

**EFFECT OF FUNDING STRUCTURE ON FINANCIAL  
PERFORMANCE OF MICROFINANCE BANKS IN KENYA**

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## DECLARATION

I hereby declare that this research project is my original work; it has not been presented to any other institution of higher learning for academic purposes.

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

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## **DEDICATION**

I dedicate this project to my family.

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## **LIST OF ABBREVIATIONS**

<b>AMFK</b>	Association of Microfinance Institution in Kenya
<b>ANOVA</b>	Analysis of Variance
<b>CBK</b>	Central bank of Kenya
<b>CFA</b>	Confirmatory Component Analysis
<b>DTMFIs</b>	Deposit Taking Microfinance Institutions
<b>EAR</b>	Equity to Asset Ratio
<b>MFB</b>	Microfinance Bank
<b>MFI</b> s	Microfinance Institutions
<b>NBFC</b>	Non-Banking Financial Companies
<b>NIER</b>	Net Income to Expenditure
<b>NSE</b>	Nairobi Securities Exchange
<b>ROA</b>	Returns on Assets
<b>ROCE</b>	Returns on Capital Employed
<b>SACCO</b>	Saving and Credits Cooperatives Society
<b>SEM</b>	Structural Equation Modelling
<b>USA</b>	United States of America

## ABSTRACT

Literature has shown that firms have failed due to financial performance issues linked to funding structure with firms that adopt wrong funding structure mix experience reduction in their financial performance. The trade-off theory, pecking order theory, and Modigliani and Miller (M&M) theory were all used in this research. A descriptive survey design was adopted in this investigation. Paper's target population was all the registered MFBs in Kenya between 2012 and 2021. According to CBK (2021) there were 14 registered MFBs in Kenya as at the year 2021. The investigation made use of secondary related sources on the study variables. A data capture sheet is used to obtain the information. The data was collected from CBK's bank supervision report for the period between 2012 and 2021. Investigation employed descriptive and inferentially articulated methods. The study employed a multiple regression to establish the impact of predictors on dependent. This investigation made use of SPSS tool for for generation of statistics. The regression analysis was done to establish the effect of funding structure on financial performance. The study findings indicated that funding structure has a positive and significant effect on financial performance among MFIs ( $\beta = 0.158$ ; P-Value  $< 0.05$ ). It was also established that firm size has a positive and significant effect on financial performance among MFIs ( $\beta = 0.044$ ; P-Value  $< 0.05$ ). However, liquidity did not significantly determine financial performance of MFIs. Based on the findings that funding structure has a positive effect on financial performance of Microfinance banks in Kenya. This study recommends the MFIs to come up with avenues of attracting more equity from external investors. This is because an increase in equity ensures that MFIs have more funds to loan out hence increasing their interest income which ultimately increased ROA. In addition, more equity ensures that the MFIs have more funds to invest in other investments which can generate more income. There was hence a need to attract more equity through investors. Given the findings that firm size positively affects the financial performance of Microfinance banks in Kenya, the study recommends the management of MFIs in Kenya to invest towards increasing their firm size through increased assets. This is because bigger MFIs were established to perform better because of economies of scale. In addition, bigger MFIs are able to cushion themselves against bad loans in cases where there is a high rate of non-performing loans. Furthermore, bigger MFIs had more assets to liquidate in cases where there was an urgent need to invest or cushion the firm in cases of short term liabilities hence boosting performance.

# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

Funding structure is an assortment of several financings that a company might offer for funding the business (Niu, 2008). Modigliani and Miller (1958) found themselves arguing that in perfect markets, choosing equity or debt has no impact on determining firm performance. However, following careful evaluation of market imperfections, a mix of types of funds decision is critical due to debt's tax advantages, which increase a firm's value, as claimed by (Modigliani & Miller 1963). According to Fredrick (2018), maintaining a balance between funding sources ensures that a firm's value is increased and that shareholders' interests are effectively protected. This enhances business's financial performance (Ganyam & Ivungu, 2019).

The trade-off theory, pecking order theory, and Modigliani and Miller (M&M) theory were all used in this research. According to trade-off hypothesis, optimal level is obtained by taking up funds stopping when expenses of insolvency and profits of debt utilisation get balanced (Kraus & Litzenberger, 1973). Similarly, depending on how much debt is employed in a business, it may result in both bankruptcy expenses and tax benefits (Fama & French 2002). According to Pecking order hypothesis, a company upholds an arrangement in financing activities while preferring to adopt internally generated funds because it is less expensive than taking loans (Myers & Majluf, 1984). Nevertheless, the M&M hypothesis contends that at ideal funding structures, a company balances optimum benefits from tax with costs involved in borrowing.

Because microfinance banks (MFBs) play such an important part in supplementary financing, it is necessary to assess MFBs performances in respect to mix of financing types that would make sure savers' funds are safe during an emergency (Waddock & Graves, 2017). The CBK mandates MFBs to have minimum capital levels to achieve this, which goes hand in hand with guaranteeing financial sector stability. Microfinance banks have had a tough time improving their financial performance because of inadequate short-term financing, bank loans and long-term lines of credit are managed. Failure by MFBs to employ adequate loans and equity balance in their routine operations could be the cause, and if this issue is not resolved, it could lead to financial crisis and business failure (Kaua, 2021).

### **1.1.1 Funding Structure**

Funding structure in microfinance institutions is made up of numerous sorts of finances that a company might offer for funding (Niu, 2008). After Modigliani and Miller's key study in 1958, scholars began to pay attention to funding structures. The investigation came up with the crucial assumptions indicating enterprise's function in perfectly operating market places, henceforth the mix of funding sources had no effect on value determination. Modigliani and Miller (1958) improved their earlier research by integrating the tax aspect after learning that perfect markets do not exist. They discovered that decisions involving a mix of funding sources had a significant impact on firm value (Modigliani & Miller, 1963). As a result, a company that uses debt is valued higher than one that does not. Nevertheless, bestowing Jensen and Meckling (1976), the way companies bring debt as well as equity together can lead to expenses related to monitoring defined as agency outlays, which can

increase company's risk. As a result, to maximise value, the company ought to bring in an equilibrium of debts and equities (Ross et al., 2011).

Significant pointers of funding structure associated with borrowings quantity and a firm's ability to address legally oriented obligations are gearing ratios, which represent the capital contribution of owners and creditors. These ratios assess a company's capacity to cover capital costs incurred due to borrowing money outside. Operations greatly influence how managers combine funding sources, which impacts on finance structure (Myers & Majluf, 1984). As a result, according to Booth et al. (2001), the industry of operation determines the assets type a firm will have, which in turn influences the degree of debt the firm should retain. In this aspect, a company with a lot of current assets, such as MFBs, will do better compared to MFBs possessing higher level of long-term possessions (Panno, 2003). The ability of a company to properly manage assets while considering its industry of business is consequently critical. The percentage of assets show significant impact on funding, which, in turn, has an impact on market value.

### **1.1.2 Financial Performance**

A company's financial performances defined as its capacity to depict efficiency in various operating circumstances while remaining profitable (Pike & Roos, 2004). Financial performance has gained widespread acceptability among academics due to its capacity to make comparisons between organisations and reporting periods (Bititci et al., 2007). Performance measurement for a financial institution should ideally be based on factors like liquidity, profits and loans portfolios. Liquidities allows company to cover borrowing obligations in their emergence, which is critical due to unplanned and urgent payment

requests. Profitability is critical to a company's success since it entails achieving other objectives (Samiloglu & Demirgunes, 2008). Loan portfolio relates to funding loaned to individuals.

The key measures relating to performance, according to Alexandru et al., (2008), are returns on total assets, returns on equities, and returns on investment. Because of efficient use of capital in generating income, shareholders are more interested in equity returns. Return on Assets, on the other hand, demonstrates that assets are being used effectively to generate revenue (Khravish, 2011). As for Wen (2010), company possessing high efficiency in resource mobilisation display higher return on investment (ROI).

### **1.1.3 Funding Structure and Financial Performance**

After foundational work by Modigliani and Miller (1958), there has been increased discussions about different forms of funding sources that can be used to determine a firm's strength. In contrast, funding structure proves crucial in company valuation improvement in imperfect markets, which is an optimal scenario. Scholars disagree about how important the mixture of funds value addition is. Firm maximising happens when the costs of insolvency equal the debt advantages, according to Trade Off Theory. According to the pecking order idea, corporations prefer internal finance over external capital. As a result, Jensen and Meckling (1976) asserted that the agencies relationship leads to outlays, and that an ideal position is reached whenever such expenses are the least.

A business's funding structures as well as financial performances are linked. Debt, for example, encourages managers to make improved investing choices. Increased borrowings reduce agency related expenses, resulting in improved performance. Similarly, a business

possessing high debt level experience lower agency expenses, resulting in higher performance (Grossman & Hart, 1982). Although loan utilisation reduces agency costs in the early stages, excessive use leads to financial distress and negative outcomes. This is consistent with Kester's (1986) findings for Japanese and American enterprises, in which he discovered that funding structure was inversely associated to performance. According to Kar (2012), funding structures decisions improve value due to the present value of tax savings from debt utilisation. Intuitively, this may imply that companies should take on 100% debt to increase their worth. Excessive debt utilisation, on the other hand, may result in a decrease in value due to the increased risk of financial trouble and possible lowering of the company's credit rating. As a result, finance structure policies may have the potential to boost both the firm's gains and losses (Leon, 2013).

#### **1.1.4 Microfinance Banks in Kenya**

As per CBK (2021), MFB industry in Kenya is composed of fourteen (14) registered Microfinance Banks (MFBs). The microfinance banks in Kenya have been found to have low leverage with majority of them depending on equity other than debt to finance their operations. Borrowings were the largest source of funding for microfinance banks in 2020, accounting for 54.2 percent of total funding. Essential deposit accounts were 22.5% in 2021, down from 28.8 percent in 2020 (AMFI, 2021). The financial structure of microfinance institutions is influenced by changes in deposits and debt. In 2021, majority of the microfinance banks are financed through equity as the debt financing was replaced by equity through sale of equity in the microfinance banks. This was accrued to the increased costs of debt which sent the firms to their knees.



Kenyan MFBs have experienced increased financial performance challenges in recent years. The sector, in addition, has made losses in the last 10 years. For instance, Kenya's microfinance banking sector loss hit Ksh.2.2 billion in 2020. In 2021, the sector continued to make losses where the pre-tax losses stood at Ksh. 877 million. Faulu, Maisha and Rafiki are the largest contributors towards the loss situation, with loss before tax of Ksh.522 million, Ksh.178 million, and Ksh.153 million, correspondingly. From the 14 microfinance banks listed by CBK in December 2021, only four of them made declining profits in the year with others making losses. Can the financial performance of the banks be accrued to their funding structure?

## **1.2 Research Problem**

Business research has looked on the affiliation between capitalization structure and financial metrics. Based on the Pecking Order theory, funding structure may improve the financial performance of firms. However, in a perfect marketplace, there is no linkage between a company's valuation and its funding composition. Literature has shown that firms have failed due to financial performance issues linked to funding structure (Motanya, 2019). Firms that adopt wrong funding structure mix experience reduction in their financial performance (Kaumbuthu, 2017).

In Kenya, MFBs generally had a poor performance over previous 5 years. This has been shown by the high number of microfinance banks that have made losses in the last five years with others experiencing reduction in the profit levels. For instance, more than 50% of the microfinance banks in Kenya made losses in the last five years (CBK, 2020). The banks have also been experiencing challenges in determining an optimal funding structure.

According to AMFK (2021), microfinance banks in Kenya use equity as the main source of financing which accounted for 72.42% of the total funding with debt accounting for only 27.58% of the capital. This shows that a knowledge gap exists on whether the funding structure of the microfinance banks in Kenya has any affiliation with financial performance.

Empirically, Almansour, Alrawashdeh and Almansour (2019) observed the bearing of funding structure on the performance of Jordanian microfinance institutions and found a positive impact. Other international studies included Chauhan, Kumar and Verma (2020) in India, Parvin (2019) in Bangladesh; and Saeed, Suleman and Bokhari (2020) in Pakistan. African studies included Nelson and Peter (2019) who did not focus on MFBs in Nigeria; and Ndiege and Kazungu (2020) who focused on Tanzanian Saccos. These studies found varied outcomes on the variables creating the need for this research.

Maina and Jagongo (2022) looked upon capital structure and financial performance relating to small tiered Saccos in Nairobi and found that equity directly influenced financial performance while borrowing displayed an inverse relationship. Other studies reviewed included a study by Odero and Mutswenje (2021) who did research on capital structure and financial performance relating to Nairobi MFI; Mungereza (2019) who did research on the effect of capital structure on financial performance of Mombasan DTMFIs; Ogenche, Githui and Omurwa (2018) who studied capital structure as well as performance of publicly traded companies; and Wambua (2018) who did research on the bearing of capital structure on the sustainability of DTMFIs. Another research was that of Ngure, Mutea and Muema (2018) who studied the relationship between financial structure and financial performance of listed firms in Nairobi Securities Exchange in Kenya.

Despite global investigations converging on funding structure and financial performance of microfinance banks, the investigations produced mixed results on the relationship between the two. For the local studies, various gaps sprouted in the research area. The studies have shown conceptual gaps where some studies investigated other concepts other than funding structure and financial performance. For example, Wambua (2018) adopted financial sustainability as the dependent variable other than financial performance. The studies have also adopted different independent variables other than funding structure. For example, Ngure, Mutea and Muema (2018) adopted financial structure other than funding structure. The studies have also looked at Capital structure the studies have also shown a contextual gap where the researchers have focused on different sectors other than microfinance banking. For example, Ogenche, Githui and Omurwa (2018) as well as Ngure, Mutea and Muema (2018) based their research on listed firms. Finally, the studies displayed methodological gaps. For example, Odero and Mutswenje (2021) and Mungereza (2019) adopted cross sectional primary data for analysis other than secondary panel data. This begged the question: What is the relationship amid funding structure and financial performance of microfinance banks in Kenya?

### **1.3 Research Objective**

The objective of this study is to establish the relationship between funding structure and financial performance of microfinance banks in Kenya.

## **1.4 Value of the Study**

These findings would be used by policymakers in legislative initiatives aimed at streamlining the industry. The Central Bank of Kenya, as the regulatory agency, may utilise the findings of this study to pressure MFBs to comply with strict laws, such as capital requirements, that have harmed the industry. Kenya's government would use this investigation to enhance MFB's performance.

Findings of the investigation would help to widen the current knowledge base and suggest areas that require additional investigation. Scholars would find the investigation highlighting crucial research areas that need to be improved, critical to forecasting and providing better information on financing structured choices.

For attempting to boost overall financial results, MFBs would base business recommendations on this research. Because MFB's results has worsened as a consequence of various regulations such as interest rate capping, which has drastically decreased interest income, it's important to note that this investigation will assist in assessing the structure of a mix of funds as a result of this shift. MFBs can implement the advice presented in this study to improve their financial performance measures.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

Second segment outlined works read in order to show the survey's themes and lay the groundwork for the investigation. The chapter focused on study's driving theories, prior empirical investigations, and current advancements in the field. The chapter concluded with a summary of the study's main points.

### **2.2 Theoretical Review**

The study adopted the Modigliani and Miller theory, Trade-off theory and the Pecking Order theory to further expound on the funding structure concept.

#### **2.2.1 Trade-Off Theory**

Proponents of this hypothesis were Kraus and Lichtenberger (1973). It claims that most businesses strive for borrowings balanced to their taxation rewards. Those businesses tailor their funding structures to match taxation, insolvency outlays, as well as company risks. While sustaining its investing goals, a strong balancing of the gains of debt as well as the expenses involved with debt. Hypothesis contends that at ideal funding structures, a strong balancing of most advantageous taxation benefits accrued to leverage and the costs experienced in the process of borrowing is critical (Serrasqueiro & Caetano, 2015).

Various researchers have critiqued the idea because it assumes that there exist profits to using borrowed funds in a monetary system. Theory's notion of taxes advantages is valued through tax interests has been questioned (Khoa & Thai, 2021). According to the

hypothesis, interest on loans is not taxed, making them advantageous. Academicians suggest that corporations experience low debt levels in relation to the theoretical prediction in practise (Nicodano & Regis, 2019). The theory, on the other hand, has been questioned since it predicts a positive relationship between earnings and leverage, despite well-established empirical evidence to the contrary (Fan, Sarkar & Zhang, 2019).

The theory centred on finding a compromise to employing borrowing and equity to fund a corporation, which was important to the investigation. The hypothesis proposed that using debt to pay off debts saves money on interest payments since debts have a tax incentive. It was also stated that companies with strong growth potential might desire to borrow less in order to avoid losing value.

### **2.2.2 Pecking Order Theory**

This Pecking Order Theory is a proposal of a scholar, Myers (1984). It implies that a ladder for funding of company exists, with a ranking that must be tailed, with internal funding coming first. According to the hypothesis, if a company's core finances are insufficient to finance its growth, company will take loans. However, core capital is favoured over the usage of external funds such as borrowing (Frank, Goyal & Shen, 2020).

This, according to the hypothesis, is due to core funding suffering zero expenditures and need zero further information from third parties. In comparison to receiving debts, a company's competitive edge may be jeopardised if it must reveal more extra info to others (Yldrm & elik, 2020). Hypothesis assumes that when companies reveal private info in order to obtain debt, they also reveal sensitive information to outsiders (Frank et al, 2020). However, it overlooks the possibility that other factors influence a company's funding

decision. Because of this criticism, the theory is seen as a complement rather than a replacement for Tradeoff theory.

The hypothesis was applicable for this investigation as it is linked to funding structure. When company has high profitability levels, they prefer internal funding for investments. When internal funding is depleted, companies turn to outside debt providers, and when that is exhausted, they turn to equity issues, resulting in a financial process in ascending direction.

### **2.2.3 Modigliani Miller Theory**

Modigliani Miller Theory was postulated by Modigliani's and Millers in 1958. It ignores the relationship between corporate value and the financing methods. A company's worth will be similar irrespective of whether business used debt or equities to finance it. The theory has been disputed, as it states that operation marketplace is perfect, that there are no default concerns, there being zero taxation, with businesses and individuals able to take out loans at exact similar rates.

The notion that each corporation has equal access to information is likewise a significant divergence from the theory. As a result, dividend distribution has no bearing on performance valuation; instead, it reroutes the financing structure. According to the notion, a company should expect a return on its investment irrespective of how the financing of the investment was done (Brusov et al. 2015). In a perfect world, these assumptions would be impossible to make. The tradeoff hypothesis was born as a result of these concerns. According to this study, there is no correlation between business performing metrics and its financing. As a result, a company's worth would be the same regardless of whether it

used debt or stock to finance it. Hypothesis contends that a funding structure have no bearing on its financial performance.

## **2.3 Determinants of Financial Performance of Microfinance Banks**

### **2.3.1 Funding Structure**

Structuring firm's capital describes how an organization raises the finances to support their operations (Myers, 2001). It is made up of a mix of leverage and shareholder's capital, and the decision to use whichever basis of capital grounded on balancing the expenses related to each since they affect a company's performance. Debt has tax and monitoring implications. Excessive debt, on the other hand, puts a company at risk of bankruptcy and lowers its worth. Debt/Equity and Debt to capital Ratios are used to assess funding structure (Taani, 2018). On the other hand, Gill, Biger and Mathur (2018) used measures like deposits to assets and equity to assets ratios to measure funding structure. It'll be assessed for this investigation via ratio relating to customer deposits in relation to the bank's assets.

A correct implementation of the structure of the capital optimally in the financing of asset acquisition is critical in maximizing the return to all stakeholders and improving the firm's capacity to compete by lowering capital costs (Batten & Vo, 2019). Anh and Thao (2019) discovered a positive connection around funding structure and financially directed performance. Ahmed and Afza (2019) discovered a direct connection. However, Le and Phan (2017) noted that the firm's structure of their capital related inversely with their financial performance. This demonstrated a mixed relation in the funding structuring and business performance measured in financial metrics.



### **2.3.2 Firm Size**

Capability relating to business in terms of output and client base is defined by its size (Dang, Li & Yang, 2018). Firm size is a key element to financial performance described through the economies of scale. Because it produces a huge quantity of items, a big organization has cheaper production costs than a small business. Financial performance is positively related with business size. Firm size is gauged through value and number of assets, number of customers, sales and market share (Husna & Satria, 2019).

As per Hardwick (2017), performance and business size relate directly since operating cost efficiencies can be achieved by increasing output and lowering unit costs. Investors can also spread their risks and react faster to changes in the market due to the size of their firms. Firm size affects financial performance positively (Alabdullah, Ahmed & Yahya, 2018). However, Ibhagui and Olokoyo (2018) found an adverse affiliation flanked by business size and business performance in financial terms.

### **2.3.3 Firm Liquidity**

Liquidity denotes a company's capacity to satisfy its immediate requirements in full and on time (Constantin & Loredana, 2012). Excessive liquidity resulted in the accumulation of unused resources that did not help a firm to make any improvement in profits, whereas inadequate liquidity damages the company's goodwill, reduces credit standings, and can even result in the compulsory liquidation of the assets of the company (Abbas, Hadi & Muhammad, 2021). It goes without saying that every company wants to maximize profits by keeping a healthy amount of liquidity. Profit maximization at the expense of liquidity, on the other hand, can pose major problems for a company and even lead to financial

collapse. As a result, in order to maximize profitability, businesses need correctly manage their liquidity.

Firms with extra liquid assets seem to be more probable to perform well as the companies can generate cash any moment to satisfy their obligations and are less vulnerable to liquidity hazards (Taseva, 2020). Investment securities may be sold at a significant loss in resolving claims quickly if firms do not have enough cash or liquid assets. This will have an impact on their financial metrics in the long run. Empirically, liquidity has shown a direct influence on financial performance (Hongli, Ajorsu & Bakpa, 2019; Abbas, Hadi & Muhammad, 2021). However, other authors have shown a negative influence (Batten & Vo, 2019; Ahmed & Bhuyan, 2020).

## **2.4 Empirical Review**

From an international and domestic perspective, this section discussed previous survey results. The main aim of literature review was to identify research gaps in the previous empirical works.

### **2.4.1 International Studies**

Almansour, Alrawashdeh, and Almansour (2019) investigated the impact of capital structure on microfinance institution performance. This study employs a quantitative approach to gather data on 308 small enterprises. To reach the research goal, the study uses a confirmatory component analysis (CFA) method based on pragmatic SEM. Findings show that various microfinance services have a substantial impact on performance.

Chauhan, Kumar, and Verma (2020) investigated Indian microfinance institutions' funding structure and performance. For the period 2009-10 to 2014-15, forty-six (46) MFIs were analyzed. According to panel regression study, the significant leverage of Indian MFIs has increased NBFC-MFI efficiency by lowering cost relating to individual borrower and operating expenses, resulting in better portfolio quality. Financial characteristics are positively impacted by leverage.

Parvin (2019) investigated the funding structure in addition to financial performances relating to Bangladeshi MFIs. The variables were studied using information relating to 188 MFIs. The Random effect and Fixed effect models were employed in this study's panel data regression analysis. Funding structure displayed an inverse effect on ROA. However, it had direct relationship with Net Income to Expenditure (NIER).

Saeed, Suleman and Bokhari (2020) looked into impact of funding structure upon performances of micro finance institutions within Pakistan. Philosophical background was positivism and secondary data was used by using a quantitative design. Panel data from 97 MFI's covering 5 years period 2010-2014 were taken into account within the extension of fixed and random effect techniques. Most of the microfinance institutions with more deposits to assets and higher gross loan portfolio are performing better for the performance but the more debt can reduce the performance according to this study. The result shows that more deposits in relation to assets and more gross loaning portfolio in relation to assets leads towards improvement of company performance. But the more debt in organization may not be profitable as may be the cost of debt was reducing the profit.

Spanning from 2009 through to the year 2018, Nelson and Peter (2019) researched relationship of funding structure and business performance in Nigeria's MFBs. The

liabilities to assets ratio reflected funding structure, whereas ROE showed company performance. The analysis was conducted using descriptive and the regression approach. From analysis liabilities to assets ratio had an insignificant positive link with return on equity. The combined effect was stipulated as insignificant, according to findings.

Ndiege and Kazungu (2020) looked at funding structure and performances of Tanzanian' Kilimanjaro Saccos. This paper deployed secondary data from financial statements of 60 Saccos for the years 2004-2011. A panel regression model was used for analysis. Using random effect regression model for analysis, the findings revealed net loans, liquid investments, members' savings and institutional capitalization as influencers of performance. Also, leverage displayed no influence on performances. Moreover, the findings indicated that allocating more resources into non-financial investments lowered the performance.

#### **2.4.2 Local Studies**

Mungereza (2019) investigated the impact of capitalization structures on DTMFI's financial performance in Mombasa County. The survey's populace consisted of 4 DTMFIs operational in Mombasa, based on a ten-year duration spanning 2009 through to 2018, employing a correlational researching methodology. Secondary dataset was generated from the Kenyan Central Bank's financial reports as well as accounting records from the individual DTMFIs. Debt percentage, core capital percentage, and total capital percentage all had a little inverse connection. Size of company had a weak positive relationship that was likewise insignificant.

Maina and Jagongo (2022) investigated the impact of capitalization structures on financial performances of Nairobi County's cooperatives. Design of a systematic review study. It entailed employing particular criteria to evaluate relevant studies that addressed the research variables. Journals and libraries provided the dataset for analysis. According to the papers analysed, there is a conceptual framework gap. The study found a mixed relationship. The study found that equity had a positive relationship with debt showing a negative relationship.

Ogenche, Githui, and Omurwa (2018) looked into impact of capitalization structures on listed consumer goods businesses' performance. Panel research was used in this study. The study focused on 12 Nairobi Securities Exchange-listed companies. From 2012 to 2016, 12 enterprises were utilised as a unit of study. The appropriate ratios were calculated using dataset got from financial accounts. Eviews software was adopted to analyse the data and applied a dynamic panel data regression model. According findings, debt ratio displays adverse bearing on financials performance. The study discovered that the size of a company had direct impact on financials performance.

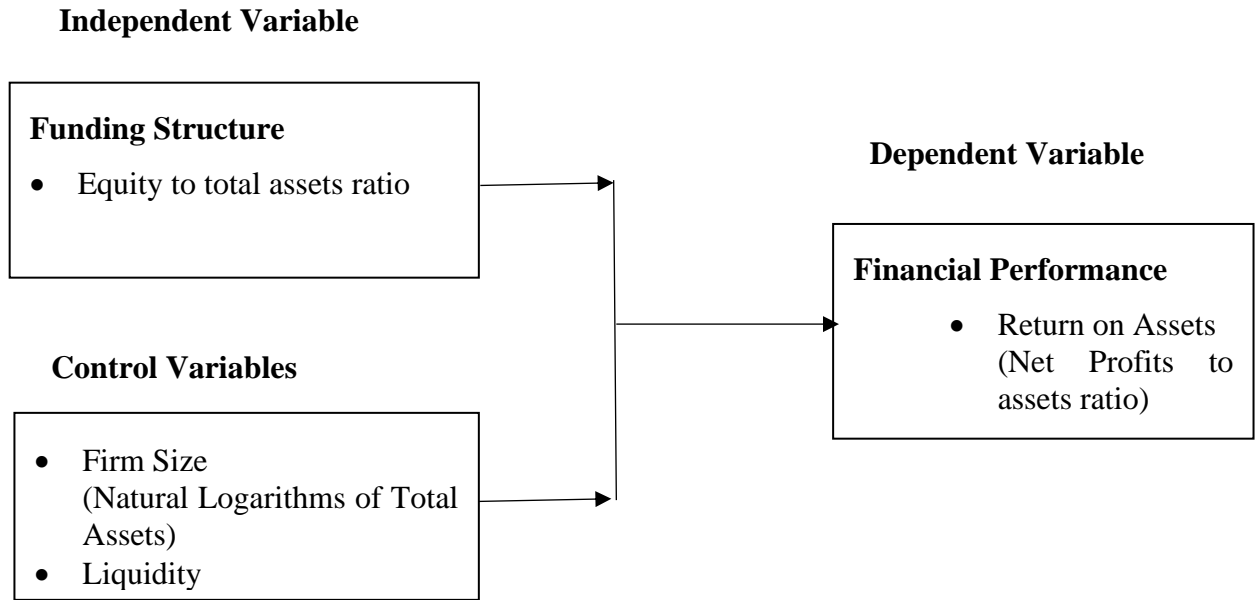
Odero and Mutswenje (2021) conducted research on microfinance institutions' capitalization structures and financial performances in Nairobi. All the microfinance enterprises were the survey's target population. As a result, the study represents a 5-year census survey (from 2014-2018). The dataset was examined via Stata. Regression analysis described the grade of effect relating to the covariate parameter and the responding parameter employed in the sample. Before the investigation is finished, a specific diagnostic result can be calculated. Equity financing has statistically insignificant impact on MFI financial returns, according to inferential statistics. MFIs' financial performance

was determined to be statistically significant when debt financing was used. In this analysis, firm size was not found to be a major mediator.

Wambua (2018) looked into the bearing of capitalization structures on deposit-taking microfinancing organisations' financial viability. Study's target demographic was all 13 DTMFIs in Kenya. DTMFIs' monetary data was gathered from financial reports. Analysis of the dataset was multivariate regression through SPSS version 21. According to the findings, the revenue generated by DTMFIs is insufficient to meet actual funding direct expenses. They indicated that the financial sustainability changes by more than 50% for unit change in debt or retained earnings.

## **2.5 Conceptual Framework**

Conceptualization frameworks display collection relating to concepts together with thoughts from a related topic of research that serves as a research tool to help the researcher explore and comprehend the situation under investigation (Kothari, 2014). Funding structure was utilized as independent variable, while financial performance is the dependent one. Firm size and liquidity control link between the two.



**Figure 2.1 : Conceptual Framework**

## 2.6 Summary of Literature

Chapter assess theoretical perspective as well as empirical studies on the concept, both from a global, regional and local perspectives. The reviewed studies differed from this study contextually. Some of the studies were conducted in different contexts and thus their findings can't be applied generally to a Kenyan scenario. The studies presented a contextual research gap from this study. This was shown by the local studies reviewed done in other sectors other than the microfinance banking sector. In addition, the studies differed from this study conceptually where the studies reviewed utilized different concepts in their analysis especially in the measurement of the variables, this study has also considered control variables. Furthermore, the studies differed in methodology whereby they adopted different data sources, analytical models and periods.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

The research methods utilized to attain the aims of investigation was presented in this chapter. The research design, target population, sample size determination procedure, data collecting and analysis techniques were all covered in this part.

### **3.2 Research Design**

A descriptive survey design was adopted in this investigation. A descriptivism survey design is that which is utilized in describing present situation and collect data over a number of units (Mangeni, 2018). It was appropriate for this study because it played a role in answering the “what” and “which” and described the phenomena of financial performance of MFBs in relation to funding structure. As a result, the research approach was appropriate for defining funding structure influencing financial performance of MFBs.

### **3.3 Population**

Paper’s target population was all the registered MFBs in Kenya between 2012 and 2021. According to CBK (2021) there were 14 registered MFBs in Kenya as at 2021 (Appendix I). This period saw the MFBs experiencing fluctuating financial performance with majority of them making losses. The period would also give the most recent data with sufficient data points for analysis.



### **3.4 Data Collection**

The investigation made use of secondary related sources on the study variables. A data capture sheet is used to obtain the information. The sheet contained data relating to the indicators of the variables. For financial performance the data collection sheet contained data relating to profit after tax and total assets. For the independent variables the sheet contained data on total liabilities, total equity, total assets, and liquidity ratio. The data was collected from CBK's bank supervision report for the period between 2012 and 2021 for most recent data on funding structure and financial performance. This ensured the credibility of the dataset.

### **3.6 Data Analysis**

The quantitative data was analysed to give descriptive and inferential statistics using Statistical Package for Social Sciences (SPSS) version 24. The specific descriptive statistics analysed were mean, standard deviation, minimum and maximum values while the inferential statistics established were correlation and regression.

#### **3.6.1 Regression Model**

The relationship between the study variables was established using a multiple linear regression model. The overall multiple regression model adopted was:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \epsilon_{it}$$

**Where:**

$Y_{it}$  is Financial Performance as measured by Return on Assets of Microfinance bank  $i$  at time  $t$

$X_{1it}$  is Funding structure as gauged via Equity to Assets ratio of Microfinance bank  $i$  at time  $t$

$X_{2it}$  is Firm Size as indicated via natural log of assets of Microfinance bank  $i$  at time  $t$

$X_{3it}$  is Liquidity as shown via liquidity ratio of Microfinance bank  $i$  at time  $t$

$\epsilon_{it}$  is Error term

$\beta_1- \beta_3$  is Predictor Variables Coefficients

$t$  is time that is Year (2012-2021)

### **3.6.2 Diagnostic Tests**

The assumptions for using an Ordinary Least Square (OLS) were tested before using the regression model. Normality of the error term was tested using Shapiro-Wilk method, Autocorrelation was tested using Durbin Watson method, Heteroscedasticity was tested using Breusch Pagan method and Multicollinearity was tested using Variance Inflation Factor (VIF).

### 3.6.2 Operationalization of the Study Variables

**Table 3.1: Operationalization of the Study Variables**

<b>Variable</b>	<b>Type</b>	<b>Indicator</b>	<b>Data Analysis Procedure</b>
Funding structure	Independent	<ul style="list-style-type: none"><li>Equity to assets ratio</li></ul>	Descriptive Statistics, Correlation analysis, Regression analysis
Firm Size	Control	<ul style="list-style-type: none"><li>Logs of total assets</li></ul>	Descriptive Statistics, Correlation analysis, Regression analysis
Liquidity	Control	<ul style="list-style-type: none"><li>liquidity Ratio</li></ul>	Descriptive Statistics, Correlation analysis, Regression analysis
Financial Performance	Dependent	<ul style="list-style-type: none"><li>Return on Assets</li></ul>	Descriptive Statistics, Correlation analysis, Regression analysis

### 3.6.3 Test of Significance

The researcher applied parametric tests to establish the statistical significance of the model and individual variables. The F-test was used in determining the model's significance given by ANOVA at 95% confidence interval while the significance of individual variables was tested at significance level of 5%.

## CHAPTER FOUR

### DATA ANALYSIS, RESULTS AND DISCUSSION

#### 4.1 Introduction

In the chapter there is a presentation of the study findings based on the analysed data. In this chapter, there is presentation of descriptive statistics, model diagnostic tests, correlation and regression analysis. The results are tabulated in form of Tables.

#### 4.2 Descriptive Statistics

The descriptive statistics, that is measures of central tendency have been presented in this section. Table 4.1. shows the minimum values, maximum values, mean and standard deviation of the study variables based on the data collected on a 10-year period between 2012 and 2021 on 13 MFIs.

**Table 4.1: Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Funding Structure	110	(2.022)	0.850	0.230	0.359
Firm Size (Kshs M)	110	45.00	32153.0	5762.5	1.940
Liquidity	110	0.010	7.200	0.436	0.716
ROA	110	(0.542)	0.039	(0.080)	0.132
Valid N (listwise)	110				

From the descriptive statistics, financial performance in terms of ROA averaged at -8% in the period between 2012 and 2021. This indicates that the MFBs in Kenya had a negative return on assets showing they operated at losses across the period. In this case, the researcher concludes that MFBs in Kenya are performing poorly financially. The standard deviation of financial performance was 13.2% indicating a high variation of the return on assets among the MFBs across the period between 2012 and 2021.

It was also established that the funding structure as measured by the ratio of equity to assets averaged 23% for the study period. This implies that on average, the MFIs were well off and able to pay their debtors. A standard deviation of 35.9% for funding structure demonstrated that there was a high variation in this measure across the MFIs in the study period.

In regard to firm size, it was established that the MFIs had an average assets value of Kshs. 5,762.5 million. The least recorded value was Kshs. 45 million and the largest was Kshs. 32,153 million worth of assets. The high standard deviation indicates that on average, the MFIs total assets value varied.

In regard to liquidity represented by liquidity ratio, it was established that the MFIs had an average liquidity value of 43.6%. This shows that the current assets of MFBs in Kenya covered 43.6% of the current liabilities within the period between 2012 and 2021. It demonstrated their ability to offset short term liabilities within 30 days using their highly liquid assets. A standard deviation of 71.6% showed that liquidity highly varied across the MFIs in the study period whereby while some indicated a very small percentage of 1%, other MFIs indicated a very large percentage at 720%.

### 4.3 Correlation Analysis

To determine the strengths and significance of the relationship between the study variables, a Pearson Moment correlation approach was adopted. The results are presented in Table 4.2.

**Table 4.2 Correlation Matrix**

		Funding Structure	Firm Size	Liquidity	ROA
Funding Structure	Pearson Correlation	1			
Firm Size	Pearson Correlation	(0.10)	1		
	Sig. (2-tailed)	0.31			
Liquidity	Pearson Correlation	.326**	(0.13)	1	
	Sig. (2-tailed)	0.00	0.18		
ROA	Pearson Correlation	.361**	.603**	(0.040)	1
	Sig. (2-tailed)	0.000	0.000	0.660	
	N	110	110	110	110

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

The correlation results in Table 4.2 indicated that the funding structure of MFIs in Kenya in the study period was positively and significantly associated with their performance ( $r = 0.361$ ;  $P\text{-Value} < 0.05$ ). The relationship was however weak as shown by a weak correlation coefficient. This implies that the higher the amount of equity, the better their financial performance.

The correlation results further indicated that the firm size of MFIs in Kenya in the study period was positively and significantly associated with their performance ( $r = 0.603$ ;  $P\text{-Value} < 0.05$ ). The relationship was strong as shown by a bigger correlation coefficient. This implies that the bigger the MFI, the better their financial performance.

It was also established that in the study period, liquidity was negatively and not significantly associated financial performance of MFIs ( $r = 0.04$ ; P-Value  $< 0.05$ ). This implies that the liquidity did not significantly determine financial performance of MFIs.

#### 4.4 Regression Model Diagnostic Tests

The assumptions for using an Ordinary Least Square (OLS) regression model were tested before using the regression model. This section covers the tests conducted.

##### 4.4.1 Multicollinearity Test

One of the assumptions of a least square estimator is that of multicollinearity whereby the predictor variables are not supposed to be highly correlated. This assumption was tested through VIF as shown in Table 4.3.

**Table 4.3: Multicollinearity Test**

	<b>Tolerance</b>	<b>VIF</b>
Funding Structure	0.914	1.095
Firm Size	0.962	1.039
Liquidity	0.887	1.127
<b>Dependent Variable: ROA</b>		

Multicollinearity was done to check on linearity among predictors using VIF. From the outcomes, VIF values were below 2, indicating low variation in variance levels. Therefore, the researcher concludes that no multicollinearity problem existed hence it was suitable to use a regression model.

#### 4.4.2 Autocorrelation Test

Another assumption of a least square estimator is that of autocorrelation whereby the error terms are not supposed to be highly correlated. This assumption was tested through Durbin Watson method as shown in Table 4.4.

**Table 4.4: Durbin Watson Test of Serial Correlation**

DW Statistic
1.542

As required, it was established in Table 4.4 that the DW value was between 1.5 and 2.0 to imply that the error term did not have the problem of serial correlation. It was hence suitable to use an ordinary least square regression model.

#### 4.4.3 Heteroskedasticity Test

Another assumption of the OLS estimator is that of heteroscedasticity whereby the error term should have a constant variance across the predictor variables. This study therefore tested for this assumption using Breusch Pagan method and the results are presented in Table 4.5.

**Table 4.5: Breusch Pagan test of Heteroskedasticity**

Ho: Homoscedasticity
Variables: Fitted values of Credit Provision
Chi <sup>2</sup> (1) = 2.387
Prob > Chi <sup>2</sup> = 0.268

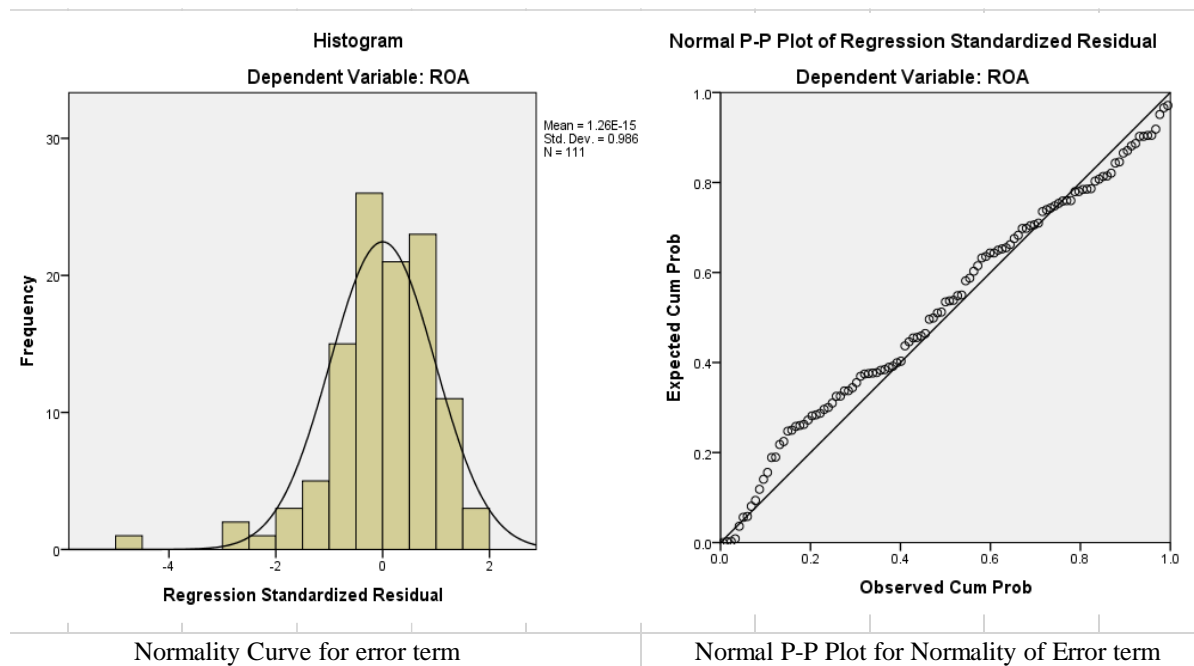


#### 4.4.4 Normality of the Error Term

The error term of the least square estimator should be normally distributed and hence this study tested for this assumption using both the statistical approach (Shapiro-Wilk) as well as Graphical approaches (Normality Curve as well as PP plot) as shown in Table 4.6 and Figure 4.1.

**Table 4.6: Shapiro Wilk Normality Test for the Error Term**

Statistic	df	Sig.
1.368	111	0.069
Lilliefors Significance Correction		



**Figure 4.1. Normality Plots for the error term**

The results presented above shows that the statistic for Shapiro Wilk that is (1.1.368) was not significant at 5% level of significance (P-Value > 0.05). As required, an insignificant P-value implies a data set not significantly different from a normal distribution hence implying that the error term was normally distributed. It was hence suitable to use an ordinary least square regression model. The same results can be evidenced by a bell shape in the normality curve.

## 4.5 Regression Analysis

A multiple regression model was used to establish the relationship between the study variables since all the assumptions pointed towards its use. The regression model results are presented in the subsections.

### 4.5.1 Coefficient of Determination

The coefficient of determination, depicted through R-Square, shows the variation in the dependent variable (Financial performance of MFIs) which is accounted for by the predictor variables in the study (funding structure, firm size and liquidity). Table 4.7 presents these findings.

**Table 4.7 Coefficient of Determination**

<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
.736	0.542	0.529	0.090441

Predictors: (Constant), Liquidity, Firm Size, Funding Structure  
 Dependent Variable: ROA

It was established that funding structure together with the controls, that is firm size and liquidity explain up to 54.2% of the variation in financial performance of MFIs in Kenya (R=square = 0.542). Other unaccounted variables explain the remaining percentage.

#### 4.5.2 Analysis of Variance (Model Significance)

ANOVA was adopted to determine the model significance or fitness. In this case, both F-test and significance methods were used. The results are shown in Table 4.8.

**Table 4.8: ANOVA**

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	1.026	3	0.342	41.831	.000
Residual	0.867	106	0.008		
Total	1.894	109			

Dependent Variable: ROA  
 Predictors: (Constant), Liquidity, Firm Size, Funding Structure

The study findings indicated that the regression model linking the study variables was significant (P-value < 0.05). Using F-test, it was also proven that the F-calculated value (41.831) was greater than the F-critical  $_{0.05, 3, 106}$  (2.700) to further prove the model significance.

#### 4.5.3 Regression Model Coefficients

The regression model coefficients were established and presented in Table 4.9. It showed the nature of the relationship between the study variables as well as the significance of the relationship with the dependent variable.

**Table 4.9 Model Coefficients**

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	-0.421	0.034		-12.27	0.000
Funding Structure	0.158	0.026	0.429	6.167	0.000
Firm Size	0.044	0.005	0.643	9.686	0.000
Liquidity	-0.003	0.013	-0.015	-0.208	0.835

**Dependent Variable: ROA**

Based on the results in table 4.9, the following regression model was specified:

$$\text{Financial Performance of MFIs} = (0.421) + 0.158 (\text{Funding Structure}) + 0.044 (\text{Firm Size})$$

This model implies that holding other factors constant, only funding structure and firm size significantly affect financial performance of MFIs. Specifically, both firm size and funding structure have a positive and significant effect on financial performance of MFIs.

The regression model results indicated that funding structure has a positive and significant effect on financial performance among MFIs ( $\beta = 0.158$ ; P-Value < 0.05). This shows that a unit increase in the funding structure ratio, that is equity to assets, leads to a significant increase in the financial performance among MFIs by 0.158 units.

The regression model results further indicated that firm size has a positive and significant effect on financial performance among MFIs ( $\beta = 0.044$ ; P-Value < 0.05). This shows that an increase in firm size, that is assets by 1%, leads to a significant increase in the financial performance among MFIs by 0.044%.

Lastly, it was established that liquidity has a negative and insignificant effect on financial performance among MFIs ( $\beta = - 0.03$ ; P-Value  $> 0.05$ ). This shows that that the liquidity did not significantly determine financial performance of MFIs.

#### **4.5 Discussion of Findings**

From regression analysis, it was documented that increased funding structure, in terms of the equity to total assets ratio, displayed positive effect on financial performance of Microfinance banks. This showed that funding structure had positive effect on financial performance. The findings demonstrate that increasing the equity was associated with an increase in financial performance. This is because more equity ensured that the MFIs had more funds to loan out hence increasing their interest income which ultimately increased ROA.

The findings concur Saeed, Suleman and Bokhari (2020) who found that funding structure positively related to company performance. They differed with Parvin (2019) who found that funding structure displayed an inverse effect on financial performance. Nelson and Peter (2019) also established that funding structure and financial performance had an in significant link with performance in contrast to the current study.

It was also established that an increase in firm size led to an increment of financial performance of Microfinance banks. This stipulates that the size of microfinance banks positively affected financial performance. Bigger MFIs were established to perform better because of economies of scale. In addition, bigger MFIs are able to cushion themselves against bad loans in cases where there is a high rate of non-performing loans. Furthermore,

bigger MFIs had more assets to liquidate in cases where there was an urgent need to invest or cushion the firm in cases of short term liabilities hence boosting performance.

The findings are similar to those of Hardwick (2017) who found that firm size and financial performance related positively. The findings are also similar to Alabdullah, Ahmed and Yahya (2018) who indicated that financial performance was directly proportional to size of the firm. However, the findings differ with those of Ibhagui and Olokoyo (2018) who found that firm size had a negative effect on financial performance.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Summary of Findings**

The study aimed to establish the relationship between funding structure and financial performance of microfinance banks in Kenya. In addition, the control effect of firm size and liquidity was determined. Through secondary data collected over a ten-year period (2012 to 2021), the relationship between the variables was tested through correlation and regression analysis.

The descriptive findings indicated high variation in firm size, liquidity and funding structure across the MFIs in the study period. The findings also indicated that the MFBs in Kenya had a negative return on assets showing they operated at losses across the period. The funding structure documented that the MFIs were well off and able to pay their debtors. Inferential statistics demonstrated that the funding structure of MFIs in Kenya in the study period was positively and significantly associated with their performance implying that the higher the amount of equity, the better their financial performance. It was also established that the firm size of MFIs in Kenya in the study period was positively and significantly associated with their performance implying that the bigger the MFI, the better their financial performance. On the contrary, it was established that liquidity did not significantly determine financial performance of MFIs.

## 5.2 Conclusions

Regression analysis displayed that funding structure had a positive regression coefficient against financial performance of Microfinance banks. This study, hence, concludes that funding structure has a positive effect on financial performance of Microfinance banks in Kenya. This indicates that when the funding structure changes by increased equity, the financial performance of MFBS would increase.

An increase in equity ensures that MFIs have more funds to loan out hence increasing their interest income which ultimately increased ROA. In addition, more equity ensures that the MFIs have more funds to invest in other investments which can generate more income. There was hence a need to attract more equity through investors.

The findings also indicated that an increase in firm size leads to a significant increment of financial performance of Microfinance banks. This leads to the conclusion that firm size positively affects the financial performance of Microfinance banks in Kenya. Therefore, MFBS that increase their asset levels experience high levels of financial performances.

Bigger MFIs were established to perform better because of economies of scale. In addition, bigger MFIs are able to cushion themselves against bad loans in cases where there is a high rate of non-performing loans. Furthermore, bigger MFIs had more assets to liquidate in cases where there was an urgent need to invest or cushion the firm in cases of short term liabilities hence boosting performance.



### **5.3 Recommendations**

Based on the findings that funding structure has a positive effect on financial performance of Microfinance banks in Kenya. This study recommends the MFIs to come up with avenues of attracting more equity from external investors. This is because an increase in equity ensures that MFIs have more funds to loan out hence increasing their interest income which ultimately increased ROA. In addition, more equity ensures that the MFIs have more funds to invest in other investments which can generate more income. There was hence a need to attract more equity through investors.

Given the findings that firm size positively affects the financial performance of Microfinance banks in Kenya, the study recommends the management of MFIs in Kenya to invest towards increasing their firm size through increased assets. This is because bigger MFIs were established to perform better because of economies of scale. In addition, bigger MFIs are able to cushion themselves against bad loans in cases where there is a high rate of non-performing loans. Furthermore, bigger MFIs had more assets to liquidate in cases where there was an urgent need to invest or cushion the firm in cases of short term liabilities hence boosting performance.

### **5.4 Limitations of the Study**

This research faced different limitations. For instance, the survey was limited by the variables adopted by the researcher. This study was based on funding structure and financial performance. The adoption of different variables may give differing results. The study was also limited by the measures adopted for the variables. The use of different measures may also give different results. These limitations were overcome via

recommendations for future studies. The study was based on MFBs in Kenya which limited the scope of the study. The involvement of other financial institutions or firms may have produced different results.

The study was also limited by the methodology adopted in the research. The study adopted data for the period between 2012 and 2021. The adoption of different periods may give different results. The study also adopted secondary data's which is historical. This created a limitation where the adoption of old data may make the study obsolete. This was overcome by using the most recent period for the data. The study was based on annual data which would give different results from semi-annual, quarterly or monthly data.

## **5.5 Recommendations for Future Studies**

From the limitation of scope, the study recommends future studies focusing on other predictors of financial performance other than funding structure. Other researchers also need to focus on other measures of funding structure and financial performance. The study was based on MFBs in Kenya with future studies recommended to focus on other sectors like insurance firms, commercial banks or Saccos.

Future studies should be based on different periods like 20 years or even 5 years. Future studies are recommended based on primary data. Future research is recommended based on quarterly or semi-annual data. This will enable the researcher to compare results.

## REFERENCES

- Abbas, A. A., Hadi, A. A., & Muhammad, A. A. (2021). Measuring the Extent of Liquidity's Impact on the Financial Structure. *International Journal of Multicultural and Multireligious Understanding*, 8(6), 365-389.
- Ahmed, N., & Afza, T. (2019). Funding structure, competitive intensity and firm performance: evidence from Pakistan. *Journal of Advances in Management Research*, 6(5), 796-813.
- Ahmed, R., & Bhuyan, R. (2020). Funding structure and firm performance in Australian service sector firms: A panel data analysis. *Journal of Risk and Financial Management*, 13(9), 214.
- Alabdullah, T. T. Y., Ahmed, E. R., & Yahya, S. (2018). The determination of firm performance in emerging nations: Do board size and firm size matter? *International Academic Journal of Accounting and Financial Management*, 5(2), 57-66.
- Almansour, A., Alrawashdeh, N., & Almansour, B. (2019). The impact of funding structure on the performance of microfinance institutions. *Management Science Letters*, 10(4), 881-888.
- Anh, N. T., & Thao, T. T. P. (2019). The impact of funding structure on firm performance of Vietnamese non-financial listed companies based on agency cost theory. *VNU Journal of Science: Economics and Business*, 35(2), 71-84.
- Batten, J., & Vo, X. (2019). Liquidity and firm value in an emerging market. *The Singapore Economic Review*, 64(02), 365-376.

- Brusov, P., Filatova, T., Orekhova, N., & Eskinarov, M. (2015). Funding structure: Modigliani–Miller Theory. In *Modern Corporate Finance, Investments and Taxation* (pp. 9-25). Springer, Cham.
- Chauhan, S., Kumar, C. V. R. S., & Verma, A. (2020). Funding structure and Performance of Indian Microfinance Institutions. *IUP Journal of Applied Finance*, 26(4), 30-48.
- Constantin, C., & Loredana, L. M. (2012). The analysis of the indicators which reflect the ability of companies of facing short term obligations and medium- and long-term maturities. *Annals-Economy Series*, 4(1), 89-95.
- Dang, C., Li, Z. F., & Yang, C. (2018). Measuring firm size in empirical corporate finance. *Journal Of Banking & Finance*, 86(2), 159-176.
- Fan, Y., Sarkar, S., & Zhang, C. (2019). The investment decision with technological and market uncertainties. *The European Journal of Finance*, 25(2), 116-138.
- Frank, M. Z., Goyal, V., & Shen, T. (2020). The Pecking Order Theory of Funding structure. In *Oxford Research Encyclopaedia of Economics and Finance*. <https://doi.org/10.1093/acrefore/9780190625979.013.606>
- Fredrick, I. (2018). Funding structure and corporate financial distress of manufacturing firms in Nigeria. *Journal of Accounting and Taxation*, 10(7), 78-84.
- Ganyam, A. I., & Ivungu, J. A. (2019). Effect of accounting information system on financial performance of firms: A review of literature. *Journal of Business and Management*, 21(5), 39-49.

- Gill, A., Biger, N., & Mathur, N. (2018). The effect of funding structure on profitability: Evidence from the United States. *International journal of management*, 28(4), 3-10.
- Hongli, J., Ajorsu, E. S., & Bakpa, E. K. (2019). The Effect of Liquidity and Financial Leverage on Firm Performance: Evidence from Listed Manufacturing Firms on The Ghana Stock Exchange. *Research Journal of Finance and Accounting*, 10(8), 91-100.
- Husna, A., & Satria, I. (2019). Effects of return on asset, debt to asset ratio, current ratio, firm size, and dividend pay-out ratio on firm value. *International Journal of Economics and Financial Issues*, 9(5), 50-61.
- Ibhagui, O. W., & Olokoyo, F. O. (2018). Leverage and firm performance: new evidence on the role of firm size. *The North American Journal of Economics and Finance*, 45(3), 57-82.
- Kaua, C. K. (2021). Influence of Innovation on the Financial Performance of Small and Medium Women-Owned Enterprises in Nairobi City County. Unpublished PhD Dissertation, JKUAT.
- Kaumbuthu, A.J. (2017). The relationship between financial structure and financial performance: A study of firms listed under industrial and allied sector at the NSE. Unpublished MBA Project, University of Nairobi.
- Khoa, B. T., & Thai, D. T. (2021). Funding structure and trade-off theory: Evidence from Vietnam. *The Journal of Asian Finance, Economics, and Business*, 8(1), 45-52.

- Kraus, A., & Litzenberger, R. H. (1973). A state-Preference model of optimal financial leverage. *Journal of Finance*, 28(4),911-922.
- Le, T. P. V., & Phan, T. B. N. (2017). Funding structure and firm performance: Empirical evidence from a small transition country. *Research in International Business and Finance*, 42(4), 710-726.
- Maina, J., & Jagongo, A. (2022). Effect of capital structure on financial performance of small, tiered deposit taking savings and credit cooperatives societies in Nairobi County. *International Journal of Finance and Accounting*, 7(2), 1-15.
- Mangeni, W. (2018). Other People's Money: External Debt, Disequilibrium Exchange Rate and Economic Growth, A Kenyan Case (1963-2015). *Journal of International Business, Innovation and Strategic Management*, 2(2), 191-223.
- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American economic review*, 48(3), 261-297.
- Modigliani, F., & Miller, M. H. (1963). Corporate income taxes and the cost of capital: a correction. *The American Economic Review*, 53(3), 433-443.
- Motanya, H. (2019). The Relationship between Funding structure and Financial Performance of Tourism State Corporations in Kenya: a case study of Tourism Finance Corporation Subsidiaries. Unpublished MBA Project, University of Nairobi.
- Mungereza, S. K. (2019). Effect of Capital structure on Financial Performance of Deposit Taking Microfinance Institutions in Mombasa County, Kenya. Unpublished PhD in Business Administration, University of Nairobi.

- Myers, S. C. (1984). The capital structure puzzle. *The Journal of Finance*, 39(3), 574-592.
- Myers, S. C. (2001). Capital structure. *Journal of Economic Perspectives*, 15(2), 81-102.
- Ndiege, B. O., & Kazungu, I. (2020). Funding structure and Performance of Savings and Credit Co-operative Societies in Tanzania. *East African Journal of Social and Applied Sciences*, 2(1), 38-48.
- Nelson, J., & Peter, E. A. (2019). An empirical analysis of effect of funding structure on firm performance: Evidence from microfinance banks in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 7(9), 30-44.
- Nicodano, G., & Regis, L. (2019). A trade-off theory of ownership and funding structure. *Journal of Financial Economics*, 131(3), 715-735.
- Niu, X. (2008). Theoretical and practical review of funding structure and its determinants. *International Journal of Business and Management*, 3(3), 133-139.
- Odero, R. O., & Mutswenje, V. S. (2021). Capital structure and financial performance of micro financial institutions in Nairobi City County Kenya. *International Academic Journal of Economics and Finance*, 3(7), 308-328.
- Ogenche, R. M., Githui, T., & Omurwa, J. (2018). Effect of Capital structure on Financial Performance of Consumer Goods Firms Listed in the Nairobi Securities Exchange. *Journal of Finance and Accounting*, 2(1), 57-74.
- Parvin, S. S. (2019). Funding structure and Financial Performance of Micro-finance Institutions (MFIS) in Bangladesh (Doctoral dissertation, Thompson Rivers University).

- Ross, S. A. (2011). *Corporate finance: Core principles and applications*. McGraw-Hill Education.
- Saeed, K., Suleman, A., & Bokhari, I. H. (2020). Impact of Funding structure on the Performance of Micro Finance Institutions: Evidence from Pakistan. *Journal of Research in Administrative Sciences*, 9(1), 26-31.
- Serrasqueiro, Z., & Caetano, A. (2015). Trade-Off Theory versus Pecking Order Theory: funding structure decisions in a peripheral region of Portugal. *Journal of Business Economics and Management*, 16(2), 445-466.
- Taani, K. (2018). Funding structure effects on banking performance: A case study of Jordan. *International Journal of Economics, Finance and Management Sciences*, 1(5), 227-233.
- Taseva, G. (2020). Determinants of short-term liabilities of financially distressed SMES. *Business Management*, 32(1), 5-24.
- Waddock, S. A., & Graves, S. B. (2017). The corporate social performance–financial performance link. *Strategic Management Journal*, 18(4), 303-319.
- Wambua, M. M. (2018). Effect of capital structure on financial sustainability of deposit-taking microfinance institutions in Kenya. Unpublished MBA project, University of Nairobi.
- Yıldırım, D., & Çelik, A. K. (2021). Testing the pecking order theory of capital structure: Evidence from Turkey using panel quantile regression approach. *Borsa Istanbul Review*, 21(4), 317-331.



## **APPENDICES**

### **Appendix I: List of Licensed MFBs in the study period in Kenya**

1. Caritas Microfinance Bank Limited
2. Century Microfinance Bank Limited
3. Choice Microfinance Bank Limited
4. Daraja Microfinance Bank Limited
5. Faulu Microfinance Bank Limited
6. Kenya Women Microfinance Bank Limited
7. Maisha Microfinance Bank Limited
8. Rafiki Microfinance Bank Limited
9. Key Microfinance Bank Limited
10. SMEP Microfinance Bank Limited
11. Sumac Microfinance Bank Limited
12. U & I Microfinance Bank Limited
13. Uwezo Microfinance Bank Ltd
14. Muungano MFI

## Appendix II: Research Data

MFI	Year	Profits after Tax	Total Assets	Total Equity	Funding Structure	Natural Log of Firm Size	Liquidity	ROA
FAULU	2012	58	7638	614	0.080	8.941	0.240	0.008
FAULU	2013	165	12419.2	798	0.064	9.427	0.270	0.013
FAULU	2014	299	20320	3787	0.186	9.919	0.240	0.015
FAULU	2015	115	26978.1	4299	0.159	10.203	0.310	0.004
FAULU	2016	43	27369	4342	0.159	10.217	0.300	0.002
FAULU	2017	143	25325	4485	0.177	10.140	0.26	0.006
FAULU	2018	181	27225	3464	0.127	10.212	0.27	0.007
FAULU	2019	312	29682	3776	0.127	10.298	0.260	0.011
FAULU	2020	-399	29279	2907	0.099	10.285	0.290	(0.014)
FAULU	2021	-407	27780	3550	0.128	10.232	0.340	(0.015)
KWFT	2012	173	20384	2303	0.113	9.923	0.400	0.008
KWFT	2013	391	26984.9	2897	0.107	10.203	0.230	0.014
KWFT	2014	474	21752.1	4606	0.212	9.987	0.240	0.022
KWFT	2015	395	31861.1	4692	0.147	10.369	0.280	0.012
KWFT	2016	224	32153	4756	0.148	10.378	0.280	0.007
KWFT	2017	19	28931	4707	0.163	10.273	0.290	0.001
KWFT	2018	-827	29582	4071	0.138	10.295	0.210	(0.028)
KWFT	2019	-402	30613	3846	0.126	10.329	0.240	(0.013)
KWFT	2020	-1485	28038	2361	0.084	10.241	0.200	(0.053)
KWFT	2021	204	26961	2564	0.095	10.202	0.260	0.008
RAFIKI	2012	5	1838	140	0.076	7.516	1.170	0.003
RAFIKI	2013	9	3678.8	466	0.127	8.210	0.420	0.002
RAFIKI	2014	21	3985.4	1013	0.254	8.290	0.350	0.005
RAFIKI	2015	29	7729	1043	0.135	8.953	0.530	0.004
RAFIKI	2016	-298	7327	745	0.102	8.899	0.120	(0.041)
RAFIKI	2017	-329	6727	417	0.062	8.814	0.190	(0.049)
RAFIKI	2018	-192	6050	1281	0.212	8.708	0.210	(0.032)
RAFIKI	2019	-3	5935	1267	0.213	8.689	0.390	(0.001)
RAFIKI	2020	-42	6005	619	0.103	8.700	0.310	(0.007)
RAFIKI	2021	-153	5889	665	0.113	8.681	0.400	(0.026)
KEY	2012	.	.	.	.	.	.	.

MFI	Year	Profits after Tax	Total Assets	Total Equity	Funding Structure	Natural Log of Firm Size	Liquidity	ROA
KEY	2013	.	.	.	.	.	.	.
KEY	2014	.	.	.	.	.	.	.
KEY	2015	.	.	.	.	.	.	.
KEY	2016	.	.	.	.	.	.	.
KEY	2017	.	.	.	.	.	.	.
KEY	2018	-14	433	153	0.353	6.071	0.750	(0.032)
KEY	2019	-13	406	147	0.362	6.006	1.000	(0.032)
KEY	2020	-34	307	108	0.352	5.727	0.310	(0.111)
KEY	2021	-51	289	57	0.197	5.666	0.270	(0.176)
SMEP	2012	54	2290	620	0.271	7.736	0.280	0.024
SMEP	2013	6	2490.9	652	0.262	7.820	0.260	0.002
SMEP	2014	-97	2378	555	0.233	7.774	0.290	(0.041)
SMEP	2015	-1	2592	645	0.249	7.860	0.240	(0.000)
SMEP	2016	-134	2659	533	0.200	7.886	0.300	(0.050)
SMEP	2017	-32	2734	501	0.183	7.914	0.230	(0.012)
SMEP	2018	-22	2942	513	0.174	7.987	0.300	(0.007)
SMEP	2019	6	3314	504	0.152	8.106	0.270	0.002
SMEP	2020	-69	3446	434	0.126	8.145	0.230	(0.020)
SMEP	2021	-46	3382	387	0.114	8.126	0.240	(0.014)
UWEZO	2012	-2	78	55	0.705	4.357	0.520	(0.026)
UWEZO	2013	-2	106.7	67	0.628	4.670	0.250	(0.019)
UWEZO	2014	1	160	82	0.513	5.075	0.150	0.006
UWEZO	2015	0.2	226	180	0.796	5.421	2.170	0.001
UWEZO	2016	4	214	179	0.836	5.366	0.490	0.019
UWEZO	2017	-9	212	169	0.797	5.357	1.080	(0.042)
UWEZO	2018	-27	225	142	0.631	5.416	1.060	(0.120)
UWEZO	2019	-31	168	117	0.696	5.124	0.740	(0.185)
UWEZO	2020	-18	134	100	0.746	4.898	0.950	(0.134)
UWEZO	2021	-31	433	368	0.850	6.071	7.200	(0.072)
CARITAS	2012	.	.	.	.	.	.	.
CARITAS	2013	.	.	.	.	.	.	.
CARITAS	2014	.	.	.	.	.	.	.

MFI	Year	Profits after Tax	Total Assets	Total Equity	Funding Structure	Natural Log of Firm Size	Liquidity	ROA
CARITAS	2015	-60	186	88	0.473	5.226	0.670	(0.323)
CARITAS	2016	-74	574	271	0.472	6.353	0.470	(0.129)
CARITAS	2017	-71	879	273	0.311	6.779	0.300	(0.081)
CARITAS	2018	-85	1244	263	0.211	7.126	0.370	(0.068)
CARITAS	2019	-51	1712	241	0.141	7.445	0.540	(0.030)
CARITAS	2020	5	2284	256	0.112	7.734	0.350	0.002
CARITAS	2021	17	2951	347	0.118	7.990	0.320	0.006
SUMAC	2012	.	.	.	.	.	.	.
SUMAC	2013	-11	307	183	0.596	5.727	0.244	(0.036)
SUMAC	2014	4	390	189	0.485	5.966	0.270	0.010
SUMAC	2015	7	608	207	0.340	6.410	0.400	0.012
SUMAC	2016	14	803	246	0.306	6.688	0.490	0.017
SUMAC	2017	5	1137	251	0.221	7.036	0.600	0.004
SUMAC	2018	5	1530	319	0.208	7.333	0.330	0.003
SUMAC	2019	9	2013	329	0.163	7.607	0.030	0.004
SUMAC	2020	7	2310	351	0.152	7.745	0.370	0.003
SUMAC	2021	6	3037	361	0.119	8.019	0.410	0.002
U & I	2012	.	.	.	.	.	.	.
U & I	2013	1	80	45	0.563	4.382	0.634	0.013
U & I	2014	2	137	83	0.606	4.920	0.570	0.015
U & I	2015	7	184	107	0.582	5.215	0.280	0.038
U & I	2016	7	351	118	0.336	5.861	0.270	0.020
U & I	2017	11	406	162	0.399	6.006	0.210	0.027
U & I	2018	8	534	169	0.316	6.280	0.210	0.015
U & I	2019	4	686.4	173	0.252	6.531	0.310	0.006
U & I	2020	12	805	197	0.245	6.691	0.220	0.015
U & I	2021	24	1006	221	0.220	6.914	0.270	0.024
DARAJA	2012	.	.	.	.	.	.	.
DARAJA	2013	.	.	.	.	.	.	.
DARAJA	2014	.	.	.	.	.	.	.
DARAJA	2015	-45	83	67	0.807	4.419		(0.542)
DARAJA	2016	-28	180	82	0.456	5.193	0.700	(0.156)
DARAJA	2017	-47	168	52	0.310	5.124	0.240	(0.280)
DARAJA	2018	-32	172	23	0.134	5.147	0.210	(0.186)

MFI	Year	Profits after Tax	Total Assets	Total Equity	Funding Structure	Natural Log of Firm Size	Liquidity	ROA
DARAJA	2019	-32	133	-9	(0.068)	4.890	0.080	(0.241)
DARAJA	2020	-40	124	-48	(0.387)	4.820	0.060	(0.323)
DARAJA	2021	-30	120	-37	(0.308)	4.787	0.040	(0.250)
MAISHA	2012	.	.	.	.	.	.	.
MAISHA	2013	.	.	.	.	.	.	.
MAISHA	2014	.	.	.	.	.	.	.
MAISHA	2016	-31	171	89	0.520	5.142	1.000	(0.181)
MAISHA	2017	-42	302	67	0.222	5.710	0.250	(0.139)
MAISHA	2018	-119	289	8	0.028	5.666	0.260	(0.412)
MAISHA	2019	-38	1264	799	0.632	7.142	0.300	(0.030)
MAISHA	2020	65	1665	864	0.519	7.418	0.250	0.039
MAISHA	2021	-178	1480	686	0.464	7.300	0.300	(0.120)
CENTURY	2012	.	.	.	.	.	.	.
CENTURY	2013	-27	164	90	0.549	5.100	0.244	(0.165)
CENTURY	2014	-34	231	76	0.329	5.442	0.261	(0.147)
CENTURY	2015	-53	197	53	0.269	5.283	0.334	(0.269)
CENTURY	2016	-41	225	31	0.138	5.416	0.090	(0.182)
CENTURY	2017	-63	288	13	0.045	5.663	0.269	(0.219)
CENTURY	2018	-25	431	66	0.153	6.066	0.448	(0.058)
CENTURY	2019	-43	348	22	0.063	5.852	0.200	(0.124)
CENTURY	2020	-60	296	-39	(0.132)	5.690	0.230	(0.203)
CENTURY	2021	-8	402	-46	(0.114)	5.996	0.420	(0.020)
CHOICE	2012	.	.	.	.	.	.	.
CHOICE	2013	.	.	.	.	.	.	.
CHOICE	2014	.	.	.	.	.	.	.
CHOICE	2015	-29	77	57	0.740	4.344	0.690	(0.377)
CHOICE	2016	-35	122	46	0.377	4.804	0.330	(0.287)
CHOICE	2017	-38	136	37	0.272	4.913	0.100	(0.279)
CHOICE	2018	-42	98	-30	(0.306)	4.585	0.030	(0.429)
CHOICE	2019	-29	79	-35	(0.443)	4.369	0.020	(0.367)

<b>MFI</b>	<b>Year</b>	<b>Profits after Tax</b>	<b>Total Assets</b>	<b>Total Equity</b>	<b>Funding Structure</b>	<b>Natural Log of Firm Size</b>	<b>Liquidity</b>	<b>ROA</b>
CHOICE	2020	-26	54	-65	(1.204)	3.989	0.010	(0.481)
CHOICE	2021	-24	45	-91	(2.022)	3.807	0.290	(0.533)
Muongano	2012	.	.	.	.	.	.	.
Muongano	2013	.	.	.	.	.	.	.
Muongano	2014	.	.	.	.	.	.	.
Muongano	2015	.	.	.	.	.	.	.
Muongano	2016	.	.	.	.	.	.	.
Muongano	2017	.	.	.	.	.	.	.
Muongano	2018	.	.	.	.	.	.	.
Muongano	2019	.	.	.	.	.	.	.
Muongano	2020	-15	132	69	0.522727	4.883	138%	(0.114)
Muongano	2021	-16	189	70	0.37037	5.242	22%	(0.085)

**Source: Central Bank of Kenya Banking Supervision Annual Reports (2012 - 2021)**