THE EFFECT OF FINANCIAL STRUCTURE ON THE FINANCIAL PERFORMANCE OF MICROFINANCE BANKS IN KENYA

BY

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DECLARATION

I declare this research project is my original work and has not been submitted to any other college, institution or university

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DEDICATION

I would like to dedicate this project to my loving wife Adelaide Gumbe, our daughters Shantejoy Gumbe and Hawii Gumbe. I also devote it to my late parents Jacktone Ogolla and Joyce Akumu and my brothers Jabes, Pope, Charles and my sister Damaris and sister in-law Lilians . Thank you for being a constant source of inspiration and reassurance.

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LIST OF ABBREVIATIONS

AMFI - Association of Microfinance Institutions

CAR - Capital Adequacy Ratio

CBK - Central Bank of Kenya

CRB - Credit Reference Bureau

DTM - Deposit Taking Microfinance

EPS - Earnings per Share

MFI - Microfinance Institution

MM - Modigliani and Miller

NPAs - Nonperforming assets

NSE - Nairobi Securities Exchange

OECD - Organization for Economic Co-operation and Development

ROA - Return on Assets

ROE - Return on Equity

SACCOs - Savings and Credit Cooperatives

SMEs - Small and Medium Enterprises

ABSTRACT

In Kenya, microfinance institution plays a major role in poverty eradication as it lends to low income earners. The microfinance industry in Kenya is growing at a very rapid rate. However, Most of the microfinance banks have posted adverse development even though the sector is well established. Additionally, microfinance banks in Kenya face huge challenge due to inadequacies of retained earnings and exorbitant interest rates charged by commercial banks, which affect their funding structures. The objective of this study was to determine the effect of financial structure on the financial performance of microfinance banks in Kenya. The study explored the Modigliani and Miller irrelevance theory, the pecking order theory and the trade off theory will be used as the underlying theories for the study. The study adopted a descriptive design carried out a census of the 13 microfinance banks in Kenya as 31st December 2016 and managed to obtain completed data from 9 microfinance out of the targeted 13. This generated a response rate of 69.23%, which was regarded to be sufficient. The collected secondary data was summarized using descriptive statistics and then analyzed using Karl Pearson Correlation and multiple regression analysis using the Statistical Software for Social Sciences. The study found an insignificant negative relationship between financial structure, capital adequacy and financial performance of microfinance banks. The research also found a significant positive relationship between assets quality and the performance of microfinance banks in financial terms. The findings further revealed that liquidity and management quality had a significant and negative relationship with financial performance but an insignificant positive relationship between earnings quality and microfinance banks financial performance. The study concluded that the financial structure adopted by microfinance banks in Kenya does not influence their performance in financial terms. The study recommended that microfinance banks should have an optimal financing mix to ensure that their going concern is assured at all times.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Financing choice is vital to every firm as the optimal capital structure between debt and equity impacts on the firm's valuation and its stock prices in the securities market (Vătavu, 2015). There are various stakeholders involved in making decisions concerning financing through either debt or equity. It also has various macroeconomic effects as it impacts on the rates of interest, economic growth, securities market development as well as the pricing levels. The microeconomic factors are influenced by the internal factors of the firm pertains to the management of the firm (Green, Murinde & Suppakitjarak, 2003). The above statements reveals the significance of the financing options which can determine the going concern of a firm as it can lead to collapse of a firm as well as determining the firms valuation in the securities market (Swain & Patnaik, 2013).

The traditional theory of financial structure strongly supports the idea of strategized capital structure which determines the stock value in the securities exchange (Vătavu, 2015). However, the Modigliani and Miller theory asserts when the market conditions are perfect, the value of firm's stocks is not determined by financial structure decisions (Siddik, Kabiraj & Joghee, 2017). Conversely, the pecking order theory asserts that large firms with huge turnover should leverage their firms such that the firm's equity portion is higher than its debts as they can finance most of their projected investments (Mwakabumbe, 2013). The trade-off theory asserts that for companies with many assets should finance their projects using debt to avoid the issue of illiquidity which can have dire impact on day to day running of the firm. Agency cost theory on the other hand explains firm should employ their capital

financial with the aim directed towards reducing the agency costs (Siddik, Kabiraj & Joghee, 2017).

The microfinance institutions play a critical part in economic growth due to its biased focus on low income earners in the society and poverty eradication objective (Mwakabumbe, 2013). Microfinance basically entails availing the funds to the low income earners in the society who face numerous challenges in the normal financial institutions as they are labeled as risky borrowers hence attracting huge interests for amount borrowed (Abdulsalam, 2014). Currently microfinance institutions access commercial capital such as loans, bonds from financial markets, bank debts, etc from which they are able to access extra fund to facilitate their activities. These financial services usually have high cost due to high interest rate and conditions attached to it (Mwakabumbe, 2013).Therefore, there is the need to microfinance banks to finance their projects using more reliable sources.

In Kenya, these institutions play a huge role to the less privileged citizens as they can access funds at lower interests for those intending to start businesses as well as those intending to expand hence contributing to economic growth and development (Chepkorom, 2013). The object of microfinance institutions in Kenya is to reduce and alleviate poverty through provision of credit facilities to the larger unbanked populace. Most microfinance institutions in Kenya obtain funds inform of grants, equity, deposits and various forms of debt from different investors such as commercial banks and other lending institutions (Waweru & Wanyoike, 2016). The country has one of the best MIFs in the African continent as well as around the globe, which has been experiencing high growth rate over the past decade (Ali, 2015).

1.1.1 Financial Structure

This term refers to the way a firm is financed for short and long-term purposes as well as the owners financing. The short term financing is financed through the debt while the latter is through equity method (Nwaolisa & Chijindu, 2016). Financial structure deals with the total affairs in liabilities plus equities side of a firm balance sheet (Sohail, 2016).Financial structure is financing decision undertaken by a firm on the course of funding its corporate investment. This entails the combination of both financing methods (Itiri, 2014).

The financial structure is vital to every firm as the optimal capital structure impacts on the valuation, its stock prices in the securities market. The notion above is significant as strategized capital structure which determines the stock value in the securities exchange, which is evident in the firm's financial performance. Financial structure can be considered as an effective factor on shareholders wealth (Swain & Patnaik, 2013).Financial structure gives an insight on how risks and gains are divided between shareholders and debt holders. The debt financing method is highly discouraged due to the fact that in case a firm is no longer a going concern and it's placed under receivership, the holders of these securities take a huge proportion of the loss associated with the process (Nwaolisa & Chijindu, 2016).

The financial structure decision of a business runs throughout the life of a firm as it continuously adjusts depending on the financial needs of a firm (Sohail, 2016). The capital mix is clearly revealed in the company's statement of financial position in the financed by section where it reveals the proportion of debt financing, equity financing and owners financing. The method of financing should be chosen with the interest directed towards maximizing the shareholder's equity (Swain & Patnaik, 2013).

1.1.2 Financial Performance

The term refers to how effectively a firm utilizes its limited resources to produce resources which yield maximum revenues. The proxies used in determining the firm's performance through ROA and ROE (Nwaolisa & Chijindu, 2016). It also reveals the extent to which the firm has realized its set mission vision as well as the core values. These functions which are non-financial are expressed in monetary terms which are easily understood by the stakeholders with ease (Swain & Patnaik, 2013). This is a major determining factor in the investors' decision on where to invest their finances to yield maximum returns (Swain & Patnaik, 2013).

Financial performance of a firm is significant as it reveals the sustainability of the enterprise (Swain & Patnaik, 2013). It is an indication of whether a firm is a going concern or not. This is a major factor in the investors' decision of whether to invest in a firm or not. This sector is critical not only to the few selected individuals or firms but to the whole sector as well as it is an indicator of how the economy is performing (Ayano, 2016). The main proxies used in determining financial performance include ROA, which is a proportion of the total assets to the total profit generated by a firm. The other one is ROE which a proportion of the total profit to total equity financing (Itiri, 2014).

1.1.3 Financial Structure and Financial Performance

Firms strive to achieve an optimal financial structure through laying out the best capital financing mix which maximizes the revenues given the limited resources applied. Various studies have revealed an inverse relation which exists between the phenomenon of maximizing revenues from limited resources (Sohail, 2016).The modern economy is

characterized by high levels of competition which has put pressure on the firm's revenue as they compete for clients where services offered have to surpass those of your competitors. This has also impacted on the financing methods as the investors demand for high interest for the funds invested due to the risks of financial loss brought about by competition (Swain & Patnaik, 2013). According to Nwaolisa and Chijindu (2016) revealed that firms with high ratio of debt financing are associated with high profitability. This helps the firm to achieve its objective of maximizing the shareholder's wealth.

The theoretical relationship between financial structure and firms' performance of a firm has been ambiguous due to extensive debate (Itiri 2014). For instance, the proponents of Modigilaini and Miller theorem support that the financial structure, asserts when the market conditions are perfect, the value of firms stocks is not determined by financial structure decisions (Sohail, 2016). The trade-off theory asserts that for companies with many assets should finance their projects using debt to avoid the issue of illiquidity, which can have dire impact on day to day running of the firm**.** According to pecking order theory, asserts that large firms with huge turnover should leverage their firms such that the firm's equity portion is higher than its debts as they can finance most of their projected investments (Mihalca & Antal, 2009).

Stulz (2000) carried out a study to determine the impact of financial structure on growth of the GDP. The results revealed a positive relationship linking the two variables. Itiri (2014) also evaluated the impact of financial structure on the performance of quoted firms in Nigeria. The study found that both the long-term debt and short term debt ratio had a negative and significant impact on the performance of Nigerian quoted firms hence the conclusion that exists a positive correlation between the two variables.

1.1.4 Microfinance Banks in Kenya

These are institutions which avails funds to the poor population in the society where the formal banks are not able to penetrate especially in the interior areas the rural areas. These institutions usually target population from the low income areas like slums where they cannot access funds at the commercial banks due to various reasons like collateral (Evansluong, 2010). MFIs in the country were started by the NGOs after the country gained independence with the aim of availing funds to the poor population who needed them for business purposes and they've developed since to become commercial banks (Kathomi, Kimani & Kariuki, 2017). The institutions are so common in the country such that the national assembly of Kenya has passed various acts to ensure corporate governance is adhered to in these institutions (Wafula, Mutua & Musiega, 2017).

The institutions are so large such that competition has increased amongst in the sector, which is good for the clients who benefit from the loans advanced to them at low interest rates and proximity to these institutions as well. MFIs are composed of many organizations including but not limited to; ROSCAs, NGOs as well as low rated commercial banks (Muriuki, Maru & Namusonge, 2015). MFIs are divided into two that is; deposit-taking Microfinance (DTMs) and non-deposit-taking microfinance institutions. DTMs refers to the institutions whose act as the commercial banks through mobilizing cash and act as lenders to their clients as well as saving institutions (Ali, 2015).

There are twelve Deposit Taking Microfinance Institutions in Kenya some of which comprise, Remu DTM Limited, Small and Medium Enterprises Programme, Uwezo Microfinance Bank, Century Microfinance Bank, Sumac DTM Limited among others

(Mbugua, 2016). According to Kiiru (2013), the financial structure of microfinance institutions can influence their governance structure, which in turn, may influence the ability of a firm to make strategic decision to enhance their performance in financial terms. Waweru and Wanyoike (2016) also posted that the financing structure adopted by a microfinance banks might influence its profitability and sustainability.

1.2 Research Problem

Financial structure studies attempt to explain the financing patterns and their implications for business firms. However, there is no single theory that exists to explain the financial structure decisions and dynamics (Sohail, 2016). The relevance and irrelevance of financial structure theory in explaining variation of firm performance remains ambiguous. There is no agreement among scholars on an ideal financial structure capable of maximizing firm's earnings per share and return on equity (Nwaolisa & Chijindu, 2016). For instance, Modigliani and Miller theory asserts that when the market conditions are perfect, the value of firm's stocks is not determined by financial structure decisions**.** This pecking order theory asserts that large firms with huge turnover should leverage their firms such that the firm's equity portion is higher than its debts as they can finance most of their projected investments (Shahar et al., 2015). Trade-off theory asserts that for companies with many assets should finance their projects using debt to avoid the issue of illiquidity, which can have dire impact on day to day running of the firm (Mihalca & Antal, 2009).

In Kenya, the institution plays a major role in poverty eradication as it lends to low income earners (Ali, 2015).The microfinance industry in Kenya is growing at a very rapid rate. Although the African continent is characterized by many institutions in the infancy state,

Kenya is known for its level of completion where many firms are well established taking the competition in the country a notch higher (Omare, 2017).Despite the stiff competition experienced in the country, many clients are not satisfied with the services provided at these institutions. Most of the microfinance banks have posted adverse development even though the sector is well established (Ali, 2015). Additionally, microfinance banks in Kenya face huge challenge due to inadequacies of retained earnings and exorbitant interest rates charged by commercial banks, which affect their funding structures.

A number of studies have been conducted on the relationship between financial structure and performance of firms across developing and developed countries. The studies however cannot be generalized to all organizations due to the different modes of financing by firms across the world. A study by Nwaolisa and Chijindu (2016) assessed the impact of capital mix on profitability of manufacturing firms in Nigeria. The results of the study found an insignificant relationship between the variables under study.

In Kenya, a survey by Kiiru (2013) analyzed the funding structure and financial performance of Deposit taking microfinance institutions in Kenya and concluded that increase in customer deposits and assets would significantly improve financial performance while borrowing significantly decreases deposit taking microfinance institutions financial performance. Ng'ang'a (2013) study concluded that conventional banks displayed a clear relationship between all the financial structure variables and financial performance whereas for Islamic banks only the assets had a relationship with the financial performance. Prior studies on financial structure have reported mixed results and most of the studies focus more on capital structure. Additionally, the studies focus on different industries like listed firms and commercial firms whose financing structure differs

with those of microfinance institutions. This leads to the research question, what is the effect of financial structure on the financial performance of microfinance banks in Kenya?

1.3 Research Objective

To determine the effect of financial structure on the financial performance of microfinance banks in Kenya.

1.4 Value of the Study

The study findings will be of value to managers of microfinance banks and other banking institutions as it may help them to develop managerial policies on financial performance and their respective financial structures. The findings will also be of help to CRBs who may use its findings to improve financial structures of lending institutions in Kenya. Further, the findings of the study will be of value to policy makers like the Central bank of Kenya to develop effective policies on financial structures to improve financial performance of lending institutions in Kenya. Finally, the study will be useful to other researchers who are interested in the topic under study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter describes the theoretical literature review, explores the determinants of microfinance banks financial performance and previews the several international and local studies under empirical review. The chapter also illustrates the conceptual framework and a summary of literature review.

2.2 Theoretical Review

The Modigliani and Miller irrelevance theory, the pecking order theory and the trade off theory will be used as the underlying theories for the study.

2.2.1 Modigliani and Miller Irrelevance Theory

The MM (1958) asserts when the market conditions are perfect, the value of firms stocks is not determined by financial structure decisions (Mwakabumbe, 2013). The assumption made in the model is there exists perfect information concerning the performance of the firm. When there exists insider information in a company, the market is no longer perfect hence the model cannot be applicable (Ogebe, Ogebe & Alewi, 2013).

The MM theory is however against the notion of relating the valuation of a firm with financing structure. The model further reveals profitability as the only factor that can be used in determining the valuation of a firm as well as the risks associated with it and not the proportion of its financing (Ogebe, Ogebe & Alewi, 2013). As a result, the value of the firm does not depend on the capital structure of a firm. The theory holds under the perfect condition which doesn't include agency costs and the costs of borrowing is the same for

companies as well as investors and no effect of debt on a company's earnings (Mburu, 2016).

The MM financial structure irrelevance theory presupposes that the capital mix is unrelated to the value of the firm. The theory makes an assumption that both the investors and the individual companies have the same information regarding the market conditions. The model further revealed that capital mix has an insignificant effect on the firms' valuation (Sohail, 2016).In a nut shell, the implication of the model is, the firm profitability is the only factor which influences the valuation of a firm. Under this theory, microfinance can determine the appropriate mix of debt and equity in their financial structure to make enhance their financial performance.

2.2.2 Pecking Order Theory

This pecking order theory originated from Myers and Majluf (1984). This theory asserts there exists imperfect information concerning market conditions as the firm's top level management may have some vital information which is lacking to the general public (Nwaolisa & Chijindu, 2016). The model asserts that it's difficult for an investor to know with precision whether the securities issued by a particular firm are risk free and whether they overcome the returns expected from a particular portfolio. The model highly discourages firms against using risky methods to finance their operations and advices them to increase their proportion of retained profits to finance their projects (Mihalca & Antal, 2009). The pecking order theory as argues that financial structure is relevant in determining a firm's performance (Nwaolisa & Chijindu, 2016).

The theory denotes that firms should consider internal methods to finance their operation before seeking external ways which are risky and affects the value of the firm as well. The theory assumes that the management of a firm will always put the interest of the shareholders first and will not make any attempts to alter the prevailing stock prices (Shahar et al., 2015). The order of financial hierarchy is internal financing, debt and then equity. If a firm decides to venture in a new projects, the firm should use its internal fund rather than resorting to external financing (Nwaolisa & Chijindu, 2016).

The pecking order theory reveals that the main source of the financing should emanate from the internal sources like retained profits after tax and depreciation and highly discourage against financing firms projects through debt financing (Achy, 2009). The model further posits that debt financing is more preferred method of financing due to the ease with which it's accessed. According to Ahmadimousaabad et al (2013), the pecking order that the firm should use its internal fund rather than resorting to external financing. Thus, microfinance banks in Kenya can choose a specific financing order of retaining earnings, borrowing or equity in their financial structure which ensures they enhance their performance in financial terms

2.2.3 Trade off Theory

The tradeoff theory was put forward by Kraus and Litzenberger (1973) as they used tax variable to determine the optimal amount required to balance debt and equity. The theory asserts that for companies with many assets should finance their projects using debt to avoid the issue of illiquidity which can have dire impact on firms daily activities (Rayan, 2010).It further reveals that before financing projects using debt the firm needs to carryout

cost benefit analysis. Debts are associated with high rates which can hamper the going concern of the firm as well as the repercussions which they have to the firm when they are not repaid on time. The benefit they have is that of the taxation as they do not attract taxation (Al-Tally, 2014). All these factors have to be considered before deciding on using debt financing.

The term tradeoff comes from the opportunity cost decision that has to be made between financing through debts which has so many negative effects to the firm against the benefits associated with it which include the ease with which it can be accessed (Nwaolisa & Chijindu, 2016). The theory insists on the costs which the firm has to consider before embarking on using debt. Many scholars have asserted that it's impossible for a firm to achieve the phenomenon of optimal financing but it's theory asserts that it's very likely to be achieved (Al-Tally, 2014).

The theory asserts that a firm should borrow funds upon a point where additional debt will impact on the shareholders of the firm through share dilution (Abdu, 2016). The benefits associated with debt apply up to a point where they outweigh the costs (Chesang & Ayuma, 2016). The tradeoff theory supports financing through equity since its interest is exempted from taxation. The trade approach considers that debt financing provide more benefits to a firm as compared to equity financing due tax shield on interest payments. Microfinance banks in Kenya can apply the trade off theory by applying debt financing(borrowings) in their financial structure since they will benefit from the interest rates tax shield.

2.3 Determinants of Microfinance Banks Financial Performance

The capital adequacy, assets quality, liquidity, management efficiency and earnings level will be explored as the key determinants of microfinance banks financial performance.

2.3.1 Capital Adequacy

Capital creates liquidity for a financial institution since deposits are essentially other people's money, which can be recalled at any time (Ngumo, Kioko & Shikumo, 2017). In the event of loss of assets, higher capital level relative to its assets ensures the institutions would have sufficient funds of its own to cover the loss or there is sufficient level of capital required to absorb potential losses while providing financial sustainability (Abdu, 2016).

Capital adequacy is often considered a representative of a firm's operating leverage and levels of capital intensity vary among different industries (Al Shahrani & Zhengge, 2016). Capital adequacy indicates how much money is invested to produce one shilling of sales revenue. Some industries are associated with high levels of capital especially the tech companies' hence high demand for capital (Gamlath & Rathiranee, 2013). Intangible assets can be considered as a variable likely to influence financial performance.

2.3.2 Assets Quality

Assets play a very important role in firm characteristics. The asset structure of a firm determines the capability of the firm in securing loan to finance its activity. A firm that is large in size stands a better chance of accessing funds because it was likely to have an asset structure that was large, while a firm with a small asset structure size would find difficulty in sourcing external financing(Abdu, 2016). Asset structure impacts on the profitability of

firms only when a high proportion of the production comes from them either directly or indirectly (Al Shahrani & Zhengge, 2016).

Ineffective management of asset structure through proper management results credit risk, which leads in the deteriorations of earnings and reduces insolvency (Sohail, 2016). Credit risk affects the profitability and the general performance of any financial institution and is one of the major risks to commercial banks sustainability. Thus, managing credit risk is an integral part of microfinance bank operating techniques, with reducing the risks requiring a major operational effort (Al Shahrani & Zhengge, 2016).

2.3.3 Liquidity

This refers to the ability of the MFIs to avail funds to its client with ease. This is so critical that some studies carried out reveal that it has a strong and direct correlation to MFIs performance (Yesmine & Bhuiyah, 2015). Some firms have high proportion of illiquid assets making it difficult to meet the customers demand for cash and this causes panic among the clients which can lead to the MFI being declared bankrupt (Sohail, 2016). Therefore, the financial institution should have an adverse selection criterion, which ensures defaulters are kept at minimal level to boost the performance of a firm (Munyambonera, 2012).

Banks with inadequate liquidity might be less immune towards future uncertainty, timely delay of refinancing, disruption in meeting growth projections and increased portfolio at risk (Yesmine & Bhuiyah, 2015). To reduce liquidity risk, each bank branch needs to prepare a daily fund plan that guides the matching of cash inflows from loan repayment and saving deposits with cash outflows for the branch on a daily basis (Ngumo, Kioko &

Shikumo, 2017). Banks with higher liquidity ratio should be better protected from shocks to their deposit size (bank runs), indicating that they should be able to expand lending and be less vulnerable to economic shocks (Sohail, 2016).

2.3.4 Management Quality

Management quality is a proxy used to determine the effectiveness an institution. It's mandated to make rational decisions which ensure maximum profitability of a firm. Management quality is normally determined by total cost to total income ratio (Ahsan, 2016). Management quality is measured using the efficiency ratio (ERATIO) is the ratio of non-interest expenses to total income. It reflects the extent to which overhead expenses are impacting on profitability (Yesmine & Bhuiyah, 2015)

Management quality or efficiency is performance measure that shows how well a bank is streamlining its operations and takes in to account the cost of the input and/or the price of output. Efficiency in expense management should ensure a more effective use of bank loan able resources, which may enhance banks profitability. Inefficiency is one of the significant risk factors for sustainable microfinance as large numbers of institutions are still far from minimal scale or the efficiency required to cover costs (Ahsan, 2016).

2.3.5 Earnings Quality

This is a parameter used to measure organizational returns on the resources used in a firm. This is at times used to forecast the future and the going concern of a firm (Sohail, 2016). A financial institution depends heavily on its returns to perform its main functions which range from advancing loans, investing in securities market as well as investing in assets which yield profits to an institution**.** High earnings are major proxies used to reflect to the

longevity of a firm with those institutions with high profitability expected to overcome high competition in the market (Ahsan, 2016).

Earnings' quality relates to the reliability of the reported earnings in providing information about future earnings. It can be described as the overall reasonableness of reported earnings and it concerns itself with the assessment of the extent to which earnings are repeatable or controllable (Yesmine & Bhuiyah, 2015). Highly sustainable earnings are indicative of high quality financial reporting which points to good earnings quality (Al Shahrani & Zhengge, 2016).

2.4 Empirical Review

In their study, Siddik, Kabiraj and Joghee (2017) reviewed the impacts of capital structure in the banking sector in India. The data used in the study involved 25 commercial banks, which ran for a period of 10 years. The proxies used to measure performance were ROE and ROA. The study results revealed a positive correlation exists between capital structure and performance of the banking sector in the country.

A research by Vătavu (2015) assessed the correlation linking capital structure and profitability of Italian firms in the agricultural sector from 2003 to 2010.Using cross sectional regressions the findings of the study established that performance in Italian companies was higher when they avoided debt and operated based on equity. The study found that the firms are highly under financed and this has really hampered their financial performance, which is reflected on their annual financial reports.

In their study, Sethi and Kumar (2014) examined the evolving importance of banks and markets during different stages of economic development using annual data from 1988–

2009 for India and selected benchmark OECD countries. The study conducted quantile and robust regression to assess the impact of fluctuations on the firms' production. The results revealed that the banking institutions play a critical role in the performance of the GDP far more than the stock markets thus the financial structure matters for the growth process. The study concluded that the deviation from the optimal structure has harmful effects on the economy and the financial structure gap retards the growth process.

In Tanzania, Mwakabumbe (2013) assessed the effect of capital structure on performance of microfinance institutions in Shinyanga Municipal Council. The study used questionnaires to collect data from 37 members, 11 accountants, 7 managers, 10 chairpersons and 4 cooperative officers. The findings established that, SACCOs in Shinyanga municipal use debt in large proportion than equity to finance their activities and as a result, cost of capital is very high compared to the profit generated. The findings further established that the management of SACCOs (whether it is Debt/Equity financed or Equity only financed) determines the performance of SACCOs especially in decision-making.

A study by Staritz (2008) constructed a structure on the financing of South American countries and how it impacts on their profitability. The study employed data collected from all non-financial institutions in the countries. The results revealed the existence of a various forms of financing methods, which are very difficult to classify under one category.

Olofin and Afangideh (2008) researched on the impact of capital mix on the profitability of the Nigeria pharmaceutical companies from 2001 to 2012. The study used an ex-post facto research design and secondary data, which was obtained from the financial statement of the pharmaceutical companies quoted on the Nigerian Stock Exchange. The results

indicated an inverse correlation between the two variables on the firms quoted in securities exchange in the country.

Kyereboah-Coleman (2007) carried out an analysis of financial mix on return on assets of companies quoted at securities exchange. The study used panel data covering a ten-year period from 1995 to 2004. Data was analyzed using the SPSS version.21**.** The results revealed that firms which finance their projects using long-term loans as opposed to short term experience higher performance as opposed to those financing through short-term liability. It was further revealed that other factors like good corporate governance have high influence on the performance of corporate institutions.

In Kenya, Omare (2017) carried out an investigation on the impact of financial mix on return on assets of MFIs quoted at securities exchange. The study used a descriptive research design and targeted 8 MFIs listed running through 2010 and 2014. The study found that there is a positive that exists under the variable under study. The study also established that debt to asset ratio, total debt and customer deposits affect the performance of microfinance institutions in Kenya. The study also found portfolio at risk influences the performance of microfinance institutions negatively.

Another study in Kenya by Mbugua (2016) examined the strength as well as the correlation that exists between financing structure and return on assets of deposit taking MFIs across the country. Researcher used a descriptive design to describe the characteristics of the six-deposit taking micro finance institutions in Kenya as at 31st December 2015 and the study covered a three-year period from 2013-2015. Secondary data was collected from the CBK and Association of Microfinance institutions of Kenya (AMFI) and the annual reports from

the Deposit taking microfinance institutions. The study findings established that capital structure (total long term debt to equity ratio) positively affects the financial performance of the Deposit taking microfinance institutions.

Kodongo, Mokoaleli-Mokoteli and Maina (2015) investigated the relationship linking capital structure and profitability of companies quoted at NSE. The study covered a period of 10 years running from 2002 – 2012. The findings of the study established inverse correlation that exist between the variable under study as capital mix negatively, affects the profitability of listed firms in Kenya.

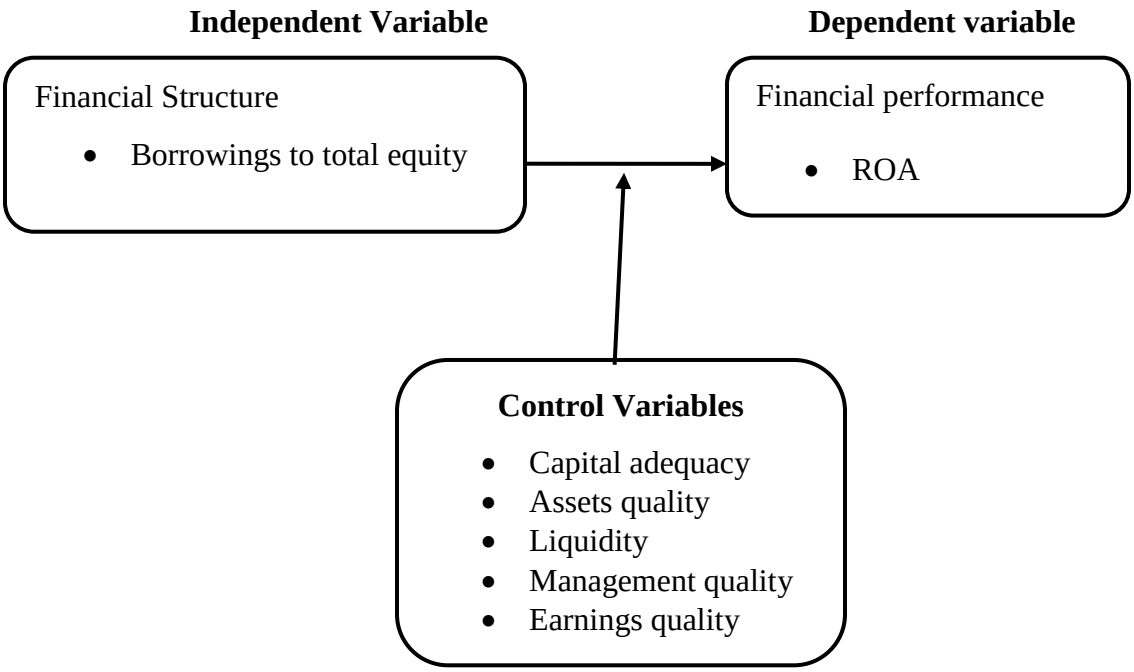
Mburu (2015) carried out a study on capital mix and profitability of firms listed at NSE. It considered firms that had been listed on the NSE for the past five years and utilized secondary data obtained from the period 2010-2015. The results established that liquidity and financial leverage depicted negative relationship with profitability. The study also found that size of the firm had a positive relationship with performance of firms listed at NSE.

2.5 Conceptual Framework

Theoretically, the relationship between financial structure is supported by the tradeoff theory which supports that firms should use debt financing due to the tax shield on interest payments. The pecking order also recommends that firms can use debt financing firsts and equity financing as the last option since the providers of equity who need a share of the firm's profits, which may decrease the retained earnings. The CAMEL variables, which include capital adequacy, assets quality, management quality, earning quality and liquidity

have been found to influence financial institutions performance as they incorporation as control variables. The conceptual framework is formulated as follows

Figure 2.1 Conceptual Model



Source: Researcher

2.6 Summary of Literature Review

Modigliani and Miller theory asserts when the market conditions are perfect, the value of firm's stocks are not determined by financial structure decisions**.** The pecking order theory asserts that large firms with huge turnover should leverage their firms such that the firm's equity portion is higher than its debts as they can finance most of their projected investments**.** The tradeoff theory asserts that for companies with many assets should finance their projects using debt to avoid the issue of illiquidity, which can have dire impact

on day to day running of the firm. All the three theories have one thing in common which is, the capital structure of a firm affects its profitability.

Under empirical studies, the chapter explored several studies among them Siddik, Kabiraj and Joghee (2017) who reviewed the impacts of capital structure in the banking sector in India. Vătavu (2015) also assessed correlation linking capital structure and profitability of Italian firms in the agricultural sector from 2003 to 2010. In Kenya, Omare (2017) carried out an investigation on the impact of financial mix on return on assets of MFIs quoted at securities exchange. Mbugua (2016) examined strength as well as the correlation that exists between financing structure and return on assets of deposit taking MFIs across the country. Maina and Ishmail (2014) examined the relationship linking capital structure and profitability of companies quoted at NSE. However, very few studies have explored the relationship between financial structure and microfinance banks financial performance. Most of the studies focus on listed firms. This creates a contextual gap, which requires to be studied.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research design, the population of the study, data collection and data analysis methods.

3.2 Research Design

It entails the specification of procedures, which link hypothetical predictions to the general literature in the efforts to address the study objective. Descriptive method which shows how the correlation between the variables was the method employed by the study. A descriptive design is a method, which shows the correlation between two or more study variables.

3.3 Population of the Study

The population of this study consisted of the 13 microfinance banks in Kenya as indicated in the Central Bank of Kenya website. The study carried out a census of the 12 microfinance banks as at 31st December 2016 (see appendix I)

3.4 Data Collection

Secondary data was obtained from the published financial reports of the 13 microfinance banks, which is normally available on the individual microfinance website. Financial structure data which included data on MFB borrowings, capital adequacy ratio, liquidity ratio and total assets and was obtained from the microfinance banks statement of financial position. Data on loan income, costs and net income was obtained from the statement of

income which data on nonperforming loans was obtained from the disclosure section. The data covered a period of 5 years from the year 2012 to 2016.

3.5 Diagnostic Tests

The study undertook several diagnostics test among them normality test, which was tested using the skewness and kurtosis. Multicollinearity was tested using the variance inflation factors (VIF) and tolerance levels while autocorrelation was tested using the Durbin Watson test.

3.6 Data Analysis

The collected secondary data was summarized using descriptive statistics and then analyzed using Karl Pearson Correlation and multiple regression analysis using the Statistical Software for Social Sciences. Correlation analysis quantifies the extent to which two quantitative variables are associated or related and the relationship between any two variables are can vary from strong to weak or none. Multiple regression analysis on the other hand examined how multiple independent variables are related to a dependent variable.

3.6.1 Analytical Model

The multiple regression model was employed in the study to make predictions on the relationship the study variables. The model took the following form

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \mu$$

Where,

Y = Financial performance measured using the Return on Assets (ROA)

$$Return\ on\ assets = \frac{Net\ income}{Total\ Assets}$$

X_1= Financial structure measured using the proportion of borrowings by MFBs to total Assets

$$Financial\ structure = \frac{Total\ borrowings}{Total\ assets}$$

X_2 =Capital Adequacy measured using the capital adequacy ratio

$$Capital\ Adequacy\ ratio = \frac{Total\ capital}{Total\ risk\ weighted\ assets}$$

X_3 = Asset quality determined using the nonperforming loans ratio

$$Assets\ quality = \frac{Net\ Nonperforming\ loan}{Total\ loans\ and\ advances}$$

X_4 =Liquidity as a measure of liquidity ratio

$$Liquidity\ ratio = \frac{Total\ Loans}{Total\ assets}$$

X_5 =Management quality measured using the cost to income ratio

$$Management\ quality = \frac{Total\ operating\ costs}{Net\ income}$$

X_6 = Earning capacity measured using the loan income to total loans

$$Earnings\ capacity = \frac{Loan\ Income}{Total\ loans}$$

$\beta_1 - \beta_6$= Coefficients of the regression equation

β_0&μ = Constant and the error term

3.6.2 Test of Significance

The significance of the regression equation was tested using the F-test statistics. The significance of the independent variables was carried out using the t-test statistics at 95% confidence level.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1 Introduction

This chapter presents the results of the data analysis. The chapter contains the response rate analysis, the descriptive statistics, correlation and regression analysis and then an interpretation of the research findings.

4.2 Response Rate

The population for this study was made up of the 13 microfinance banks in Kenya however; complete data was obtained from 9 microfinance banks. This made up a response rate of 69.23%, which was considered adequate since it was more than 50% of the target population.

4.3 Descriptive Statistics

This summarizes the data using the mean, standard deviation, minimum and maximum values, skewness and kurtosis. Table 4.1 indicates the results

Table 4.1 Summary Statistics

	ROA	Financial structure	Capital adequacy	Assets quality	Liquidity	Management quality	Earnings quality
N	45	45	45	45	45	45	45
Mean	-.01467	.17924	.49631	.13007	.38471	12.28193	.73198
Std. Dev.	.062765	.361906	.496467	.154373	.236838	19.806314	1.218670
Skewness	-2.610	2.655	3.605	2.696	2.233	1.513	2.517
Kurtosis	4.028	3.443	4.087	4.951	4.329	3.617	3.282
Minimum	-.269	.000	.100	-.017	.090	-13.500	.077
Maximum	.053	2.425	3.100	.804	1.250	88.056	8.653

Source: Research Findings

The summary statistics on table 4.1 indicates that the average return for the microfinance banks was -0.01467, which indicates that the average performance of the microfinance banks in Kenya over the study period was negative. The tables indicate that average debt to assets ratio of the microfinance was 0.179, which indicates that usage of borrowing microfinance banks was at 17.9%. The results also show that the mean value of the capital adequacy ratio and liquidity ratios were 0.49631 and 0.38471 respectively, which indicates that, the capital strength and liquidity levels among microfinance banks was satisfactory. The table also indicates that the mean value of assets quality, management quality and earnings quality were 0.130, 12.28, and 0.731 respectively. The skewness and kurtosis values ranged between 1 and 4 which indicated that the assumption of normality was upheld and data was normally distributed.

4.4 Correlation Analysis

Correlation analysis was employed to determine the strength of the relationship among the variables. Table 4.2 shows the results

Table 4.2 Correlation Matrix

	ROA	Financial structure	Capital adequacy	Assets quality	Liquidity	Management quality	Earnings quality
ROA	1						
Financial structure	.217	1					
Capital adequacy	.086	-.227	1				
Assets quality	-.365*	-.063	-.038	1			
Liquidity	.131	-.088	.399**	.133	1		
Management quality	.339*	.285	-.129	-.075	.194	1	
Earnings quality	.190	.951**	-.100	-.121	-.080	.212	1

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

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

Source: Research Findings

Table 4.2 shows the correlation analysis results, which indicates that there is a weak positive correlation between, return on assets, financial structure, liquidity management quality and earnings quality. The table also indicates that there is a week negative correlation between assets quality and return on assets of microfinance banks in Kenya.

4.5 Regression Analysis

Regression analysis entails the model summary, the analysis of variance (ANOVA) and a summary of the regression coefficients.

4.5.1 Model Summary

The model summary comprises of the R (correlation coefficient), R square (coefficient of determination), the adjusted R square. Standard error of estimate and the Durbin Watson statistics. Table 4.3 indicates the findings

Table 4.3 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.723[a]	.523	.448	.441787	1.521

a. Predictors: (Constant), Earnings quality, Liquidity, Assets quality, Management quality, Capital adequacy, Financial structure

b. Dependent Variable: ROA

Source: Research Findings

The model summary results on table 4.3 indicate that the R square value is 0.523, which means that 52.3% of the variation in the dependent variable is explained by the independent

variables. The other 47.7% is explained by other factors, which the research did not consider, and the error term. The overall correlation coefficient value is 0.723, which indicates that there is a strong correlation between the research variables. The table also indicates that the Durbin Watson statistic is 1.521, which is within the range of 1 to 4 thus an indication that there is no problem of autocorrelation in the data.

4.5.2 Analysis of Variance

Table 4.4 shows the analysis of variance results.

Table 4.4 Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.132	6	1.355	6.944	.000[b]
	Residual	7.417	38	.195		
	Total	15.548	44			

a. Dependent Variable: ROA

b. Predictors: (Constant), Earnings quality, Liquidity, Assets quality, Management quality, Capital adequacy, Financial structure

Source: Research findings

Table 4.4 indicates that the regression equation is significant as indicated by the F value of 6.994 and the P value of 0.000<0.05. This indicates that the model is fit and a good predictor of the relationship among the research variables.

4.5.3 Regression Coefficients

The regression coefficients results are shown by table 4.5 as follows

Table 4.5 Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.558	.150		-10.376	.000		
	Financial structure	-.802	.691	-.489	-1.161	.253	.710	1.4045
	Capital adequacy	-.026	.165	-.022	-.157	.876	.660	1.516
	Assets quality	.922	.450	.240	2.048	.047	.920	1.087
	Liquidity	-.781	.326	-.311	-2.396	.022	.743	1.346
	Management quality	-.015	.004	-.500	-3.751	.000	.807	1.239
	Earnings quality	.354	.199	.725	1.778	.083	.751	1.3315

a. Dependent Variable: ROA

Source: Research Findings

From the results on table 4.5, the following equation was generated.

$$Y = -1.558 - 0.802X_1 - .026X_2 + 0.922X_3 - 0.781X_4 - 0.015X_5 + 0.354X_6 + \mu$$

The generated equation shows that there is an insignificant negative relationship between financial structure, capital adequacy and financial performance of microfinance banks. The results also indicate that there is a significant positive relationship between assets quality and the performance of microfinance banks in financial terms. Additionally, the results indicate that liquidity and management quality has a significant and negative relationship with financial performance of microfinance banks. Finally, the results show that there is an insignificant positive relationship between earnings quality and microfinance banks financial performance. The variance inflation factors (VIF) range between the values of 1 and 10 hence an indication that the variables were not closely related hence there was no multicollinearity.

4.6 Interpretation of the Findings

The research found an insignificant negative relationship between financial structure, capital adequacy and financial performance of microfinance banks in Kenya. This means that there is no significant relationship between microfinance financial performance and their financial structure and also capital adequacy. This finding supports the MMs financial structure theory, which indicates that the value of the firm does not depend on the financial structure of a firm. However, Olofin and Afangideh (2008) established that there is an inverse significant relationship between capital structure and performance. Omare (2017) also established that debt to asset ratio, total debt and customer deposits affect the performance of microfinance institutions in Kenya. Mbugua (2016) findings established that capital structure (total long term debt to equity ratio) positively affects the financial performance of the Deposit taking microfinance institutions.

The study also found a significant relationship between liquidity, assets quality and management quality and financial performance of microfinance banks. This indicates the microfinance banks financial performance is significantly influenced by liquidity, assets quality and management quality. This finding is similar to that of Ngumo, Kioko and Shikumo (2017) found a statistically significant relationship between operational efficiency, capital adequacy and financial performance of microfinance banks in Kenya. However, Mburu (2015) established that liquidity and financial leverage depicted negative relationship with profitability. Finally, the study revealed an insignificant positive relationship between earnings quality and microfinance banks financial performance hence an indication that earnings quality does not influence the performance of microfinance banks in financial terms.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter contains a summary of the findings, the conclusions and recommendations based on the research findings. The chapter also highlights the limitations of the research and suggested areas, which require further review.

5.2 Summary

This study aimed at establishing the effect of financial structure on the financial performance of microfinance banks in Kenya. The study explored the Modigliani and Miller irrelevance theory, the pecking order theory and the trade off theory will be used as the underlying theories for the study. The research carried out a census of the 13 microfinance banks in Kenya as 31st December 2016 and managed to obtain completed data from 9 microfinance out of the targeted 13. This generated a response rate of 69.23%, which was regarded to be sufficient. Financial structure was the independent variable while financial performance was the dependent variable. The CAMEL variables, which included capital adequacy, assets quality, management quality, earning quality and liquidity were incorporated as control variables.

The summary statistics findings established the average return for the microfinance banks was -0.0146 whereas the average debt to assets ratio of the microfinance was 0.179, while the mean value of the capital adequacy ratio and liquidity ratios were 0.49631 and 0.38471 respectively. The results also showed that the mean value of assets quality, management

quality and earnings quality were 0.130, 12.28, and 0.731 respectively. The skewness and kurtosis values ranged between 1 and 4 which indicated that the assumption of normality was upheld and data was normally distributed. The correlation results found a weak positive correlation between, return on assets, financial structure, liquidity management quality and earnings quality but a week negative correlation between assets quality and return on assets of microfinance banks in Kenya.

The model summary results indicated that 52.3% of the variation in the dependent variable is explained by the independent variables and overall correlation coefficient value was 0.723, which indicates that there is a strong correlation between the research variables. The regression equation was found significant as indicated by the F value of 6.994 and the P value of 0.000<0.05. A summary of the regression coefficients found an insignificant negative relationship between financial structure, capital adequacy and financial performance of microfinance banks. The research also found a significant positive relationship between assets quality and the performance of microfinance banks in financial terms. The findings further revealed that liquidity and management quality had a significant and negative relationship with financial performance but an insignificant positive relationship between earnings quality and microfinance banks financial performance.

5.3 Conclusions

The findings of the research revealed that the financial structure had no significant relationship with microfinance banks financial performance. This research therefore concludes that the financial structure adopted by microfinance banks in Kenya does not influence their performance in financial terms. The study also found an insignificant

negative relationship between capital adequacy and microfinance banks financial performance. This research therefore concludes that there is no significant relationship between microfinance financial performance and their capital adequacy. Further, an insignificant relationship between earnings quality and microfinance banks financial performance was found thus the conclusion that earnings quality does not influence the performance of microfinance banks in financial terms.

The findings further found that liquidity significantly affects microfinance banks financial performance thus the conclusion that microfinance banks liquidity levels negatively and significantly affects their performance in financial terms. The research also obtained that management quality has a significant negative relationship with microfinance banks financial performance. As per this finding, the study concludes that microfinance banks financial performance is influenced negatively and significantly by management quality. Finally, the study revealed a significant positive relationship between assets quality microfinance banks financial performance hence the conclusion that assets quality significantly and positively influence the performance of microfinance banks in Kenya.

5.4 Recommendations

The research concluded that the financial structure adopted by microfinance banks in Kenya does not influence their performance in financial terms. The study however recommends that microfinance banks should have an optimal financing mix to ensure that their going concern is assured at all times.

This research concluded that there is no significant relationship between microfinance financial performance and their capital adequacy. Nevertheless, the research recommends

that microfinance banks should maintain higher levels of capital since higher capital level relative to its assets ensures the institutions would have sufficient funds of its own to cover the loss.

The study reached the conclusion that earnings quality does not influence the performance of microfinance banks in financial terms. Nonetheless, the study recommends that microfinance banks should ensure they adequately manage their earnings since high earnings are major proxies used to reflect to the longevity of a firm with those institutions with high profitability expected to overcome high competition in the market

In addition, the study concluded that liquidity; assets quality and management efficiency significantly affects microfinance banks financial performance. The study recommends that microfinance banks should have sufficient liquidity, effective management of its loan asset and ensure their operations are managed efficiently to enhance their financial performance.

5.5 Limitations of the Study

The findings of the study are limited to microfinance banks, which are deposit taking, are regulated by the central bank of Kenya, and may not be generalized credit only microfinance's in Kenya. This is due to the fact that credit only microfinance do not take deposits and their financing model is quite different from microfinance banks which take deposits and meet certain prudential requirements issued by the central bank.

The study also used secondary thus concentrated on quantitative aspects affecting the financial performance of microfinance banks in Kenya. The study also covered the period between January 2012 and December 2016 and during that period, some of the

microfinance banks were not in operation, which lead to their exclusion from the targeted population.

5.6 Suggestion for Further Research

The model summary established that financial structure, capital adequacy, assets quality, liquidity, management and earnings quality explain only 52.3% of the variation in financial performance of microfinance banks. The study therefore recommends an additional research on the non-financial factors and other non-qualitative factors that affect the financial performance of microfinance banks in Kenya.

This study focused on microfinance banks only; despite the fact that there are other types of microfinance institutions among them credit only microfinance's, and nongovernmental organization microfinance which also have various sources of financing. The study therefore recommends an analysis of the effect of financial structure on the performance of other forms of microfinance institutions in Kenya.

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APPENDICES

Appendix I: List of Microfinance Banks in Kenya

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

Source: Central Bank of Kenya website (2017)

Appendix II: Data Collection Sheet

MFB Name …….

Year	2016	2015	2014	2013	2012
Net income					
Total assets					
Borrowings					
Nonperforming loans					
Total loans					
Capital adequacy ratio					
Liquidity ratio					
Total operating costs					
Interest income					