

**THE RELATIONSHIP BETWEEN FINANCIAL
STRUCTURE AND FINANCIAL PERFORMANCE OF
MICROFINANCE BANKS IN KENYA**

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DECLARATION

I declare that this Research Project is my original work and has not been submitted for examination in any other university or institution of learning.

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DEDICATION

I dedicate this research work to my loving wife Caroline Rotich and my dear sons; Elvis Kipkirui and Ethan Kiplangat for their endless love, inspiration and encouragement throughout my Master of Science program. To you I say thank you and God bless you.

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ABBREVIATIONS

AMFI	Association of Microfinance Institutions
ANOVA	Analysis of Variance
CBK	Central Bank of Kenya
GDP	Gross Domestic Product
KNBS	Kenya Bureau of statistics
MFBS	Microfinance banks
MFI s	Microfinance Institutions
ROA	Return on Assets
ROE	Return on Equity
ROS	Return on Sales
SACCO s	Savings and Credit Co-Operative Societies
SMEP	Small and Micro Enterprise Programmed
SME s	Small Scale and Medium Enterprises
SOE s	State Owned Enterprises
SPSS	Statistical Package for Social Sciences

ABSTRACT

The concept of microfinance is not new in Kenya, it has been around for some time, providing customers who were traditionally neglected by commercial banks a way to obtain financial services through cooperatives and development finance institutions. The Microfinance Act of 2006 operationalized the then microfinance institutions which were purely focusing on micro lending activities to apply for licenses from Central Bank of Kenya to allow them to take deposits from customers. Today these micro banking businesses that receive saving deposits are known as microfinance banks . According to Jensen (1986), the creation of a financial structure can influence the governance structure of a firm which, in turn, may influence the ability of a firm to make strategic choices. This study therefore sought to investigate the relationship between financial structure and financial performance of microfinance banks in Kenya. This study used a descriptive research design to describe the characteristics of the nine MFBs in Kenya as at 31st December, 2014 and the study covered a five year period from 2010-2014. Secondary data was collected from the CBK, KNBS, and Association of Microfinance institutions of Kenya (AMFI) and the annual reports from the microfinance banks . Financial structure was measured as total debt to equity ratio whereas financial performance was measured using return on assets (ROA) which is net income divided by total Assets. In addition, six controlled variables were used; credit risk, liquidity risk, age of the microfinance banks , size of the MFBs and Gross Domestic Product (GDP). Data was then analyzed using a regression analysis model with the help of a statistical software, Statistical Package for Social Sciences (SPSS) version 21 and advanced Microsoft Excel 2010. Multiple regression analysis was used to determine the relationship between the variables under study. The data findings were presented using tables and graphs to show the relationships. The findings indicated that financial structure (total debt to equity ratio) positively affects the financial performance of the micro finance banks but the relationship was not significant. This study concludes by drawing some policy implications geared towards financial structure to enhance financial performance of the microfinance banks in Kenya. From the findings, the study recommends that strategies to ensure a financial structure that is suitable for achieving a good financial health and performance should be adopted by microfinance banks and the entire finance sector institutions as a whole. The study also recommends that the management of MFBs should pay special attention to Credit risk because the performance and success of micro banking business depends on accurate measurement and efficient management of this risk.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Financing decisions result in a given financial structure and suboptimal financing decisions can lead to corporate failure (Salazar, Soto & Mosque, 2012). A great dilemma for management and investors alike is whether there exists an optimal financial structure. The objective of all financing decisions is wealth maximization and the immediate way of measuring the quality of any financing decision is to examine the effect of such a decision on the firm's performance. Modigliani and Miller (1963), reformed an earlier financial structure irrelevance theory in which they argued that financial structure really does matter in determining the value of a firm. In his theory, he argues that firms should use more of equity than debt in financing their business activities. This is because in spite of the fact that the value of a business can be enhanced with debt capital, it gets to a point that it becomes detrimental. Each firm should establish with the aid of professional financial managers, that particular debt-equity mix that maximizes its value and minimizes its weighted average cost of capital (Ojai et al., 2013).

The concept of microfinance is not new in Kenya. Formal credit and savings institutions for the poor have also been around for decades, providing customers who were traditionally neglected by commercial banks a way to obtain financial services through cooperatives and development finance institutions. Currently, commercial banks, savings and credit co-operative societies (SACCOs) among other financial institutions are also providing microfinance services to Kenyans (Herman, 2012). Firms can obtain funds from either external or internal sources. Internal sources of funds include retained

earnings while external sources include loans from financial institutions, trade credit, issuance of loan stock and issuance of equity shares. The creation of financial structure, therefore, can influence the governance structure of a firm which, in turn, may influence the ability of a firm to make strategic choices (Jensen, 1986). Financing decisions which results into a given financial structure constitutes one category of managerial decisions. Bankers, however, have typically argued that being forced to hold more capital would jeopardize their performance, especially profitability, and the argument that higher capital need not be beneficial has found some support in the academic literature as well (Calomiris and Kahn, 1991).

A company applies its assets in its business to generate a stream of operating cash flows. After paying taxes, the firm makes distributions to the providers of its capital and retains the balance for use in its business. If company is all equity financed, the entire after-tax operating cash flow each period accrues to the benefit of its shareholders (in the form of dividend and retained earnings). If instead the company has borrowed a portion of its capital, it must dedicate a portion of the cash flow stream to service this debt. Moreover, debt holders have the senior claim to a company's cash flow; shareholders are only entitled to the residual. Capital project financing is essentially dependent on asset tangibility and the company's choice of financial structure determines the allocation of its operating cash flow each period between debt holders and shareholders (Williamson, 1988).

1.1.1 Financial Structure

According to Saleem (2013), financial structure of a firm is defined as the various financing alternatives of its assets. It is the entire left-hand side (liabilities plus equity) of

the statement of financial position which represents all the long-term and short term sources of capital. The combination of debt and equity to finance firm's short term and long-term assets is stated as financial structure of the firm. Debt and Equity are the basic components of the firm's financial structure. Financial structure is most often referred to as firm's debt-to-equity ratio, which provides insight into how risky a company is. Usually, a company that is more heavily financed by debt poses greater risk, as this firm is relatively highly leveraged.

The financial structure decision of a business is a continuous one and has to be taken whenever the business needs additional finances. Financial structured e-notes the organizations mix of debt and equity financing as they finance their funds for investment from two sources either to take loan from the bank called debt or issue their shares to general public, usually called the equity financing. Myers (1984), argues that there is no optimal financial structure for a firm, and the firm uses debts once internal capital sources (retained earnings for example) are used up as the top priority, followed by debts and then equities in case they are needed to finance the firm's operations or financial structure decisions. Financial structure of a firm is referred to the Firm's financing through different sources like Equity (Common and Preferred Equity) and Debt (Short-term and Long-term). Firms calibrate its debt option for financing its operations by issuing bonds to the general public having the specific prescribed interest rate or taking loan from the banks in the form of notes payable which classified as long-term debt, another option to finance firm's operations is from equity source by issuing common stocks and preferred stocks to the general public.

Financial institutions in emerging economies in general and in East Africa in particular, are deficient in credit availability, and the prices of loanable funds such as the interest rates and the costs are high. Consequently, internal equity financing may be cheaper than external debt financing. There are two main benefits of debt for a company. The first one is the tax shield: interest payments usually are not taxable; hence the debt can increase the value of the firm. Another benefit is that debt disciplines managers (Jensen, 1986).

Managers use free cash flows of the company to invest in projects, to pay dividends, or to hold on cash balance. But if the firm is not committed to some fixed payments such as interest expenses, managers could have incentives to “waste” excess free cash flows. That is why, in order to discipline managers, shareholders attract debt. Besides, it is a popular practice in debt agreements between banks and borrowers to introduce some financial covenants for firms. This study will use debt to equity as a measure for the financial structure in addition to 5 control variables

1.1.2 Financial Performance

According Iswatia and Anshoria (2007), performance is the function of the ability of an organization to gain and manage the resources in several different ways to develop competitive advantage. Financial performance emphasizes on variables related directly to financial report. The Financial performance of a firm can be analyzed in terms of profitability, dividend growth, sales turnover, asset base, capital employed among others. However, there is still debate among several disciplines regarding how the performance of firms should be measured and the factors that affect financial performance of companies (Liargovas and Skandalis, 2008).

According to Maranga (2015), financial Performance is measured by how better off the shareholder is at the end of the end of a period, than he was at the beginning. The main objective of the shareholder in investing in a business is to increase their wealth. Thus the measurement of performance of the business must give an indication of how wealthier the shareholder has become as a result of the investment over a specific period of time.

Almajali, Alamro and Al-Soub (2012), argues that there are various measures of financial performance. For instance return on sales (ROS) reveals how much a company earns in relation to its sales, return on assets (ROA) explains a firm's ability to make use of its assets and return on equity (ROE) reveals what return investors take for their investments. Company's performance can be evaluated in three dimensions. The first dimension is company's productivity, or processing inputs into outputs efficiently. The second is profitability dimension, or the level of which company's earnings are bigger than its costs. The third dimension is market premium, or the level at which company's market value exceeds its book value (Walker, 2001). The proposed study will use ROA as a measure of financial performance of the MFBs.

1.1.3 The Relationship between Financial Structure and Financial Performance

According to Trong (2013), the link between funding and microfinance performance varies with the heterogeneity of microfinance institutions' characteristics. In his research, he asserted that profitable and regulated microfinance institutions which take on considerably more commercial funds tend to have higher sustainability, efficiency and outreach. A large scale of operation helps microfinance institutions achieve higher efficiency, profitability, sustainability and outreach (breadth and depth). Freixas and

Rochet (2008), affirmed that financial capital has a salutary effect on the probability of survival and comprehending whether higher capital has a significant effect on a bank's survival likelihood and how this effect differs depending on bank size and the nature of the crisis are important details for regulators who are weighing the level and other specifics of capital requirements to achieve a desired level of banking stability. A study by Soumadi and Suhail (2008), found out that there was no significant difference to the impact of the financial leverage between high financial leverage firms and low financial leverage firms on their performance. The study also showed that the effect of financial leverage on the basis of the growth and performance was inverse.

Maximizing the wealth of shareholders requires a perfect combination of debt and equity, whereas cost of capital has a negative correlation in this decision and it has to be as minimum as possible (Ongena and Smith, 2000). Also, by changing the financial structure composition a firm can increase its value in the market. The debate over the significance of a company's choice of financial structure is esoteric but in essence, it concerns the impact on the total market value of the company (i.e. the combined value of its debt and its equity) of splitting the cash flow stream into a debt component and earn equity component. Financial experts traditionally believed that increasing a company's leverage, for instance increasing the proportion of debt in the company's financial structure, would increase value up to a point. But beyond that point, further increases in leverage would increase the company's overall cost of capital and decrease its total market value (Chowdhury and Chowdhury, 2010).

1.1.4 Microfinance Banks in Kenya

Kenya's microfinance industry has come a long way since the 1980s and particularly since the landmark of Microfinance Act of 2006 and the Supportive Deposit Taking Microfinance Regulations 2008. The legal, regulatory and supervisory framework spelt out under the Act and Regulations allow regulated deposit taking microfinance institutions to offer variety of financial services and products. The Act enables Deposit Taking Microfinance Institutions to mobilize savings from the general public, thus promoting competition, efficiency and access (CBK, 2010). This was done with the hope that the microfinance industry will play a pivotal role in deepening financial markets and enhancing access to financial services and products by majority of the Kenyans.

Microfinance Act, 2006 was then then amended in 2013 and the name "deposit-taking microfinance institution" was changed to "Microfinance banks ." Currently the country has twelve microfinance banks that have been licensed by the CBK. The essence of transforming to deposit taking was to allow the institutions access cheaper funds, which they could then lend to the public at a lower rate rather than depending on expensive credit from financial institutions, which forces them to charge high rates on their borrowers (Ndichu, 2014).

Microfinance services come from different types of Kenyan financial institutions, thus consumers wishing to participate in the sector have a variety of choices. Traditionally, non-governmental organizations and microfinance institutions were the only sources for microfinance. People were borrowing and saving using various sources outside of the formal financial sector. Informal financial services ranging from loan sharks, community

members and saving groups were once the only source for low income individuals who were unbanked or under-banked. It is the goal of the Central Bank of Kenya to expand the microfinance industry as its goal and purpose is to meet the needs of the unbanked through expanding access to financial services for poor individuals and families along with small business, particularly Micro and Small Scale Enterprises (MSEs) and informal sector businesses.

1.2 Research Problem

Financial inclusion by majority of Kenyans is a key priority goal of the government as envisaged in the Kenya Vision 2030. MFIs have been part of the financial revolution in the provision of affordable financial services to the poor and low income earners who would otherwise be excluded from the mainstream banking. Despite the concerted efforts by the government in the fight against financial inclusion, about 25 % of Kenya's population is still unable to access financial services (FSD Kenya, 2013).

In Kenya, MFI sector is highly competitive with the presence of downscaling commercial banks which have already established asset based compared to the emerging MFBs. The increasing demand for microfinance services and donor reluctance in supporting MFIs has caused a paradigm shift in financing strategies in microfinance industry. Additionally the significant capital constraints and high operating costs remains a formidable challenge to the performance of MFBs in Kenya. It is extremely essential for the MFBs to examine their financial performance because their survival in the dynamic business environment will be dependent upon good performance.

Empirical Studies on the relationship between financial structure and financial performance of MFIs show different and contradictory results. For instance, Wambugu and Ngugi (2012), Trong (2013), Nyameyo (2014) found a positive correlation between financial structure and performance. While the studies by Coleman (2007) and Barasa (2014) indicated an inverse relationship between financial structure and financial performance. A study Soumadi and Suhail (2008) and Ganga (2010) found no impact of financial leverage on financial sustainability. Given the divergent views in the literature reviewed, it is evident that there is existing research gaps and therefore this study attempts to address the research question; what is the relationship between financial structure and financial performance of microfinance banks in Kenya?

1.3 Objective of Study

To investigate the relationship between financial structure and financial performance of microfinance banks in Kenya.

1.4 Value of Study

Investors interested in the microfinance sector can use this study as it aims at shedding light on how financial institutions are influenced by various internal and external variables for making investment decision. The interest of investors is in the in the firm's earnings which can be affected by the level of financial structure and by extension the return on their investments. This study therefore will aid them in understanding debt and equity issues of microfinance banks in Kenya thus making informed investment decisions.

The study will be helpful to banks and lending institutions as they have a deep interest on the financial performance and solvency. The management of various microfinance banks will be interested in every aspect of the financial analysis since it is their responsibility to ensure that the firm's financial condition is sound through effective and efficient application of the available resources. This study will provide invaluable insight on the certainty and returns brought about by good financial decisions especially those which undertake leveraged buyouts or transactions financed by a large proportion of debt to positively influence their financial performance.

Information on Financial structure and Microfinance banks will guide the government and other relevant authorities in formulating proper policies and legal mechanisms to guide the operations in the banking sector. The regulators will take contingent measures in ensuring that the financial decisions are effectively made to foster the growth of banking industry.

This study will be useful as reference by future researchers who will be interested on finding out what factors affect financial performance in financial institutions. This information can also be of great help to students pursuing finance and business courses and also as it can act as a foundation for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter contains a review of the relevant theories and empirical studies that explains the relationship between financial structure and financial performance.

2.2 Theoretical Review

Theories on financial structure will seek to provide a framework for understanding how financing decisions are made and how they may influence financial performance. In this study, three theories will be outlined; the static trade off theory, the pecking order theory and the agency theory on financial structure.

2.2.1 The Static Trade off Theory

Static trade of theory was first discussed by Kraus and Litzenberger (1963). It purports that a company chooses how much debt finance and how much equity finance to use by balancing the costs and benefits. The theory predicts that there's an optimal debt ratio that maximizes the value of a firm due to tax shields, financial distress costs and agency costs (Jensen, 1986, Frank and Goyal, 2003). The trade-off theory also indicates the exposure of the firm to bankruptcy and agency cost against tax benefits associated with debt use. Bankruptcy cost is a cost directly incurred when the perceived probability that the firm will default on financing is greater than zero. One of the bankruptcy costs is liquidation cost, which represents the loss of value as a result of liquidating the net assets of the firm. Another bankruptcy cost is distress cost, which is the cost a firm incurs if

stakeholders believe that the firm will discontinue. According to trade off theory, companies are expected to look for a target debt ratio (Jalilvand and Harris, 1984).

The purpose of the theory is to explain the reality that corporations are usually financed partly with debt and partly with equity. It states that there is an advantage to financing with debt, i.e. the tax benefits of debt and there is a cost of financing with debt, the costs of financial distress including bankruptcy costs of debt and non-bankruptcy costs for example, staff leaving, suppliers demanding disadvantageous payment terms, bondholder or stockholder infighting, among others. The marginal benefit of further increases in debt declines as debt increases, while the marginal cost increases, so that a firm that is optimizing its overall value will focus on this trade-off when choosing how much debt and equity to use for financing.

Critics of trade off theory have cropped over the years often questioning its empirical relevance. Miller (1984), for example criticized the theory saying that taxes are sure and they are large while bankruptcy is rare and, according to him, it has low dead-weight costs. Accordingly he suggested that if the trade-off theory were true, then firms ought to have much higher debt levels than we observe in reality. Myers (1977), was a particularly a fierce critic and he went ahead to propose what he called "the pecking order theory" discussed below. Welch (2004), argued that firms do not undo the impact of stock price shocks as they should under the basic trade-off theory and so the mechanical change in asset prices that makes up for most of the variation in financial structure despite such criticisms, the trade-off theory remains the dominant theory of corporate financial structure today in studies of corporate finance.

2.2.2 Pecking Order Theory on Capital Structure and Financing

Initially, this theory was put forward by Donaldson in 1961 and then it was modified by Myers and Majluf in 1984. Pecking order theory structure advocates that firms have a particular preferred order or hierarchy for capital used to finance their businesses. The highest preference is to use internal financing before resorting to any form of external funds. Owing to the information asymmetries between the firm and potential investors, the firm will prefer retained earnings to debt, short-term debt over long-term debt and debt over equity. Internal funds incur no flotation costs and require no additional disclosure of proprietary financial information that could lead to more severe market discipline and a possible loss of competitive advantage. If a firm must use external funds, the preference is to use the following order of financing sources: debt, convertible securities, preferred stock, and common stock (Myers, 1984). This order reflects the motivations of the financial manager to retain control of the firm, reduce the agency costs of equity, and avoid the seemingly inevitable negative market reaction to an announcement of a new equity issue (Hawawini and Viallet, 1999).

Hidden in pecking order theory are two key assumptions about financial managers: The first of these is asymmetric information, or the likelihood that a firm's managers may have inside information that is not known to the market. They may know more about the company's current earnings and future growth opportunities than do outside investors. Insider investors tend to limit the use of equity in order to retain control of the firm (Hutchinson, 1995). There is a strong desire to keep such information proprietary. The use of internal funds precludes managers from having to make public disclosures about the company's investment opportunities and potential profits to be

realized from investing in them. The second assumption is that managers will act in the best interests of the company's existing shareholders. The managers may even forego a positive-Net Present Value project if it would require the issue of new equity, since this would give much of the project's value to new shareholders at the expense of the old. Moreover, the risk of the firm's return is unknown to investors. They are forced to rely on noisy signals such as the firm's level of financial structure to determine the risk of their investment and firm's value may be underpriced by the market (Myers and Majluf, 1984).

Limitations of this theory is that it does not explain the influence of taxes, financial distress, security issuance costs, agency costs, or the set of investment opportunities available to a firm upon that firm's actual financial structure. It also ignores the problems that can arise when a firm's managers accumulate so much financial slack that they become immune to market discipline. In such a case it would be possible for a firm's management to preclude ever being penalized via a low security price and, if augmented with non-financial takeover defenses, immune to being removed in a hostile acquisition. For these reasons pecking order theory is offered as a complement to, rather than a substitution for, the traditional trade-off model.

2.2.3 Agency Theory on Financial Structure

Jensen and Meckling (1976), put forward the theory of the agency proposing that there are two kinds of agency costs - agency costs of equity and debt. The conflicts between managers and shareholders leads to agency costs of equity, and the conflicts between shareholders and debt-holders leads to agency costs of debt. Usually, managers are interested in accomplishing their own targets which may differ from the firm value. The

interests of management and shareholder interests often conflict because managers tend to try to give priority to private interests. Jensen and Meckling (1976), tested the effect of insider ownership, dividend policy and debt policy (ratio) of debt on public companies from different sectors in the United States. He states that the debt ratio is a function of insider ownership, dividends, business risk, profitability, research and development and capital. The results of this research show that there is a negative relationship between insider ownership at the debt policy. These results suggest that, with increasing participation of insiders could jeopardize the interests of shareholders and directors, and ownership management can replace the role of debt in reducing agency costs. Jensen and Meckling (1976), also found that greater insider ownership leads to a decrease in dividend yield.

Two main agency problems were identified and these are: how to align the conflicting goals of principals and agents, and how to ensure agents perform in the way principals expect them to. These problems can occur when executives or managers make self-interested decisions and manipulate information on performance, perhaps by moving numbers around or by 'creative accounting' to present better performance figures: 'The problem here is that the principal cannot verify that the agent has behaved appropriately' (Eisenhardt, 1989). Conflict of interest between managers and shareholders can be minimized by a monitoring mechanism to adjust the related interest. However, Alchian and Demsetz (1972), were the first to argue that monitoring the performance of individual work effort is always a cost of any firm and that organizational inefficiency is created when the flow of information on individual performance is decreased or blocked. These monitoring and control actions results in agency costs of equity. When a lender provides

money to a firm, the interest rate is based on the risk of the firm. Manager may tempt to transfer value from creditors to shareholders. These monitoring and control actions results in agency cost of debt

2.3 Determinants of Financial Performance

Almajali, Alamro and Al-Soub (2012), argue that there are various factors that affect financial performance. Some of these factors are:

2.3.1 Financial Leverage

Leverage refers to the proportion of debt to equity in the financial structure of a firm. According to Jensen (1986), there's an optimal debt ratio that maximizes the value of a firm. Corporations are usually financed partly with debt and partly with equity. It states that there is an advantage to financing with debt (Kraus and Litzenberger, 1963). The financing or leverage decision is a significant managerial decision because it influences the shareholder's return and risk and the market value of the firm. The ratio of debt-equity has implications for the shareholders' dividends and risk, this affect the cost of capital and the market value of the firm (Pandey, 2007).

2.3.2 Liquidity

Liquidity is the available cash for the near future after taking into account the financial obligations corresponding to that period (The International Financial Reporting Standards, 2006). Proper management of working capital components helps in reducing the costs of the firm and this highly contributes in reducing the liquidity risk of the firm and thus mitigating any financial losses that might be attributed to lack of finances to take advantage of profitable investments Other researchers have different views on liquidity, for example, Jovanovic (1982), in his theoretical model suggested that a moderate

amount of liquidity may propel entrepreneurial performance, but that an abundance of liquidity may do more harm than good. Therefore, the effect of liquidity on firms' financial performance is ambiguous.

2.3.3 Size of the Company

The size is a determinant of financial performance of the firm. Almajali, Alamro and Al-Soub (2012), argued that the size of the firm can affect its financial performance. However, for firms that become exceptionally large, the effect of size could be negative due to bureaucratic and other reasons (Yuqi, 2007). Large firms are more likely to manage their working capitals more efficiently than small firms. Most large firms enjoy economies of scale and thus are able to minimize their costs and improve on their financial performance.

2.3.4 Market Structures

As a matter of reality, Molyneux and Thornton (1992), mentioned that monopolistic profits follow out of major deflections from aggressive market structures. Demirguc-Kunt & Huizinga (2001) and Bikker and Hu (2002), find a negative relationship between stock market capitalization and banks' profitability, it means that equity and bank financing acts as substitutes rather than complements. In case of the industry-specific factors, the Structure-Conduct-Performance premise point out that growing market power enhances the profitability (income) of banks.

2.3.5 Macroeconomic Factors

Gul, Irshad and Zaman (2011), discovered that besides individual bank characteristics, external factors are considered as determinants of bank profitability. Macro factors i.e., economic growth, inflation and stock market capitalization are perceived to have a

significant impact that can be more of either an advantage or a disadvantage that can be translated into higher or lower profitability. The hypotheses he developed for analyzing bank's profitability over specific macroeconomic determinants states that external factors of the banks have significant impact on the profitability.

2.4 Empirical Review

This section will look at several studies done both locally and internationally on the relationship between financial structure and financial performance.

2.4.1 International Evidence

Chowdhury and Chowdhury (2010), set out to investigate the impact of financial capital structure on the value of firm in the context of Bangladesh economy. In order to achieve the goal they gathered secondary data of publicly listed companies traded in Dhaka Stock Exchange and Chittangong Stock Exchange and used some statistical tools to analyze all the financial information. To see the relationship between financial structure and firm value in Bangladesh their study considered share price as proxy for value and different ratios for financial structure decision. The interesting finding of this research suggests that maximizing the wealth of shareholders requires a perfect combination of debt and equity, whereas cost of capital has a negative correlation in this decision and it has to be as minimum as possible. It is also seen that by changing the financial structure composition, a firm can increase its value in the market. Nonetheless, this could be a significant policy implication for finance managers, because they can utilize debt to form optimal financial structure to maximize the wealth of shareholders.

Camilla (2012), carried out a study on the effect of capital structure on overall performance of microfinance institutions (MFIs). This study used cross sectional data that contained information from 403 MFIs in 73 countries. Multivariate regression analysis was applied to get results. Cost of funds and return on assets were used as measures for the performance of MFIs and debt to equity and debt to assets were used as measures for the financial structure in addition to 10 controlled variables. The findings of the study indicate that most of MFIs are highly leveraged; they use approximately four times more debt financing than equity. Further regression results revealed that total debts to assets and short term debt to assets have positive and significant effect on cost of funds. Total debt to assets and long term debt to assets have negative and significant effect on return on assets. Short term debts to assets also have a negative effect on return on assets but the relationship was not significant. There were not detected any significant between the debt to equity ratios and MFIs performance.

Sekabira (2013), set out to examine the financial capital structure and its role on performance of Microfinance Institutions (MFIs): The Ugandan Case. Panel data from 14 MFIs was collected based on availability and accessibility. The sources of data were financial and income statements covering five years. Debt and grants were negatively correlated to operational and financial sustainability. When sustainability was more constricted to financial sustainability, debt and share capital remained noteworthy. Other than grants, debt was paid back on competitive market interest rates most especially debts from money lenders, whereas share capital fetched in revenues to the MFIs at market interest rates from the borrowers. Grants and debt had a substantial damaging consequence on MFI performance. Financial structure was essential in MFIs'

sustainability. MFI specific characteristics, like management were also important. Subject to sampling uncertainties, the results indicated that adding to regulation by Central Bank, MFIs must specialize their lending to reduce portfolio at risk. He recommended that MFIs must reduce dependence on debts and grants and resort to accumulating share capital for long-term sustainability.

Trong (2013), conducted an empirical investigation into the link between funding and the performance of microfinance institutions with particular regard to a cross-country analysis and case study of Vietnam. In his thesis he employed the most common indicators for microfinance performance and introduced new evidence and possible explanations from an explicit perspective. His research came up with five outstanding conclusions: First, the link between funding and microfinance performance varies with the heterogeneity of microfinance institution' characteristics. Second, profitable and regulated microfinance institutions which take on considerably more commercial funds are therefore shown to have higher sustainability, efficiency and outreach. Third, a large scale of operation helps microfinance institutions achieve higher efficiency, profitability, sustainability and outreach (breadth and depth). Fourth, there is no trade-off between the breadth of outreach and efficiency. Fifth, larger loan sizes are associated with higher loan costs. Sixth, the global financial crisis has had a minor impact on the performance of microfinance institutions since they have a low level of self-sufficiency, associated with a low degree of financial integration.

Xuan and Zhong (2014), studied the impact of ownership structure and financial capital structure on firms' financial performance in context of an emerging transitional economy. This study used data base from financial statements of listed companies on Ho Chi Minh

Stock Exchange for the period of 2009–2012. A sample of 134 non-financial companies was selected. According to research findings, financial structure has a negative impact with statistical significance on financial performance (measured by ROA, ROE). While clear evidences with statistical significance of the impact of managerial ownership on financial performance have not been found, this study found out that, the level of entrenchment of managers in state-owned enterprises (SOEs) is higher than that of businesses of other types. This study also found evidences of the influence of firm factors on financial structure financial performance such as tangibility, growth opportunities and firm size.

2.4.2 Local Evidence

Onginda (2013), carried out a study to establish the effects of financial capital structure on financial performance of listed firms on securities exchange in Kenya. The financial performance was measured in terms of return on equity while Capital structure was measured in terms of debt ratio. The period of study was 2012. The population of study consisted of all the 61 listed firms duly registered with capital market authority of Kenya in 2012. Secondary data used was obtained from the Nairobi securities exchange hand book and also in firm's publications. Data analysis was done by use of regression analysis model with the help of Statistical Package for Social sciences Software (SPSS). The results obtained reveal that there was an inverse relationship between Capital structure and financial performance of listed firms in securities exchange in Kenya. The findings indicate that the higher the debt ratio, the less the return on equity which therefore supports the need to increase more capital injection rather than borrowing, as the benefits of debt financing are less than its cost of funding.

Barasa (2014), studied the relationship between funding structure and financial performance of microfinance institutions in Kenya. This study adopted a descriptive research design. The target population in the research was 56 microfinance institutions registered and operating in Kenya. A sample of 25 was obtained from this population as a representative of the whole population. Secondary data obtained from the MIX market and annual report of the sampled microfinance institutions was used. The study was done over a period of 5 years i.e. between 2009 and 2013. Data analysis was done using SPSS and data findings presented using figures and tables. Multiple correlation analysis was used to determine the relationship between the variables under study. The study established that the funding structure employed by microfinance institutions affects the financial performance of the firm. Debt to equity ratio has a negative correlation with financial performance meaning the more debt a firm employs in financing its operations the inferior financial performance it registers. Deposits to assets ratio has a positive correlation with financial performance implying that the more deposits a microfinance institution accepts the higher the financial performance.

Yegon, Chariot and Sang (2014), investigated the relationship between capital structure and the firm's profitability of banking industry in Kenya, by using panel data extracted from the financial statements of the companies listed on the Nairobi Stock Exchange from year 2004-2012. The rationale behind the industry specific analysis is the fact that exogenous variables appear to force institutions in the same industry in similar fashion, thus leading to the existence of an industry specific capital structure. It is found that a significant positive relationship exists between the short term debt and profitability and statistically significant negative relationship between long term debt and profitability.

The results are partially consistent with the previous studies as the negative relationship between long term debt and the firm performance tends to sport the dominant pecking order theory. The association of short term debt and the financial performance in contrast attests the static trade-off theory. Total debt as a whole has no association with the firm's performance because of the inherited different characteristics of short term debt and long term debt.

Kodongo et al., (2014), scrutinized the relationship between leverage and the financial performance of listed firm in Kenya. The authors used annual data for the period 2002 – 2011. Using various panel procedures, their study found reasonably strong evidence that leverage significantly and negatively affect the profitability of listed firms in Kenya. However, leverage has no effect on Tobin's Q, their proxy for firm value. Second, because the performance of firms depends on other things than just their financial structure, they controlled for the effects of those other variables by including them in their model. In this respect, their findings suggested that asset tangibility, sales growth and firm size are important determinants of profitability and hence performance. Surprisingly, asset tangibility consistently turned out to have a negative relationship with profitability. For small firms, their results indicated that sales growth and firm size are important factors driving firm value yet, the same variables do not appear to drive the value of large firms.

Maranga (2015), determined the effect of capital structure on the financial performance of Small and Medium Scale Enterprises (SMEs) in Thika sub-county, Kenya. The research adopted descriptive research design. A sample size of 40 was used, and was selected using convenient random sampling. Secondary data was collected from the

annual financial reports of the SMEs for the years 2009 –2013. Multiple regression and correlation analysis were used to determine the nature and significance of relationship between changes in the response variable and change in the predictor variables. The findings were that there was no significant effect of capital structure, asset turnover and asset tangibility on the financial performance of SMEs in Thika sub-county, Kenya.

2.5 Summary of Literature Review

Despite the substantial theoretical developments in the field of corporate finance over the past several decades, the rift between theory and practice still needs to be reconciled. According to Coleman (2007), profitability is irrelevant in explaining the financial structure decisions of MFIs. A study by Sekabira (2013) asserted that grants and debt had a substantial damaging consequence on MFI performance while the Modigliani-Miller (1958) theorem proves that leverage has no effect on the value of firm. Locally, Onginda (2013) results revealed that there was an inverse relationship between financial structures and financial performance of listed firms in securities exchange in Kenya while Maranga (2015), findings were that there was no significant effect of capital structure, asset turnover and asset tangibility on the financial performance of SMEs in Thika sub-county, Kenya. Several studies show that a firm with high leverage tends to have an optimal financial structure and therefore it leads it to produce good performance.

The importance of financing issues has only motivated researchers to examine the relationship between financial structure and firm's financial performance. The limited literature on the impacts of Financial structures on performance necessitates the study so the objective of this study is to narrow down the impasse to establish the impact of Financial structure on financial performance of Microfinance banks in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discussed the research approach that the researcher used to accomplish the research objective. The chapter was sectioned into; research design, population, data collection and data analysis.

3.2 Research Design

Dul and Hak (2008), describe a research design as an arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance with the research purpose. This study used a descriptive research design. A descriptive research design involves observing the characteristics in a given population or phenomenon being studied without manipulating it in any way. The advantage of this design is that the researcher is able to use various forms of data as well as incorporate human experience. It gives researchers the ability to look at what they are studying in various aspects and provides a bigger picture as opposed to other types of research design (Kothari, 2004). According to Cooper and Schindler (2004), descriptive studies are more formalized and typically structured with clearly stated hypotheses.

3.3 Population

Population is the total collection of elements which the researcher wishes to make inferences (Cooper and Schindler, 2006). The population of this study was the nine microfinance banks in Kenya licensed by the Central Bank of Kenya. By the end of year

2014 there were nine (9) microfinance banks in Kenya (CBK, 2014) provided in Appendix I.

3.4 Data Collection

The study used secondary data sources to gather relevant existing information in reaching at the research objective. Secondary data is information that has previously been collected that is utilized by a person other than the one who collected the data and it can be obtained from books, journals and electronic materials. (Mugenda and Mugenda, 2003). The study covered a five year period from 2010-2014 based on the availability and accessibility of data. This enabled the researcher to get computable data that was helpful in drawing conclusions and giving recommendations on the relationship between financial structure and financial performance of MFBs in Kenya.

Secondary data was collected from the Central Bank of Kenya (CBK) published reports on microfinance banks , Annual reports by the Association of Microfinance institutions of Kenya (AMFI), Kenya Bureau of statistics (KNBS) reports and financial statements of individual microfinance bank to help evaluate the relationship between the financial structure and financial performance of MFBs in Kenya.

3.5 Data Analysis

Mosby (2009), describes data analysis as classifying, coding and tabulating information needed to perform quantitative or qualitative analyses according to the research design and appropriate to the data.

Data obtained from secondary data was analyzed using SPSS analytical software and Microsoft Excel version 2010. The study used multiple regression technique in analyzing

the relationship between the selected determinants and the financial performance of MFBs in Kenya. The results obtained from the model were presented in tables and graphs to aid in analysis and ease with which the inferential statistics will be drawn in order to determine the nature and significance of relationship between changes in the response variable and changes in the predictor variables.

3.5.1 Analytical Model

The focus of this study was to establish the relationship between financial structure and financial performance of MFBs in Kenya. The regression model that was used in analyzing this relationship effect was as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$

Where:

Y= Financial performance was measured using return on assets (ROA) which was determined as net income divided by total Assets. ROA is an indicator of how profitable a company is relative to its total assets.

X₁= Financial structure was calculated using the total debt to equity ratio. This ratio measures the proportion of equity and debt used to finance the assets.

X₂=Credit risk was calculated using risk coverage ratio measured as loan loss reserve divided by portfolio at risk.

X₃= Liquidity risk was calculated as current assets/current liabilities.

X₄= Age of the Microfinance banks was measured as the number of years operating as a microfinance bank

X₅= Size of the Banks was measured as the Log of total assets.

X_6 = GDP annual growth in % ratio was sourced from the Kenya National Bureau of Statistics (KNBS) data to represent the macro economic factors affecting financial performance of MFBs in Kenya.

α = Regression constant

$\beta_1\beta_3...B_n$ = coefficients of variables X in the regression model

ε = Error term normally distributed about the mean of zero

3.5.2 Test of Significance

Y represented the dependent variable (financial performance) and $\beta_1\beta_3...B_n$ were the coefficients of the variables in regression model. The basis of the model was to help in determining the relationship between the financial structure and financial performance of microfinance banks in Kenya. Correlation was used to establish the relationship between the variables in question. The test of significance was performed at 95% level of confidence using Analysis of Variance (ANOVA) and F test and coefficient of determination to determine whether the model is a good predictor.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the data findings and analysis in form of tables, figures, and inferential statistics. Descriptive statistics was used to analyze the findings obtained from the data of the financial statements of the nine Micro finance banks in Kenya

4.2 Response Rate

This study on the relationship between financial structure and financial performance targeted nine (9) microfinance banks in Kenya and data was obtained from 8 of those microfinance banks. This created a response rate of 88.9 % response rate. According to Mugenda and Mugenda (2003), a 50% response rate is adequate, 60% good and above 70% rated very good. This also collaborates Bailey (2000) assertion that a response rate of 50% is adequate, while a response rate greater than 70% is very good. This implies that based on this assertion; the response rate which in this case was 88.9 % is under very good category.

Table 4.1: Response Rate

Response Rate	Frequency	Percentage
Response	8	88.9%
Unresponse	1	11.1%
Total	9	100.0%

Source: Research findings

4.3 Data Analysis and Findings

The study used descriptive and inferential analytical techniques to analyze the data obtained. The study used Ordinary Least Squares (OLS) regression models. However, before running the regressions, descriptive statistics and correlation analysis were calculated. Correlation analysis shows the relationships between the different variables considered in the study. The correlation matrix presented simple bivariate correlations not taking into account other variables that may influence the results

4.4 Descriptive Statistics

Table 4.2 presents a summary of descriptive statistics and the distribution of the variables considered in this research: Return on Assets, financial structure, credit risk, liquidity risk, age, total asset and GDP. The descriptive statistic considered was minimum, maximum, mean and standard deviation. Mean was used to establish the average value of the data; standard deviation gave the dispersion in the data.

Table 4.2: Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
ROA	32	-4.6000	5.3000	.648571	2.1700560
Financial Structure	32	.1000	12.2000	6.589048	3.6684082
Credit Risk	32	.3100	.7000	.476500	.0990627
Liquidity Risk	32	.0400	.3500	.205882	.1041669
Age	32	2	5	3.52	1.085
Size	32	8.0200	10.3700	9.394286	.8112680
GDP	32	4.40	5.80	5.0875	0.54225
Valid N (list wise)	32				

Source: Research findings

The financial performance which is measured by Return on Asset (ROA) recorded a mean of 0.648571 with standard deviation of 2.1700560. This means that on average the micro finance banks realized a net income of 0.648571 units for each unit of asset used in investments. Financial structure had a mean of 6.589048 with a standard deviation of 3.6684082 which implies that the average ratio of total debt to equity used to finance the assets is 6.589048 during the study period. Credit risk registered a mean of .476500 with a standard deviation of 0.0990627. The mean ratio of current assets and current liabilities is 0.205882 with standard deviation of 0.1041669 implying that every unit of current asset invested is used to finance .205882 units of current liability. The results also indicates that on average, micro finance banks have been in operation for 3.52 years by the time the study was conducted. This implies the micro financial banks have not been in operation for long enough in Kenya.

4.5 Inferential Statistics

The inferential statistics involved the use of correlation and multiple linear regression analysis. The regression analysis was done using Ordinary Least Squares (OLS) method. However, correlation analysis was considered before running the regressions. Correlation analysis shows the relationships between the different variables considered in the study. The correlation matrix presented simple bivariate correlations not taking into account other variables that may influence the results.

4.5.1 Correlation Analysis

The study sought to establish the relationship between the independent and control variables (Financial structure, Credit risk, Liquidity risk, Age of the MFB, Size of the

Banks), and financial performance (ROA). Pearson Correlation analysis was used to achieve this end at 99% and 95% confidence levels.

Table 4.3: Correlation Analysis

		Correlations						
		ROA	Financial Structure	Credit Risk	Liquidity Risk	Age	Size	GDP
ROA	Pearson Correlation	1	-.014	.059	-.077	-.119	.069	-.270
	Sig. (2-tailed)		.951	.804	.768	.609	.766	.236
	N	32	32	32	32	32	32	32
Financial Structure	Pearson Correlation	-.014	1	-.102	-.528*	.696**	.590**	.158
	Sig. (2-tailed)	.951		.667	.029	.000	.005	.493
	N	32	32	32	32	32	32	32
Credit Risk	Pearson Correlation	.059	-.102	1	-.595*	-.217	.304	.149
	Sig. (2-tailed)	.804	.667		.012	.359	.193	.531
	N	32	32	32	32	32	32	32
Liquidity Risk	Pearson Correlation	-.077	-.528*	-.595*	1	-.288	-.623**	-.176
	Sig. (2-tailed)	.768	.029	.012		.263	.008	.500
	N	32	32	32	32	32	32	32
Age	Pearson Correlation	-.119	.696**	-.217	-.288	1	.723**	.038
	Sig. (2-tailed)	.609	.000	.359	.263		.000	.858
	N	32	32	32	32	32	32	25
Size	Pearson Correlation	.069	.590**	.304	-.623**	.723**	1	.235
	Sig. (2-tailed)	.766	.005	.193	.008	.000		.306
	N	32	32	32	32	32	32	32
GDP	Pearson Correlation	-.270	.158	.149	-.176	.038	.235	1
	Sig. (2-tailed)	.236	.493	.531	.500	.858	.306	
	N	32	32	32	32	32	32	32

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

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

Source: Research findings

Table 4.3 shows negative and weak linear relationships ($R=-0.014$) between financial structure and the financial performance of micro financial banks. Liquidity risk indicates weak and negative relationship with the financial performance of the micro financial

banks ($R=-0.077$). Age of the micro financial banks showed weak negative relationship with the bank's financial performance.

Total assets showed weak positive linear correlation with the profitability of the micro financial banks. This is an indication that an increase in asset base of the micro financial banks will result to an increase in profitability of the micro financial banks. GDP indicates moderate weak but positive linear relationship with the financial performance of the micro financial banks.

4.5.2 Regression Analysis

Regression analysis was used to measure the relationship between individual independent and dependent variable (return on assets). The regression analysis was of the form:

$$Y=\alpha+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4 +\beta_5X_5 + \beta_6X_6 +\varepsilon$$

4.5.2.1 Model Summary

Table 4.4 illustrates regression result for the model summary. The result indicates R square of 0.214 implying that 21.4 % of the total variation in micro financial bank's financial performance is attributed to the changes in the independent variables considered in the model. Lower R square in model is attributed to the fact that other variables which were never considered in the model are highly associated with the micro finance bank's financial performance.

Table 4.4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.463 ^a	.214	.025	2.97335

a. Predictors: (Constant), GDP, Credit Risk, Financial Structure, Liquidity Risk, Age, Size

b. Dependent Variable: ROA

Source: Research findings

4.5.2.2 Analysis of Variance

Analysis of Variance (ANOVA) was used to make simultaneous comparisons between two or more means; thus, testing whether a significant relation exists between variables (dependent and independent variables). This helps in bringing out the significance of the regression model. The ANOVA results presented in table 4.5 shows that the regression model has a margin of error of $p > .001$. This indicates that the model has a probability of greater than 0.1% of giving false prediction; this point to the insignificance of the model hence the model was not adequate for estimation.

Table 4.5: Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	60.158	6	10.026	1.134	.372 ^b
Residual	221.020	25	8.841		
Total	281.178	31			

a. Dependent Variable: ROA

b. Predictors: (Constant), GDP, Credit Risk, Financial Structure, Liquidity Risk, Age, Size

Source: Research findings

4.5.2.3 Model Coefficients

Table 4.6 shows the regression coefficients of independent variables. The following regression model was established:

$$\text{ROA} = 11.295 + 0.244\text{FIN} + 0.095\text{CRS} - 0.171\text{LQD} - 0.187\text{AGE} - 0.279\text{SIZE} - 0.296\text{GDP}$$

Table 4.3: Regression Coefficients

Model		Coefficients ^a				t	Sig.
		Unstandardized Coefficients		Standardized Coefficients	Beta		
		B	Std. Error				
1	(Constant)	11.295	21.858			.517	.617
	Financial Structure	.144	.541	.244		.266	.796
	Credit Risk	1.981	14.058	.095		.141	.891
	Liquidity Risk	-3.570	10.567	-.171		-.338	.742
	Age	-.358	1.273	-.187		-.282	.784
	Size	-.874	3.172	-.279		-.275	.789
	GDP	-.588	.678	-.296		-.867	.406

a. Dependent Variable: ROA

Source: Research findings

4.6 Interpretation of the Findings

From the equation, the study found financial structure positively impacts on the financial performance of the micro financial banks. However, at 5% level of significance, financial structure is not statistically significant ($t=0.266$, $p=0.799$, $p > 0.05$) in determining the financial performance of the microfinance banks. The positive relationship implies that the MFBs used more debt relatively to equity during the period under study. Credit risk positively affects the financial performance of the micro financial institution though not statistically significant at 5% level of significance ($t=0.141$, $p=0.891$, $p > 0.05$). Liquidity risk is not statistically significant at 5% level of significance ($t=-0.338$, $p=0.742$, $p > 0.05$). Age of the micro financial banks is not significant effect on the financial performance of the micro financial banks as indicated by the p-value greater than 0.05 ($p=0.784$). The

finding indicates that the natural log of the total assets of the micro financial banks is not statistically significant at 5% level of significance ($t=-0.275$, $p=0.789$, $p>0.005$). This implies that large MFBs in Kenya have not significantly enjoyed economies of scale. Infact the negative coefficients bring to attention that the possibility of diseconomies exist which adversely affect their financial performance. Finally, GDP negatively impacts on the financial performance of the micro financial banks though not statistically significant at 5% level of significance ($t=-0.867$, $p=0.406$, $p>0.05$). This implies that despite the country's continuous economic growth, microfinance banks were not profitable during the period under the study.

The findings are in consistent with the studies by Wambugu and Ngugi (2012), Trong (2013) and Nyameyo (2014) who found out a positive relationship between financial structure and financial performance. However, research findings goes against the studies by Coleman (2007), Barasa (2014) and Onginda (2014) who concluded that financial structure is inversely related to financial performance of the MFI.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1 Introduction

This chapter is a synthesis of the entire study, and contains summary of research findings, exposition of the findings, commensurate with the objectives, conclusions and recommendations based thereon.

5.2 Summary

The objective of this study was to investigate the relationship between financial structure and financial performance of microfinance banks in Kenya. Return on asset (ROA) had a mean of 0.648571 with standard deviation of 2.1700560. On average the micro financial institutions realized a net income of 0.648571 units for a unit asset used in investments. Financial structure had a mean of 6.589048 with a standard deviation of 3.6684082. Credit risk registered a mean of .476500 with a standard deviation of .0990627. The mean ratio of current assets and current liabilities had a mean of 0.205882 with standard deviation of .1041669. On average, micro financial banks have been in operation for 3.52 years by the time the study was conducted. The result from analysis showed an R square of 0.214 meaning that that financial structure, credit risk, age of the micro finance, GDP, liquidity risk and total asset are not significant as they only contribute to a 21.4 % change in the financial performance of the micro finance banks in Kenya.

5.3 Conclusions

The objective of the study was to establish the relationship between the financial structure and financial performance of microfinance banks in Kenya. The findings indicated that the financial structure positively affects the financial performance of the micro finance banks. However, financial structure is not significant in affecting the financial performance of MFBs. To this extent therefore we conclude that the choice of financial structure is very important to any MFB in Kenya.

5.4 Policy Recommendations

The study recommends that the CBK as a regulator should formulate policies which will that aimed at putting a ceiling as to the debt amount a microfinance bank can use in its financial structure

The study also recommends that the management of MFBs should pay attention to credit risk management. The performance and success of MFBs depends on accurate measurement and efficient management of this risk. Most of the MFB's revenue comes from the advanced to the clients

The Government should come up with policies towards reducing the cost of doing business in order to attract more investors in the microfinance sector.

The microfinance banks have to emulate profit making practices by implementing a sound financial management and good managerial governance to ensure financial stability in the long run

5.5 Limitations of the Study

Obtaining of data from the MFBs was a great challenge. Most of them did not publish their audited reports in their websites and some MFBs are new with less than two years of operation in the sector. Those MFBs that had information available sometimes had insufficient data for this study. Future researchers are advised to consider using both primary and secondary data sources

The use of secondary sources raises reliability issues on the data collected. Relying on the secondary data means that any error in the source will be also be reflected in the research i.e. errors and assumptions not disclosed in the source documents will also reoccur in the research.

The study also faces challenges of time resources particularly where the MFB's management delayed giving the financial reports. To mitigate this, the researcher made follow quite often to these institutions. The future scholars need to prepare to create more time to conduct research studies.

The study was limited to the micro finance banks only whereas other financial institutions are also affected in their financial performance by the financial structure. This makes the results of the study not generalizable to the financial sector since these MFBs make a small percentage of the sector and this cannot be used a representation of the entire finance sector

5.6 Suggestions for Further Research

This study can be extended to a more detailed research work on MFBs that takes into consideration more internal factors influencing financial performance .The six controlling

factors in this research study gave different influence on financial performance. There is need to find out which other internal variables that affect the financial performance of MFBs.

Future studies should also consider employing primary sources of data to collect data for their studies. This would facilitate detailed information collected from original sources which would as well give reliable and accurate results that explain the details of the subject. Primary data will also be time saving.

This study further recommends a research be done on MFBs but taking in many years as a research period. This study used approximately five years, a period of study that may not quite be adequate to make undisputable conclusions. A future study of this nature can reveal more sufficient information especially on the financial performance of the MFIs before and after transition to microfinance banks

REFERENCES

- Alchian, A. A. & Demsetz, H. (1972). Production, information costs, and economic organization. *American Economic Review*, 62: 777–795.
- Almajali, Y. A., Alamro, S. H., & Al-Soub, Y. Z. (2012). Factors Affecting the Financial Performance of Jordanian Insurance Companies Listed at Amman Stock Exchange. *Journal of Management Research*
- Bikker, J.A. & Hu, H. (2002). Cyclical Patterns in Profits, Provisioning and Lending of Banks and Procyclicality of the New Basle Capital Requirements, *BNL Quarterly Review*, 221, pp. 143-175.
- Calomiris, C. W. & Charles M. Kahn, (1991). The role of demandable debt in structuring optimal banking arrangements. *American Economic Review* 81: 497-513.
- Central Bank of Kenya. “Bank Supervision Annual Report 2010.” Nairobi: Central Bank of Kenya, 2010. Accessed July 13, 2011.
- Chowdhury, A. & Chowdhury, P. S. (2010). Impact of Financial structure on firm’s value: Evidence from Bangladesh. Prague Development Center www.pieb.cz. *Peer-reviewed and open access journal* ISSN: 1804-12
- Demergüç-Kunt, A, & Huizinga, H. (2001). Financial Structure and Bank Profitability” in *Financial Structure and Economic Growth: A Cross Country Comparison of Banks, Markets, and Development*. Cambridge, MA: MIT Press.
- Dul, J., & Hak, T. (2008). *Case Study Methodology in Business Research* (1st Ed.). Oxford: Butterworth-Heinemann.
- Eisenhardt, K. (1989). Agency theory: An assessment and review. *Academy of Management Review*, 14: 57–74.
- Fama, E. & French, K. (2002). “Testing Tradeoff and Pecking Order Predictions about Dividends and Debt,” *Review of Financial Studies* 15 (Spring 2002), 1-37,

- Frank, M. Z., & Goyal, V. K. (2011). "Trade-off and Pecking Order Theories of Debt". *Handbook of Empirical Corporate Finance: Empirical Corporate Finance*. Elsevier. pp. 135–202. ISBN 978-0-08-093211-8. SSRN 670543
- Freixas, X. & Rochet, J. C. (2008). *Microeconomics of Banking*, 2nd ed. MIT Press, Boston, MA
- FSD Kenya (2013). *Fin Access National Survey 2013: Dynamics of Kenya's Changing Financial Landscape*.
- Gul, S., Irshad F. & Zaman K. (2011). Factors Affecting Bank Profitability in Pakistan. *The Romanian Economic Journal*
- Hawawini, G. & Viallet C. (1999). *Finance for Executives: Managing for Value Creation*. South-Western College Publishing, Cincinnati, OH.
- Herman, L. (2012). *Increasing Consumer Knowledge and the Financial Capabilities of Microfinance Borrowers in Kenya*. University of California.
- Hutchinson, R.W. (1995). The Financial structure and investment decision of the small owner-managed firm: some exploratory issues, *Small Business Economics*, 76, 231-239.
- International Financial Reporting Standards. (2006). *an AICPA Backgrounder*. New York: AICPA.
- Iswatia, S., & Anshoria, M. (2007). The Influence of Intellectual Capital to Financial Performance at Insurance Companies in Jakarta Stock Exchange (JSE). *Proceedings of the 13th Asia Pacific Management Conference*. Melbourne
- Jalilvand, A. & Harris, R. (1984). Corporate behavior in adjusting to Capital structure and dividend targets: An econometric study, *Journal of Finance*, 39(1), 127-145
- Jensen, M. C. & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3: 305–360.

- Jovanovic, B. (1982). Selection and the evolution of industry. *Econometrics*, 50, 649-670
- Kodongo, J., Odongo W., Mokoaleli M., Thabang C. & Maina, L., (2014). Financial structure, profitability and firm value: panel evidence of listed firms in Kenya
- Liargovas, P., & Skandalis, K. (2008). *Factor affecting firms' financial performance: The Case of Greece*. Athens: University of Peloponnese Press.
- Ministry of Devolution and Planning (2013). Second Medium Term Plan, 2013-2017: Transforming Kenya. Government Printers, Nairobi.
- Maranga, E. (2015). The Effect of Capital structure on the Financial Performance of Small and Medium Enterprises in Thika Sub-County, Kenya. *International Journal of Humanities and Social Science*. Vol. 5, No. 1; January 2015
- MIX (Microfinance Information Exchange) and CGAP (Consultative Group to Assist the Poor) (2010), Sub-Saharan Africa 2009: *Microfinance Analysis and Benchmarking Report* <http://www.cgap.org/gm/document-1.9.43711/2009_ss
- Modigliani, F. & Miller M.H. (1963). Corporate income taxes and the cost of capital: a correction”, *American economic Review*, 53, .433-443.
- Modigliani, F., & Miller, M. (1958). “The cost of capital, corporation finance and the theory of finance, *American Economic Review*, 48(3), 291–297.
- Molyneux, P. & W. Forbes (1995). Market Structure and Performance in European Banking. *Applied Economics* 27(2): 155-159
- Mosby, E. (2009). Mosby's Medical Dictionary, 8th edition. © 2009, Elsevier
- Myers, S. (1977). Determinants of corporate borrowing, *Journal of Financial Economics*, 5, 146-175.
- Myers, S., & Majluf, (1984). Corporate financing and investment decision when firms have information that investors do not have. *Journal of Financial Economics*.

- Ngo, T. V. (2012). Financial structure and Microfinance Performance. PhD Thesis of the University of Birmingham
- Nyameyo, W.R. (2014). The effects of leverage on financial performance of Microfinance Institutions in Nauru County. Unpublished MBA Research Project of the University of Nairobi.
- Ojai, P., Gibe A., Orinda J., Kami, Alexi W., (2013). The Impact of Capital structure on Firms' Performance in Nigeria.
- Ongena, S., & Smith, D.C., (2000). Bank relationships: a survey. In: Haked, P., Zanies, S.A. (Eds.), *The Performance of Financial Institutions*, Cambridge University Press, Cambridge, MA, pp. 221–258.
- Onginda, S. R. (2013). The effects of financial capital structure on financial performance of listed firms on securities exchange in Kenya, Unpublished MBA Research Project of the University of Nairobi.
- Orca, E. (2009). The relationship between capital structure and financial performance of Microfinance Institutions in Kenya. Unpublished MBA Research Project. University of Nairobi
- Pandey, I. M. (2007). *Financial management (9th Ed.)*. New Delhi: Visas Publishing House Ltd.
- Salazar, L.A., Soto, C.R. & Mosque, E.R (2012). The Impact of Financing Decisions and Strategy on Small Business Competitiveness. *Global Journal of Business Research*, 6(2), 93-103
- Saleem, F., & Refigure, B. (2013). The determination of capital structure of oil and gas firms listed on Karachi stock exchange in Pakistan. *Interdisciplinary journal of contemporary research in business*.9.225-235.
- Sekabira, H. (2013). Financial structure and Its Role on Performance of Microfinance Institutions: The Ugandan Case. *Sustainable Agriculture Research*; Vol. 2, No. 3;

2013 ISSN 1927-050X E-ISSN 1927-0518 Canadian Center of Science and Education.

- Soumadi, M., & Suhail, H. O. (2008). The effect of Capital structure on the performance of the public Jordanian firms listed in Amman stock market. *European Scientific Journal October edition* vol. 8, No.22 ISSN: 1857–7881 (Print) e -ISSN 1857-7431
- Trong, N.V. (2013). Financial structure and microfinance performance: a cross-country analysis and case study of Vietnam. Ph.D. thesis, University of Birmingham
- Walker, D. (2001). Exploring the Human Capital Contribution to Productivity, Profitability and the Market Evaluation of the Firm.
- Wambugu, F & Ngugi, J (2012). Factors influencing sustainability of microfinance institutions in Kenya: A case of Kenya Women Finance Trust; *International journal of Innovative, Research and Development* 1 (II), 519-537
- Welch, I. (2004). "Financial structure and Stock Returns". *Journal of Political Economy* 112 (1): 106–132. Doi: 10.1086/379933
- Xuan, D. & Zhang X. Q., (2014). The Impact of Ownership Structure and Financial structure on Financial Performance of Vietnamese Firms *International Business Research*; Vol.7, No.2;
- Yegon, C., Chariot, J., & Sang, J. (2014). The Effects of Financial structure on Firm's Profitability: Evidence from Kenya's Banking Sector. *Research Journal of Finance and Accounting* www.iiste.org ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online) Vol.5, No.9, 2014
- Yuqi, L. (2007). Determinants of Banks' Profitability and Its Implication on Risk Management Practices: *Panel Evidence from the UK*. The University of Nottingham.

APPENDICES

APPENDIX I: LIST OF LICENCED MFBs IN KENYA AS AT DECEMBER 2014

1. Faulu Kenya Microfinance Bank Limited
2. Kenya Women Microfinance Bank Limited
3. SMEP Microfinance Bank Limited
4. Remu Microfinance Bank Limited
5. Radii Microfinance Bank Limited
6. Century Microfinance Bank Limited
7. Uwezo Microfinance Bank Limited
8. SUMAC Microfinance Bank Limited
9. U&I Microfinance Bank Limited

Source: Central Bank of Kenya website (www.centralbank.go.ke)

APPENDIX II: AGE OF MICROFINANCE BANKS

MFB	Year Started	Age as an MFI	Date Licensed as an MFB	Age as a MFB (From licensing date to 2014)
FAULU	1992	22	21 st May 2009	5
KWFT	1981	33	31 st March 2010	4
SMEP	1975	39	14 th December 2010	4
REMU	2010	4	31 st December 2010	4
UWEZO	2010	4	8 th November 2010	4
RAFIKI	2011	4	14 th June 2011	3
CENTURY	2012	2	17 th September 2012	2
SUMAC	2004	10	29 th October 2012	2
U & I	2013	1	8 th April 2013	1

Source: Central Bank of Kenya (www.centralbank.go.ke)

APPENDIX III: GDP PER CAPITA ANNUAL GROWTH IN % RATIO

YEAR	2010	2011	2012	2013	2014
Real GDP annual growth %	5.8	4.4	4.6	5.7	5.3

Source: Economic survey reports from Kenya National Bureau of Statistics

APPENDIX IV: DATA ON FAULU MFB

FAULU					
YEAR	2010	2011	2012	2013	2014
ROA	-3.0	0.2	0.7	0.80	0.7
Financial Structure (Debt/Equity)	7.3	8.2	11.4	11.80	9.2
Total Assets	4,390,100,000	5,140,600,000	7,637,700,000	12,434,400,000	17,764,800,000
Size (Log Of Total Assets)	9.64	9.71	9.88	10.09	10.24
Gross Loan Portfolio	2,677,300,000	3,308,500,000	5,052,400,000	8,866,400,900	5,565,400,000
Credit Risk Coverage Ratio	0.35	0.41	0.31	0.37	0.42
Liquidity Risk	0.44	0.41	0.31	0.37	0.42

Source: AMFI annual Sector Reports on Microfinance Sector

APPENDIX V: RAW DATA ON KWFT MFB

KWFT					
YEAR	2010	2011	2012	2013	2014
ROA	1.40	1.30	0.90	0.80	0.9
Financial Structure (Debt/Equity)	10.70	7.90	7.90	8.10	8.7
Total assets	18,958,400,000	17,035,800,000	20,384,400,000	21,752,100,000	23,698,490,000
Size (Log of total assets)	10.20	10.23	10.30	10.33	10.37
Gross loans	12,277,408,590	11,456,600,000	13,168,900,000	14,932,000,000	14,530,512,000
Credit Risk Coverage ratio	0.70	0.58	0.60	0.56	0.58
LIQUIDITY RISK	0.36	0.33	0.39	0.27	0.31

Source: AMFI annual Sector Reports on Microfinance Sector

APPENDIX VI: RAW DATA ON SMEP MFB

SMEP					
YEAR	2010	2011	2012	2013	2014
ROA		0.9	2.1	2.4	2.5
Financial Structure (Debt/Equity)		6.8	2.7	4.9	5.2
Total assets		1,998,200,000	2,289,500,000	2,490,400,000	3,240,190,000
Size (Log of total assets)		9.3	9.36	9.39	9.51
Gross loan portfolio loans		1,445,081,000	1,454,139,000	1,696,439,232	1,672,935,589
Credit Risk Coverage ratio		0.38	0.41	0.39	0.51
LIQUIDITY RISK		0.56	0.51	0.41	0.57

Source: AMFI annual Sector Reports on Microfinance Sector

APPENDIX VII: RAW DATA ON SUMAC MFB

SUMAC					
YEAR	2010	2011	2012	2013	2014
ROA			2.70	5.30	4.60
Financial Structure (Debt/Equity)			0.10	0.70	0.90
Total assets			181,500,000	307,000,000	402,700,000
Size (Log of total assets)			8.2	8.4	8.6
Gross loans			103,580,000	203,800,000	308,678,000
Credit Risk Coverage ratio			0.48	0.41	0.50
Liquidity Risk			0.21	0.33	0.35

Source: AMFI annual Sector Reports on Microfinance Sector

APPENDIX VIII: RAW DATA ON RAFIKI MFB

RAFIKI					
YEAR	2010	2011	2012	2013	2014
ROA		-3.5	0.4	0.3	0.42
Financial Structure (Debt/Equity)		2.3	12.2	6.47	4.90
Total assets		440,661,000	183,820,000	367,800,000	407,126,000
Size (Log of total assets)		8.6	8.26	8.56	8.61
Gross loans portfolio		104,348,000	1,408,580,000	1,901,969,000	3,492,296,000
Credit Risk Coverage ratio		0.54	0.42	0.40	0.46
Liquidity risk		0.24	0.34	0.26	0.28

Source: AMFI annual Sector Reports on Microfinance Sector

APPENDIX IX: DATA ON REMU MFB

REMU					
YEAR	2010	2011	2012	2013	2014
ROA		-11.6	-4.9	-2.3	-1.4
Financial Structure (Debt/Equity)		0.25	0.77	1.5	1.8
Total assets		124,300,000	181,700,000	336,700,000	402,000,000
Size (Log of total assets)		8.09	8.25	8.52	8.60
Gross loans portfolio		165,400,000	88,900,000	42,400,000	76,500,000
Risk Coverage ratio		0.86	0.52	0.43	0.48
Liquidity risk		0.22	0.28	0.24	0.32

Source: AMFI annual Sector Reports on Microfinance Sector

APPENDIX X: DATA ON UWEZO MFB

UWEZO					
YEAR	2010	2011	2012	2013	2014
ROA		-16.8%	-1.6	-2.6	1.7
Financial Structure (Debt/Equity)		0.3	0.4	0.6	0.9
Total assets		58,700,000	78,600,000	106,700,000	234,000,000
Size (Log of total assets)		7.76	7.89	8.02	8.37
Gross loans portfolio		34,000,000	45,100,000	79,800,000	115,000,000
Risk coverage ratio		0.34	0.49	0.10	0.11
Liquidity risk		0.19	0.25	0.28	0.26

Source: AMFI annual Sector Reports on Microfinance Sector

APPENDIX XI: DATA ON CENTURY MFB

CENTURY					
YEAR	2010	2011	2012	2013	2014
ROA			-0.21	-0.213	-0.16
Financial Structure (Debt/Equity)			0.26	0.8	1.7
Total assets			93,600,000	163,600,000	179,960,000
Size (Log of total assets)			7.97	8.21	8.26
Gross loans portfolio			26,000,000	28,600,000	31,174,000
Risk coverage ratio			0.86	0.52	0.36
Liquidity risk			0.26	0.39	0.42

Source: AMFI annual Sector Reports on Microfinance Sector