THE EFFECTS OF LIQUIDITY ON FINANCIAL PERFORMANCE OF DEPOSIT TAKING MICROFINANCE INSTITUTIONS IN KENYA

BY

MWANGI MARY NJERI

D63/67878/2013

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN FINANCE, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

OCTOBER 2014

DECLARATION

I declare that this project is my original work and has not been submitted for examination in any other university.

Signed …………………………….. Date………………………

Mwangi Mary Njeri

D63/67878/2013

This project has been submitted for examination with my approval as the university supervisor

Signed …………………………….. Date………………………

Mr. Cyrus Iraya

Department of Finance and Accounting

School of Business, University of Nairobi

ACKNOWLEDGEMENT

I take this opportunity to thank the many people who made this project possible. My sincere gratitude to the Almighty God for his graces throughout the project. My unending gratitude to my supervisor Mr. Cyrus Iraya for his invaluable guidance and support, research insight and expertise.

To my many student colleagues for the motivation and providing a stimulating and fun environment in which to learn and share ideas.

My siblings for the motivation to always aim further and providing a loving environment to me and all my friends

Lastly, and most importantly, I wish to thank my Mum and Dad. To them I dedicate this project. God bless you all.

DEDICATION

To my precious family members Mum, Dad, Soni, Maina and Charity for always reminding me that the fruits are greater and sweeter ahead and a renewed zeal to complete my studies.

ABSTRACT

Liquidity is a concept that many investors fail to take into account or understand and as a result their financial plans fail to come through in such critical times as retirement or college funding for a dependent. However, the fact is liquidity or a lack thereof causes more financial problems than almost any other aspect of finance .With the introduction of the CBK Micro finance act (2008) which saw most Microfinance institutions acquire licenses to start taking deposits from members hence more growth and commercialization of MFIs and the need to become fully independent institutions. The management and formulation of policies in liquidity becomes relevant. In this study, an attempt has been made to fill in the existing knowledge gap by determining effects of liquidity on the financial performance of Deposit Taking Micro Finance institutions in Kenya. This study analyzed the liquidity and financial performance of Deposit taking microfinance institutions in Kenya for the period 2009 to 2013. For the purpose of this study, the data was extracted from the published institution's annual audit reports, Association of Micro Finance Institutions Reports (AMFI) and CBK's banks supervision annual reports for the five years under examination. This study used inferential statistics to explain the main features of a collection of data in quantitative terms while correlation and linear regression analysis are used for analyzing the data. Financial performance was measured using return on assets while liquidity of DTMFIs was measured by cash and cash equivalents divided by total average assets. The results revealed that there is a positive relationship between liquidity and financial performance as the coefficient of determination was found to be .910 explaining that the liquidity explains 91% of the variance in the financial performance. The correlation revealed a significant association of .941 at 5% level of significant. The study concluded that efforts to stimulate the MFIs' liquidity would see the micro financial sector realize increased financial performance which would result to increased efficiency in the sector's operations. Recommendations made include; strategies to facilitate increased liquidity of MFIs to be adopted, emphasize on asset growth as a stimulator of financial performance and competitiveness as well as improvements in operational efficiency through application of modern technology and innovative operational strategies.

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LIST OF ABBREVIATIONS

ANOVA   Analysis of Variance

AMFI   Association of microfinance Institutions in Kenya

CBK   Central of Bank of Kenya

DTMFIs   Deposit Taking Microfinance Institutions

DTMFBs   Deposit Taking Microfinance Banks

MFIs   Micro Finance Institutions

PBT   Profit before tax

ROA   Return on Assets

ROE   Return on Equity

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Liquidity is a concept that many investors fail to take into account or understand and as a result their financial plans fail to come through in such critical times as retirement or college funding for a dependent. However, the fact is liquidity or a lack thereof causes more financial problems than almost any other aspect of finance almost any other aspect of finance. People either lose money, which they needed in the short term because of improper investments or they find they have insufficient funds upon retirement because of years of investing in short term investments for a long-term goal (Central Bank of Barbados, 2008).

Businesses use a variety of financial performance evaluation measures to analyze the results of their actions. Investors perform a variety of calculations to review the actions of a particular company's financial performance. Both company management and investors spend time focusing on the company's liquidity to ascertain its level of financial performance. Certain financial ratios provide important information regarding a company's liquidity for example bill payment. The primary reason liquidity ratios require attention involve the company's ability to pay its bills. Liquidity ratios compare the current assets of a business to the current liabilities (Akhtar, 2007).

In Kenya, the current assets represent the resources available for paying bills to some deposit taking microfinance institutions. Current liabilities represent the bills waiting to

be paid. Investors want to see that companies pay their bills without struggling. Creditors want to see that the company holds enough financial resources to meet its current obligations as well as future obligations that may arise from business with the creditor. Future investments. Most deposit taking microfinance institutions consider financial investments, such as purchasing new equipment or new product launches, as they plan their future strategy. Future investments require financial resources to pay for those investments (Ali, 2004).

1.1.1 Liquidity

Liquidity is the term used to describe how easy it is to convert assets to cash. The most liquid asset, and what everything else is compared to, is cash. This is because it can always be used easily and immediately. Liquid assets are important to have in times of crisis or emergency because they are so easily converted into cash. Without liquidity, money can become tied up in systems that are difficult to cash out of and even more difficult to assess for actual cash value. During times of emergency, large financial institutions shut down, making it difficult for people to access the cash they need to buy essentials like food, gasoline and other emergency supplies (Chaplin, Emblow & Michael, 2000).

Liquidity is also used to determine the financial health of a business or personal investment portfolio. Three liquidity ratios are used for this purpose, including the current ratio, the quick ratio and the capital ratio. Liquidity not only helps ensure that a person or business always has a reliable supply of cash close at hand, but it is a powerful tool when

it comes to determining the financial health of future investments as well (Clementi, 2001).

When analyzing the financial health of a firm there is four different groups of ratios that the analyst will consider. The groups are liquidity ratios, financial leverage ratios, efficiency ratios, and profitability ratios. The most used liquidity ratios are: ratios concerning receivables, inventory, working capital, current ratio, and acid test ratio. Other ratios related to the liquidity of a firm deal with the liquidity of its receivables and inventory. The ratios indicating the liquidity of a firm's receivables are days' sales in receivables, accounts receivable turnover, and account receivable turnover in days (Chaplin et al., 2000).

1.1.2 Financial Performance

Financial performance of a firm normally originates from the financial position and structure of the firm. This information is derived from the financial statement which is the yard stick to evaluate and monitor performance. Business executives use financial statements to draft a comprehensive financial plan that will maximize share holders wealth and minimize possible risks that may pre exist. Financial Statements evaluate the financial position and performance of a firm. These statements are prepared and produced for external stakeholders for example: shareholders, government agencies and lenders (Rahaman, 2010).

Financial performance measures how well a firm is generate value for the owners. It can be measured through various financial measures such as profit after tax, return on assets

(ROA), return on equity (ROE), earnings per share and any market value ration that is generally accepted (Pandey, 1985).The financial performance of financial institutions can been measured using a combination of financial ratios analysis, benchmarking, and measuring performance against budget or a mix of these methodologies. The financial statements of financial institutions commonly contain a variety of financial ratios designed to give an indication of the corporation's performance (Oye, 2006).

1.1.3 Liquidity Risk and Financial Performance

Liquidity problems may affect a bank's earnings and capital and in extreme circumstances may result in the collapse of an otherwise solvent bank. Most microfinance institutions may have to borrow from the market even at an exceptionally high rate during a liquidity crisis. This ultimately causes a decline in the banks' earnings. Moreover, a bank's further borrowing to meet depositors' demand may place the bank's capital at stake. Thus, debt to equity ratio will rise, affecting the bank's effort to maintain an optimal capital structure (Muranaga & Ohsawa, 2002).

Liquidity risk may cause a fire sale of the assets of the bank which may spill over into an impairment of bank's capital base. If the financial institutions face a situation in which it has to sell a large number of its illiquid assets to meet the funding requirements perhaps to reduce the leverage in conformity with the requirement of capital adequacy the fire sale risk may arise. This scenario may dictate to offer price discount to attract buyers. This situation will have a knock on effect on the balance sheets of other institutions as they will also be obliged to mark their assets to the fire sale price (Brunnermeier & Yogo, 2009).

Diamond and Rajan (2001) state that a bank may refuse the lending, even to a potential entrepreneur, if it feels that the liquidity need of the bank is quite high. This is an opportunity loss for the bank. If a bank is unable to meet the requirements of demand deposits, there can be a bank run. No bank invests all of its resources in the long-term projects. Many of the funding resources are invested in the short term liquid assets. This provides a buffer against the liquidity shocks (Holmstrom and Tirole, 2000). Diamond and Rajan (2005) emphasize that a mismatch in depositors demand and production of resources forces a bank to generate the resources at a higher cost.

Liquidity has a greater impact on the tradable securities and portfolios. Broadly, it refers to the loss emerging from liquidating a given position. It is essential for a bank to be aware of its liquidity position from a marketing perspective. It helps to expand its customer loans in case of attractive market opportunities (Falconer, 2001). A bank with liquidity problems loses a number of business opportunities. This places a bank at a competitive disadvantage, as a contrast to those of the competitors (Chaplin et al., 2000).

1.1.4 Deposit Taking Microfinance Institutions in Kenya

The establishment of the microfinance Act on 2nd May 2008, a number of existing micro-finance institutions applied for licenses to allow them to take deposits from members and the general public. The main objective of the Microfinance Act is to regulate the establishment, business and operations of microfinance institutions in Kenya through licensing and supervision. In a report by CBK (2013), there are currently nine Deposit-taking MFIs operating in Kenya. In Kenya, there has been a tremendous increase in nonperforming loans in deposit taking microfinance institutions over the last few

years; this has led to an increase in liquidity, this negatively impacts on the investment decisions of the firm leading to poor financial performance of the firm (AMFI, 2013).

When a microfinance institution holds enough liquid resources to fund its strategic plans, it requires no additional financing to pursue those investments. Liquidity ratios provide management with information regarding its financial resources and whether it needs to obtain additional financing. Liquidity has become a serious concern and challenge for the modern era of most DTMFI's in Kenya. High competition for consumer deposits, a wide array of funding products in wholesale and capital markets with technological advancements have changed the funding and risk management structure. A firm having good asset quality, strong earnings and sufficient capital may fail if it is not maintaining adequate liquidity.

To achieve financial performance, DTMFI's should be well equipped to deal with the changing monetary policy that shapes the overall liquidity trends and the financial institutions' own transactional requirements and repayment of short term borrowing. There are a number of other risks faced by financial institutions that negatively impact on financial performance for example; credit risk, operational risk and interest rate risk, which may culminate in the form of liquidity risk. Similarly, liquidity ratios are sometimes requested by deposit taking microfinance institutions when they are evaluating a loan application. If you take out a loan, the lender may require you to maintain a certain minimum liquidity ratio, as part of the loan agreement.

1.2 Research Problem

Liquidity has significant effect on the financial performance of firms when there exists a mismatch between assets liabilities. This may expose a financial institution to financial losses. This risk stems from the description of banking operations. It might affect the overall capital and earnings of the financial institution adversely. The financial institutions may face serious consequences if it is not properly managed. The banks and the regulatory authorities are becoming increasingly vigilant to the liquidity positions held by financial institutions (Muranaga and Ohsawa, 2002).The deposits are the lifeline of the banking business. Most of the banking operations are run through deposits. If the depositors start withdrawing their deposits from the bank, it will create a liquidity trap for the bank forcing the bank to borrow funds from the central bank or the inter-bank market at higher costs (Plochan, 2007).

Most microfinance institutions in Kenya try to keep up sufficient funds to meet the unexpected demands from depositors but maintaining the cash is extremely expensive. This is achieved through maintaining a large cash reserve that may not only lose a number of opportunities in the market but also have to bear the high costs associated with cash. The major cause of liquidity risk is the maturity mismatch between assets and liabilities. The majority of the assets are funded by deposits most of which are current with a possibility to be called at any time. This situation is known as the mismatch between assets and liabilities. This mismatch can be measured with the help of the maturity gap between assets and liabilities. This is also called liquidity gap. Higher

liquidity gap might create liquidity risk to most microfinance institutions in Kenya (CBK, 2013).

Studies have been conducted globally and locally in relation to liquidity risk and financial performance of firms: The Macaulay (1988) investigated the adoption of liquidity risk management best practices in the United States and reported that over 90% of the banks in that country have adopted the best practices. The study found that banks need to manage credit risk in the entire portfolio as well as the risk in individual credits transactions. In their study Tianwei & Paul (2006) found that liquidity risk management significantly led to financial performance of agricultural firms. Oludhe (2011) established that capital adequacy, asset quality, management efficiency and liquidity had weak relationship with financial performance (ROE) whereas earnings had a strong relationship with financial performance. Ravi & Sharma (2012) revealed that all these parameters have an inverse impact on banks' financial performance; however, the default rate is the most predictor of bank financial performance.

Maaka (2013) found that profitability of the commercial bank in Kenya is negatively affected due to increase in the liquidity gap and leverage. With a significant liquidity gap, the banks may have to borrow from the repo market even at a higher rate thereby pushing up the cost of banks. The level of customer deposit was also found to positively affect the bank's profitability and it will therefore be encouraged for banks to open more branches in the country. Kimari (2013) concluded that there was a positive relationship between credit risk management and financial performance of deposit Taking Microfinance Institutions and SACCOS in Kenya. In his study, Olongo (2013) revealed that there was a

strong and significant influence of financial performance of commercial banks in Kenya for the period considered.

From the above studies, little has been done on liquidity and financial performance. This study therefore finds the need to investigate on the effects of liquidity and financial performance of deposit taking microfinance institutions in Kenya through answering the following research question: what is the effect of liquidity on the financial performance of deposit taking microfinance institutions in Kenya?

1.3 Objective of the Study

The objective of this study is to determine the effect of liquidity and financial performance of deposit taking microfinance institutions in Kenya.

1.4 Value of the Study

The findings of this study will be resourceful to commercial banks since they will understand the effect of liquidity and its effect on financial performance of the firm. From these findings commercial banks can determine the proper match between assets and liabilities to maintain proper levels of liquidity.

This study could be used as an initiation for those who are interested to conduct a detailed and comprehensive study in relation to liquidity risk and financial performance of firms or other related topics.

This study hopes to shed more light to the governing bodies and regulators of microfinance institutions and risk management departments of financial institutions to be aware of about liquidity and financial performance of the firm.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section summarizes the literature that is available regarding credit risk and financial performance. It covers the theoretical framework, the empirical studies, determinants of financial performance and the summary of the literature review.

2.2 Theoretical Framework

This study is informed by three theories namely Liquidity Risk Theory, Liability Management Theory, Commercial loan theory of liquidity. These theories provide theoretical evidence on the relationship between credit risk and financial performance of firms.

2.2.1 Liquidity Risk Theory

Halling & Hayden (2006) explains that a bank should define and identify the liquidity risk to which it is exposed for all legal entities, branches and subsidiaries in the jurisdictions in which it is active. A bank's liquidity needs and the sources of liquidity available to meet those needs depend significantly on the bank's business and product mix, balance sheet structure and cash flow profiles of its on- and off-balance sheet obligations. As a result, a bank should evaluate each major on and off balance sheet position, including the effect of embedded options and other contingent exposures that may affect the bank's sources and uses of funds, and determine how it can affect liquidity

risk. A bank should consider the interactions between exposures to funding liquidity risk and market liquidity risk (Jeanne & Svensson, 2007).

A bank that obtains liquidity from capital markets should recognize that these sources may be more volatile than traditional retail deposits. For example, under conditions of stress, investors in money market instruments may demand higher compensation for risk, require roll over at considerably shorter maturities, or refuse to extend financing at all. Moreover, reliance on the full functioning and liquidity of financial markets may not be realistic as asset and funding markets may dry up in times of stress (Perera et al., 2006).

Market illiquidity may make it difficult for a bank to raise funds by selling assets and thus increase the need for funding liquidity. A bank should ensure that assets are prudently valued according to relevant financial reporting and supervisory standards. A bank should fully factor into its risk management the consideration that valuations may deteriorate under market stress, and take this into account in assessing the feasibility and impact of asset sales during stress on its liquidity position (Jenkinson, 2008).

For example, a bank's sale of assets under duress to raise liquidity could put pressure on earnings and capital and further reduce counterparties' confidence in the bank, further constraining its access to funding markets. In addition, a large asset sale by one bank may prompt further price declines for that type of asset due to the market's difficulty in absorbing the sale. Finally, the interaction of funding liquidity risk and market liquidity risk may lead to illiquidity spirals, with banks stockpiling liquidity and not on-lending in term interbank markets because of pessimistic assumptions about future market

conditions and their own ability to raise additional funds quickly in the event of an adverse shock (Guglielmo, 2008).

A bank should recognize and consider the strong interactions between liquidity risk and the other types of risk to which it is exposed. Various types of financial and operating risks, including interest rate, credit, operational, legal and reputational risks, may influence a bank's liquidity profile. Liquidity risk often can arise from perceived or actual weaknesses, failures or problems in the management of other risk types. A bank should identify events that could have an impact on market and public perceptions about its soundness, particularly in wholesale markets (Akhtar, 2007).

2.2.2 Liability Management Theory

Diamond & Rajan (2001) postulated that liability management theory focuses in banks issuing liabilities to meet liquidity needs. Liquidity and liability management are closely related. One aspect of liquidity risk control is the buildup of a prudential level of liquid assets. Another aspect is the management of the Deposit taking institutions. Asset and liability management is one of the most important risk management measures at a bank. It is one of the essential tools for decision making that sets out to maximize stakeholder value. It is important to track the external factors of the asset and liability management in the market to remain in the long term and to prepare for negative effects. Banking sector analysis could be the instrument to measure the sustainability of the country's financial sector (Goddard et al., 2009).

Asset liability management is the management of the total balance sheet dynamics and it involves quantification of risks and conscious decision making with regard to asset

liability structure in order to maximize the interest earnings within the framework of perceived risks. The primary objective of asset liability management is not to eliminate risk, but to manage it in such a way that the volatility of net interest income is minimized in the short run and economic value of the organization is protected in the loon run. The liability management theory function involves controlling the volatility of net income, net interest margin, capital adequacy, liquidity risk and ensuring an acceptable balance between profitability growth and risk (Diamond & Rajan, 2001).

The proponents of this theory argue that, through proper Asset liability Management, liquidity, profitability and solvency of banks can ensure that commercial banks manage and reduce risks such as credit risk, liquidity risk, interest rate risk and currency risk. The liabilities of a bank have different categories of varying cost, depending on the tenor and maturity pattern. Similarly, these comprise different categories with varying yields depending on the maturity and risks factors. The main focus of this theory is the matching of liabilities and assets (SBP, 2010).

2.2.3 Commercial Loan Theory of Liquidity

According to this theory, Mishkin, Stern & Feldman, (2006), short-term loans advanced to finance salable goods on the way from producer to consumer are the most liquid loans the bank can make. These are self-liquidating loans because the goods being financed will soon be sold. The loan finances a transaction and the transaction itself provides the borrower with the funds to repay the bank. Adam Smith described these loans as liquid because their purpose and their collateral were liquid. The goods move quickly from the

producers through the distributors to the retail outlet and then are purchased by the ultimate cash-paying consumer (Comptroller of the Currency, 2001).

A commercial bank needs a higher degree of liquidity in its assets. The liquidity of assets refers to the ease and certainty with which it can be turned into cash. The liabilities of a bank are large in relation to its assets because it holds a small proportion of its assets in cash. But its liabilities are payable on demand at a short notice. Therefore, the bank must hold a sufficiently large proportion of its assets in the form of cash and liquid assets for the purpose of profitability. If the bank keeps liquidity the uppermost, its profit will below. On the other hands, if it ignores liquidity and aims at earning more, It will be disastrous for it. Thus in managing its investment portfolio a bank must strike a balance between the objectives of liquidity and profitability. The balance must be achieved with a relatively high degree of safety. This is because banks are subject to a number of restrictions that limit the size of earning assets they can acquire (Brunnermeier & Yogo, 2009).

The proponents of this theory argue that the most liquid of assets is money in cash. The next most liquid assets are deposits with the central bank, treasury bills and other short-term bills issues by the central and state governments and large firms, and call loans to other banks, firms, dealers and brokers in government securities. The less liquid assets are the various types of loans to customers and investments in long term bonds and mortgages. Thus the principle sources of liquidity of a bank are its borrowings from the other banks and the central bank and from the sales of the assets. But the amount of liquidity which the bank can have depends on the availability and cost of borrowings.

If it can borrow large amounts at any time without difficulty at a low cost (interest rate), it will hold very little liquid assets. But if it is uncertain to borrow funds or the cost of borrowing is high, the bank will keep more liquid assets in its portfolio (Crowe, 2009).A fully matched position is ideal a self-liquidating balance sheet but this is not observable in real life, because of the conflicting objectives of a bank and its borrowers, nor is it desirable due to its negative impact on profitability; a reasonable level of mismatch enhances profitability (Crowe, 2009).

2.3 Determinants of Financial Performance

The financial performance of firms can be determined by either internal factors or external factors. Internal factors could be bank specific determinants while external factors are Industry specific determinants and macroeconomic determinants. These indicators include: capital adequacy, assets quality, operational efficiency, liquidity and external factors.

2.3.1 Liquidity

Liquidity of the firm is a key determinant of the firm's financial performance Liquidity risk can be measured by two main methods: liquidity gap and liquidity ratios. The liquidity gap is the difference between assets and liabilities at both present and future dates. Liquidity is the amount of capital that is available for investment and spending. Capital includes cash, credit and equity. Most of the capital is credit rather than cash. That's because the large financial institutions that do most investments prefer using borrowed money (Jeanne & Svensson, 2007).

At any date, a positive gap between assets and liabilities is equivalent to a deficit. Liquidity ratios are various balance sheet ratios which should identify main liquidity trends. These ratios reflect the fact that firm should be sure that appropriate, low cost funding is available in a short time. This might involve holding a portfolio of assets than can be easily sold cash reserves, minimum required reserves or government securities

2.3.2 Asset Quality

The firm's asset is another bank specific variable that affects the financial performance of the firm. The bank asset includes among others current asset, credit portfolio, fixed asset, and other investments. Often a growing asset (size) related to the age of the firm. More often than not the loan of the financial institution is a key asset that generates the major share of the banks income (Jeanne & Svensson, 2007).

Loan is the major asset of most financial institutions from which they generate income. The quality of loan portfolio determines the financial performance of firm. The loan portfolio quality has a significant impact on the financial performance of the firm. A review or evaluation assessing the credit risk associated with a particular asset. These assets usually require interest payments such as a loans and investment portfolios. How effective management is in controlling and monitoring credit risk can also have an affect on the what kind of credit rating is given (Kashyap, Rajan & Stein, 2002).

2.3.3 Operational Efficiency

Operational efficiency is one of the key internal factors that determine the financial performance of the firm. It is represented by different financial ratios like total asset growth, loan growth rate and earnings growth rate. It is one of the complexes subject to

capture with financial ratios. Moreover, operational efficiency in managing the operating expenses is another dimension for management quality (Halling & Hayden, 2006).

The performance of management is often expressed qualitatively through subjective evaluation of management systems, organizational discipline, control systems, quality of staff, and others. Some financial ratios of the financial statements act as a proxy for operational efficiency. The capability of the management to deploy its resources efficiently, income maximization, reducing operating costs can be measured by financial ratios. One of this ratios used to measure management quality is operating profit to income ratio (Halling & Hayden, 2006).

2.3.4 Capital Adequacy

Capital ratio has long been a valuable tool for assessing capital adequacy and should capture the general safety and soundness of financial institutions. In most cases well capitalized banks face lower expected costs of financial distress and such an advantage will then be translated to financial performance of the firm. A firm that exhibits a strong capital base is able to take advantage of profitable investments that can yield high returns in future (Holmstrom & Tirole, 2000).

This ratio is used to protect depositors and promote the stability and efficiency of financial systems around the world. Two types of capital are measured that is tier one capital, which can absorb losses without a bank being required to cease trading, and tier two capital, which can absorb losses in the event of a winding-up and so provides a lesser degree of protection to depositors (Kashyap, Rajan & Stein, 2002).

2.3.5 External Factors

The macroeconomic policy stability, Gross Domestic Product, Inflation, Interest Rate and Political instability are also other macroeconomic variables that affect the financial performance financial institutions. For instance, the trend of GDP affects the demand for banks asset (Goddard, Molyneux & Wilson, 2009).

During the declining GDP growth the demand for credit falls which in turn negatively affect the profitability of banks. On the contrary, in a growing economy as expressed by positive GDP growth, the demand for credit is high due to the nature of business cycle. During boom the demand for credit is high compared to the recession (Halling & Hayden, 2006).

2.4 Empirical Review

The Macaulay (1988) investigated the adoption of liquidity risk management best practices in the United States and reported that over 90% of the banks in that country have adopted the best practices. Effective credit risk management has gained an increased focus in recent years, largely due to the fact that inadequate credit risk policies are still the main source of serious problems within the banking industry. The chief goal of an effective credit risk management policy must be to maximize a bank's risk adjusted rate of return by maintaining credit exposure within acceptable limits. Moreover, banks need to manage credit risk in the entire portfolio as well as the risk in individual credits transactions.

In their study Tianwei & Paul (2006) investigated on the effect of liquidity on financial performance in agricultural firms, a descriptive study was conducted and 50 firms were studied. The lenders of these firms strived to improve their credit risk management. Internal management was interested in understanding the financial impacts of alternative strategic decisions. And policy makers often assessed the magnitude and distributional effects of alternative policies on the future financial performance of farm business. Data was analyzed using a Z-score model, this model was applied to farm accounting data for the detection of farm operating and financial difficulties. The results of this analysis showed that credit risk management significantly led to financial performance of agricultural firms.

Oludhe (2011) did a causal research design was undertaken in this study and this was facilitated by the use of secondary data which was obtained from the CBK publications on banking sector survey. The study used multiple regression analysis in the analysis of data and the findings have been presented in the form of tables and regression equations. The study also found that there is a strong impact between the CAMEL components on the financial performance of commercial banks with the R^2 values being lowest at 0.594 in 2007 and highest at 0.943 in 2009 implying that in 2007 CAMEL components could explain 59.4 percent variations in financial performance and 94.3 percent variations in financial performance in 2009. The study also established that capital adequacy, asset quality, management efficiency and liquidity had weak relationship with financial performance (ROE) whereas earnings had a strong relationship with financial performance. This study concludes that CAMEL model can be used as a proxy for credit

risk management. The study thus recommends that commercial banks should also try to keep their operational cost low as this negates their profits margin thus leading to low financial performance. This is depicted by the strong effect of earnings on financial performance.

Ravi & Sharma (2012), explored various parameters pertinent to credit risk management as it affect banks' financial performance. Such parameters covered in the study were; default rate, cost per loan assets and capital adequacy ratio. Financial report of 31 banks were used to analyze for eleven years (2001-2011) comparing the profitability ratio to default rate, cost of per loan assets and capital adequacy ratio which was presented in descriptive, correlation and regression was used to analyze the data. The study revealed that all these parameters have an inverse impact on banks' financial performance; however, the default rate is the most predictor of bank financial performance.

Nyanga (2012) used an explanatory study. The population was all the 43 commercial banks by December 2011. All the banks were used in the study. A ten year secondary data from 2001 to 2010 was collected from Banking Survey and the Central Bank of Kenya. Descriptive analysis, correlation analysis and regression analysis were used to perform the data analysis. Significance was tested at 5% level. The study found that capital adequacy and exchange rates were negatively correlated with ROE while liquidity, operating cost efficiency, size, risk, GDP, and inflation had a positive influence on ROE. Overall, the independent variables accounted for 95.3% of the variance in ROE. Further, the results revealed that exchange rate was negatively related with ROA while capital adequacy, liquidity, operating cost efficiency, size, risk, GDP, and inflation had

positive effects on ROA. It was noted that the independent variables accounted for 95.6% of the variance in ROA. However, none of these effects were significant at 5% level of confidence.

Berríos (2013) investigated the relationship between bank credit risk and financial performance and the contribution of risky lending to lower bank profitability and liquidity. The sample data comes from the Mergent Online database, which stores ownership, executive, and financial information about public and private companies. This study focuses on the concept of prudent lending by public state commercial banks, insider ownership, and chief executive officer compensation and tenure, which are governance related bank characteristics. Performance variables in analysis of covariance models include net interest margin, return on assets, return on equity, and cash flow to assets. Preliminary results show a negative relationship between less prudent lending (which may be interpreted as a positive effect of more prudent lending) and net interest margin. However, findings were only statistically significant when the normality assumption was relaxed through the robust regression method. Insider holdings and longer chief executive officer tenure were negatively related to bank performance.

Wanjohi (2013).assessed the current risk management practices of the commercial banks and linked them with the banks' financial performance. Return on Assets (ROA) was averaged for five years (2008-2012) to proxy the banks' financial performance. To assess the financial risk management practices, a self-administered survey questionnaire was used across the banks. The study used multiple regression analysis in the analysis of data and the findings were presented in the form of tables and regression equations. The study

found out that majority of the Kenyan banks were practicing good financial risk management and as a result the financial risk management practices mentioned herein have a positive correlation to the financial performance of commercial banks in Kenya. Although there was a general understanding about risk and its management among the banks, the study recommends that banks should devise modern risk measurement techniques such as value at risk, simulation techniques and Risk-Adjusted Return on Capital. The study also recommends use of derivatives to mitigate financial risk as well as develop training courses tailored to the needs of banking personnel in risk management.

Kimari (2013) adopted a cross sectional survey research design in this study. The population for this study was therefore, all heads of credit risk management function in the 215 total number of deposit taking SACCOs that are under supervision by SASRA. The researcher utilized probability sampling using simple random sampling where every member of the population has an equal chance of being selected. The study's sample size (n) was thirty, which according to Mugenda & Mugenda (2003) n=30 is sufficient for such a study. Primary and secondary data was used for the study. Data analysis method was based on Pearson correlation analysis and a multiple regression model whereby the dependent variable was the financial performance of the SACCOs which was measured using Return on Equity (ROE) whereas the independent variables were the CAMEL components of Capital adequacy, Asset quality, Management efficiency, Earnings and Liquidity. Research findings indicated that there was a positive relationship between

credit risk management and financial performance of deposit Taking Microfinance Institutions and SACCOS in Kenya.

Obawale and Oladunjoye (2013), risk management issues in the banking sector do not only have greater impact on bank performance but also on national economic growth and general business development. The bank's motivation for risk management comes from those risks which can lead to underperformance. This study focuses on the association of risk management practices and bank financial performance in Nigeria Secondary .Data sourced was based on a 4 year progressive annual reports and financial statements of 10 banks and a panel data estimation technique adopted. The result implies an inverse relationship between financial performance of banks and doubt loans, and capital asset ratio was found to be positive and significant. Similarly it suggests the higher the managed funds by banks the higher the performance. The study concludes a significant relationship between banks performance and risk management. Hence, the need for banks to practice prudent risks management in order to protect the interests of investors.

Olongo (2013) adopted a descriptive research design. Regression analysis model was used in 1which the dependent variable was the ROA. The independent variables were the annual liquidity ratios and the annual fraud loss. The multiple regression analysis was used to determine how each of the dependent variable relates to ROA. The result showed that banks' financial performance variable Return on Assets (ROA) has significantly affected by liquidity ratios and fraud loss with positive correlation. The strong and positive Pearson correlation coefficients imply that financial fraud loss and liquidity

ratios had a strong and significant influence of financial performance of commercial banks in Kenya for the period considered.

2.5 Summary of Literature Review

From the literature review, liquidity might expose the firm into financial losses when the firm fails to maintain a proper match between assets and liabilities. It is therefore important for firms to balance between liquidity through implementing proper financial management practices in investing and risk management. The empirical evidence has demonstrated that a direct relationship exists between liquidity risk and financial performance of firms: Obawale& Oladunjoye (2013) and Kimari (2013) concluded that a significant positive relationship between banks performance and risk management. Hence, the need for banks to practice prudent risks management in order to protect the interests of investors. Little focus has been laid on the effect of liquidity risk and financial performance of deposit taking microfinance institutions in Kenya. This study is therefore geared towards establishing the effect of liquidity risk on the financial performance of deposit taking microfinance institutions in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the research methodology that was used by the researcher in achieving the objective of this study.

3.2 Research Design

The study used a descriptive research design. A descriptive research design describes the characteristics of a given population. Morgan (2007), explained that the advantage of this design is that the researcher is able to use various forms of data as well as incorporating human experience.

3.3 Population

Populations involves all elements, individuals, or units that meet the selection criteria for a group to be studied, and from which a representative sample is taken for detailed examination(Mugenda and Mugenda, 2003). The population of Deposit Taking microfinance institutions in Kenya licensed by the central bank of Kenya (CBK, 2013).

3.4 Data Collection Method

The data was collected from secondary sources since the nature of the data is quantitative. The study used financial statements which were obtained from association of microfinance institutions in Kenya (AMFI). The study used secondary data sources for a period of 5 years from (2009-2013) depending on the availability of this information.

3.5 Data Analysis Techniques

Secondary data from the Central Bank of Kenya (CBK) reports and library were reviewed for completeness and consistency in order to carry out statistical analysis. According to Mugenda (2003), data must be cleaned, coded and properly analyzed in order to obtain a meaningful report. The data collected was sorted and organized before capturing the same in Statistical Packages for Social Sciences (SPSS) for analysis. The study used a multiple regression model using five variables

3.5.1 Analytical Model

The study adopted a multiple regression model to analyze the results of this study by determining the effect of liquidity on financial performance of Deposit Taking microfinance institutions in Kenya. The study used the model below to achieve the objective of this study:

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

α = Constant Term

Y= is the dependent variable, and will be measured by the return on Assets (ROA) ratio. Return on Asset is the ratio of the Profit Before Tax to the average total assets of a business during a financial year.. It is calculated as: ROA= PBT/ Total Assets.

X_1= Liquidity was measured using cash and cash equivalents divided by the total assets held by the DTM institutions

X_2 = Asset Quality (Bad Debt Cost). The Bad debt cost ratio is calculated as, BDC Ratio= Bad debt cost/ Total cost.

X_3= Operational Efficiency (Default Rate Ratio, DR). The default rate is calculated as Dr Ratio= Non Performing Loans/ Total loan

X_4 = Capital Adequacy (Capitalization ratio). Calculated as Long-term Debt / (Long-Term Debt + Shareholder's Equity)

X_5= External Factors (Measured by growth in GDP)

ε = Error term within a confidence interval of 5% will be used.

3.5.2 Tests of Significance

The F- test was used to determine the significance of the regression while the coefficient of determination, R^2, was used to determine how much variation in dependent variable is explained by independent variables. This was done at 5% significance level and correlation analysis was carried out to find the direction of the relationship between ROA and the independent variables.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the results and findings of the study based on the research objectives. The results are presented in the form of summary tables. Regression and Correlation analysis are used to analyze the data to answer the research objective.

4.2 Descriptive Statistics

Table 4.1 below summarizes the descriptive statistics of the variables included in the regression models as presented. It represents the variables of four DTMFBs operating in the Kenya whose financial results were available for the years 2009-2013.

Table 4.1: Descriptive Statistics

	Mean	Std. Deviation	Minimum	Maximum
ROA	1.5882	.15811	-3.00	5.60
Liquidity	.8040	.11149	0.30	1.20
Asset Quality	2.9380	.85514	1.50	8.90
Operational Efficiency	4.0660	.94479	1.22	6.40
Capital Adequacy	9.6490	1.43796	1.54	13.10
External Factors	6.4740	1.20811	4.60	9.30

Return on Assets (ROA) had a mean value of 1.5882 and a standard deviation of 0.15811. The highest performance was 5.6 while the list performance -3 was for the five year period. This findings show that some DTMFBs were not able to hold their financial performance as a result of varied liquidity.

Liquidity had a mean of .8040 and a standard deviation of 0.11149; Asset Quality had a mean of 2.9380 and a standard deviation of 0.85514; Operational efficiency had a mean of 4.0660 and a standard deviation of 0.94479; Capital Adequacy had a mean of 9.6490 and a standard deviation of 1.43796 while External Factors measured by economic growth had a mean 6.4740 of and a standard deviation of 1.20811.

4.3 Correlation analysis

To evaluate the association between the variables, the data collected was analyzed to generate the Pearson correlation coefficient which gives tests the presence of association between the variables. The significance level was set at 5% with a 2-tailed test. The results are therefore as presented in table 4.2 below.

Table 4.2: Correlation Table

	ROA	Liquidity	Asset Quality	Operational Efficiency	Capital Adequacy	External Factors
ROA	1					
Liquidity	.941*	1				
Asset Quality	.912*	.432	1			
Operational Efficiency	.815*	.201	.590	1		
Capital Adequacy	.787*	.518	.216	.468	1	
External Factors	.899*	.261	.147	.372	.571	1

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

From the table, all the factors have a positive correlation with the dependent variable. This indicates that, the liquidity of the MFIs has a positive association with their financial performance.

The strength of the association is measured based on the Pearson's correlation scale where a value in the interval 0.0-0.3 is an indication of no correlation, 0.3-0.5 is a weak correlation, 0.5-0.7 is a fair correlation and a correlation value in the interval 0.7 and 1 is an indication of a strong correlation. A correlation value of 1 indicates a presence of a perfect association between the variables. The magnitude of the association (+ or -) indicates the nature of association (positive or negative association)

Based on these intervals, the table illustrates that, Liquidity of the firms and the financial performance has a correlation coefficient of 0.941. This is an indication of a strong and positive association between liquidity and financial performance. Also, the quality of the assets and the financial performance of MFIs have a strong positive correlation. This is according to the obtained coefficient of 0.941 indicating that the two variables are strongly associated.

External factors and financial performance indicated a correlation coefficient of 0.899 which is a strong and positive correlation. Also, operational efficiency and capital adequacy are positively and strongly correlated with financial performance. This is with regard to their coefficients presented in the table as 0.815 and 0.787 respectively. Testing the significance of the association at 5% level with a 2-tailed test, all the independent variables and the dependent variable were found to have a statistically significant association as the given by the significance sign (*) in the correlation values.

4.4 Regression Analysis

The relationship between liquidity and the financial performance of DTMFIs was evaluated through a regression analysis. The results presents the regression model summary in table 4.3 which gives the coefficient of determination showing the extent to which the predictor variables influences the dependent variable, the analysis of variance in table 4.4 which determines the reliability of the model developed in explaining the relationship and the regression coefficients in table 4.5 which gives the coefficient explaining the extent at which the independent variables influence the dependent variable.

Table 4.3 Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.941[a]	.910	.899	.22692

a. Predictors: (Constant), Liquidity, Asset Quality, Operational Efficiency, Capital Adequacy, External Factors

The coefficient of determination (R square value) from the table is 0.910. This indicates that, the variability in the financial performance of MFIs is 91% explained by the liquidity, asset quality, operational efficiency, capital adequacy and the external factors. This being the case therefore, the variability due to other factors which were not studied in the current research is 9.0%. From the table also, the adjusted R square is 0.899 which measures the reliability of the results. Thus, the study results are 89.9% reliable and

therefore the model results are significant and reliable in explaining the influence of the predictor variables to the dependent variable.

Table 4.4 Analysis of Variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	42.846	37	1.158	4.612	.020[a]
	Residual	1.757	7	.251		
	Total	44.603	44			

a. Predictors: (Constant), Liquidity, Asset Quality, Operational Efficiency, Capital Adequacy, External Factors

b. Dependent Variable: ROA

The table presents the F statistic which is used to test the significance of the relationship between the depended and the independent variables. The F value in the table is 4.612 with a distribution F(37, 7). The probability of observing a value greater than or equal to 4.612 is less than 0.025 as indicated by the significance value of 0.020 which is less that 0.025 testing at 5% level. Therefore, based on these, there is strong evidence that the regression model developed is statistically significance and the variation in the results is insignificant. It is clear from the results that the relationship between the variables is statistically significant.

Table 4.5 Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	4.207	.233		.885	.009
Liquidity	1.262	.696	1.320	1.814	.021
Asset Quality	.806	.027	1.103	1.028	.011
Operational Efficiency	1.110	.118	1.071	1.194	.007
Capital Adequacy	.089	.458	.042	.085	.016
External Factors	.310	.983	.362	.316	.005

a. Dependent Variable: ROA

The table gives the regression coefficients which are used to answer the regression model proposed; $Y = Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$

Where:

Y = Financial Performance

X_1 = Liquidity

X_2 = Asset Quality

X_3 = Operational Efficiency

X_4 = Capital Adequacy

X_5 = External Factors

β_0 = Constant, β_{1-5} = coefficients of X_{1-5} ε = standard error

Based on the table results, the model therefore becomes;

$$Y=4.207+1.262X_1+0.806X_2+1.110X_3+0.089X4+0.310X_5$$

From the model, it is clear that, all the variables are positively related to the dependent variable as all the coefficients are positive. The model also shows that holding the predictor variables constant at zero (0), the financial performance (ROA) would be 4.207. Further, the results show that, liquidity has a positive relationship with financial performance of MFIs where a unit increase in liquidity would result to 1.262 times increase in financial performance of the MFIs.

From the model, it is also clear that, a unit increase in the asset quality would result to 0.806 times increase in the financial performance, a unit increase in the operational efficiency would lead to 1.11 times increase in financial performance and a unit change in capital adequacy would result to 0.089 times changes in financial performance while a unit change in external factors would result to 0.310 times changes in financial performance of the MFIs. The significance of the coefficients at 5% level with a 2-tailed test was found to be significant as indicated by their p-values which are all less that 0.025(the critical value at 5% level).

4.5 Discussion of Research Findings

The study findings illustrated that there is a significant positive association between liquidity of MFIs and their financial performance. This was indicated by the correlation coefficient of 0.941 which shows a strong positive correlation between the variables. This indicates that, there is a direct association between liquidity and financial performance.

The regression test results indicated that the liquidity of MFIs and their financial performance has a positive relationship where an increase in liquidity would result to 1.262 times increase in financial performance of the MFIs. This illustrates that; efforts of creating a unit change in liquidity would see the MFIs experiencing significant growth financially.

The findings as well indicated that quality of the assets and the financial performance of MFIs are strongly and positively correlated. This had a correlation coefficient of 0.941 indicating that the two variables are strongly associated. The regression coefficient indicated that, an increase in the quality of the assets would lead to significant growth in the financial performance of MFIs. Therefore, increasing quality of assets brings in improved performances in finance.

External factors and financial performance were found to have a positive and strong correlation as given by a correlation value of 0.899. The regression results also support this where the results shows that a unit increase in external factors would facilitate financial performance of the MFIs.

Also, the study results revealed that, operational efficiency and financial performance of MFIs are positively and strongly correlated. This indicates that, increasing efficiency in MFIs operations would result to increases in the efficiency of the financial performance of MFIs. The regression results as well support this as the findings shows that a unit change in efficiency generates 0.089 times changes in financial performance of MFIs.

The study further revealed that there is a strong and positive association between capital adequacy and financial performance of MFIs. This was also evaluated to be significantly influencing performance as a unit change in capital adequacy was found to be accompanied by 0.310 times changes in financial performance of the MFIs. Thus increasing capital adequacy of the MFIs would result to effectiveness in financial performance of MFIs.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the key findings of the study as well as the conclusions and recommendations made based on the findings. The chapter also presents the areas that were pointed out during study for further research.

5.2 Summary

The study was undertaken with the aim of evaluating the effect of liquidity on the financial performance of the Micro Finance Institutions in Kenya. Secondary data was used in the analysis to study the variables. 5 year data was collected from the publications of the association of microfinance institutions in Kenya, the Central Bank of Kenya as well from other statistical publications from KNBS. To address the aim of the study, inferential statistics were conducted where correlation analysis was used to study the association between the variables and regression analysis undertaken to study the relationship between the variables. A multiple regression analysis was conducted to develop the regression model relating the study variables. The significance of the results was tested at 5% level in a 2-tailed test.

From the analysis, the study found out that all the studied factors have a positive correlation with the financial performance of the MFIs. Therefore liquidity of MFIs has a positive association with their financial performance. Liquidity of the MFIs and their financial performance has a correlation coefficient of 0.941 which is a strong positive

correlation coefficient. Also, the findings indicated that, the quality of the assets and the financial performance of MFIs has a strong positive correlation of coefficient of 0.941. External factors and financial performance were found to have a correlation coefficient of 0.899 which is a strong and positive correlation. As well as the operational efficiency and capital adequacy which were as well found to have positive and strong correlation with financial performance as given by the coefficients of 0.815 and 0.787 respectively.

The regression analysis results indicated that the variability in the financial performance of MFIs is 91% explained by the liquidity, asset quality, operational efficiency, capital adequacy and the external factors. The study results were found to be 89.9% reliable and therefore giving significant model in explaining the influence of the liquidity on financial performance. The model developed indicated that, there is positive relationship between liquidity and financial performance of MFIs as all the variables studied were found to have positive coefficients in the model.

The study findings also illustrated that holding the predictor variables constant at zero, the financial performance of the MFIs would be 4.207. Liquidity has a positive relationship with financial performance of MFIs which the results revealed that, increasing the liquidity by a unit would result to 1.262 times increase in financial performance of the MFIs.

Further, findings revealed that, a unit increase in the asset quality would result to 0.806 times increase in the financial performance. Also, a unit increase in the operational efficiency would lead to 1.11 times increase in financial performance. From the findings also, a unit change in capital adequacy of MFIs would result to 0.089 times changes in

financial performance whereas changing external factors by a unit would result to 0.310 times changes in financial performance of the MFIs. These relationships were all found to be statistically significant hence fit for answering the regression model in explaining the relationship between the MFIs' liquidity and their financial performance.

5.3 Conclusion

Conclusions are made from the study findings from the analyzed data. These are based on the variables studied and their influence on financial performance of MFIs in Kenya. These according to the researcher include:

The financial performance of the MFIs in Kenya is highly dependent on the level of the institutions' liquidity. There is also a positive association between liquidity and financial performance of MFIs. This explains that, efforts to stimulate the MFIs' liquidity would see the micro financial sector realize increased financial performance. Consequently, this would result to increased efficiency in the sector's operations.

The association between the asset growth of the MFIs and their financial performance is positive and significant. Increasing the loans offered by the bank would increase the financial performance as this facilitates asset growth. Therefore there is a significant influence of asset growth of the MFIs and their financial performance.

Operational efficiency of MFIs determines their profitability as the institutions are in a position to make more transactions within a short duration of time thereby meeting more client needs. The customers in turn are motivated with the services thereby encouraging them to bank with these institutions. This brings about increased financial growth and

performance of these institutions. Thus, there is a statistically significant relationship between operational efficiency and the financial performance of MFIs.

There is also a statistically significant relationship between the MFIs' capital adequacy and their financial performance. The market capitalization of the firms is directly related with the financial performance. This is because more returns are expected to be obtained where high market capitalization has been made holding other factors constant. Therefore, the working capital as well as other inputs invested by MFIs determines their efficiency in financial performance.

There are significant effects on the financial performance of MFIs which are due to the external factors that also affect economic growth of the country. High inflation levels for instance affect the interest rates of lending as well as the dollar value which creates poor economic environment unfavorable to financial market where negative effects are expected on growth of the economy and consequently poor financial performance of MFIs.

5.4 Recommendations

Recommendations from were also made based on the findings and conclusions above. These included:

As the findings illustrated, financial performance MFIs in Kenya is highly dependent on the level of the institutions' liquidity. To facilitate favorable financial performance of these institutions, strategies to facilitate increased liquidity of MFIs should be adopted by the institutions for their efficiency in financial operations.

It has also been revealed from the study results that, increasing the loans offered by the bank would increase the financial performance as this facilitates asset growth. Therefore MFIs should emphasize on asset growth as a stimulator of their financial performance and competitiveness.

Operational efficiency contributes to increased financial growth and performance. Improvements in operational efficiency should therefore be facilitated through application of modern technology and innovative operational strategies to effectively bring about financial performance in the MFIs.

The findings revealed that market capitalization is directly related to the financial performance. More investments should therefore be done through establishing more MFIs networks across the country which is associated positively with their financial performance.

Regulatory authorities of the key macroeconomic activities should ensure sustainable climate for micro financial activities by regulating the economy towards the growth and favor of MFIs. This will facilitate the financial performance of the micro financial sector thereby creating growth in the economy.

5.5 Limitations of the Study

The study experienced various challenges which limited its suitable process of execution. The use of secondary data was one of the limitations to the study. This is because the data was not originally collected for the purpose of this study. This brought about the question

of accuracy of the data to be used in analyzing the factors as influencing financial performance of the MFIs.

Obtaining of data from the MFIs was a great challenge as most of them did not publish their audited reports in their websites. This also could not be solved alternatively through collecting the data from the AMFI-K as it had insufficient information on the same since it has not been in the existence for the past five years.

The process of sorting data from various sources was time consuming as no exact source would give all the required data. This also was not easy as some data was given in absolute values which were to be converted to nominal values. This also would have been a source of error to the data analyzed.

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

The research considered the influence of liquidity on financial performance of deposit taking microfinance institutions. However, there are other factors that might be significantly influencing the financial performance of these institutions. Assuming their influence to the financial performance while taking liquidity as the only factor effecting performance would hinder the understanding of the financial performance determinants in the sector.

5.6 Suggestion for Further Studies

As discussed above, various limitations were encountered in the study. This therefore calls for future researchers to undertake numerous studies on efforts to understand the financial performance of the MFIs as well as other sectors in Kenya. The following are the suggested areas that are suggested in this study for future research;

A more detailed study should be undertaken that takes into consideration various factors influencing financial performance of financial institutions. Considering other factors in research would give the extent of each factor's influence and determination of the significantly influencing factor. This would also involve measuring financial performance with the profitability of the institutions.

Further research should also be undertaken which would include firms in various sectors of the economy and compare the different experiences created to these institutions due to the influence of the studied factors. This would aid in making general recommendations that would be employed by relevant authorities to ensure efficiency in financial performance of firms.

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

Studies would also be undertaken on areas of the determinants of the MFIs' growth as well as the factors affecting its efficiency in service delivery and operations.

Also future researchers should consider evaluating the relationship between different macroeconomic policies made and the financial performance of the microfinance sector.

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APPENDIX I: LIST OF MFI's

LIST OF DEPOSIT TAKING MICROFINANCE IN KENYA

Source :(CBK, 2013)

1. Faulu Kenya DTM Limited

2. Kenya Women Finance Trust DTM Limited

3. SMEP Deposit Taking Microfinance Limited

4. Remu DTM Limited

5. Rafiki Deposit Taking Microfinance

6. Century Deposit Taking Microfinance Limited

7. Uwezo Deposit Taking Microfinance Limited

8. SUMAC DTM Limited

9. U&I Deposit Taking Microfinance Limited

APPENDIX II: SUMMARY OF THE DATA USED

YEAR	2009	2010	2011	2012	2013
ROA	-3.0	1.7	2.8	4.1	5.6
Liquidity	0.6	0.3	1.0	1.1	1.2
Asset Quality	1.50	1.51	1.39	6.98	8.90
Operational Efficiency	1.22	4.79	4.83	6.40	5.72
Capital Adequacy	1.54	9.9	10.78	10.77	13.10
External Factors	4.7	9.3	7.4	4.6	5.1