves into a more symbolic role, rather than fulfilling its intended function as part of the management. Lipton (2012) recommended limiting the number of directors on a board to seven or eight, as numbers beyond that it would be difficult for the CEO to control. Dalton (2012) argued that, expropriation of wealth by the CEO or inside directors is relatively easier with smaller boards since small boards are associated with a smaller number of outside directors. The few directors in a small board are preoccupied with the decision making process, leaving less time for monitoring activities.

Boards with a large number of directors can be a disadvantage and expensive for the firms to maintain. Planning, work coordination, decision-making and holding regular meetings can be difficult with a large number of board members. The effectiveness of the board does not depend on how many directors sit on it, although a minimum number of directors with adequate experience and knowledge is vital to ensure tasks are carried out efficiently. Based on the theoretical perspective, larger boards may create free rider

problem among directors and the possibility of a lack of cohesiveness with larger boards. In this study, board size was measured by the number of directors.

2.3.2 Board Duality

According to AlManaseer *et al.* (2012) board duality refers to the situation when one person holds the two most powerful positions on the board of directors namely, CEO and chairman. Board member duality occurs in the context of a relationship between parent and subsidiary company. Agus (2017) believes that, duality represents a problem for a firm because people that are responsible for the firm's performance are the same with those who evaluates the efficiency of the firm. This situation makes difficult the correct evaluation of the firm's performance and may lead to an under-performance of the company on long term; such an arrangement concentrates too much power in the hands of one executive and may lead to low performance. Board duality was measured using a dummy variable where 1 if CEO and Chairman are the same person; 0 if CEO and Chairman are different persons.

2.3.3 Board Composition

The Board is the heart of corporate governance where the outcome of a firm is often determined. However, the effectiveness of the board of directors as shareholders' monitoring mechanism can only be efficient if bounded with appropriate size, proportion of outside directors, gender diversity, average age, average board tenure and occupational expertise (Conelly, 2014).

According to Carpenter and Westphal (2001), diversity of board involves having a well-balanced board membership that is made of individuals not necessarily from different cultural background but those from different professional fields, gender and age group which create synergy that helps board in carrying out its statutory responsibilities. Gender diversity on boards is well supported by agency theory. The agency theory

emphasizes the board balance, thus, representation from diverse groups provides a more balanced board that is likely to prevent an individual or a small group of individuals from dominating its decision-making. Board composition was measured in terms of gender diversity and specifically the percentage of women directors to the total members in the board.

2.3.4 Board Independence

According to Sharifah (2016), the board is a collective body that should act in the best interest of shareholders. The board requires the combination of executive and non-executive directors to pursue the shareholders' interest. The non-executive directors on the board may not be able to exercise their duties effectively, unless they are independence from management and ensure they provides unbiased business judgment. Independent directors are the person entrusted by shareholders to represent them and help to reduce agency problems. Further, the Code of Corporate Governance and regulators recommend the composition of board members should be balanced and consist of independent directors. However, mere compliance with the recommendations is not enough if the independent directors fail to exercise their functions effectively.

According to Baesley (2011), the role of independent directors in the board is to ensure effective monitoring mechanism. This implies that if the proportion of independent directors is higher, the board may be encouraged to be more effective in monitoring its corporate governance practices (Khanchel, 2007). Previous studies have suggested that independent directors function as effective monitors of corporate governance practices because they do not have any personal or financial interests in the company. An independent director also does not have familial ties with the organizations' management and in a better position to objectively challenge the management (Klein, 2012). Empirical research shows that an organization that has a large proportion of

independent non-executive directors is able to mitigate earnings management (Klein, 2012), minimize accounting fraud cases (Baesley, 2011) and prevent managers from expropriation and misusing organizational resources (Niu, 2016). Scholars and regulators emphasize the crucial importance of adopting an “independent” board of directors, i.e., one with a majority of nonexecutive directors (Bell, Moore & Filatotchev, 2012). Board independence was measured as the ratio of outside directors to total number of directors.

2.4 Firm Size

Firm size refers to the speed and extent of growth that is ideal for a specific small business. Optimal firm size is dependent on a variety of internal and external factors. Vijayakumar and Tamizhselvan (2010) in a study indicated that, there exists a positive relationship between firm size and profitability. Papadognas (2007) conducted analysis on a sample of 3035 Greek manufacturing firms and revealed that for all size classes, firms’ profitability is positively influenced by firm size. Lee (2009) examined the role that firm size plays in profitability; the results showed that absolute firm size plays an important role in explaining profitability. Amato and Burson (2007) tested size-profit relationship for firms operating in the financial services sector. With the linear specification in firm size, the authors revealed negative influence of firm size on its profitability. Amarjit et.al (2010) in a study on relationship between firm size and its profitability found reported that, there is no significant relationship between firm size and the general financial performance. The study by Falope and Ajilore (2009) on the effect of firm size on financial performance in Nigeria also found no significant variations in the effects of working capital management between large and small firms. According to Kurshev (2015), firm size matters for a number of reasons; first, in the presence of non-trivial fixed costs of raising external funds large firms have cheaper

access to outside financing for every amount borrowed. Larger firms are more likely to diversify their financing sources. Secondly, size may be a proxy for the probability of default, for it is sometimes contended that larger firms are more difficult to fail and liquidate, or, once the firm finds itself in distress, for recovery rate. Finally, firm size may also proxy for the volatility of firm assets, for small firms are more likely to be growing firms in rapidly developing and thus intrinsically volatile industries.

The size of the firm has been shown to have an effect on performance due to the advantages and disadvantages faced by firms with a particular level of growth. According to Chandler (1962), large firms can operate at low costs due to economies of scale. Cull et al. (2007) found out that the size of an MFI is significantly positively linked to its financial performance.

Large MFIs have easier access to finance, possess a larger pool of qualified human capital and have a greater chance for strategic diversification (Chen & Yang, 2009; Amdemikael, 2012). Large MFIs also have superior capabilities in product development, marketing and commercialization (Teece, 1986). The size of the firm is not always advantageous as it can result to declining performance due to some operational behavior of the firms. Firm size is measured in terms of total assets owned by the micro finance institution. Other studies measure firm size by sales or market capitalization (Baptista, 2010) and the number of employees (Richarda *et al.*, 2009). However, total assets is deemed most appropriate measure of firm size as it indicates the efficiency of a firm in using the available resources to generate revenue for the firm (Shao, 2009). In this study, firm size has been measured as natural logarithm of total assets.

2.5 Theoretical Framework

Theoretical framework is an examination of the existing theories in connection to the research objectives. The study was anchored on Shareholders' Wealth Maximization and Agency theory. In addition, the study was further guided by the Stewardship theory, Stakeholder Theory and Resource dependence theory,

2.5.1 Shareholders' Wealth Maximization

The shareholders' Wealth Maximization theory stipulates that the management has a fiduciary duty to the owners or stockholders of a corporation and thus this duty takes priority over other responsibilities and obligates it to focus on profit maximization alone. The belief of researchers in this group stems from the traditional neoclassical paradigm of the firm (Moir, 2001), a theory which reflects Adam Smith's notion of economic man, whose goal is to maximize the wealth of the firm, based on his contractual duties to the owners. This model of the firm was further popularized by Friedman (1970), who argued that in a free economy, there is only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to engage in open and free competition, without deception or fraud. Milton Friedman contends that diverting corporations from the pursuit of profit makes the economic system less efficient. Business's only social responsibility is to make money within the rules of the game.

Private enterprises, therefore, should not be forced to undertake public responsibilities that properly belong to government (Friedman, 1970). The rules of the game that Friedman refers to are the elementary morality rules against deception, force, and fraud which are intended to promote open and free competition. Friedman believes that by allowing the market to operate with only the minimal restrictions necessary to prevent

fraud and force, society maximizes its overall economic wellbeing. Pursuit of profits is what makes the free economy vibrant. Anything that dampens this kind of incentive or inhibits its operations weakens the ability of Adam Smith's invisible hand to deliver the economic goods (Frankel, Kothari & Zuo, 2018).

The Shareholders' Wealth Maximization theory is useful in guiding MFI goals. The MFI have the role of promoting financial inclusion and also creating wealth for the shareholders. Through the Shareholders' Wealth Maximization theory, MFI management and board of directors are able to discharge their duties in line with objectives of the institution with aim of generating revenue for stakeholders and also for sustaining it. This theory informs the dependent variable which performance of MFIs.

2.5.2 Agency Theory

The agency theory was put forward by Jensen and Meckling in 1976. Agency theory refers to a set of propositions in governing a modern corporation which is typically characterized by large number of shareholders or owners who allow separate individuals to control and direct the use of their collective capital for future gains (Percy, 2013). The agency theory is concerned with reducing the agency problem leading to increase value maximization. It provides a direct link between corporate governance and financial performance. In agency theory, corporate governance mechanisms play an important role in ensuring the alignment of the interests of the principal and the agent, thus enriching the firm's capability to maximize shareholder wealth and thereby improve financial performance. The ownership structure of firms, particularly in terms of the board of directors, is the main feature mitigating the inherent dichotomy between principals and agents to improve financial performance (Harrison, 2014). Organizational factors affecting financial performance include board size, board

duality and the presence of non-executive directors, as well as mechanisms related to the ownership structure, such as large shareholders or concentrated ownership, the identity of shareholders (individual/family ownership, companies ownership and government ownership and managerial ownership (Harrison, 2014).

In terms of corporate governance mechanisms of the board of directors (board size, board duality and Non-Executive Directors (NEDs)), agency theory proposes that NEDs play an important role in monitoring and supervising executives, due to the assumption that they are independent and concerned with their own reputations (Fama & Jensen, 1983). NEDs can thus add value to firms due to their external knowledge and expertise as well as their monitoring function (Fama, 1980; Fama & Jensen, 1983). NEDs can also contribute to increasing the size of the board, which has the advantage of a wider pool of expertise but which contributes to poor decision-making and communication, reflected in the relatively poor performance of larger boards (Lipton & Lorsch, 1992; Jensen, 1993). As board size increases, the problems of coordination and communication also increase, consequently decreasing the ability of the board to monitor the management and thereby exacerbating the agency problem (Eisenberg et al., 1998). Furthermore, agency theory proposes the separation of the chairman and CEO from the same position because the primary considerations of the former include remunerating the CEO and overseeing the board; thus the combination of these roles in one person can result in increasing agency problems by diluting the effectiveness of monitoring the CEO (Jensen, 1993).

The relevance of this theory is that it tries to explain corporate management of MFIs as a shared goal that serves to align the interests of shareholders to that of managers. Agency costs if not monitored can deprive operational capabilities of the MFIs. In the event that agency problems surpass the goals of the MFIs, decline in returns and

subsequent collapse of the MFIs is eminent. Board governance practices are meant to minimize agency problems that undermine may hinder optimal performance of MFIs. The agency theory anchors the variables on board duality and board size and how it influences financial performance of microfinance institutions in Nairobi city County, Kenya

2.5.3 Stewardship Theory

This theory was developed by Davis in 1991. The theory states that, ownership doesn't really own a company; it's merely holding it in trust. Stewardship theory rejects the assumptions of agency theory and assumes that managers' behaviour is pro-organizational and collective, achieving higher utility by serving a corporation. It further assumes that managers left on their own will indeed act as responsible stewards of the assets that they control (Kumudini, 2010; Letting 2011). Stewardship theory presents a different model of management, where managers are considered good stewards who will act in the best interest of the owners (Davis & Donaldson, 1991). According to Smallman (2004), where shareholder wealth is maximized, the steward's utilities are maximized too, because organizational success will serve most requirements and the stewards will have a clear mission. The study states that stewards will balance tension between different beneficiaries and interest groups. Therefore, stewardship theory is an argument put forward in financial performance that satisfies the requirements of the interested parties. A steward, who improves performance successfully, satisfies most stakeholder groups in an organization (Davis, Donaldson & Schoorman, 1997).

Stewardship theory posits that concern for their own reputations and career progression inhibits agents from acting against the interests of shareholders, thus agency costs should be inherently minimized (Davis & Donaldson, 1994). The contribution to

financial performance of stewards relates to the context in terms of socio-cultural and psychological factors (Clarke, 2004). For example, managers are considered more likely to perform better with greater empowerment and job satisfaction which is a psychological factor. Socially, managers (along with most personnel in a successful organization) typically self-identify as organizational representatives and thus they consider the power accorded them by principals to be a tool to enable the organization and other employees to achieve the organizational goals. Stewardship theory supports that an insider-dominated board is more effective due to more in-depth knowledge of organizational operations, such as access to data and technical expertise (Muth & Donaldson, 1998). Additionally, CEO-Chairman duality will make leadership and control, particularly regarding decision making and strategy (e.g. investment) more consistent, which is presumed to contribute to greater effectiveness (Davis, Donaldson & Schoorman, 1997). Because the inside directors have more comprehensive and deep knowledge of daily operations within firms, their decisions are better informed.

According to stewardship theory, they are therefore preferable to NEDs due to their more accurate knowledge of financial performance. With fewer inside directors, boards have reduced insight into the company's situation and progress, rendering them reliant on information furnished by the management, with little or no contextual knowledge to make any decisions independent of the recommendations of managers; NEDs suffer from this same lack of knowledge as the board in general. Reduced ability to monitor managers and the making of less informed decisions by boards comprising outsiders means that such boards are unlikely to improve financial performance to the same extent as boards with a larger number of insider directors according to stewardship theory. When the position of the CEO and Chairman is held by a single person, the fate of the organization and the power to determine strategy is the responsibility of a single

person. Thus the focus of stewardship theory is on structures that facilitate and empower rather than monitor and control (Davis, Donaldson & Schoorman, 1997). Therefore, stewardship theory takes a more relaxed view of the separation of the role of chairman and CEO, and supports appointment of a single person for the position of chairman and CEO and a majority of specialist executive directors rather than non-executive directors (Clarke, 2004).

This theory is relevant to the study. Stakeholders and partners are able to choose their board wisely by ensuring that key characteristics vital to good corporate governance are upheld. The characteristics could be competence and gender diversity. The features aforementioned are necessary when handling organizational corporate affairs. Stakeholder theory anchors the variables on board independence, board duality and how it influences financial performance of Microfinance Institutions in Nairobi County.

2.5.4 Stakeholder Theory

This theory centers on the issues concerning the stakeholders in an institution. It stipulates that a corporate entity invariably seeks to provide a balance between the interests of its diverse stakeholders in order to ensure that each interest constituency receives some degree of satisfaction (Abrams, 1951). There is an argument that the Agency theory is narrow because it identifies the shareholders as the only interest group of a corporate entity. However, the stakeholder theory is better in explaining the role of corporate governance than the agency theory by highlighting different constituents of a firm (Coleman *et al.*, 2008).

Stakeholder theory has become more prominent because many researchers have recognized that the activities of a corporate entity impact on the external environment requiring accountability of the organization to a wider audience than simply its shareholders. Indeed, it has been realized that economic value is created by people who

voluntarily come together and cooperate to improve everyone's position (Freeman *et al.*, 2004). Jensen (2001) critiques the Stakeholder theory for assuming a single-valued objective (gains that accrue to a firm's constituency). The argument of Jensen (2001) suggests that the performance of a firm is not and should not be measured only by gains to its stakeholders.

Stakeholder theory recognizes that many groups have connections with the firm and are affected by firm's decision making. Freeman *et al.* (2004) suggest that the idea of value creation and trade is intimately connected to the idea of creating value for shareholders. Donaldson and Preston (1995) refer to the myriad participants who seek multiple and sometimes diverging goals. Manager's view of the stakeholders' position in the firm influences managerial behavior. However, Freeman *et al.* (2004) suggest that managers should try to create as much value for stakeholders as possible by resolving existing conflicts among them so that the stakeholders do not exit the deal.

Carver and Oliver (2002) examine stakeholder view from non-financial outcomes. For example, while shareholders generally define value in financial terms, others stakeholders may seek benefits such as the satisfaction of pioneering a particular breakthrough, supporting a particular kind of corporate behavior or where the owner is also the operator, working in a particular way. It means stakeholders have non-equity stakes which requires management to develop and maintain all stakeholder relationships, and not of just shareholders. This suggests the need for reassessing performance evaluation based on traditional measures of shareholder wealth and profits by including measures relating to different stakeholder groups who have non-equity stakes. Nonetheless many firms do strive to maximize shareholder value while, at the same time, trying to take into account the interest of the other stakeholders.

This theory is relevant to the study. Stakeholder theory is important in understanding and remedying three interconnected business problems the problem of understanding how value is created and traded, the problem of connecting ethics and capitalism, and the problem of helping managers think about management such that the first two problems are addressed. Stakeholder Theory is a theory of management that concerns itself with matters related to morals and ethics in running a business. Stakeholders and partners are able to choose their board wisely by ensuring that key characteristics vital to good corporate governance are upheld. The characteristics could be competence and gender diversity. The features aforementioned are necessary when handling organizational corporate affairs. Stakeholder theory anchors the variable on board composition and how it influences financial performance of microfinance institutions in Nairobi County.

2.5.5 Resource Dependence Theory

The theory was developed by Salancik (1970). The theory holds that, the procurement of external resources is an important tenet of both the strategic and tactical management of any company. Resource dependence theory (RDT) is the study of how the external resources of organizations affect the behavior of the organization. The procurement of external resources is an important tenet of both the strategic and tactical management of any company. The resource dependence theory argues that as the size increases, more resources are available to the firm to pursue its objective (Waithaka, 2013). Therefore, resource dependency theory predicts a positive relationship between firm size and performance. In contrast, the proponent of resource dependence theory argues that firm size is taken as a proxy for the complexity of the firm (Fama & Jensen, 1983). As the firm's size increases, the agency costs are expected.

The basic proposition of resource dependence theory is the need for environmental linkages between the firm and outside resources. In this perspective, directors serve to connect the firm with external factors by co-opting the resources needed to survive (Pfeffer & Salancik, 1978). Thus, boards of directors are an important mechanism for absorbing critical elements of environmental uncertainty into the firm. Williamson (1985) held that environmental linkages or network governance could reduce transaction costs associated with environmental interdependency and thus improve financial performance. Further, the uneven distribution of needed resources results in interdependence in organizational relationships. Several factors would appear to intensify the character of this dependence, e.g. the importance of the resource(s), the relative shortage of the resource(s) and the extent to which the resource(s) is concentrated in the environment (Davis & Donaldson, 1991).

Additionally, directors may serve to link the external resources with the firm to overwhelm uncertainty (Cannella Jr, Hillman & Paetzols, 2000), because managing effectively with uncertainty is crucial for the existence and better performance of the company. According to the resource dependency rule, the directors bring resources such as information, skills, key constituents (suppliers, buyers, public policy decision makers, social groups) and legitimacy that will reduce uncertainty (Gales & Kesner, 1994). Thus, Hillman et al. (2000) consider the potential results of connecting the firm with external environmental factors and reducing uncertainty is decrease the transaction cost associated with external association.

Pfeffer (1972), Pfeffer and Salancik (1978) argued that the diversity of the board size and the background of the outside directors are very important elements in managing the company needs for any capital in the future or to manage environment contingency. Pearce and Zahra (1992) also assert that diversifying the board help the company to

survive by benefiting from the exchange of company resources and its external environment. In addition, the presence of the outside directors' results in the improvement of the organization efficient strategies by providing the firm with new viewpoints and perspectives, which will ultimately improve the financial performance. This Theory holds that, in a labor market it might be very difficult or costly for firms or organization to engage in production when they have to hire and fire their workers depending on demand/supply conditions. It might also be costly for employees to shift companies everyday looking for better alternatives. Thus, firms engage in a long-term contract with their employees to minimize the cost. According to Trisha (2015), in a dynamic world of continuous change in techniques and products, firms can avoid their 'elimination' by differentiation and diversification, so that a firm which deviates from profit maximization can survive for a long period of time. It has also been suggested that when firms are large and have monopoly power the 'selection process' does not work smoothly because competition is weak in this case.

Investing in MFIs business requires sufficient funds. The theory is applicable to this research as it advocates for prudent use of scarce resources in enhancing the growth of microfinance institutions in Kenya. A firm with sufficient resources and capacity is able to undertake more product lines, service and product innovation improving their financial performance. Although smaller firms may be more flexible, it can be argued that larger firms have better prerequisites for behavior compared to their smaller counterparts. Resource Dependence Theory anchors the objective; to determine the moderating effect of firm size on corporate governance and financial performance of Microfinance Institutions in Nairobi County

2.6 Empirical Review

This section provided studies with the empirical findings methodologies, conclusions and summary related to corporate governance and financial performance

2.6.1 Board Size and Financial Performance

The two most important functions of the board of directors are those of advising and monitoring (Raheja, 2015; Adams & Ferriera, 2017). The advisory function involves the provision of expert advice to the CEO and access to critical information and resources (Fama & Jensen, 2010). This is performed by both insiders and outsiders, although Fama and Jensen (2010) note the importance of outside directors, who bring valuable expertise and potentially important connections. The board has the responsibility to monitor, discipline, and remove ineffective management teams, to ensure that managers pursue the interests of shareholders. Raheja (2015) argues that insiders are an important source of firm-specific information for the board, but may have distorted objectives due to private benefits and lack of independence from the CEO. Compared to insiders, outsiders are more independent, providing better monitoring, but are less informed about the firm's activities.

Guest (2012) did a study to determine the impact of board size on firm performance: Evidence from the UK. The study indicated that, there existed a strong evidence of a negative relation between board size and three different firm performance measures (profitability, Tobin's Q, and share returns). The study asserted that, the relationship between board size and performance may differ not just by firm specific characteristics but also by national institutional characteristics. In countries with different institutional backgrounds, the functions of boards are different, and therefore the expected board size - performance relation may be expected to differ. It was also pointed out from the study that, larger board size and an increasing number of nonexecutive directors is the

greater collective information possessed by the board which is also valuable for the monitoring function (Lehn *et al.*, 2011). Therefore, both functions predict an initial improvement in board performance as board size increases, and increases in the number of non-executives are expected to have a more positive impact than increases in the number of executive directors. The study argued that, although larger board size initially facilitates key board functions, there comes a point when larger boards suffer from coordination and communication problems and hence board effectiveness declines.

Olwyny (2016) conducted a study to establish the Impact of Board size on the Financial Performance of the Listed Manufacturing Companies in Nigeria. The findings of the study indicated that the respondents felt that small board is more effective and perform better than large board size. The findings of this study concurred with those of Guest (2012) who examined the influence of board size on the performance of 2,746 UK listed companies over the period 1981-2002. The study indicated that that the average size of the board of the listed firms was eight members and significant association was observed between the board size and the financial performance of the firms. However, the study indicated that board size had strong influence on share returns, and Tobin's Q. Moreover, the inverse association between board size and performance was heightened for larger firms that had engaged larger boards.

The study supported the assertion that concerns of poor communication and inefficient decision-making challenged the effectiveness of large boards. According to this study, board size and outside directors in the board was linked with more efficient and effective formulation of strategy and its eventual execution. The study concluded that, there was a significant positive linear relationship between board size and financial performance of listed manufacturing companies in Nigeria. The study recommended an

increase in board size for the listed manufacturing companies which should be done in line with the complexity and nature of operation of the individual firm. This study is relevant to the current study since it addresses the impact of corporate governance on performance of firms.

In Kenya, Ngugi and Katuse (2013) conducted a study on role of board size on financial performance of commercial banks. The study indicated that, board size may have positive or negative association with firm value. The study asserted that, increasing number of directors on the board above an ideal limit may have more deteriorating effect on firm value. The study argued that, below a certain board size, the relationship between firm value and board size is less negative and above that, it increases. It was observed also that, boards of larger companies have less negative association with firm performance than those of smaller firms. The argument is that boards of larger companies may well be equipped with resources, skill base and knowledge expertise to take strategic decisions in period of financial distress. The board of smaller companies may lag behind to actively utilize resources and drive performance. The study further indicated that, as board size increases above an ideal value, many problems surface which outweigh the benefits of having more directors on the board. In contrast to smaller boards, larger number of directors on the board increases the problem of communication and coordination. The study recommended that for emerging economies like Kenya, it is practical to have greater ownership control by promoters to enhance company value. Also, it is not advisable to have a board size above certain limit.

2.6.2 Board Duality and Financial Performance

Nahar (2004) conducted a study to investigate the role of board independence and board duality on performance among Malaysian listed companies. The study

indicated that, neither board independence, leadership duality nor the joint effects of these two showed any relations with firm performance. However, the findings of the study showed that, Malaysian companies' boards were generally dominated by outside directors and the majority of the companies in the study practiced non-dual leadership structures. Thus, this evidence suggests that the structure of the boards of directors in Malaysia is largely independent of management and the absence of any dominant personality.

Baliga and Moyer (2012) conducted a study on the relationship between board duality and firm performance in the United States of America (U.S.A). The findings of the study presented three observations; the market is indifferent to changes in a firm's duality status; there is little evidence of operating performance changes around changes in duality status; and there is only weak evidence that duality status affects long-term performance, after controlling for other factors that might impact that performance. Rising shareholder activism following poor corporate performance and a subsequent drop in shareholder value at many major U.S. corporations had rekindled interest in duality and corporate governance. The study revealed that, in U.S board duality (chairman of the board and CEO are the same individual) has been blamed, in many cases, for the poor performance, and failure of firms to adapt to a changing environment in the States. The study put into consideration the announcement effects of changes in duality status, accounting measures of operating performance for firms that had changed their duality structure, and long-term measures of performance for firms that had had a consistent history of a duality structure. The study concluded that, there was a strong relationship between board duality and firm performance. Deman (2016) in a similar study indicated that, board duality is significantly and negatively related only to the behavioral control task, his study showed that the negative effect was contingent on

whether ownership was concentrated in the hands of a controlling shareholder as well as the type of controlling shareholder.

Coleman and Biekpe (2006) carried out a study on the relationship between board size, board composition, board duality and firm performance: experience from Ghana. The findings of the study revealed that, the separation of board chairman and chief executive officer positions minimizes the tension between managers and board members thus influencing positively the performance of firms in Ghana. The study indicated also that, firms in Ghana adopted the two-tier board structure where the positions of board chairman and CEO are occupied by different personalities thereby reducing agency cost. It was revealed that, a two-tier board structure enhances firm's performance, though it insignificantly has a positive impact on sales growth rate among firms in Ghana. The study concluded that corporate governance structures have an impact on the performance of firms in Ghana. Indeed, within the governance structures the two-tier board structure is seen to be more effective compared to the one-tier system. It was recommended that, for efficient performance of firms, the adoption of the two-tier board structure and maintaining smaller board sizes that hovers around eight members was critical.

In Kenya, Wagana and Karanja (2016) conducted a study on the influence of corporate governance on corporate performance among manufacturing firms in Kenya. The study found out that, duality of the CEO had positive effects on the performance of firms as measured by the return on asset. The study argued that effectiveness of the board to oversight the top management is diminished by the duality of the CEO. They asserted that board duality is concentration of decision management and decision control in one individual. For the systems where the CEO also acts as chairman of the board that often increases the possibility of conflict of interest and agency problems. The study

concluded that, that CEO-duality weakens the financial performance of the firm and that the effect of board independence and board duality on firm performance is different across the conditional quartiles of the distribution of a firm.

2.6.3 Board Composition and Financial Performance

Kiel and Gavin (2013) in their study to determine the relationship between board composition and firm performance in Australia indicated that, there was a positive relationship between the composition of inside directors and the firm performance. The study revealed that, Australian boards more closely approach normative “best practice” guidelines for corporate governance than boards in other Western countries. Change in the composition of boards of directors was examined as a dependent variable reflecting organizational attempts to deal with changing external contingencies.

Swartz (2015) conducted a study on establish the influence of board composition on the intellectual capital performance in South Africa. The study findings showed a positive significant relationship between the percentage of ethnic members on the companies’ boards of directors and intellectual capital performance. Based on the results of this study, it is argued that South African publicly listed companies may be able to enhance their intellectual capital performance by using an ethnically diverse board of directors. It was revealed by the study that, female participation on boards is favorably affecting firm performance engagement as well as the establishment of ethical policies. Hence, the research suggests that boards with higher female participation and independence boost the performance of the firms since female members of the board have good leadership qualities. The study concluded that, board gender diversity and independence facilitates directing part of the firm's scarce resources toward value maximizing of social projects and subsequent the performance.

In Kenya, Ekadah and Mboya (2012) conducted a study on the effect of board gender composition on the performance of commercial banks in Kenya. The study established that board diversity has no effect on performance of banks in Kenya. The study affirmed that gender is arguably the most debated diversity issue not only in terms of board of directors, but also in many other societal situations (Kabare, 2015). The study established that the proportion of women directors is positively associated with board strategic control. In addition, the positive effects of women directors on board effectiveness are mediated through increased board development activities and through decreased level of conflict. Carter et al (2010) examined the gender and ethnic diversity of boards and board committees and firm financial performance. The study reported no significant relationship between the gender or ethnic diversity of the board, or important board committees, and financial performance for a sample of major commercial banks in Kenya. The study further asserted that, there was positive correlation between the presence of female directors on boards and corporate performance suggesting that women appear to make better directors than men.

2.6.4 Board Independence and Financial Performance

Kumar (2007) conducted a study to establish the Influence of Board Size and Independence on Firm Performance: A Study of Indian Companies. It was indicated from the findings that, there was strong association between board independence of the firm. The study revealed that, the impact of board independence on firm performance is more when the board independence is between 50 and 60 per cent. The study indicated that Independent directors had failed to perform their monitoring role effectively and improve the performance of the firm, lack of training to function as independent directors and ignorance of the procedures, tasks, and responsibilities expected of them could be reasons for the independent directors' non-performance. It

was further asserted that, different proportions of board independence have dissimilar impact on firm performance.

Sanda (2011) conducted a study on the relationship between Board Independence and Firm Financial Performance: Evidence from Nigeria. The study indicated that there was positive relationship between board independence and the performance of the firms. It was indicated that, share ownership was highly concentrated in Nigeria, and this structure tended to engender board structures with close family affiliations in which the chief executive officers

(CEOs) were active members of audit committees. While family affiliation of board members was found to support firm growth, we found evidence that audit committee membership of chief executives hurt firm performance. The study also found that foreign chief executives performed better than their local counterparts. The study recommended that there is need for Nigerian firms to adopt better corporate governance mechanisms in order to make the boards of directors more independent, avoid unnecessary intervention of CEOs in important committees, and in that way aid financial performance.

2.6.5 Moderating effect of Firm Size Corporate Governance and Financial Performance

The size of the firm has been shown to have an effect on performance. Larger firms are more likely to diversify their financing sources as compared to small firms. Chu (2011) in a study to determine the influence of family management, family control, and firm size firm performance in china indicated that, the potential family-ownership effects are more likely to be realized when family ownership is combined with active family management and control. In addition, the study indicated that the association between

family ownership and firm performance is stronger in small- and medium-sized enterprises (SMEs) than in large companies. It was revealed also that, smaller firms are more responsive to value-chain, internal and regulatory stakeholder pressures. These findings suggested that researchers evaluating organizations and the natural environment should be cautious about associating stakeholder pressures directly with firms' environmental strategies. Rather, the relationship between stakeholder pressures and environmental strategy tends to vary with size.

Badara (2016) conducted a study on the moderating effect of firm size on the relationship between Board Structure and Financial Performance of Deposit Money Bank in Nigeria. Data of the study were obtained from the financial statement of the Nigerian Deposit Money Banks for the period 2005-2015. The data were analysed by regression models using Stata SE 12 software. The results show that the relationship between determinants of board structure (board size, and board independence) and financial performance moderated by firm size.

Macher (2015) in a study to determine the relationship between firm size and the firm's performance in Nigeria indicated a direct relationship between firm size and the financial performance of the firms. The study indicated that, firm size, had significant impact on the firms' performance. Hence it can be concluded that larger firms will have higher propensity to make high profit than the smaller firms. This result is consistent with the previous studies. The study on the basis of the findings concluded that financial performance among Nigerian firms is positively and significantly affected by the organization size. Hence the larger the firms the greater its propensity to make more profit.

Taebi Noghondari and Abbaszadeh (2017) assessed the moderating effect of firm size on relationship between corporate governance and corporate economic

performance. To test the hypotheses, multivariate OLS method was used. The data consists of 118 companies listed in the Tehran Stock Exchange in the period 2010 to 2014, and totally 708 company-years. The findings showed that corporate governance and corporate economic performance are positively correlated, and that firm size may enhance this relationship.

2.7 Summary of Literature Gaps

From the reviewed literature, the research gaps are identified. A study by Chenuos, Mohamed and Bitok (2014) on effects of corporate governance on Microfinance Institutions financial sustainability in Kenya, established that board size, CEO gender, board duality and board composition influenced financial sustainability of MFIs. However, there are other financial components for instance firm sizes that affect the sustainability of MFIs firms. This study include firm size but as a moderating variable. Githinji (2017) did a study to establish the effects of corporate governance practices on the performance of commercial banks in Kenya and found that corporate governance is the key to the global integrity especially for financial institutions. The study focused on commercial banks. The structure of a commercial bank is significantly different from MFIs. A study by Momanyi, Ragama and Kibati (2018) to analyze the effect of corporate governance practices on the growth of microfinance institutions in Kenya and found out that only financial transparency was a statistically significant predictor of asset growth among institutions registered with Association of Microfinance Institutions. The study focused on MFIs in general; however, the current study is specific to microfinance institutions regulated by central bank.

A study by Otieno, Mugo, Njeje and Kimathi (2015) on the effect of corporate governance on financial performance of SACCOS in Kenya found out that there was a significant relationship between financial reporting, management style, board size and

financial performance of savings and credit cooperatives. The study focused on Saccos that do deposit this contextual gap as the current study focuses on microfinance institutions regulated by central bank. The current study wishes to close this knowledge gap by determining the moderating role of firm size on corporate governance and financial performance of Microfinance Institutions in Nairobi city County, Kenya.

2.8 Conceptual Framework

Diagrammatically the variable relationship between the independent, moderator and dependent variables. The independent variables include board size, board duality, board composition and board independence. Firm size is the moderating variable and financial performance is the dependent variable.

Figure 2.1 is a figurative representation of the variables that were explored by the study.

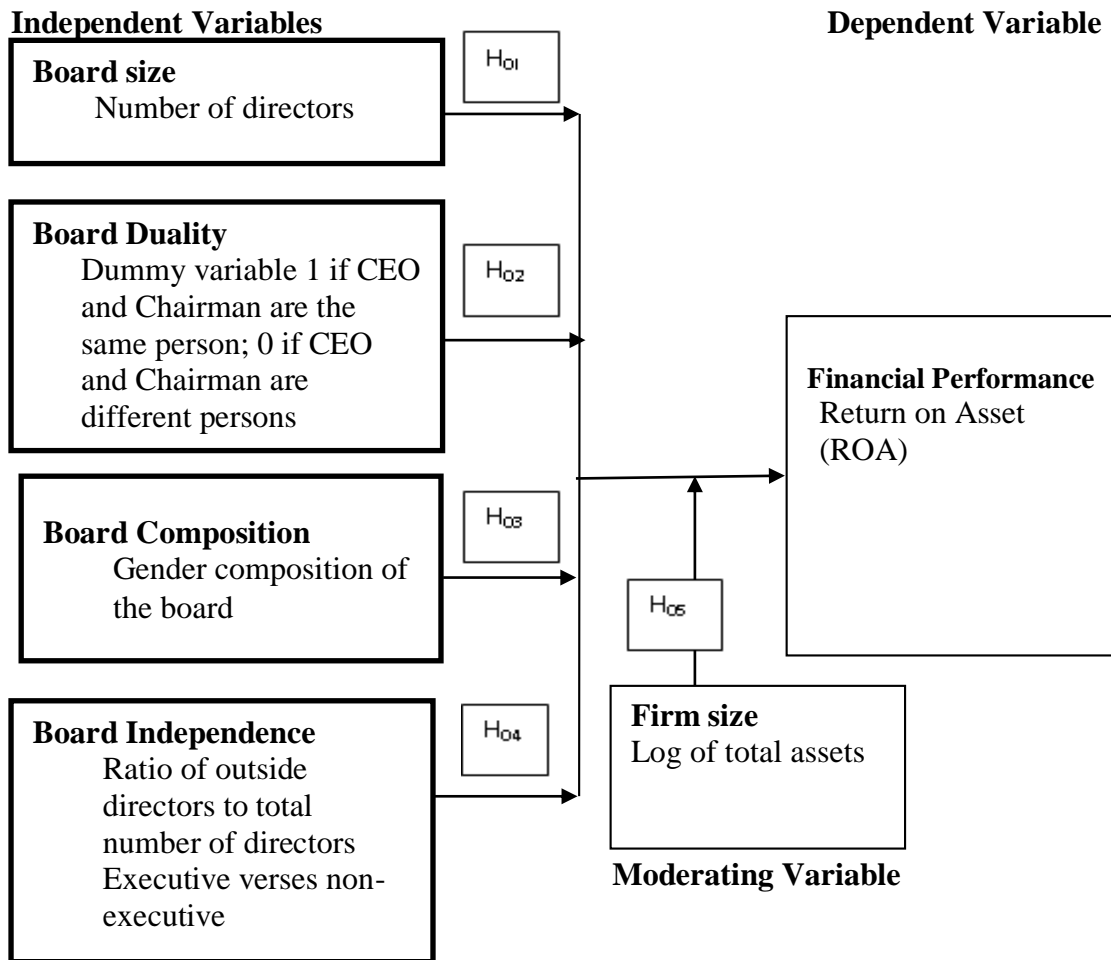


Figure 2.1: Conceptual Framework

Source: Researcher 2021

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter particularly discusses the research design, target population, Sample size and Sampling Technique, Data Collection Procedure, data analysis and presentation, limitations of the study, ethical consideration and the measurement of the study variables.

3.2 Research Design

Research design is a blue-print that enables the researcher to come up with solutions to problems and guides in the process of collecting, analyzing, and interpreting the data and observations (Bryman, 2015). The study adopted causal research design. Causal research design is used to describe characteristics of a population or phenomenon being studied in terms of cause and effect. This methodology focuses more on the “what” of the research subject rather than the “why” of the research subject. Causal research design is also appropriate when establishing whether there is a significant association among variables (Laurel, 2011). Causal research design helps explain the “why” of the population by establishing the cause and effect relationship between the dependent variable (financial performance) and the independent variables (board size, board duality, board composition and board independence). Causal research design was also employed by Baliga and Moyer (2012) conducted a study on the relationship between board duality and firm performance in the United States of America and Ekadah & Mboya (2012) while conducting a study on the effect of board gender composition on the performance of commercial banks in Kenya.

3.3 Target Population

A population is defined as the set of individuals, objects, or data from where a statistical sample can be drawn (Sanders *et al.*, 2015). The target population of the study comprises 13 Microfinance Institutions licensed by Central Bank of Kenya in Nairobi City County (CBK, 2019). Therefore, 13 microfinance banks licensed and CBK regulated formed the population of interest for the study. Nairobi city County Kenya is the head office to a big number of MFIs hence justifying the study.

Most of the microfinance institutions were licensed after the year 2012 by CBK, thus material financial data are available from the year 2012-2019. Again during the period 2012-2019, most microfinance institutions were underperforming as indicated by negative return on assets and rising figures of non-performing loans. In addition, MFIs in Kenya face numerous corporate management practices hampering their performance. In case of a malpractice or fraud, most MFIs do not have the legal back up to protect them from these. As a result, most MFIs collapse in their third or fourth birthday.

3.4 Sampling Design and Sample Size

A sample is a subset of a population (Kothari, 2004). Sampling is the process of selecting units (people, organizations) from accessible population so as to fairly generalize results to the target population (Orodho, 2009). The study selected all the MFIs regulated by Central bank of Kenya. A census of all the 13 CBK regulated Microfinance Institutions in Nairobi City County was selected as the sample size. Census is appropriate when the target population is small and manageable. The units of analysis were the 13 MFIs while the units of observation were the financial records for period 2012 - 2019.

3.5 Data Collection

Data collection involved development of appropriate study instruments and obtaining data from various sources described below.

3.5.1 Type and source of Data

To successfully complete this study, the researcher used secondary data. secondary data was obtained from the 13 CBK regulated Micro financial institutions financial reports from the years 2012-2019. The data obtained include board size, board duality, board composition, board independence, firm size and Return on Assets (ROA).

3.5.2 Data collection Instrument

Secondary data from the financial records/reports was used for Return on Assets, firm size using log of total assets. The minute's books and annual financial reports provided secondary data on the board size, Board duality, Board composition and Board independence. The study adopted panel design. A panel design is used when researchers sample a group, or panel, of participants and then measure some variable or variables of interest at more than one point in time from this sample. Panel data contain observations of multiple phenomena obtained over multiple time periods for the same firms or individuals. The study pooled Panel data of individual microfinance institutions listed in the data collection form attached in Appendix I.

3.5.3 Data Collection procedures

Approval from the university was obtained to conduct the study. Research permit was obtained from National commission of science and innovation (NACOSTI). Secondary data for board size, board composition, board independence, firm size and financial performance of microfinance institutions were extracted from MFIs' financial reports and arranged in panel mode using Microsoft excel. The financial reports were

downloaded from MFIs individual website, the Association of Microfinance Institutions and central bank of Kenya repository. In case of missing financial data in the reports, the data was requested from the individual MFIs management.

3.6 Data Analysis and Presentation

Ott and Longnecker (2015), define data analysis as a mechanism for reducing and organizing data to produce findings that require interpretation. To determine the patterns revealed in the data collected regarding the selected variables data analysis were guided by the objectives of the study and the measurement of each variable. The data and information obtained from the financial records were first checked for completeness. The data was analyzed using STATA software. During data analysis descriptive and inferential analysis were conducted.

3.6.1 Descriptive statistics

Descriptive statistics quantitatively summarizes features from a collection of information. Descriptive statistics therefore enables the presentation the data in a more meaningful way, which allows simpler interpretation of the data. Descriptive statistics employed in the study include mean, minimum, maximum, standard deviations, skewness and kurtosis. The results of the study were presented in form of tables and figures

3.6.2 Inferential statistics

Inferential statistics is a way of making inferences about populations based on samples. Inferential statistical analysis infers properties of a population, like testing hypotheses and deriving estimates. In this study, the inferential statistic employed is panel regression model. The overall model significance was interpreted using ANOVA tests, F-tests and critical p-value of 0.05. Analysis of variance was used to test the goodness of fit of the model. The F-ratios that F- calculated and F-critical which was generated

in the ANOVA to measure goodness of fit of the model at a significant level of 0.05 of the panel model. The results of the study were presented in form of tables. The panel model estimated took the form of;

3.6.2.1 The panel regression model before moderation

$$(ROA_{it}) = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \epsilon_{it} \dots \dots \dots 3.1$$

Where;

(ROA_{it}) = Financial performance of micro finance institution i at time t

X_{1it} = Board size of micro finance institution firm i at time t

X_{2it} = Board duality of micro finance institution i at time t

X_{3it} = Board Composition of micro finance institution i at time t

X_{4it} = Board independence of micro finance institution i at time t

β_0 = Constant

$\beta_{1...4}$ = Coefficient of the variables

i = Micro finance institution

t = time period (2012-2019)

ϵ_{it} = Error term of micro finance institution i at time t

In the model β_0 = the Constant term while Coefficient $\beta_1 = 1...4$ will be used to measure the sensitivity of the dependent variable (ROA) to unit change in the predictor variables X_1, X_2, X_3, X_4 . ϵ is the Error term which captures the unexplained variations in the model and t = time period (2012-2019)

3.6.2.2 The panel regression model after testing the moderating effect of firm size

In order to determine the moderating effect of firm size on corporate governance and financial performance of microfinance institutions in Nairobi City County, the study modified the dynamic panel data model by Ban˜os-Caballero, *et al.* (2012) as depicted in equation 3.1. The study adopted panel design. A panel design is used when researchers sample a group, or panel, of participants and then measure some variable or variables of interest at more than one point in time from this sample.

Moderation effect was tested using Kenny and Baron (1986) approach with particular focus on change in R-square. The moderator (firm size) was interacted with each of the independent variable as presented in equation 3.2.

The panel regression with a moderating variable

$$(ROA_{it}) = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \dots + \beta_1 X_{1it} * M_{it} + \beta_2 X_{2it} * M_{it} + \beta_3 X_{3it} * M_{it} + \beta_4 X_{4it} * M_{it} + \epsilon \dots \dots \dots 3.2$$

Where;

(ROA_{it}) = Financial performance of micro finance institution i at time t

X_{1it} = Board size of micro finance institution i at time t

X_{2it} = Board duality of micro finance institution i at time t

X_{3it} = Board Composition of micro finance institution i at time t

X_{4it} = Board independence of micro finance institution i at time t

β_0 = Constant

$\beta_{1...4}$ = Coefficient of the variables

i = Micro finance institution

t = time period (2012-2019)

M = Firm size

ϵ_{it} = Error term of micro finance institution i at time t

3.6.2.3 Hypothesis Testing

The hypotheses of the study were tested based on the panel model results found in equation 3.1 and equation 3.2. The rejection and acceptance criteria based on critical value 0.05 was used. The acceptance/rejection criteria were that, if the p value is greater than the significance level of 0.05, we fail to reject the H_0 but if it's less than 0.05 level of significance, the H_0 is rejected.

3.7 Diagnostic tests

It was essential to ensure non-violations of the assumptions of the panel regression model before attempting equation 3.1 and 3.2. Estimating these equations when the assumptions are violated runs risk of obtaining biased, inefficient and inconsistent parameter estimates (Brooks,2008) Consequently Panel Unit Root Test, Hausman Test, Multicollinearity, Normality Tests, Autocorrelation and Heteroscedasticity were conducted to ensure proper specification of equations 3.1 and 3.2 as below:

3.7.1 Panel Unit Root Test

In view of the fact that panel data have both cross-sections and time series dimensions, there is need to test for stationarity of the time series because the estimation of the times series is based on the assumption that the variables are stationary. Estimating models without taking into account the non-stationary nature of the data would lead to unauthentic results (Gujarati, 2003). In this study, the study employed Fisher-type test of unit root in panel data. The advantages of this test is that it allows for unbalanced panels with gaps, performs either Dickey-Fuller or Philip-Perron test for each panel,

and reports four different tests. The null hypothesis of this test is that all panels had unit root. The alternative hypothesis is that at least one panel did not have unit roots or some panels did not have unit root (Choi, 2001). If any of the variables has unit root, the researcher would difference it and run the equations using the differenced variable.

3.7.2 Hausman Test

When performing panel data analysis, one has to determine whether to run a fixed effects model or a random effects model. Whereas the fixed effect model assumes firm specific intercepts and captures effects of those variables which are specific to each firm and constant over time, the random effect model assumes that there is a single common intercept and it varies from firm to firm in a random manner (Baltagi, 2005). Thus, for estimating the models, first it is important to determine whether there exists a correlation between the independent variables. If the correlation exists then a fixed effect model gives consistent results otherwise random effect model is more efficient estimators and it is estimated by generalized least square (Teruel & Solano, 2007). To determine which of these two models is appropriate, coefficients are estimated by both fixed and random effects. Hausman's specification test (1978) was used to determine whether fixed or random effect should be used. If the null hypothesis that is $E(\mu_i/x_{it}) = 0$ is accepted, then random effect is an efficient estimator otherwise in case of rejection of null hypothesis, otherwise fixed effect estimation is preferred. If Hausman test rejects the null hypothesis, therefore decision is taken to use fixed effect model. STATA was used to estimate the above models.

In the event that the Hausman test identifies the fixed effects model as appropriate, then the researcher tests for inclusion of time-fixed effects in the study estimation. The time fixed effects tests if the dummies for all years are equal to zero and if they are, then there is no need for time fixed effects in the specification of the model to be estimated.

To test whether the dummies for all years are equal to zero, F-test was used as proposed by Greene (2008). On the other hand, if the Hausman test selects the random effects model as the more suitable one then there would be need to test whether the panel effects so as to determine whether to run a simple Ordinary Least Square (OLS) regression or the random effects model. Breusch-Pagan multiplier test proposed by Breusch and Pagan (1980) was used to choose between the simple Ordinary Least Square (OLS) regression and the random effects model. The null hypothesis of this test is that variance across the entities is zero, that is, there are no panel effects.

3.7.3 Normality Tests

The normality assumption ($u_t \sim N(0, \sigma^2)$) is required in order to conduct single or joint hypothesis tests about the model parameters (Brooks, 2008). In order to check if the data is normally distributed Bera and Jarque (1981) tests of normality was performed. The study tested the null hypothesis that the disturbances are not normally distributed. If the p-value is less than 0.05, the null of normality at the 5% level is rejected. If the data is not normally distributed a nonparametric test is most appropriate.

3.7.4 Multicollinearity

The study employed Variance Inflation Factor (VIF) to measure multicollinearity (Gujarati, 2003; Cooper & Schindler, 2008). Failure to account for perfect multicollinearity results into indeterminate regression coefficients and infinite standard errors while existence of imperfect multicollinearity results into large standard errors. Large standard errors affect the precision and accuracy of rejection or failure to reject the null hypothesis. During estimation, the problem is not the presence of multicollinearity but rather its severity. When $VIF < 10$; there is no multicollinearity; when $VIF \geq 10$ presence of multicollinearity.

3.7.5 Autocorrelation

Since the data involves both cross section and time-series, it raises the suspicion of the existence of serial correlation. The presence of serial correlation indicates that the variables in the model violate the assumptions of the regression (Anderson *et al.*, 2007). To cater for serial correlation, the Wooldridge test for autocorrelation was employed. Serial correlation is a common problem experienced in panel data analysis and has to be accounted for in order to achieve the correct model specification. According to Wooldridge (2002), failure to identify and account for serial correlation in the idiosyncratic error term in a panel model would result into biased standard errors and inefficient parameter estimates. The null hypothesis of this test was that the data has no serial correlation. If the serial correlation is detected in the panel data, then the Feasible Generalized Least Squares (FGLS) estimation is adopted.

3.7.6 Heteroscedasticity

Since the data for this research is a cross-section of firms, this raises concerns about the existence of heteroscedasticity. The Classical Linear Regression Model (CLRM) assumes that the error term is homoskedastic, that is, it has constant variance. If the error variance is not constant, then there is heteroscedasticity in the data. Running a regression model without accounting for heteroscedasticity would lead to unbiased parameter estimates. To test for heteroscedasticity, the Breusch-Pagan/Godfrey test was used. The null hypothesis of this study was that the error variance is homoskedastic. If the null hypothesis is rejected and a conclusion made that heteroscedasticity is present in the panel data, then this would be accounted for by running a Feasible Generalized Least Squares (FGLS) model.

3.8 Limitations of the Study

Some of the MFIs were not willing to give out financial records citing confidentiality of the information. However, this limitation was mitigated by assuring that the information was to be used for purposes of academic research only. In addition, the data has been kept confidential. The application of the study findings is also limited to MFIs. The study findings may not be generalizable to other conventional banking system because of contextual differences across sectors. The study was most limited by data availability which may impact the methodology to adopt. Some Microfinance institutions got licensed after 2012 and this may affect the consistency of data to be collected as some years may have missing data. Missing data may affect the precision and accuracy of the model. However, this limitation was addressed by employing unbalanced data analysis approach in case if some data covering the period 2012- 2019 are missing. The study used four variables only this challenge was mitigated by recommending further studies using more and different variables.

3.9 Ethical Consideration

Secondary data was collected for the purposes of the study and were not to be disclosed to third parties and information was solely used for academic purpose. Research Permit and authorization was sought from National Commission for Science, Technology and Innovation.

3.10 Measurement of Study Variables

The dependent variable of the study is financial performance of microfinance institutions measured using return on assets. Board size, board duality, board composition, board independence are the independent variables for the study. The moderating variable is firm size. For descriptive results, the raw values of board size, board duality, board composition, board independence, firm size and financial

performance were used. However, in the regression analysis, the logarithms value for firm size were used to make sure that huge absolute values of firm size do not interfere with the accuracy of the parameters. This section provides details of how each of the study variables is measured and operationalized. Table 3.1 shows the operationalization of variables.

Table 3.1: Operationalization of Variables

Definition of Variable	Measurement of Variable (s)	Expected Results
Board size	Total number of directors on the board.	Positive
Board duality	CEO Duality, dummy variable 1 if CEO and Chairman are the same person; 0 if CEO and Chairman are different persons.	Negative
Board composition	Gender composition of the board	Positive
Board independence	Ratio of outside directors to total number of directors.	Negative
Firm size	Log of total assets	Positive
Financial performance	Return on Assets (ROA)	Negative

CHAPTER FOUR
DATA ANALYSIS, PRESENTATION, INTERPRETATION AND
DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents the patterns of the results and their analyses as to their relevance to the objectives and hypotheses. The findings are presented in tables and narrations as per the specific objectives. The chapter presents descriptive statistics, correlation analysis and panel regressions. The chapter further presents the results of the models that were adopted in order to achieve the study's objectives.

4.2 Descriptive Statistics

Table 4.1 shows the descriptive statistics for board size, board duality, board composition, board independence, firm size and return on assets. In this study, board size was measured by the number of directors sitting in the management of MFI. Board duality was measured using a dummy variable where 1 if CEO and Chairman are the same person; 0 if CEO and Chairman are different persons. Board composition was measured in terms of gender diversity and specifically the percentage of women directors to the total members in the board. Board independence was measured as the ratio of outside directors to total number of directors.

Table 4.1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
ROA	104	0.145	0.293	-0.173	2.091	1.067	0.732
Board size	104	7.000	2.2689	3.000	13.000	3.3921	0.921
Board duality	104	0.6154	0.489	0.000	1.000	-	-
Board composition	104	0.252	0.244	0.000	0.971	4.815	0.510
Board independence	104	0.569	0.272	0.130	0.990	3.063	0.568
Firm size in million KES.	104	5416.159	10.100	103.380	32300	1.204	0.824

Source: Researcher's Compilation 2020

The descriptive results show that the mean value for return on assets was 0.145 with a minimum of -0.1727 and a maximum of 2.091. The variation in Standard Deviation was 0.293, Skewness of 1.067 and Kurtosis of 0.732 implying that the data distribution is normal. Return on Asset predicts the ratio of profits to total assets of a firm. ROA depicts the net effects of management decisions and efficiency of the company in generating income. ROA is consistently claimed to be an authentic measure of financial performance (Berman *et al.*, 1999). Unlike other accounting measures such as return on equity or return on sales, ROA is not affected by the differential degree of leverage present in firms. Because ROA is positively correlated with the stock price, a higher ROA implies higher value creation for shareholders. The ROA measures not only profit aspect but also those related to assets employed to generate the profit. The outcome is consistent with Ndungu and Ngugi (2015) and that an indication of the profitability of a firm relative to its asset base is a predictor of financial performance.

Further, board size had a mean of 7 members with a minimum of 3 and a maximum of 13 board members. The standard deviation for board size was 2.269, Skewness of 3.392 and Kurtosis of 0.921. As far as the corporate governance is concerned, the size of the board is an important factor to be considered. The board size should not be very large that it costs huge financial burden which is higher than the agency cost nor the board

should be too small that it may lead to the biased decisions or weak decisions. Board Size determines the capacity of the board to function effectively depends on its size and although there is no optimum number of board members, extremes of size should be avoided. According to Mersland and Strøm (2009) larger board size decreases the average loan size issued by microfinance institutions.

Board duality had a mean of 0.615 with a minimum of 0.000 and a maximum of 1.000. The standard deviation for board duality was 0.489. The value of 1 implies that the chief managing director of the microfinance institution is both chief executive officer and chairman. The value 0 implies that the position for chief executive officer is held one person and chairman held by a different person. Board duality occurs when the CEO and chairman positions are held by the same person in an organisation. Board leadership structure is an important corporate governance mechanism, which is reflected in the positions of chairman of the board and CEO. It is necessary to monitor the performance of the CEO and the board to protect the stakeholders' rights including shareholders. Combining the role of chair of the governing board and the CEO might result in CEO dominance, which leads to ineffective monitoring of the management and monitoring by the board. According to Vishwakarma (2015) the separation of board chairman and CEO positions is vital in MFIs because this minimizes the tension between CEO and board members and it also reduces conflict of interest from the CEO. Further, Mersland and Strøm (2009) noted that CEO/chairman duality is associated with a lower ROA and higher operational costs.

Board composition had a mean of 0.252 with a minimum of 0.000, a maximum of 0.971 and standard deviation of 0.244, Skewness of 4.815 and Kurtosis of 0.510. The value of 0.000 implies that the board of the microfinance institution was composed of one particular segment (homogenous). The value of 0.971 implies that board composition

was heterogeneous (diverse). Board composition refers to the number and the type of board members, board demographics, board structure, board education and evaluation, and board leadership. Board composition as a subset of the corporate governance relates the manner in which firm's affairs are and or shall be directed and controlled by the board. A properly constituted board is thus of importance as a microfinance institutions' goals and objectives shall not only be achieved effectively and efficiently but also the MFI's image shall be enhanced thus attracting stakeholder confidence and goodwill, a key operational factor in the financial sector. According to Ongore, K'Obonyo, Ogutu and Bosire (2015) board composition significantly influences firm performance. Owande (2016) also noted that board composition has a positive effect on financial performance of commercial banks in Kenya.

The mean value for board independence was 0.569 with a minimum of 0.130, a maximum of 0.99 and standard deviation of 0.569, Skewness of 3.063 and Kurtosis of 0.568. Board independence is another element of corporate governance affecting financial performance. The extent of executive directors (insiders) versus non-executive directors (outsiders) likewise has solid ramifications on corporate governance. Insider directors take part in the choice procedures and can access inside data. By ideals of their status, insider directors can be effectively affected by the CEO in decision making process. Independent board members provide potentially greater oversight and accountability of operations, as they are less likely to be subject to the principal-agent problem themselves. This is because independent members do not have inherent self-interests per se and are instead guided by the interests of the stakeholders who appointed them. For this reason, a greater percentage of independent members in the boards should promote positive performance. According to Vishwakarma (2015) the proportion of independent director indicates positive impact on the performance of

MFIs. The results also align with Wamaitha (2017) that board independence has a negative effect on return on assets.

Firm size had absolute mean of Ksh 541.616 million with a minimum of Ksh 103.380 million and a maximum of Ksh. 32300 million value of assets, standard deviation of Ksh. 10.100 million, skewness of 1.204 and Kurtosis of 0.824. Large firms can operate at low costs due to economies of scale. The size of an MFI is significantly positively linked to its financial performance. Large MFIs have easier access to finance, possess a larger pool of qualified human capital and have a greater chance for strategic diversification and more likely to diversify their financing sources. Large MFIs also have superior capabilities in product development, marketing and commercialization. According to Vijayakumar and Tamizhselvan (2010) in a study indicated that, there exists a positive relationship between firm size and profitability. A study by Macher (2015) to determine the relationship between firm size and the firm's performance in Nigeria indicated a direct relationship between firm size and the financial performance of the firms.

4.3 Correlation Analysis

In order to get an overview of the association between the dependent and independent variables, the researcher conducted pairwise correlation analysis. The analysis aims at testing for existence of multicollinearity and it is ideal for eliminating variables which are highly correlated. The study conducted correlation analysis between corporate governance and financial performance of microfinance institutions measured using return on assets. Pearson's product-moment correlation coefficient (r) was used to examine the extent of correlation between the variables of study and to show the strength of the linear association between the variables in the regression. r ranges

between ± 1 . Table 4.2 shows the correlation matrix of board size, board duality, board composition and board independence, return on assets and firm size.

Table 4.2: Correlation between Corporate governance and financial performance

	ROA	Board size	Board duality	Board composition	Board independence	Firm size
ROA	1.000					
Board size	0.613	1.000				
P-value	0.000					
Board duality	-0.625	-0.792	1.000			
P-value	0.000	0.000				
Board composition	0.449	0.396	-0.390	1.000		
P-value	0.000	0.000	0.000			
Board independence	0.359	0.486	-0.437	0.275	1.000	
P-value	0.000	0.000	0.000	0.005		
Firm size	0.519	0.718	-0.602	0.198	0.482	1.000
P-value	0.000	0.000	0.000	0.044	0.000	

*Significant at 0.05

**Significant at 0.01

Source: Researcher's Compilation 2020

The correlation results found that board size and financial performance of microfinance institutions are negatively and significantly associated ($r=-0.613$, $p=0.000<0.05$). The results imply that board size and financial performance move in different direction. Board size is mostly used as an indication of both monitoring and advisory role. Large board size has been criticized for increasing cost and boardroom squabbles, while it is also argued that small board size might not effectively monitor powerful managers. The size of the board is also found to increase with firm size. When Board size is too small, it suffers from shortage of expertise. On the other hand, when a board is too large, the likelihood to have functions that grows conflict is high. Bigger board sizes have the likelihood of not reaching to an agreement more quickly. According to Jensen (1993), large board sizes are associated with coordination problems leading to slow decision

making and information transferring, which drives inefficiency in companies. Further, Uwuigbe and Fakile (2012) noted that smaller board sizes are more viable than larger board size. The study further observed that banks with larger boards recorded profits lower than those with smaller boards. The results are also in line with Ngugi (2012) that board size has an inverse relationship with financial performance.

The results found that board duality and financial performance of microfinance institutions are negatively and significantly associated ($r=-0.625$, $p=0.000<0.05$). The results imply that board duality and financial performance move in different direction. Duality of CEO means that one person is having both responsibilities in the company as CEO and chairman of the Board. This lead to the highly biased decision and monopoly of a single person arises which tends to have lack of confidence of other board members and as well as the performance of the company also reduces. Duality of the board reduces the supervision and monitory process on the management of the organization. The results are in line with Vishwakarma (2015) that board duality has a negative relationship with financial performance of MFIs. However, Mburu and Kagiri (2015) noted that board duality and financial performance have positive relationship.

The results found that board composition and financial performance of microfinance institutions are positively and significantly associated ($r=0.449$, $p=0.000<0.05$). The results imply that board composition and financial performance move in same direction that is; as board composition become favorable, financial performance of microfinance institutions improves likewise if board composition becomes unfavorable, financial performance of microfinance institutions decreases. Board composition may help reduce agency problem.

Board composition refers to the mix including desirable attributes like gender diversity. Likewise board composition may describe gender composition of the board. Having a desirable gender composition can help the board to fetch skills from all persons involved. The results are in agreement with Paul, Ebelechukwu and Yakubu (2015) conducted a study on the impact of corporate governance on financial performance of microfinance banks in Nigeria and found that Board Composition and the Composition of Board Committees have significant relationship with banks financial performance. However, in a study by Xavier, Shukla, Oduor and Mbabazize (2015) on the effect of corporate governance on the financial performance of banking industry in Rwanda, noted that board composition do not predicts financial performance of a financial institution.

It was also established that board independence financial performance of microfinance institutions have a positive and significant correlation ($r=0.359$, $p=0.002<0.05$). The results imply that board independence and financial performance move in same direction. With the enhancement of board independence, financial performance of microfinance institutions improves likewise if board independence is infringed, financial performance of microfinance institutions decreases. Boards may be composed of executive and non-executive directors. It has been argued that firms with large proportions of outside directors in the board normally have less agency problems, and therefore, exhibit a better alignment between the interests of shareholders and those of management. At least one third of independent directors are preferred in board, for effective working of board and for unbiased monitoring. Dependent directors are also important because they have insider knowledge of the organization which is not available to outside directors, but they can misuse this knowledge by transferring wealth of other stockholders to themselves. An independent board is generally composed of

members who have no ties to the firm in anyway, therefore there is no or minimum chance of having a conflict of interest because independent directors have no material interests in a company. The results are in line with Momanyi and Ragama (2017) that board independence is a significant predictor of the growth of microfinance institutions in Kenya. However, Wamaitha (2017) noted that board independence has a negative effect on ROA of microfinance institutions.

Firm size had a positive correlation with financial performance of microfinance institutions are negatively and significantly associated ($r=-0.519$, $p=0.000<0.05$). The results imply that Firm size and financial performance move in different direction. Further analysis thus could be conducted to determine the moderating effect of firm size on the relationship between corporate governance and financial performance of MFIs.

4.4 Diagnostic Tests

4.4.1 Fisher-type test of unit root

In view of the fact that panel data have both cross-sections and time series dimensions, there is need to test for stationarity of the time series because the estimation of the times series is based on the assumption that the variables are stationary. Estimating models without taking into account the non-stationary nature of the data would lead to unauthentic results (Gujarati, 2003). The study employed Fisher-type test in testing the stationarity of the data. Stationarity results are presented in Table 4.3. The hypotheses to be tested were;

Ho: All panels contain unit roots

Ha: At least one panel is stationary

Table 4.3: Fisher-type test of unit root

Variable		Inverse chi-squared(70) P	Inverse normal Z	Inverse logit t(179) L*	Modified inv. chi-squared Pm
Board size	test statistic	95.863	-1.672	-1.764	2.186
	p-value	0.022	0.047	0.040	0.014
Board duality	test statistic	257.289	-9.517	-11.285	15.829
	p-value	0.000	0.000	0.000	0.000
Board composition	test statistic	356.769	-12.182	-15.806	24.236
	p-value	0.000	0.000	0.000	0.000
Board independence	test statistic	262.8971	262.897	-4.992	-9.947
	p-value	0.000	0.000	0.000	0.000
Firm size	test statistic	163.653	-2.541	-4.562	7.915
	p-value	0.000	0.006	0.000	0.000
ROA	test statistic	367.291	-12.833	-16.723	25.126
	p-value	0.000	0.000	0.000	0.000

Source: Researcher's Compilation 2020

The stationarity results test for unit root revealed that, at level board size, board duality, board composition, board independence, firm size and ROA were stationary since $p\text{-value} < 0.05$ at P, Z, L* and Pm. This means that the results obtained are now not spurious (Gujarati, 2003) and so panel regression models could be generated.

4.4.2 Hausman Test

When performing panel data analysis, one has to determine whether to run a random effects model or a fixed effects model (Baltagi, 2005). In order to make a decision on the most suitable model to use, both random and fixed effects estimate coefficients. The study used the Hausman's specification test (1978) to choose between fixed and random effect models. Table 4.4 shows the results of Hausman test.

H_0 : Random effect is appropriate

H_1 : Fixed effect is appropriate

Table 4.4: Hausman Random Test for random and fixed effects

ROA	(b) fe	(B) re	(b-B) Difference	$\sqrt{\text{diag}(V_b - V_B)}$ S.E.
Board size	0.010938	0.008891	0.002047	0.002528
Board duality	-0.08836	-0.09045	0.002095	0.007156
Board composition	0.152638	0.158334	-0.0057	0.019518
Board independence	-0.00963	0.000887	-0.01052	0.011565
Firm size	0.030884	0.032405	-0.00152	0.003727
chi2(4)	2.98			
Prob>chi2	0.7032			

Source: Researcher's Compilation 2020

The null hypothesis of the Hausman test is that the random effects model is preferred to the fixed effects model. Hausman test revealed a chi-square of 2.98 with a p-value of 0.7032 indicating that at 5 percent level, the chi-square value obtained is statistically insignificant. Thus, the researcher does not reject the null hypothesis that random effects model is preferred to fixed effect model for the model. The study concludes that random effect is appropriate model when assessing the relationship between corporate governance and financial performance of microfinance institutions.

4.4.3 Normality Test

The normality assumption ($ut \sim N(0, \sigma^2)$) was required in order to conduct single or joint hypothesis tests about the model parameters (Brooks, 2008). Table 4.5 shows the normality results using for skewness and Kurtosis test for the financial firms. Bera and Jarque (1981) tests of normality were performed. If the p-value is less than 0.05, the null of normality at the 5% level is rejected. If the data is not normally distributed a nonparametric test is deemed appropriate. The study tested the null hypothesis that the disturbances are not normally distributed.

H₀: The data are not normally distributed

H₁: The data are normally distributed

Table 4.5: Normality Test

Variable	Observation	Skewness	Kurtosis	Kurtosis
ROA	104	1.067	0.732	0.732
Board size	104	3.392	0.921	0.921
Board composition	104	4.815	0.510	0.510
Board independence	104	3.063	0.568	0.568
Firm size	104	1.204	0.824	0.824

Source: Researcher's Compilation 2020

Table 4.4 shows the normality results using for Skewness and Kurtosis test. The P-values were higher than the critical 0.05 and thus we conclude that the data is normally distributed.

4.4.4 Multicollinearity Test

According to William et al. (2013), multicollinearity refers to the presence of correlations between the predictor variables. In severe cases of perfect correlations between predictor variables, multicollinearity can imply that a unique least squares solution to a regression analysis cannot be computed (Field, 2009). Multicollinearity inflates the standard errors and confidence intervals leading to unstable estimates of the coefficients for individual predictors (Belsley *et al.*, 1980). Multicollinearity was assessed in this study using the variance inflation factors (VIF). According to Field (2009) VIF values in excess of 10 is an indication of the presence of Multicollinearity. The results in Table 4.6 indicated absence of multicollinearity since the VIF of all the variables were less than 10.

Table 4.6: Multicollinearity Test

Variable	VIF
Board size	2.921
Board duality	2.754
Board composition	1.339
Board independence	1.220
Firm size	2.24
Mean VIF	2.095

Source: Researcher's Compilation 2020

The results in Table 4.6 indicated absence of multicollinearity since the VIF of all the variables were less than 10. When multicollinearity was tested, the VIF values for board size, board duality, board composition and board independence were less than 10 indicating absence of multicollinearity.

4.4.5 Autocorrelation Test

Serial correlation test was conducted to check for correlation of error terms across time periods. This study used the Wooldridge test for serial correlation to test for the presence of autocorrelation in the linear panel data. Serial autocorrelation is a common problem experienced in panel data analysis and has to be accounted for in order to achieve the correct model specification. The test tested for the following hypotheses. The results are presented in Table 4.7.

H_0 : Residuals of this regression model does not have serial correlation

H_1 : Residuals of this regression model have serial correlation

Table 4.7: Serial Correlation Tests

Wooldridge test for autocorrelation in panel data
H_0 : no first-order autocorrelation
$F(1, 34) = 1.883$
Prob > F = 0.901
Source: Researcher's Compilation 2020

The null hypothesis of this test was that there is no first order serial/autocorrelation existed in the data. When Serial Correlation was conducted, the test statistic reported is F-test of 1.883 and a p value of $0.901 > 0.05$. The null hypothesis that no first order serial /auto correlation exists is not rejected. We then conclude that serial correlation does not exist. If the serial correlation is detected in the panel data, then the Feasible Generalized Least Squares (FGLS) estimation is adopted.

4.4.6 Heteroscedasticity

White's test was used to test for heteroskedasticity. The null hypothesis in the test is that error terms have a constant variance (i.e. should be Homoskedastic). The heteroskedasticity results are presented in Table 4.8.

Table 4.8: White's test for Heteroskedasticity

White's test for Ho:	homoskedasticity
against Ha:	unrestricted heteroskedasticity
chi2(13)	35.63
Prob > chi2	0.061

Source: Researcher's Compilation 2020

The results in the Table 4.8 indicate that the error terms are heteroskedastic, given that the p-value ($0.061 > 0.05$) confirmed that the null hypothesis of constant variance was accepted justifying the absence of heteroskedasticity in the data as indicated by Poi and Wiggins (2001).

4.5 Panel Regression Analysis Results and hypothesis testing

The study sought to carry out panel regression analysis to establish the statistical significance relationship between the independents variables that is board size, board duality, board composition, board independence on financial performance of microfinance institutions in Nairobi city county, Kenya. According to Rencher and Schaalje (2009), regression analysis is a statistical process of estimating the relationship among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent and one or more independent

Regression analysis helps one to understand how the typical value of the dependent variable changes when any one of the independent variable is varied, while the other

independent variables are held fixed (Baltagi, 2005). On the same note, Wan (2013) contends that regression analysis helps in generating an equation that describes the statistical relationship between one or more predictor variables and the response variable.

4.5.1 Panel Regression of the Effect of Corporate Governance on financial Performance of Micro Finance Institutions

An overall regression analysis was conducted between corporate governance (board size, board duality, board composition, board independence) and financial performance of microfinance institutions in Kenya. According to Rencher and Schaalje (2009), regression analysis is a statistical process of estimating the relationship among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent and one or more independent variables. More specifically, regression analysis helps one to understand how the typical value of the dependent variable changes when any one of the independent variable is varied, while the other independent variables are held fixed. In addition, Wan (2013) contends that regression analysis helps in generating an equation that describes the statistical relationship between one or more predictor variables and the response variable. Panel regressions for the corporate governance and financial performance of microfinance institutions measured using ROA as shown in Table 4.9. The hypotheses were tested using p-value method in the panel model. The acceptance/rejection criterion was that, if the p value is greater than the significance level of 0.05, we fail to reject the H_0 but if calculated p-value is less than 0.05 level of significance, then H_0 is rejected.

Table 4.9: Multiple Regression of the Effect of Corporate on ROA

ROA	Coef.	Std. Err.	z	P>z
Board size	-0.016	0.008	-2.020	0.043*
Board duality	-0.095	0.036	-2.682	0.007**
Board composition	0.142	0.055	2.614	0.009**
Board independence	0.016	0.039	0.420	0.676
Constant	0.017	0.072	0.231	0.817
R-squared:	0.467			
Wald chi2(4)	86.810			
Prob > chi2	0.000			

*Significant at 0.05

**Significant at 0.01

Source: Researcher's Compilation 2020

The regression modes was;

$$ROA = 0.017 - 0.016 \text{Board size} - 0.095 \text{Board duality} + 0.142 \text{Board composition} \\ + 0.016 \text{Board independence}$$

The R squared was used to check how well the model fitted the data. The study was supported by coefficient of determination R square of 0.4672. This means that board size, board duality, board composition, board independence explain 46.72% of the variations in the performance of microfinance institutions. A good performance in microfinance is vital in sustaining the stability of the firm (Tilahun & Dereje, 2012). Poor financial performance deteriorates the capacity of MFIs to absorb negative shocks, which subsequently affect solvency (Almazari, 2011). Financial performance is the measure of organizations achievement on the goals, policies and operations stipulated in monetary terms. It involves the financial health and can be compared between similar firms in the same industry (Adhikary, 2014). The performance of micro finance institution is depended on corporate governance structure. It is believed that good governance brings investor goodwill and confidence. Good corporate governance is important in increasing investor confidence and market liquidity that enhance the performance of the firm (Donaldson, 2003).

The results revealed that there was a positive and significant relationship between board size and return on assets of micro financial institutions ($\beta = -0.016$, $p=0.043<0.05$). This was supported by a calculated z-statistic of 2.02 that is larger than the critical z-statistic of 1.96. The regression of coefficient implies that if board size is increased by one unit, the financial performance of Microfinance Institutions in Nairobi County reduces by -0.016 units. This implies that a change in board size is related with a change in return on assets. The first hypothesis (H_1) was that there is no significant relationship between board size and financial performance of Microfinance Institutions in Nairobi County. The hypothesis was tested using p-value method. The acceptance/rejection criterion was that, if the p value is greater than the significance level of 0.05, we fail to reject the H_1 but if calculated p-value is less than 0.05 level of significance, then H_1 is rejected. Results in Table 4.9 shows that board size and financial performance of Microfinance Institutions are positively and significantly related with p value= $0.043<0.05$. The null hypothesis was therefore rejected and concluded that there is a significant relationship between board size and financial performance of Microfinance Institutions in Nairobi city County.

Board size is a governance mechanism on the performance of firms. Larger boards are less effective than smaller boards due to co-ordination problems in larger boards, likewise too small boards may be ineffective in corporate decision making. Board size is mostly used as an indication of both monitoring and advisory role. If boards' capacities for monitoring increases with board size, the benefits are outweighed by such costs as slower decision-making, less candid discussions of managerial performance, and bias against risk-taking. Large board size has been criticized for increasing cost and boardroom squabbles, while it is also argued that small board size might not effectively monitor powerful managers. Board size must be small enough to accommodate the need

for frequent meetings and for the group to work together to make substantive decisions. According to Katuse, Kiambati, Ngugi and Waititu (2013), the size of boards of directors have been claimed to be an important influence on the performance of large firms. The results are also in line with Durgavanshi (2014) that board Size has a negative impact on the profitability of MFIs in India. Chenuos, Mohamed, and Bitok (2014) also supported the findings of this study that board size was significant in affecting financial sustainability of micro finance institutions.

There was a negative and significant relationship between board duality and return on assets of micro financial institutions ($\beta = -0.095$, $p = 0.007 < 0.05$). This was supported by a calculated z-statistic of 2.68 that is larger than the critical z-statistic of 1.96. The regression of coefficient implies that if board duality is increased by one unit, the financial performance of Microfinance Institutions in Nairobi County reduces by -0.09534 units. This implies that change in the state of change duality has a significant influence on financial performance of micro financial institutions. The second hypothesis (H_2) was that there is no significant relationship between board duality and financial performance of Microfinance Institutions in Nairobi County. The hypothesis was tested using p-value method. The acceptance/rejection criterion was that, if the p value is greater than the significance level of 0.05, we fail to reject the H_2 but if calculated p-value is less than 0.05 level of significance, then H_2 is rejected. Results in Table 4.9 shows that board duality and financial performance of Microfinance Institutions are positively and significantly related with p value = 0.007 < 0.05. The null hypothesis was therefore rejected and concluded that there is a significant relationship between board duality and financial performance of Microfinance Institutions in Nairobi County.

Duality of board means that one person is having both responsibilities in the company that CEO and Chairman of the Board. Board duality is associated with a lower ROA and higher operational costs. This lead to the highly biased decision and monopoly of a single person arises which tends to have lack of confidence of other board members and as well as the performance of the company also reduces. There is therefore a need to develop practical criteria as a guide when and where separation of the CEO and Board Chairman roles is desirable. The results are in line with Moenga (2015) that board duality has significant negative effect of financial performance of micro finance institutions. According to Hartarska (2005) board duality leads to less financial viable. However, according to Vishwakarma (2015) board duality has no significant effect on financial performance of micro finance institutions. Further, Mersland and Strøm (2009) noted that CEO/chairman duality is associated with a lower ROA and higher operational costs.

Further, the results revealed that there was a positive and significant relationship between board composition and return on assets of micro financial institutions ($\beta=0.142$, $p=0.009<0.05$). This was supported by a calculated z-statistic of 0.42 that is larger than the critical z-statistic of 1.96. The regression of coefficient implies that if board composition is increased by one unit, the financial performance of Microfinance Institutions in Nairobi County improves by 0.142 units. This implies that a favorable mix of board composition has a significant effect on financial performance of micro financial institutions. The third hypothesis (H_3) was that there is no significant relationship between board composition and financial performance of microfinance institutions in Nairobi County. Results in Table 4.9 shows that board composition and financial performance of Microfinance Institutions are positively and significantly related with p value= $0.009<0.05$. The null hypothesis was therefore rejected and

concluded that there is a significant relationship between board composition and financial performance of Microfinance Institutions in Nairobi city County.

Many boards have traditionally been composed of only male members. However, due to women empowerment, most organization's boards are composed of both men and women. The presence of women on the board leads to gender diversity. Board composition is important for effectively monitoring top management boards with special focus on gender balance. Diversity in the composition of boards is important if boards are to effectively provide advice and resources. Board members with different skills and experience and of both genders contribute to effective resource provision and to the beneficial performance of organizations. Gender diversity should be embraced and celebrated in corporations because of the synergistic advantages associated with diversity in group decision making processes. The results are in line with Mburu and Kagiri (2015) that board composition positively influences the performance of a financial institution. Chenuos, et al. (2014) influences the financial sustainability micro finance institutions in Kenya. Established that board composition However, Ongore, K'Obonyo, Ogutu and Bosire (2015) found out that independent board members has insignificant effect on financial performance.

It has been argued that firms with large proportions of outside directors in the board normally have less agency problems, and therefore, exhibit a better alignment between them

The study also revealed a positive but insignificant relationship between board independence and return on assets of micro financial institutions ($\beta = 0.0161$, $p=0.676>0.05$). This was supported by a calculated z-statistic of 3.04 that is smaller than the critical z-statistic of 1.96. The forth hypothesis (H₄) was that there is no

significant relationship between board independence and financial performance of Microfinance Institutions in Nairobi County. Results in Table 4.9 shows that board independence and financial performance of Microfinance Institutions are positively but insignificantly related with $p \text{ value} = 0.676 > 0.05$. The null hypothesis was therefore not rejected and concluded that there is no significant relationship between board independence and financial performance of Microfinance Institutions in Nairobi County.

Board independence has a significant effect on financial performance of micro financial institutions. Board composition denotes the fraction of non-executive directors on the board as compared to their executive counter parts. Board composition is an important determinant of its effectiveness and the performance of a financial institution. Because of the nature of MFIs' services, their boards need to have a mixture of members in order for them to share experiences, learn from each other, and contribute effectively to the performance of MFIs. The results are in line with Vishwakarma (2015) that independent director indicates positive impact on the performance of MFIs measured as ROA. However, Wamaiatha (2017) revealed board independence has a negative effect on ROA.

4.6 Moderating Effect of Firm Size on Corporate Governance and Financial Performance of Microfinance Institutions in Nairobi city County

The fifth objective of the study was to determine the moderating effect of firm size on corporate governance and financial performance of microfinance institutions in Nairobi city County. Moderation is conducted by interacting each of the independent variable with the moderator (Kenny & Baron, 1986). Rather than testing a causal link between these other variables, moderation tests for when or under what conditions an effect

occurs. Moderators can strengthen, weaken, or reverse the nature of a relationship (Fairchild & MacKinnon, 2009). In the context of this study, it entailed multiplying coefficient ratio of firm size with ratio coefficient of each of the independent variable and running a panel model using the new generated variables alongside the original variables. The results presented in Table 4.10 shows model the fitness for a regression model after moderation.

Table 4.10: Regression of Coefficients after Moderation

ROA	Coef.	Std. Err.	z	P>z
Board size	-0.048	0.041	-1.18	0.240
Board duality	-0.808	0.307	-2.63	0.009**
Board composition	0.418	0.140	2.98	0.003**
Board independence	0.244	0.474	0.51	0.607
Board size*M	0.006	0.004	1.44	0.150
Board duality*M	0.080	0.034	2.34	0.019*
Board composition*M	-0.033	0.016	-2.05	0.041*
Board independence*M	-0.030	0.052	-0.58	0.565
Constant	0.143	0.080	1.78	0.075
R-squared:	0.5268			
Wald chi2(8)	105.78			
Prob > chi2	0.000			

*Significant at 0.05

**Significant at 0.01

Source: Researcher's Compilation 2020

M=Firm size

$$ROA = 0.143 - 0.048 \text{Board size} - 0.808 \text{Board duality} + 0.418 \text{Board composition} + 0.244 \text{Board independence} + 0.006 \text{Board size} * M + 0.080 \text{Board duality} * M - 0.033 \text{Board composition} * M - 0.030 \text{Board independence} * M$$

All the independent variables (board size, board duality, board composition, board independence) were moderated by firm size to establish any relationship between corporate governance and financial performance of microfinance institutions in Kenya. The R² of the model summary before moderation was 46.72% but after moderation the

R^2 improved to 52.68%. This implies that firm size has an upward positive effect on the relationship between corporate governance of and financial performance of MFIs. The fifth hypothesis (H_5) was that firm size does not moderate the relationship between corporate governance and financial performance of Microfinance Institutions in Nairobi County. Board duality and Board composition had negative significant relationship with financial performance of Microfinance Institutions in Nairobi County. Results in Table 4.10 therefore shows that firm size moderate the relationship between board duality and financial performance ($0.019 < 0.05$) and the relationship between board composition and performance of microfinance institutions with p value = $0.04 < 0.05$. No moderation effect was established on board size and board independence. The null hypothesis was therefore rejected for board duality and board composition and concluded that firm size moderate the relationship between board duality, board composition and financial performance of microfinance institutions in Nairobi County.

The size of the firm has been shown to have an effect on performance due to the advantages and disadvantages faced by firms with a particular level of growth. According to Chandler (1962), large firms can operate at low costs due to economies of scale. Cull et al. (2007) found out that the size of an MFI is significantly positively linked to its financial performance. Large MFIs have easier access to finance, possess a larger pool of qualified human capital and have a greater chance for strategic diversification (Chen & Yang, 2009; Amdemikael, 2012). Large MFIs also have superior capabilities in product development, marketing and commercialization (Teece, 1986). The size of the firm is not always advantageous as it can result to declining performance due to some operational behavior of the firms. Firm size was measured in terms of total assets owned by the micro finance institution. According to Kurshev

(2015), firm size matters for a number of reasons; first, in the presence of non-trivial fixed costs of raising external funds large firms have cheaper access to outside financing for every amount borrowed. Larger firms are more likely to diversify their financing sources.

4.7 Discussion of Hypotheses

Hypotheses were tested using p-values. The criterion was to reject null hypothesis if the p value calculated is less than the critical p value of 0.05. The first hypothesis (H₁) that there is no significant relationship between board size and financial performance of Microfinance Institutions in Nairobi County was rejected and concluded that there is a significant relationship between board size and financial performance of Microfinance Institutions in Nairobi County. The second hypothesis (H₂) that there is no significant relationship between board duality and financial performance of Microfinance Institutions in Nairobi County was also rejected and concluded that there is a significant relationship between board duality and financial performance of Microfinance Institutions in Nairobi County.

Further, the third hypothesis (H₃) that there is no significant relationship between board composition and financial performance of Microfinance Institutions in Nairobi County was rejected and concluded that there is a significant relationship between board composition and financial performance of Microfinance Institutions in Nairobi County.

Moreover, the fourth hypothesis (H₄) that there is no significant relationship between board independence and financial performance of Microfinance Institutions in Nairobi County was therefore rejected and concluded that there is no significant relationship between board independence and financial performance of Microfinance Institutions in Nairobi County. Finally, the fifth hypothesis (H₅) that firm size does not moderate the relationship between corporate governance and financial performance of Microfinance

Institutions in Nairobi County was also rejected and concluded that firm size moderate the relationship between board duality, board composition and financial performance of microfinance institutions in Nairobi County. The summary results of the hypotheses are presented in Table 4.11.

Table 4.11: Discussion of Hypotheses

Objective No	Objective	Hypothesis	Rule	p-value	Comment
Objective 1	To establish the influence of board size on financial performance of Microfinance Institutions in Nairobi County.	H₀₁ : There is no significant relationship between board size and financial performance of Microfinance Institutions in Nairobi County.	Reject Ho if p value <0.05	p<0.05	The result fails to accept the hypothesis; therefore, there is a significant relationship between board size and financial performance of Microfinance Institutions in Nairobi County.
Objective 2	To determine the influence of board duality on financial performance of Microfinance Institutions in Nairobi	H₀₂ : There is no significant relationship between board duality and financial performance of Microfinance Institutions in Nairobi County.	Reject Ho if p value <0.05	p<0.05	The results fail to accept the hypothesis; therefore, there is a significant relationship between board duality and financial performance of Microfinance Institutions in Nairobi County.
Objective 3	To assess the influence of board composition on financial performance of Microfinance Institutions in Nairobi County.	H₀₃ : There is no significant relationship between board composition and financial performance of Microfinance Institutions in Nairobi County.	Reject Ho if p value <0.05	p<0.05	The results fail to accept the hypothesis; therefore, there is a significant relationship between board composition and financial performance of Microfinance Institutions in Nairobi County.
Objective 4	To examine the influence of board independence on financial performance of Microfinance Institutions in Nairobi County	H₀₄ : There is no significant relationship between board independence and financial performance of Microfinance Institutions in Nairobi County.	Reject Ho if p value <0.05	p>0.05	The results fail to reject the null hypothesis; therefore, there is no significant relationship between board independence and financial performance of Microfinance Institutions in Nairobi County.
Objective 5	To establish the moderating effect of firm size corporate governance and financial performance of Microfinance Institutions in Nairobi County	H₀₅ : Firm size does not moderate the relationship between corporate governance and financial performance of Microfinance Institutions in Nairobi County. The R ² of the model summary before moderation was 46.72% but after moderation the R ² improved to 52.68% implying an upward positive effect of firm size on the relationship between corporate governance and financial performance of MFIs	Reject Ho if p value <0.05	p<0.05	The null hypothesis was therefore rejected for board duality and board composition and concluded that firm size moderate the relationship between board duality, board composition and financial performance of microfinance institutions in Nairobi County.

Source: Researcher's Compilation 2020

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter gives a summary of the findings in line with the objectives of the study, conclusions drawn and the necessary recommendations made for the study including suggested areas of further study to enrich relevant knowledge under the study.

5.2 Summary of Findings

The general objective of this study was to establish the moderating role of firm size on corporate governance and financial performance of microfinance institutions in Nairobi city county, Kenya. The study objectives are to establish the influence of board size, board duality, board composition, and board independence on financial performance of microfinance institutions in Nairobi City County. The study also determined the moderating effect of firm size on corporate governance and financial performance of Microfinance Institutions in Nairobi city County, Kenya

The study employed causal research design. Pearson correlation was used to establish the association between the independent variables and the dependent variable and it was found that board size, board duality have a negative and significant association with financial performance of microfinance institutions. Board composition has a positive and significant association with financial performance of microfinance institutions. However, board independence had positive but insignificant association with financial performance of microfinance institutions. Panel regression model was employed to test the hypotheses of the study.

5.2.1 Board size

The first objective of the study was to establish the influence of board size on financial performance of Microfinance Institutions in Nairobi County. Correlation analysis showed there was a negative and significant association between board size and financial performance of microfinance institutions. Regression analysis indicated that board size and financial performance of microfinance institutions have a negative and significant relationship. Board size is satisfactory in explaining the financial performance of microfinance institutions in Nairobi County. The first hypothesis (H₁) that there is no significant relationship between board size and financial performance of Microfinance Institutions in Nairobi County was therefore rejected and concluded that there is a significant relationship between board size and financial performance of Microfinance Institutions in Nairobi County. Board Size determines the capacity of the board to function effectively depends on its size and although there is no optimum number of board members, extremes of size should be avoided. Larger boards are less effective than smaller boards due to co-ordination problems in larger boards, likewise too small boards may be ineffective in corporate decision making. According to Mersland and Strøm (2009) larger board size decreases the average loan size issued by microfinance institutions. The results are also in line with Ngugi (2012) that board size has an inverse relationship with financial performance. The results are also in line with Durgavanshi (2014) that board Size has a negative impact on the profitability of MFIs in India. Chenuos, Mohamed, and Bitok (2014) also supported the findings of this study that board size was significant in affecting financial sustainability of micro finance institutions.

5.2.2 Board duality

The second objective of the study was to determine the influence of board duality on financial performance of Microfinance Institutions in Nairobi County. Correlation analysis showed there was negative and significant association between board duality and financial performance of microfinance institutions. Regression analysis indicated that board duality and financial performance of microfinance institutions have a negative and significant relationship. Board duality is satisfactory in explaining the financial performance of microfinance institutions in Nairobi County. The second hypothesis (H₂) that there is no significant relationship between board duality and financial performance of Microfinance Institutions in Nairobi County was therefore rejected and concluded that there is a significant relationship between board duality and financial performance of Microfinance Institutions in Nairobi County. The results imply that board duality and financial performance move in different direction. Duality of the board reduces the supervision and monitory process on the management of the organization. The results are in line with Vishwakarma (2015) that board duality has a negative relationship with financial performance of MFIs. However, Mburu and Kagiri (2015) noted that board duality and financial performance have positive relationship.

5.2.3 Board composition

The third objective of the study was to assess the influence of board composition on financial performance of Microfinance Institutions in Nairobi city County, Kenya. Correlation analysis showed there was a positive and significant association between board composition and financial performance of microfinance institutions. Regression analysis indicated that board composition and financial performance of microfinance institutions have a positive and significant relationship. Board composition is satisfactory in explaining the financial performance of microfinance institutions in

Nairobi County. The third hypothesis (H_3) that there is no significant relationship between board composition and financial performance of Microfinance Institutions in Nairobi County was therefore rejected and concluded that there is a significant relationship between board composition and financial performance of Microfinance Institutions in Nairobi County. Board composition may help reduce agency problem. Board composition refers to the mix including desirable attributes like gender diversity. Likewise board composition may describe gender composition of the board. Having a desirable gender composition can help the board to fetch skills from all persons involved. The results are in agreement with Paul, Ebelechukwu and Yakubu (2015) conducted a study on the impact of corporate governance on financial performance of microfinance banks in Nigeria and found that Board Composition and the Composition of Board Committees have significant relationship with banks financial performance. However, in a study by Xavier, Shukla, Oduor and Mbabazize (2015) on the effect of corporate governance on the financial performance of banking industry in Rwanda, noted that board composition do not predicts financial performance of a financial institution.

5.2.4 Board independence

The forth objective of the study was to examine the influence of board independence on financial performance of Microfinance Institutions in Nairobi County. Correlation analysis showed there was a positive but insignificant association between board independence and financial performance of microfinance institutions. Regression analysis indicated that board independence and financial performance of microfinance institutions have a positive though insignificant relationship. Board independence is not satisfactory in explaining the financial performance of microfinance institutions in Nairobi County. The forth hypothesis (H_4) that there is no significant relationship

between board independence and financial performance of Microfinance Institutions in Nairobi County was therefore rejected and concluded that there is no significant relationship between board independence and financial performance of Microfinance Institutions in Nairobi County. With the enhancement of board independence, financial performance of microfinance institutions improves likewise if board independence is infringed, financial performance of microfinance institutions decreases. Boards may be composed of executive and non-executive directors. It has been argued that firms with large proportions of outside directors in the board normally have less agency problems, and therefore, exhibit a better alignment between the interests of shareholders and those of management. The results are in line with Momanyi and Ragama (2017) that board independence is a significant predictor of the growth of microfinance institutions in Kenya. However, Wamaita (2017) noted that board independence has a negative effect on ROA of microfinance institutions.

5.2.5 Firm size

The fifth objective of the study was to establish the moderating effect of firm size on the relationship between corporate governance and financial performance of Microfinance Institutions in Nairobi County. The R^2 of the model summary before moderation was 46.72% but after moderation the R^2 improved to 56.68%. Firm size moderate the relationship between board duality and financial performance ($0.019 < 0.05$) and the relationship between board composition and performance of microfinance institutions with p value = $0.04 < 0.05$. No moderation effect was established on board size and board independence. The null hypothesis was therefore rejected for board duality and board composition and concluded that firm size moderate the relationship between board duality, board composition and financial performance of microfinance institutions in Nairobi County.

5.3 Conclusion

The conclusions of this study were informed based on the findings of the study. Each objective was reviewed and a conclusion provided that covers theory and practice. The general objective of this study is to establish the moderating role of firm size on the relationship between corporate governance and financial performance of microfinance institutions in Kenya. Based on research finding it can be concluded that board size influences financial performance of Microfinance Institutions in Nairobi County. As far as the corporate governance is concerned, the size of the board is an important factor to be considered. The board size should not be very large that it costs huge financial burden which is higher than the agency cost nor the board should be too small that it may lead to the biased decisions or weak decisions. Larger board are better for the MFIs performance since members have a range of expertise to help to make better decision and harder for the powerful to dominate. Board Size determines the capacity of the board to function effectively depends on its size and although there is no optimum number of board members, extremes of size should be avoided.

It is also concluded that board duality influences financial performance of Microfinance Institutions in Nairobi County. Board duality occurs when the CEO and chairman positions are held by the same person in an organisation. Board leadership structure is an important corporate governance mechanism, which is reflected in the positions of chairman of the board and CEO. It is necessary to monitor the performance of the CEO and the board to protect the stakeholders' rights including shareholders. Combining the role of chair of the governing board and the CEO might result in CEO dominance, which leads to ineffective monitoring of the management and monitoring by the board.

Based on research finding it can also be concluded that board composition influences financial performance of Microfinance Institutions in Nairobi County. Board composition as a subset of the corporate governance relates the manner in which firm's affairs are and or shall be directed and controlled by the board. A properly constituted board is thus of importance as a microfinance institutions' goals and objectives shall not only be achieved effectively and efficiently but also the MFI's image shall be enhanced thus attracting stakeholder confidence and goodwill, a key operational factor in the financial sector.

Finally, it can be concluded that firm size moderate the relationship between board duality, board composition and financial performance of microfinance institutions. The size of an MFI is significantly positively linked to its financial performance. Large MFIs have easier access to finance, possess a larger pool of qualified human capital and have a greater chance for strategic diversification. Large MFIs also have superior capabilities in product development, marketing and commercialization.

5.4 Recommendations

Based on the results of the findings and the conclusions drawn from the study, the various recommendations for the micro finance institutions were proposed. The recommendations are based on the study findings of the study. The study may benefit micro finance institutions in constituting their board structure.

5.4.1 Implications to policy and practice

The study findings are important to the MFIs regulators. The regulator can highlight the successes and challenges facing corporate governance in microfinance institutions and thereby helping policy makers like the Association of Microfinance Institutions of Kenya (AMFIK) to make informed decisions. Using the formation from the individual

MFI boards, policy makers can detect loopholes within the management of the institution and thus advise the Microfinance Institutions or take further action. It further provides an insight in understanding the degree to which the microfinance institutions are compliant with different sections of the codes of best practice and where they are experiencing difficulties.

The established that board size influences the financial performance of Microfinance institutions. The study recommends for moderately sizeable board of management that is neither too large nor too small. Microfinance institutions that have large boards may incur more cost in remunerating the board members. Further, large board size may hinder MFI in making critical decisions of the firm in time. Likewise a very small board size may lead to the biased decisions or weak decisions. The microfinance institutions management should ensure that the board size is optimal as a very small board can also be redundant and may not be efficient in governing the institution. The study recommends smaller board sizes accompanied by skill, experience and expedience of the board results in increased firm performance.

The established that board duality influences the financial performance of microfinance institutions. There is need to develop practical criteria as a guide when and where separation of the CEO and Board Chair roles is desirable. Board duality is associated with a lower ROA and higher operational costs. This lead to the highly biased decision and monopoly of a single person arises which tends to have lack of confidence of other board members and as well as the performance of the company also reduces. The study recommends for duty separation between chief executive officers and board chairman. The separation of position of CEO and Chair encourage efficiency in decision-making mechanisms. It would also serve as monitoring mechanism to ensure that the agent does not indulge in opportunistic behavior. Also, the MFI need to maintain and operate with

relatively independent boards. However, this initiative should be initiated with caution since most MFIs are small and so separating the roles of chief executive officers and board chairman may attract huge remuneration costs to the microfinance institutions.

The study recommends that for a favorable balance when constituting the board. The board needs to be gender sensitive, comprising of competent board of directors. In the context of this study, gender diversity is focused on when constituting MFIs boards. It was established that majority of boards of the microfinance institutions in Nairobi City County constitute more of men than women. The study recommends that gender diversity when constituting the board should be encouraged. Microfinance institutions should embrace board diversity by increasing the percentage of women directors in the board given their expertise skills in operations management and enhance the roles of the Board. Inclusion of females in the board allows for a wholesome approach to management as it inculcates social and humane aspects to business, thus increasing firms' corporate image.

It was noted that firm size moderate the relationship between board duality, board composition and financial performance of microfinance institutions. The study recommends that microfinance institutions may need to diversify their products and services in order expand their assets. This boosts their stability and contributes to profitability. It further recommends that microfinance institutions should make maximum use of their available resources for example assets to boost their profitability and effectively execute their core functions.

5.4.2 Implications to Theory

The results of the study revealed that board independence influences financial performance of microfinance institutions in Nairobi County though the relationship is not significant. The results support the propositions of the agency theory in reducing

the agency problem which lead to increase value maximization. It provides a direct link between corporate governance and financial performance. In agency theory, corporate governance mechanisms play an important role in ensuring the alignment of the interests of the principal and the agent, thus enriching the firm's capability to maximize shareholder wealth and thereby improve financial performance. It has been argued that firms with large proportions of outside directors in the board normally have less agency problems, and therefore, exhibit a better alignment between the interests of shareholders and those of management. At least one third of independent directors are preferred in board, for effective working of board and for unbiased monitoring. Dependent directors are also important because they have insider knowledge of the organization which is not available to outside directors, but they can misuse this knowledge by transferring wealth of other stakeholders to themselves. An independent board is generally composed of members who have no ties to the firm in anyway, therefore there is no or minimum chance of having a conflict of interest because independent directors have no material interests in a company.

It was also established that board duality influences financial performance of Microfinance Institutions in Nairobi County. Board duality occurs when the CEO and chairman positions are held by the same person in an organisation. The results support the propositions of the Stewardship theory which states that stewards will balance tension between different beneficiaries and interest groups. CEO-Chair duality will make leadership and control, particularly regarding decision making and strategy more consistent, which is presumed to contribute to greater effectiveness. Because the inside directors have more comprehensive and deep knowledge of daily operations within firms, their decisions are better informed.

5.4.3 Implication for Further Research

In the study, board composition was operationalized to mean gender diversity. However, board composition could describe the board in terms of competence. Thus there may be need to conduct further study on the influence of board competence on financial performance of Microfinance Institutions in Nairobi County. The study only focused on relationship between corporate governance and financial performance of microfinance institutions. Corporate fraud is common in many organizations. Further research should be to determine the role of corporate governance in enhancing the accountability of microfinance institutions. Further research should also focus at determining the role of corporate governance on performance of commercial banks.

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APPENDICES**Appendix I: University Letter**

Dear Sir/Madam,

RE: REQUEST FOR DATA

Benadetta Munyiva Kivaya is masters student at Moi University in the School of Business and Economics seeking to conducts study; the *Firm Size, Corporate Governance and Financial Performance of Microfinance Institutions in Nairobi City County, Kenya*. Kindly accord her the necessary help of the accessing the necessary data for actual data analysis. This information will be used purely for academic purposes and will be treated as confidential. Neither your name nor the name of your institution will be mentioned in the report. Your assistance and cooperation will be highly appreciated.

Any corresponding communication to;

Department of Accounting and Finance,

School of Business and Economics, Moi University

Appendix II: Secondary Data Template

MFI	Year	Board size	Board duality	Board composition	Board independence	Firm size '000 measured using total assets	ROA
Kenya Women Microfinance Bank	2012	11	0	0.25	0.77	29079194	0.244947
Kenya Women Microfinance Bank	2013	11	0	0.17	0.76	32319605	0.221003
Kenya Women Microfinance Bank	2014	8	0	0.16	0.77	28930905	0.12296
Kenya Women Microfinance Bank	2015	8	0	0.56	0.86	32153420	0.264629
Kenya Women Microfinance Bank	2016	12	0	0.11	0.27	30354843	0.143646
Kenya Women Microfinance Bank	2017	11	0	0.28	0.94	29581646	0.307692
Kenya Women Microfinance Bank	2018	11	0	0.19	0.88	29013042	0.108588
Kenya Women Microfinance Bank	2019	11	0	0.19	0.4	29697135	0.467508
Rafiki Microfinance	2012	7	0	0.14	0.25	7326817	0.012503
Rafiki Microfinance	2013	7	0	0.14	0.44	7728524	0.00241
Rafiki Microfinance	2014	8	0	0.11	0.4	6904567	0.260586
Rafiki Microfinance	2015	8	0	0.10	0.0597	7035498	0.053412
Rafiki Microfinance	2016	8	0	0.13	0.24	7967842	0.294947
Rafiki Microfinance	2017	9	0	0.13	0.56	8045637	0.046729
Rafiki Microfinance	2018	9	0	0.75	0.62	7456297	0.085366
Rafiki Microfinance	2019	9	0	0.26	0.94	7798705	0.305185
Faulu Kenya	2012	7	0	0.24	0.43	25330880	0.250016
Faulu Kenya	2013	9	0	0.24	0.97	27403032	0.211283
Faulu Kenya	2014	12	0	0.31	0.45	25325157	0.454167
Faulu Kenya	2015	12	0	0.51	0.88	27368909	0.29589
Faulu Kenya	2016	10	0	0.79	0.6	27224936	0.266409
Faulu Kenya	2017	9	0	0.46	0.32	25325157	0.473684
Faulu Kenya	2018	13	0	0.25	0.21	27219472	0.259585
Faulu Kenya	2019	13	0	0.38	0.75	28045390	0.158416
SMEP	2012	5	1	0.25	0.9	2089057	0.004541
SMEP	2013	5	1	0.25	0.13	3172542	0.012398
SMEP	2014	6	1	0.25	0.68	2694346	0.179842
SMEP	2015	5	1	0.23	0.32	3417766	0.238426
SMEP	2016	5	1	0.25	0.88	3241994	0.043011
SMEP	2017	6	1	0.25	0.59	3414501	0.222039
SMEP	2018	6	1	0.25	0.28	3035506	0.191436
SMEP	2019	6	1	0.25	0.59	3543595	0.228261
Remu Microfinance	2012	8	0	0.25	0.24	391682	0.221239
Remu Microfinance	2013	8	0	0.12039	0.9	391874	0.12987

Remu Microfinance	2014	7	0	0.25	0.94	374708	0.172643
Remu Microfinance	2015	8	0	0.25	0.41	373490	0.218274
Remu Microfinance	2016	8	0	0.25	0.45	376045	0.036145
Remu Microfinance	2017	8	0	0.32	0.36	372390	0.329971
Remu Microfinance	2018	8	0	0.25	0.15	380343	0.244048
Remu Microfinance	2019	8	0	0.25	0.82	383645	0.250154
Century Microfinance	2012	8	0	0.32	0.37	291815	0.320925
Century Microfinance	2013	9	0	0.14	0.86	286707	0.131488
Century Microfinance	2014	9	0	0.33	0.43	291502	0.270525
Century Microfinance	2015	9	0	0.58	0.59	285865	0.258065
Century Microfinance	2016	9	0	0.58	0.26	278654	0.325123
Century Microfinance	2017	9	0	0.84	0.44	285185	0.264151
Century Microfinance	2018	9	0	0.82	0.31	279224	0.173469
Century Microfinance	2019	9	0	0.83	0.9	293528	0.093458
Sumac	2012	7	1	0	0.8	911855	0.090909
Sumac	2013	7	1	0.1122	0.15	825346	0.112245
Sumac	2014	7	1	0.425	0.56	885572	0.425453
Sumac	2015	7	1	0.261	0.24	946006	0.260891
Sumac	2016	7	1	0.4757	0.7	367098	0.475219
Sumac	2017	7	1	0	0.02	372045	0.0183
Sumac	2018	7	1	0	0.027	351357	0.0161
Sumac	2019	7	1	0	0.037	405417	0.0136
U&I Microfinance	2012	6	1	0.01	0.21	406153	0.0093
U&I Microfinance	2013	7	1	0.51	0.0185	534634	0.0188
U&I Microfinance	2014	7	1	0.31	0.83	405717	0.0187
U&I Microfinance	2015	7	1	0.18	0.017	533938	0.013
U&I Microfinance	2016	7	1	0.03	0.29	522157	0.0248
U&I Microfinance	2017	7	1	0.95	0.31	551439	0.0023
U&I Microfinance	2018	7	1	0.00	0.89	550710	-0.0399
U&I Microfinance	2019	7	1	0.05	0.88	548832	-0.0349
Caritas	2012	6	1	0.25	0.75	519896	0.0044
Caritas	2013	6	1	0.25	0.31	564603	0.0034
Caritas	2014	6	1	0.25	0.65	544630	0.0043
Caritas	2015	6	1	0.125	0.99	511805	-0.1057
Caritas	2016	6	1	0.25	0.28	225695	-0.049
Caritas	2017	6	1	0.25	0.0094	275086	-0.0229
Caritas	2018	6	1	0.025	0.0083	291483	0.0081
Caritas	2019	6	1	0.25	0.0068	203393	-0.1289
Daraja	2012	5	1	0.00	0.3	213598	-0.0156

Daraja	2013	5	1	0.04	0.26	219406	-0.0281
Daraja	2014	5	1	0.06	0.26	288456	0.0088
Daraja	2015	5	1	0.39	0.015	281919	0.0182
Daraja	2016	5	1	0.31	0.2	352165	0.0193
Daraja	2017	5	1	-0.1671	0.15	393974	-0.1671
Daraja	2018	5	1	-0.1727	0.0001	351862	-0.1727
Daraja	2019	5	1	-0.0361	0.17	348078	-0.0361
Maisha Microfinance	2012	6	1	0.03	0.37	324636	0.012
Maisha Microfinance	2013	6	1	0.05	0.17	320775	-0.0338
Maisha Microfinance	2014	6	1	0.04	0.0012	375094	-0.0026
Maisha Microfinance	2015	6	1	0.04	0.27	326144	0.0091
Maisha Microfinance	2016	6	1	0.04	0.0163	174512	0.0165
Maisha Microfinance	2017	6	1	0.38	0.013	172261	0.0183
Maisha Microfinance	2018	6	1	0.24	0.43	158922	0.0161
Maisha Microfinance	2019	6	1	0.25	0.001	141514	0.0001
Choice Microfinance Bank	2012	4	1	0	0.0018	112624	0.0004
Choice Microfinance Bank	2013	4	1	0	0.00043	140892	0.0007
Choice Microfinance Bank	2014	4	1	0	0.024	170880	0.024
Choice Microfinance Bank	2015	4	1	0.25	0.024	174336	0.0288
Choice Microfinance Bank	2016	4	1	0.25	0.0383	125261	0.0365
Choice Microfinance Bank	2017	4	1	0.35	0.013	116556	0.0114
Choice Microfinance Bank	2018	4	1	0	0.02	107096	0.0241
Choice Microfinance Bank	2019	4	1	0	0.33	103380	0.0468
Uwezo	2012	3	1	0.07	0.1177	130163	0.0117
Uwezo	2013	3	1	0.10	0.027	104982	0.0294
Uwezo	2014	3	1	0.12	0.045	106501	0.0421
Uwezo	2015	4	1	0.07	0.0571	132705	0.0503
Uwezo	2016	4	1	0.26	0.08	130163	0.0182
Uwezo	2017	4	1	0.19	0.24	104982	0.0284
Uwezo	2018	4	1	0.20	0.37	106501	0.0349
Uwezo	2019	4	1	0.03	0.23	132705	0.0127

Appendix III: List of Microfinance Institutions Regulated by CBK

1. Caritas Microfinance
2. Century Microfinance
3. Choice Microfinance
4. Daraja Microfinance
5. Faulu Microfinance
6. Kenya Women Microfinance
7. Rafiki Microfinance
8. REMU Microfinance
9. SMEP Microfinance
10. SUMAC Microfinance
11. U&I Microfinance
12. Uwezo Microfinance
13. Maisha Microfinance

Source: Central Bank of Kenya, 2019