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

**STEPHEN LEMARA**

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

**2017**

## DECLARATION

I declare that this is my original work and has not been presented for a degree in any other university.

Signature …… Date …….

**Stephen Lemara**

**D61/79140/2015**

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

Signature …… Date …….

**Dr. Winnie Nyamute**

**Senior Lecturer, Department of Finance and Accounting**

**School of Business, University of Nairobi**

# ACKNOWLEDGEMENTS

My gratitude and appreciation goes to my Supervisor Dr. Winnie Nyamute, whose tireless effort and commitment to quality made this research project reach its finalization.

I would also like to pass my gratitude to my entire family who were very supportive throughout the study and always encouraging me to pursue to the end.

My sincere appreciation goes to the DTMs for availing Data that helped in my research project to this magnitude, I reiterate that I am indeed grateful for all their considerate inputs, cooperation and tireless assistance.

My appreciation also goes to the staff at the University of Nairobi library for their timely support throughout my study.

Lastly, I would like to thank all those not mentioned by name that contributed and participated in one way or the other to make this work worth reading.

## DEDICATION

I dedicate this research project to my wife Susan and daughter Nema who have been a great source of inspiration and joy in my daily endeavors to better my best.

# ABSTRACT

The research project seeks to determine the effect of liquidity on financial performance of deposit taking microfinance institutions (DTMs) in Kenya. Liquidity refers to a portfolio of assets which can be converted quickly to do this. Its high level of trade that allows buying and selling with minimal price disturbance. The MFI Act of of the year 2006 and the steady DTM Regulations of the year 2008 have both indeed brought an institutional change in Kenya. Descriptive study where the researcher gathered data from the published financial statements of Deposit Taking Microfinance institutions in Kenya was used. The target population is the 13 microfinance institutions which are involved in deposit-taking. The sampling technique that was employed in this study was a census with a clear preference on this based on the fact that the population sample is a bit small. Ratio analysis and various models was used to analyze the secondary data collected. The target data in this study was the working capital component of the financial statements and the profits made in each of the financial years from 2012-2016. The F- test was used to determine the significance of the regression while the coefficient of determination, R2, was used to determine how much variation in dependent variable is explained by independent variables. Research information was gathered from monetary explanations of Deposit Taking Microfinance Institutions in Kenya. From the discoveries of the relapse examination, the study found that there was insignificant relationship between liquidity and performance of deposit taking micro finance institutions in Kenya. The R2 was 18.1% while the F test conducted led the researcher to accept the null hypothesis. The findings showed that the macro-economic factors have little effects on the financial performance of DTMS.

# TABLE OF CONTENTS

# LIST OF TABLES

# LIST OF FIGURES

## LIST OF ABBREVIATION AND ACRONYMS

**ANOVA**: Analysis of Variance

**CBK:** Central Bank of Kenya

**DTM:** Deposit-Taking Microfinance Institutions

**GDP:** Gross Domestic Product

**KWFT:** Kenya Women Microfinance Bank

**NSE:** Nairobi Securities Exchange

**ROA:** Return on Assets

**ROE:** Return on Equity

**SPSS:** Statistical Package for the Social Sciences

**WCM:** Working Capital Management

# CHAPTER ONE

# INTRODUCTION

## 1.1 Background of the Study

Liquidity refers to a portfolio of assets which can be converted quickly to do this. Its high level of trade that allows buying and selling with minimal price disturbance. Organizations utilize an assortment of financial performance assessment measures to dissect the consequences of their activities. Speculators play out an assortment of counts to audit the activities of a specific organization's financial performance assessment. Both organization administration and speculators invest energy concentrating on their organization's liquidity to find out its financial performance levels. At times some budgetary proportions give vital data with respect to an organization's liquidity for instance charge installment. The essential reason liquidity proportions require consideration include the organization's capacity to settle the expenses it undergoes.

In the Kenyan business sector, the firms' current resources speak to its assets accessible for meeting short term obligations financial specialists need to realize that organizations pay their debts without battling. Loan bosses need to see that the organization holds enough money related assets to meet its present commitments and in addition future commitments which may emerge from the firms and the lender. In most cases store taking MFIs take into consideration money related ventures, for example buying new hardware or new item dispatches, and arrange their future system thereafter.

### 1.1.1 Liquidity

Sinkey, (2013) states that liquidity to be having a huge possession of cash or even an assets that can be simply converted to cash. Companies ability to meet its liquidity needs depends on whether it has stock that are easily transferable or has high liquid altogether. Transferability together with liquidity, therefore, becomes an integral component for transactions. Liquidity needs therefore implies that a financial asset should be at owners disposal within the short while. The transferability threshold requires that financial asset should be portable, be par and be in the form readily acceptable by other relevant parties (Sinkey, 2013). According to Barad (2013) the term liquidity can be said to be the company or companies' ability to fulfill the expected or even some of unexpected cash needs.

Liquidity has a crucial role in proper operation of an organization. An organization is therefore supposed to ensure it won't suffer from among others , having excess cash or lack of it altogether so that firm's short term cash obligation is met. Panigrahi (2013) noted that if there is improper management of cash, it (cash) will be tied or just idle which disadvantages an institution. This decreases company's liquidity and at the same time company will not be able to generate income from productive areas. Brealey (2012) was of the view that liquidity ratio, can also be referred to as quick ratio or even cash ratio.

### 1.1.2 Financial Performance

Gockel and Brown (2007) characterizes financial performance as gauging the performance or the output of an organization's strategies and its systems on monetary terms and results are reflected in the firms resources, esteem included as well as return speculation (Morduch, 2008). Financial performance for an organization commonly starts with the monetary circumstance as well as the organization structure (Rhyne, 2012). The data was derived from the financial related explanation that acts as the measuring point to weigh as well as the screen execution. It is in a general sense the activity of accomplishing in connection to prearranged objectives and targets.

There are various ways to gauge the financial performance of the firms, Consequently all the measures need accumulation when taking them. For example, working pay, income generated from operations will be used, and in addition will add to the unit exchanges (Kazi, 2012). At last the widespread measure of business execution is benefits and a definitive types of this estimation are the last records of the organization (Christen, Lyman and Rosenberg, 2013). Benefits have the preferred standpoint that it can be utilized to quantify the viability and productivity not just of various business capacities (promoting, designing, generation) additionally look at changed organizations.

### 1.1.3 Effect of Liquidity on Financial Performance

Neto (2003) stated that liquidity that is deemed to be higher can be as undesirable as a low. This is caused by the way present resources of a firm are typically less productive than the settled resources of the same firm. This means the money resources that was put into use in the resources is yielding less than expected, resulting to an extra cost not anticipated. Liquidity concept is fundamental to the survival and growth of a firm. It primarily impacts the budgetary items. The conclusive liquidity concept is that its one of the key variables in regards to an organization improvement position. The importance of viable stock administration in the working capital management (WCM) was found on the investigation was established by various researchers. They examined impacts on the WC administration on Spanish SME's benefit and inferred that extra esteem may be made by diminishing stocks as well as the quantity of dailies records extraordinary. Reducing the money change cycle is also a way to enhance company's gainfulness.

Liquidity greatly affects the tradable securities and portfolios. Extensively, it alludes to the misfortune rising up out of selling a particular inventory. Its fundamental for a firm to know position of its liquidity from an advertising point of view. Precious stone and Rajan (2001) express that a bank can deny loaning to even to any potential business, on the off-chance that it feels that its liquidity need is very high. This is referred to as an open door misfortune. No bank puts the greater part of its assets in the long- term ventures when it can't take care of the needs of the demand stores which may results to a bank run. large portions of the declining assets are put resources into the fleeting liquid resources. This enhances support verses the liquidity stuns (Holmstrom and Tirole, 2000). Precious stone

and Rajan (2005) underscore the crisscross of contributors request and creation of assets drives a firm to produce the assets at costs that are abit higher.

### 1.1.4 Deposit Taking Microfinance Institutions in Kenya

In Kenyan, the microfinance sector is a standout amongst the most dynamic in Sub Saharan Africa. It incorporates a difference of organizational structures as well as genuinely extensive branch network system in serving poor people. Be that as it may, microfinance exercises have been controlled in Kenya just since 2006. The nonappearance of control has enabled advancements to happen: organizations were set up effectively with no obstructions, for example, least capital prerequisites. The microfinance business has flourished in this condition (Nyaga, 2008).

In the 1990s, banks concentrated on microfinance penetrated the market through a green handling procedure (such as Co-agent Bank) ,others through institutional change approach - Equity and Family Banks transformed from building societies while K-Rep Bank transformed from a MFI NGO. The organizations offer completely saving money administrations as well as miniaturized scale customers. Similarly numbers of MFIs NGOs are additionally targeting a similar market section. On the other hand NGO MFIs considered different conceivable outcomes for extending their organizations nevertheless were not permitted to gather stores and along these lines needed to depend either on costly subsidizing sources (borrowings) or untrustworthy appropriations and gifts.

The MFI Act of of the year 2006 and the steady DTM Regulations of the year 2008 have both indeed brought an institutional change in Kenya. In association with the Financial Sector Deepening (FSD) Kenya, KWFT and Faulu Kenya occupied with a procedure which prompted the authorizing as the first DTMs in Kenya. The changes was indeed fruitful and have helped both firms to keep up their key situating in the DTM market.

For the two cases, the procedure factored a greater number of assets and took any longer than anticipated. Furthermore, the changes rose more noteworthy than foreseen hierarchical difficulties. By early 2009 when KWFT was set out to change into a store taking organization vigorously, was then the biggest non-bank MFI establishment in Kenya with over 250,000 ladies just as clients. By May 2013, nine microfinance foundations had been issued with a permit by the Central bank of Kenya, these foundations offers store taking and gathering loaning model administrations. These are the Kenya Women Finance Trust (KWFT), Faulu Kenya, UWEZO DTM limited, Rafiki DTM, SUMAC DTM Limited, SMEP DTM, Remu DTM Limited, Century DTM limited, and U&I DTM Limited. It is these nine MFIs that framed the sample of this study

## 1.2 Research Problem

Liquidity do have a great impact on budgetary execution of an organization especially when there are a crisscross amongst resources and liabilities. This could uncover any money related organization to monetary misfortunes. Such hazard results from portrayal of saving money. It may influence its general capital as well as income of the budgetary

establishment antagonistically. Such monetary organizations can confront genuine results on the off chance that it is not legitimately overseen. The stores eventually end up being the life saver of the saving money enterprise (Plochan, 2007). Most MFIs in Kenya attempt to reserve adequate assets for meeting the unforeseen requests by contributors yet keeping up the money is to a great degree costly.

This is accomplished through keeping up a vast money save that may not just lose various open doors in the market additionally need to hold up under the high expenses related with money. The significant reason for liquidity chance is the development jumble amongst resources and liabilities. Most of the advantages are supported by stores a large portion that present with plausibility whenever called upon. Such circumstance is called the confound amongst resources as well as liabilities. The misuse may be choked with the assistance of change parted among resources and furthermore liabilities.

Several studies have been explored to establish the relationship between liquidity and performance. Tianwei and Paul (2006) in their study found that liquidity possibility association on an extremely fundamental level incited money related execution of developing firms. Oludhe (2011) set up that capital ampleness, resource quality, association productivity and liquidity had fragile association with monetary execution (ROE) while advantage had a solid association with budgetary execution. Ravi and Sharma (2012) uncovered that every last one of these parameters inversy impact banks' budgetary execution; regardless, the default rate is the most pointer of bank money related execution.

Maaka (2013) found that poor liquidity management reduces the financial performance of an institution. However, the main determinant of the performance of an institution is the default rate. Ruozi and Ferrari (2012) added that most of the financial institutions, especially the insurance companies and banks, have failed due to increased poor liquidity management. With poor liquidity financial institutions have to borrow at very high rates, thus increasing their costs. Maina (2013) studied liquidity among oil companies in Kenya. The results showed that liquidity has no effect on the firm's profitability. Moreover, Kweri (2014) examined the same problem among manufacturing firms. There is no study which has been done on how liquidity influences the performance of insurance companies creating a knowledge gap. Therefore, this study aims at filling this gap by answering the following question: How does liquidity affect 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 examination discoveries will profit administration and staff of store taking microfinance establishments who will increase understanding into how their foundations can viably deal with their liquidity by thinking of proper practices for ideal liquidity levels. It is likewise of significance to the administration of organizations as they will

have the capacity to utilize the data as a base for deciding, comprehend its significance and watch the pattern of the effect of liquidity on budgetary execution

The comprehension of the liquidity and its effect on money related execution in budgetary foundations help to invigorate the development and supportability of the microfinance organizations in the nation, and also assist those strategy producers with supporting, empower, and advance the foundation of proper strategies to manage the organizations. In conclusion, the investigation will likewise empower the speculators to know the sort of data to be unveiled by firms on the money related articulations in accordance with liquidity and monetary execution.

The research will add to the current group of learning on liquidity and how liquidity impacts on budgetary execution and suggestions made will be of centrality to the individuals who may wish to complete further examinations in the region.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

This section gives a record on what has been distributed on the theme by certify researchers and scientists. The reason for existing is to pass on to the peruse what learning and thoughts have been set up on the theme, and what their qualities and shortcomings are.

## 2.2 Theoretical Review

### 2.2.1 Liquidity Preference Theory

Liquidity preference refers to the sum total of the cash the public is willing to hold given the interest rate. Keynes argued that there are three reasons for holding liquid assets. First, they act as ordinary transactions, second the act as a precaution against a rainy day, and third they are used for speculative purposes. Keynes showed that transaction deposits are inversely proportional to the rate of interest. The main argument in this theory is that an increase in money supply at low interest rates will lead to increase in cash balances and discourage people investment. The reason is that people expect the interest rate to rise later.

The theory further argues that the instability in interest rates in the country triggered this push for an avenue that was seen in the development of this theory. The theory suggested that the financial institutions did not have to maintain old liquidity standards as they have

no impact on asset stability in a bank. This demonstrates liquidity and liquidity premium segment of financing cost edge goes inverse way. Then again, the marvels that banks are hesitant to go out on a limb and confer new credits is portrayed as the „"credit crunch" issue. For this situation regardless of the possibility that loaning financing cost increment, banks don't raise their level of advance arrangement.

### 2.2.2 Shiftability Theory

Shiftability theory, developed by Bhattacharyya (2011), states that the level of defensible financial institution liquidity management is having possession or investing in legal capital capable of shifting solely to other investments in obtaining liquid equipment. Loan for instance becomes secondary back up while secondary back up shifts to become primary back up. This means Shiftability theory suggests that financial institutions should give credit paid with notification before they apply for commercial paper pawn. According to this theory insurance companies maintain liquidity if they hold assets that are marketable.

During a liquidity crisis such assets are easily converted into cash. Supposing when there are no hard cash, financial institutions tend to sell pawn goods on loan aiming to obtain adequate cash. The friction happens because collateral which is illiquid turns into liquid. Besides this they also often sell marketable securities like super common stock. As a result, the shiftability theory is comprehended to give description and confidence of management of financial institutions until certain degree of removable asset possession in condition is needed to fulfill liquidity management.

The shift ability theory of liquidity hypothesize that banks can shield themselves from huge deposit withdrawals by holding, credit for which there is a ready secondary market as a form of liquidity reserve. This includes commercial paper, prime bankers' receipts and Treasury bills. Furthermore, the practice of commercial bank loan commitment as it is done and prevails today is because of the shift ability theory of liquidity (Mugenyah, 2015). This theory follows two strands of literature. The first strand is that liquidity formation puts the commercial banks to jeopardy (Allen and Gale, 2004). This basically means that additional liquidity is formed the higher the likelihood and greater impact of losses related to having to sell-off illiquid assets in order to reach the demand of clients.

## 2.3 Determinants of Liquidity of Firms

The following are the determinants of liquidity in firms. They include:

### 2.3.1 Liquidity

Financial institution liquidity is the capacity of the firms to accomplish their monetary obligations when they fall due. Dang (2011) hold a view that adequate of liquidity in banks is positively linked with their success. Liquidity risk control is an obligatory factor of the general risk mitigation charter for all financial institutions (Majid, 2003). An efficient bank ought to adhere to a well documented framework for alleviation of liquidity risk and shun losses. Gatev and Strahan (2013) suggest that customer deposits offer an innate cushion against liquidity risk in commercial banks. The banking sector is interconnected meaning cash flows in one bank harmonize other banks whereby the inflows hedge other banks from outflows emanating from customer withdrawals and loan

advancements. There are contradictory views on whether liquidity influences financial performance of financial institution. Liquidity risk is positively correlated to Net Interest Margin; a suggestion that financial institution with substantial liquidity levels receive greater interest revenue. On the flipside, Molyneux and Thornton (1992) documented that an inverse relationship exists amid financial institution success and liquidity.

### 2.3.2 Size of the Firm

As indicated by the "too huge to fizzle" contention, expansive banks would profit by an understood certification, along these lines diminish their cost of financing and enables them to put resources into less secure resources. If immense banks are thinking about themselves to be "excessively huge, making it impossible to miss the mark", their motivation to hold liquid assets is limited. On the off chance that there ought to be an event of a liquidity need, they rely upon a liquidity help of Lender of Last Resort. Financial ratios such as total operating revenue to total profit indicate effective management by the financial institution's executives.

However, it is a sophisticated determinant of bank profitability as some studies show correlation between management practices and firm performance while others do not. Though some financial ratios portray management efficiency, the potential of executives to use its assets efficiently, enlarge income, while keeping costs minimal can be a hard undertaking to link with managerial activities. In spite of these limitations, management efficiency in this regard, has been conventionally considered as determining the extent of operating costs and ultimately determines financial performance. Noninterest operating

expenses to profit before tax ratio was used (Rauch et al. 2008; Berger and Bouwman 2009).

### 2.3.3 GDP growth

Macroeconomic setting is probably going to affect bank exercises and hypothesis choices as the profile of bank liquidity (Pana et al. 2009 and Shen et al. 2010). For instance, the energy for disengaged budgetary things is higher amidst cash related effect and may overhaul bank capacity to extend its encouraging and securities portfolios at a higher rate. In like manner, money related downturns are exacerbated by the reducing in bank credit supply. In context of these question, we can imagine that banks will expand their change rehearses and their illiquidity amidst cash related effects.

Bordo et al. (2001) recommend two enlightenments on the reason behind liquidity keeps running on store cash banks. They cleared up that keeps running on banks are a segment of mass cerebrum science or rage, with the genuine target that if there is a need of budgetary emergency and individuals take harden practices in want of the emergency, the cash related emergency curves up unmistakably unavoidable. Bordo et al. (2001) as well "affirms that emergencies are an inborn piece of the business cycle and result from stuns to monetary basics. At the point when the economy goes into a subsidence or sadness, resource returns are required to fall. Borrowers will experience issues reimbursing advances and investors, expecting an expansion in defaults or non-performing credits, will attempt to ensure their riches by pulling back bank stores. Banks are gotten between

the illiquidity of their advantages (advances) and the liquidity of their liabilities (stores) and may end up plainly indebted."

### 2.3.4 The rate of inflation

A creating theoretical written work depicts frameworks whereby notwithstanding obvious augmentations in the rate of extension interfere with the limit of the monetary division to designate resources feasibly. More especially, late speculations underline the centrality of illuminating asymmetries in credit features and show how augments in the rate of development unfairly impact recognize publicize disintegrations for negative repercussions for budgetary range (the two banks and esteem promote) execution and in this way long-run certifiable development.

Given this part, a development in the rate of swelling drives down the certifiable rate of benefit for money, as well as rather on assets all things considered. The recommended diminishment in authentic returns powers credit exhibit disintegrations. Since these market grindings provoke the allotting of credit, credit proportioning ends up being more genuine as development rises. In this way, the monetary division makes less credit, resource task is less capable, and delegate development decreases with threatening repercussions for capital/whole deal hypothesis. In this way, the measure of liquid or without a moment's hesitation assets held by money related masters.

## 2.4 Empirical Review

Various studies have been carried out to determine the relationship between liquidity and financial performance in different sectors of the economy and also internationally. Some of the empirical studies are summarized below.

### 2.4.1International Studies

ljelly (2004) likely inspected the relationship among proficiency and liquidity, as measured by current degree and money split on an instance of 929 business substances in Saudi Arabia. Utilizing affiliation and lose the faith examination, he found that there is a significant relationship which is negative between the firm favorable position and liquidity level

Ehiedu (2014) led an examination on the effect of liquidity on benefit of some chose organizations in Nigeria and reasoned that present proportion has a huge positive connection with productivity. The specialist trusted that the explanation behind this positive connection between current proportion and productivity is essentially in light of the fact that sit reserves, particularly when they are obtained, create benefit and less expenses in the business. Two organizations portrayed a negative relationship between's analysis proportion and profit for resources individually. From the outcomes, half of the organizations investigated showed a critical negative relationship between's present proportion and basic analysis proportion. Thus there was no distinct relationship between's present proportion and benefit in the examination.

Vieira (2010) examined the connection amongst liquidity and productivity in 48 organizations including the real aircraft bearers on the planet in the vicinity of 2005 and 2008. Utilizing the budgetary information distributed by the organizations, the relationship was considered with the assistance of factual methods. It was watched for all the contemplated years a noteworthy and positive connection between's the liquidity and the gainfulness factors in the short-run. The investigation additionally found that on the here and now the higher the liquidity level of the organization, the higher its benefit. It was additionally settled that there is certain connection between liquidity markers and gainfulness pointers on the medium to long haul. The examination was however directed for just a 3 year time span and the aircrafts work inside Europe, America and Asia. African transporters recorded were not melded in the examination.

Obida and Owolabi (2012) completed an examination on liquidity association and corporate effectiveness on storing up affiliations recorded on the Nigerian stock trade, the inevitable result of the examination was secured utilizing clear examination and the discovering demonstrates that liquidity association measured the degree was intended. Inside association was amped up for understanding the cash related effects of option basic choices. Likewise, technique producers reliably evaluated the tremendousness and distributional impacts of decision philosophies on the future budgetary execution of living arrangement business. Information was poor down utilizing a Z-score outline, this model was related with create bookkeeping information for the exposure of ranch working and money related troubles. The consequences of this examination displayed

that credit chance association fundamentally incited cash related execution of developing firms.

### 2.4.2 Local Evidence

Sanghani (2014) contemplated the impact of liquidity on financial performance of non-money related recorded organizations at the Nairobi Securities Exchange (NSE). Optional information was gathered from NSE and different relapse investigation utilized as a part of the information examination. The examination revealed that liquidity impact the money related execution of non-budgetary associations recorded at the NSE. The examination developed that present extent positively impacts the budgetary execution and moreover revealed that an extension in working pay extent insistently impacts the money related execution of nonfinancial associations recorded at the NSE. The examination suggested that there is need for nonfinancial affiliations recorded at the NSE to develop their present resources.

Maina (2011) explored on connection amongst liquidity and productivity of oil organizations in Kenya covering the period 2007 - 2010. Optional information was utilized as a part of the investigation that was gotten from the association's money related proclamations. A relapse display was created to decide the connection between the reliant variable (Profitability of the organizations) and autonomous factors (liquidity position). The free factor utilized as a part of the model comprised of current proportion, speedy proportion, money transformation cycle, while use and the age of the firm were utilized

as control factors. They found that the liquidity have a minimal influence on the performance of the organization.

Tianwei and Paul (2006) inspected the connection between liquidity administration and financial performance. Loan specialists go for enhancing their credit chance administration. The enthusiasm of the inward administration was to comprehend the money related effects of option key choices. The information was then broke down utilizing a Z-score show, which was connected to foundation bookkeeping information for the recognition of working and budgetary administration. The aftereffects of this investigation demonstrated that credit chance administration altogether prompted financial performance of monetary foundations.

### 2.5 The Conceptual Framework

A conceptual framework is an arrangement of expansive thoughts and standards taken from significant fields of enquiry and used to structure a resulting introduction (Bennett, 2012).

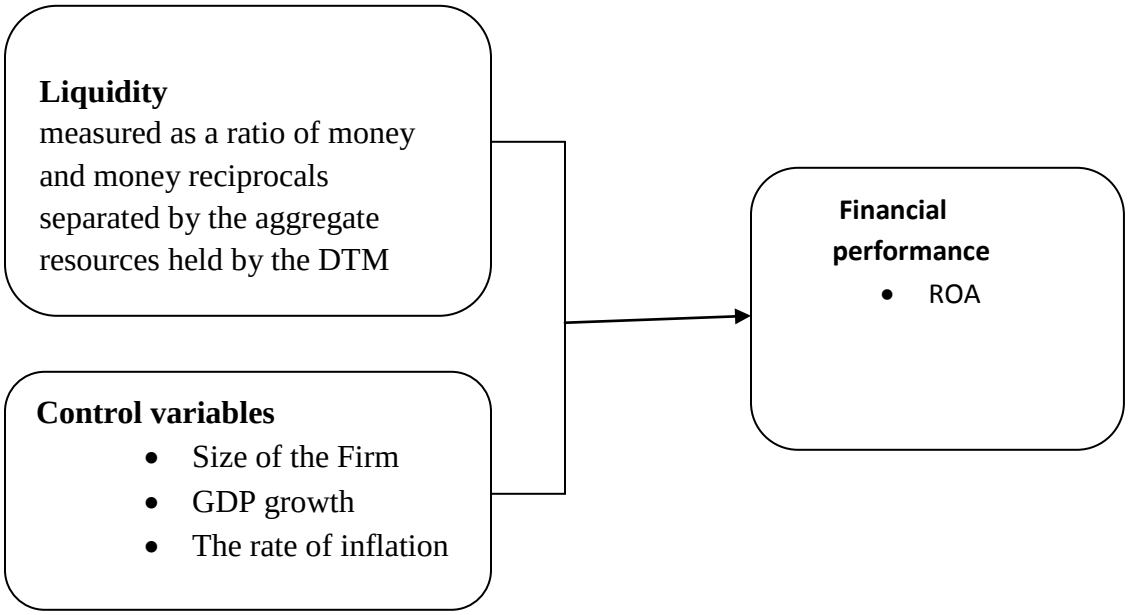


**Figure 2.1: Conceptual Framework**

## 2.6 Summary of Literature Review

Every examination has been driven under different money related conditions and in this way can't be used to whole up conclusions in various economies. The observational verification has also demonstrated a close relationship exists between liquidity organization and budgetary execution. Thusly, there is necessity for each and every money related foundation to sharpen sensible threats organization to guarantee the

premiums of theorists. The across the board examination drove so far in various nations are in danger to various money related conditions and security; made broadcasts and making markets.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

This chapter discusses the methodology that was used in gathering, analyzing the data and reporting the results. It describes the type and source of data, the population and the sampling methods and techniques used to select the sample size. Further, it describes how data was collected and analyzed and concludes with the ethical issues deemed likely to influence the implementation of the study and how they will be dealt with.

## 3.2 Research Design

This was a descriptive design where the specialists assembled information from the distributed financial articulations of Deposit Taking Microfinance organizations in Kenya. The investigation utilized both quantitative and subjective strategies through examination of the financial explanations utilizing different models and proportions to give transcendently quantitative and subjective information to the examination. The subjective information was utilized to reveal some insight into the quantitative information to empower for a more top to bottom investigation of the examination issue. The information utilized was from the distributed financial explanations.

## 3.3 Target Population

The aim of the populace in an examination is the aggregate number of people in a gathering or the quantity of gatherings that the scientists are expecting to work with (Cooper and Schindler 2001). This objective populace is the general number of people

that can be worked with on a specific research ponder. Cooper and Schindler (2001) terms the populace as the aggregate gathering of the components about which the specialists was expecting to make their surmising from. In this investigation, the objective populace is the 9 microfinance organizations (informative supplement I) which are engaged with store taking.

## 3.4 Sampling Design

As indicated by Cozby (1999), examining that piece of the statistical practice that is concerned with the determination of individual perceptions with an expectation to yield some information about a populace of concern particularly for the reasons for statistical deductions. Each of the detectable measures is considered to quantify at least one properties of a recognizable element that has been identified to recognize the items. The sampling technique that was employed in this study was a census with a clear preference on this based on the fact that the population sample is a bit small.

## 3.5 Data Collection

The investigation utilized auxiliary information that was acquired from the monetary explanations of the Deposit Taking Microfinance foundations (DTMs) in Kenya. Proportion investigation and different models was utilized to break down the auxiliary information gathered. The objective information in this examination was the working capital part of the budgetary articulations and the benefits made in each of the money related a very long time from 2012-2016.

## 3.6 Data Analysis

Data analysis includes sorting out, representing and clarifying the data; that, comprehends the data as far as respondents' meaning of the circumstance taking note of examples, subjects, classes and regularities (Cooper and Schindler 2001). After the data has been broke down, an interrogation was done to guarantee the pattern and examples of the different proportions and models used to empower for an exact and finish understanding. The data was thereafter analyzed using a statistical computer package, the SPSS. Qualitative statistical techniques was used during the analysis. The researcher used non-parametric tests in the computation on correlation, frequencies, percentages, standard deviations, graphs and charts.

### 3.6.1 Analytical Model

An analytical model was connected to decide the impacts of each of the factors as for financial execution. analytical concerned about portraying and assessing the connection between a given variable and at least one different factors. All the more particularly, relapse is an endeavor to clarify developments in a variable by reference to developments in at least one different factors.

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

Where Y: is the firm's financial performance as measured by ROA,

$X_1$= Liquidity: It is measured as a ratio of money and money reciprocals separated by the aggregate resources held by the DTM foundations.

$X_{2:}$ = Size of the Firm: it's a measure of assets held by a firm

$X_3$: = GDP growth rate : It's a measure of contrasting one fourth of the nation's GDP to the past quarter

$X_{4:}$ = The rate of inflation: A measure of value changes in shopper merchandise and ventures, for example, gas, nourishment, dress and cars. The CPI measures value change from the point of view of the buyer

ε: Error term. α: Intercept.

βi , : coefficient of the free factor I which measures the responsiveness of Y to changes in I

### 3.6.2 Tests of Significance

The F-test was used to choose the significance of the backslide while the coefficient of affirmation, R2, was used to choose how much assortment in subordinate variable is illuminated by free factors. This was done at 5% criticalness level and association examination was done to find the orientation of the association among ROA and the self-governing elements.

# CHAPTER FOUR

# DATA ANALYSIS, RESULTS AND DISCUSSION

## 4.1 Introduction

This section involves introduction, examination and understandings of study discoveries. The primary goal of the investigation was to discover how liquidity impacts the execution of microfinance organizations taking stores.

## 4.2 Response Rate

The researcher used the entire population of 13 Deposit Taking microfinance Institutions in Kenya for the period, 2012-2016. However, the researcher was able to obtain information for 9 institutions for the entire period as the others were not yet licensed from the start of the period. This represents a response rate of 69% which according to Mugenda & Mugenda (2013) it is an adequate response rate that may be used for analysis and interpretation about the entire population.

## 4.3 Descriptive Statistics

This section presents the findings that were obtained from the descriptive statistics that includes the minimum, maximum, mean, standard deviation, kurtosis and skewness.

**Table 4.1 Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation | Skewness | | Kurtosis | |
|---|---|---|---|---|---|---|---|---|---|
| | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| Y=ROA | 45 | -26.9036 | 3.8043 | -2.068806 | 6.0860780 | -2.532 | .354 | 6.753 | .695 |
| X1= liquidity | 45 | 9.0 | 217.0 | 40.273 | 33.5232 | 3.791 | .354 | 17.808 | .695 |
| X2= size | 45 | 4.3175 | 10.3783 | 7.021265 | 2.0052306 | .412 | .354 | -1.315 | .695 |
| X3= growth rate | 45 | 4.5 | 5.9 | 5.480 | .5290 | -1.132 | .354 | -.261 | .695 |
| X4= Inflation | 45 | 7.5800 | 11.3600 | 9.702000 | 1.2323658 | -.565 | .354 | -.385 | .695 |
| Valid N (listwise) | 45 | | | | | | | | |

Source: Author, 2017

The dependent variable (Y) shows that the institution with the highest ROA had a record of 3.8% while the lowest had -26.9%. The mean was -2.07% with a standard deviation of 6.1. The data was negatively skewed with a skewness of -2.532 and a kurtosis of 6.7.

X1 is independent variable that represents liquidity of the institutions. The institution with the highest liquidity recorded 217% and the lowest recorded 9%, with a mean of 40% and a standard deviation of 33.5. The data is positively skewed with a skewness of 3.8 and a kurtosis of 17.8.

X2 was a control variable which represents the size of an institution that was measured by the natural log of total assets of an institution. The highest was 10.4 and the lowest was 4.3 with a mean of 7.02 with a standard deviation of 2. Data is positively skewed with a skewness of .41 and a negative kurtosis of -1.3.

X3 is a macro-economic variable that represent the GDP growth rate. The highest growth rate recorded in the study period was 5.9 while the lowest was 4.5 with a mean of 5.48 and a standard deviation of .53. The data is negatively skewed with a skewness of -1.13 and a kurtosis of -.261.

X4 is another macroeconomic variable that represent inflation rate. The highest level of inflation within the period was 11.36% and the smallest level was 7.6%, with a mean of 9.7 and a standard deviation of 1.23. It is negatively skewed at -.57 and a kurtosis of -.39.

## 4.4 Correlation Analysis

Table 4.2 below shows the Pearson's correlation coefficient generated from the data. Pearson's correlation analysis is used to investigate the relationship between variables in the study.

**Table 4.2: Pearson Correlation coefficients**

| | *Y=ROA* | *X1= liquidity* | *X2= size* | *X3= growth rate* | *X4= Inflation* |
|---|---|---|---|---|---|
| Y=ROA | 1 | | | | |
| X1= liquidity | 0.1464983 | 1 | | | |
| X2= size | 0.3465347 | -0.2143919 | 1 | | |
| X3= growth rate | -0.053007 | -0.1283737 | 0.118955 | 1 | |
| X4= Inflation | 0.0064237 | -0.2443836 | -0.01511 | -0.021587416 | 1 |

Source: Author, 2017

From the table above, all the factors have a positive correlation with the dependent variable, apart from growth rate (X3) which has a negative correlation. The inflation rate has also a weak positive correlation with the performance. This shows that the macro-economic variables have a weak correlation with Y and therefore, their influence on the financial performance of Deposit taking microfinance institutions in Kenya is small.

Liquidity and size of the firm on the other hand have positive correlation with performance of these firms. The correlation is stronger with the size rather than with liquidity as shown by the table above. 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).

## 4.5 Regression Analysis

The research study wanted to establish the relationship between liquidity and performance of Deposit Taking Microfinance institutions in Kenya. To get performance of the Deposit Taking Microfinance institutions in Kenya, Return on asset (ROA) was calculated for the 9 Deposit Taking Microfinance institutions in Kenya.

**Table 4.3: Model summary**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .425[a] | .181 | .099 | 5.7770555 |

a. Predictors: (Constant), X4= Inflation, X2= size, X3= growth rate, X1= liquidity

The study sought to establish the regression model significance, the data of which is presented in Table 4.3. A coefficient of determination (R-square) value of 0.181 was established. This underscores the fact that liquidity accounted for 18.1% changes in financial performance of Deposit Taking Microfinances in Kenya.

The research findings indicated that the model only explained 18% of the data variations. Liquidity therefore explains only 18.1% of the financial performance of deposit taking institutions in Kenya, while the other 72% are explained by other factors that are outside the model.

**Table 4.4: Analysis of Variance ANOVA**

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 294.800 | 4 | 73.700 | 2.208 | .085[b] |
| | Residual | 1334.975 | 40 | 33.374 | | |
| | Total | 1629.775 | 44 | | | |

a. Dependent Variable: Y=ROA

b. Predictors: (Constant), X4= Inflation, X2= size, X3= growth rate, X1= liquidity

Analysis of Variance was used to test the significance of the regression model as pertains to significance in the differences in means of the dependent and independent variables. The ANOVA test produced an f-value of 2.21 and a significance of ($p = 0.085$) at 95% confidence level. From the F distribution table, the F critical at 44 degrees of freedom and four variables is 2.58. This shows that the F critical value is > than calculated value of F (2.58>2.21). We therefore accept the null hypothesis and conclude that the relationship between liquidity and financial performance for deposit taking microfinance in Kenya is not significant.

The P value is also 0.085 and therefore greater than the alpha value of 0.05. We therefore conclude that the relationship is insignificant at 95% confidence level.

**Table 4.5: Regression Coefficients**

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -11.553 | 12.566 | | -.919 | .363 |
| | X1= liquidity | .044 | .028 | .242 | 1.589 | .120 |
| | X2= size | 1.237 | .448 | .408 | 2.764 | .009 |
| | X3= growth rate | -.793 | 1.670 | -.069 | -.475 | .638 |
| | X4= Inflation | .347 | .732 | .070 | .475 | .638 |

a. Dependent Variable: Y=ROA

The model was used to establish of the relationship between liquidity and financial .

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_3 X_{4+} \varepsilon$

$Y = -11.55 + 0.044X_1 + 1.237X_2 - 0.793X_3 + 0.347\ X_4 + 12.566$

The constant which is -11.55 implies that if all the determinant variables were rated zero, then the constant and error term would give the model an effect of 1.06% on financial performance. A unit increase in liquidity, firm size, and Inflation Rate, would lead to increase in financial performance by 0.044, 1.237 and 0.347 respectively. A unit increase in growth rate would however reduce the financial performance by 0.793.

## 4.6 Discussion of Findings

The findings from this study, showed that although there exists a relationship that links liquidity to financial performance, the relationship is not significant enough at 95% to explain the relationship between the variables. The coefficient of determination of this

study was 18.1% which showed that the model only explained 18.1% of financial performance of deposit taking microfinance institutions in Kenya.

The F test also showed that the calculated value of F was less than the F critical value of the study. The alpha value of 0.05 was also less than the p value calculated at 0.085. This therefore led the researcher to accept the null hypothesis and therefore conclude that the effect of liquidity on financial performance of deposit taking microfinance institutions in Kenya is insignificant.

This outcome is consistent with the outcome by Molyneux and Thornton (1992) who demonstrate that the proportion of fluid advantages for add up to resources is contrarily identified with return on resources ROA. Barth et al. (2003) concludes that liquidity hazard measured by the proportion of fluid resources for add up to resources is adversely identified with return on resources ROA. Athanasoglou et al. (2006) also concludes that liquidity hazard, measured by the proportion of credits on add up to resources has no impact on return on resources ROA and profit for value ROE. The budgetary execution of the Deposit Taking Microfinances was measured by ROA. The discoveries from the investigation uncovered that liquidity had a positive relationship on return on resources. This outcome is however inconsistent with discoveries by Zeitun and Tian (2007) who settled that liquidity has a critical and positive effect on company's execution. The outcome also contradicts Schroeck (2002) who recommends that guaranteeing best practices through reasonable hazard administration result in expanded income and backings Zulfiqar and Anees (2012) discoveries who analyzed Liquidity hazard and managing an account framework execution in Pakistan for the period secured was 2004-2009 and discovered that liquidity chance essentially influences bank productivity and

furthermore bolsters Bourke (1989) comes about that the liquidity proportion measures by fluid resources for add up to resources is emphatically identified with return on resources (ROA).

# CHAPTER FIVE

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Introduction

This chapter presents summary of discoveries as talked about in chapter four and interpretations of the information investigation, conclusions and proposals in view of the discoveries. The point of the investigation was to decide the impact of liquidity and monetary execution of store taking microfinance foundations in Kenya.

## 5.2 Summary

The objective of the study was to decide the impact of liquidity and money related execution of store taking microfinance organizations in Kenya. Research information was gathered from monetary explanations of Deposit Taking Microfinance Institutions in Kenya. The researcher found out that the macroeconomic variables specifically the growth rate and the inflation rate, had a correlation of almost zero with performance of deposit taking microfinance institutions in Kenya. This suggests that performance of these institutions is rarely affected by the said macro-economic factors.

From the discoveries of the relapse examination, the study found that there was a variety of 18.1% on money related execution of Deposit Taking Microfinance Institutions in Kenya because of changes in firm size, expansion rate and GDP development. This means that only 18.1% changes in money related execution of Deposit Taking Microfinance Institutions in Kenya could be represented by firm size, expansion rate and

GDP development. The study additionally uncovered that there was insignificant connection between current liquidity, firm size, expansion rate, GDP development and money related execution.

The F test showed that the calculated F was less than F critical and the p value was greater than the alpha value of 0.05 as explained in the previous chapter. This therefore led the researcher to accept the null hypothesis thereby concluding that there is insignificant effect of liquidity on the financial performance of deposit taking microfinance institutions in Kenya.

A unit increase in liquidity, firm size, and Inflation Rate, would lead to increase in financial performance by 0.044, 1.237 and 0.347 respectively. A unit increase in growth rate would however reduce the financial performance by 0.793. The resultant model therefore looks as follows;

$Y = -11.55 + 0.044X_1 + 1.237X_2 - 0.793X_3 + 0.347 X_4 + 12.566$

The results of this study are consistent with results by Molyneux and Thornton (1992), Barth et al. (2003), and Athanasoglou et al. (2006). They are however inconsistent with results by Zeitun and Tian (2007), Schroeck (2002) and Anees (2012).

## 5.3 Conclusion

The findings showed that the macro-economic factors have little effect on the financial performance of DTM. Therefore, managers and policy makers in these organizations may not necessarily spend much time with analysis of the macro variables.

The liquidity has also been found to have insignificant effect on financial performance of these institutions. This would mean that the policy makers would maintain liquidity to the level required by the regulator as going below that level would have serious implications

from the regulator. However, liquidity should not be considered by the policy makers as an active factor to consider in order to improve the profitability of the institution.

It is also clear from the study that an expansion in firm size will emphatically influences the financial performance of Deposit Taking Microfinance Institutions in Kenya. Probable increasing assets in an organization enhances the assets to bring in more income thereby increasing profitability and performance of the Deposit Taking Microfinance Institutions in Kenya

For the accomplishment of operations and survival, Deposit Taking Microfinance Institutions in Kenya ought not to trade off proficient and compelling liquidity administration. They are relied upon to keep up ideal liquidity level with a specific end goal to fulfill their monetary commitments to augment money related execution for the investors. The quest for high budgetary execution without thought to the liquidity level can cause extraordinary illiquidity. In this manner, any monetary foundation that has the point of boosting its money related execution level must receive compelling liquidity administration.

## 5.4 Recommendations for Policy

The study recommends that companies should increase in firm size for their financial performance to increase. This is because firm size affects financial performance positively.

The study recommends that companies should focus on attaining the set required level of liquidity by the regulator and not beyond that as high liquidity levels would not necessarily mean that there will be improvement in financial performance.

The study also shows that macro-economic variables, such as inflation and growth rate, do not have significant effect and relationship on performance of deposit taking microfinance institutions in Kenya. Therefore, little effort should go towards establishing measure to counter changes in such macro-economic variables.

## 5.5 Limitations of the Study

This study was not without confinements. In accomplishing its objective the study was restricted to a 5 years' time frame beginning structure year 2012 to year 2016. Auxiliary information was gathered from the monetary proclamations of Deposit Taking Microfinances, CBK and the Kenya National Bureau of Statistics. Some DTMs were opened in 2013 hence the year 2012 data was not available. The study was additionally constrained to the level of accuracy of the information acquired from the optional source. While the information was evident since it originated from the money related proclamations of Deposit Taking Microfinances in Kenya and Kenya National Bureau of Statistics, it non-the less could even now be inclined to these deficiencies.

The study depended on a 5 year time frame from the year 2012 to 2016. A more drawn out length of the study will have caught times of different monetary significances, for example, blasts and subsidences. The study was likewise constrained to Deposit Taking Microfinances in Kenya, different microfinances were excluded in this study.

## 5.6 Suggestions for Further Research

The study prescribes a further study to be done on the impacts of liquidity on budgetary execution of different foundations like banks in Kenya. The study prescribes additionally look into for these divisions to affirm if there is in fact a connection amongst liquidity and gainfulness in these organizations.

Further research should be carried out that will incorporate MFIs that are not deposit taking as well as other institutions in different sectors for comparison purposes.

Future researchers may also consider using primary data. This will result to correctness, completeness and reliability of the resultant information.

Consideration of other factors that influences financial performance of organizations should be carried out by future researchers in order to deduce significant factors influencing financial performance.

# REFERENCES


Almajali, Y. A., Alamro. A & Al-Soub, Z. Y. (2012). Factors Affecting the Financia performance of Jordanian Insurance Companies Listed at Amman Stock Exchange; Journal of Management Research, 4(2), 226-289

Banos-Caballero S, PJ. Garcia- Teruel, and PJ. Martinez-Solano, (2012) "How does working capital management affect the profitability of Spanish SMEs?", *Small Business Economics*, 39(1), 517-529.

Christen, R.P., Lyman, T.R. & Rosenberg, R. (2013). *Microfinance consensus guidelines and guiding principles on regulation and supervision of microfinance*. CGAP publication

Cooper, C.M., and Emory, D.R., (1995). *Introduction Financial Management*, 3rd ed, McGraw- Hill, New York.

Deloof, M, (2003). Does liquidity affect profitability of Beligian firms? *Journal of business finance and accounting,* 30, 573-587.

Dodds, J. Colin, (1982) "The Term Structure of Interest Rates: a Survey of the Theories and Empirical Evidence", Managerial Finance, Vol. 8 Iss: 2, pp.22 - 31 (1982) "The Term Structure of Interest Rates: a Survey of the Theories and Empirical Evidence", Managerial Finance, Vol. 8 Iss: 2, pp.22 – 31

Eljelly, "Liquidity-Profitability Tradeoff: An empirical Investigation in an Emerging Market", International Journal of Commerce & Management, 14 (2), 48 - 61.

Gockel, F. A. & Brown bridge, M. (2007). *The Impact of Financial Sector Policies on Banking Sector*

Halling, M. & Hayden, E. (2006). Bank failure prediction: a two- step survival time approach, C.R.E.D.I.T. Conference, Austrian National Bank, Vienna, 31; 101-109.

Holmstrom, B. & Tirole, J. (2000). Liquidity and risk management, Journal of Money Credit and Banking, 32(3):295- 319.

Howells, P. & Bain, K. The Economics of Money, Banking and Finance. 3rd edit. Prentice Hall, Essex. 2005.

Jeanne, O. & Svensson, L.O. (2007). Credible commitment to optimal escape from a liquidity trap: the role of the balance sheet, The American Economic Review, 97(1):474- 490.

Kashyap, K. Rajan, R. & Stein, C. (2002). Banks as liquidity providers: an explanation for the coexistence of lending and deposit- taking, The Journal of Finance, 57(1):33- 73.

Kashyap, K. Rajan, R. & Stein, C. (2002). Banks as liquidity providers: an explanation for the coexistence of lending and deposit- taking, The Journal of Finance, 57(1):33- 73

Kazi, A. M. (2012). Promoting deposit mobilization and financial inclusion. *Journal of Marketing*, Vol. 5.

Maina, H. (2011). Relationship between the liquidity and profitability of oil companies in Kenya. Unpublished MBA Project, University of Nairobi

Maness, T. S. & Zietlow, J.T. (2005). Short-term Financial Management. SouthWestern/Thomson Learning, Ohio,

Morduch, J. (2008). *Does Microfinance Really Help the Poor*? Evidence from Flagship Programmes in Bangladesh'. Hoover Institution, Stanford University (mimeo).

Mugenda and Mugenda (2013). *Research methodologies for Social Researchers.*

Rhyne, E. 2012. *The experience of microfinance institutions with regulation and supervision.* ACCION International, 10 September.

Sanghani, D.A. (2014). The Effect of Liquidity on the Financial Performance of Non-Financial Companies Listed At the Nairobi Securities Exchange. Unpublished MBA Project, University of Nairobi.

Shin,H.H and Soenen, L., (1998). Efficiency of working capital and corporate profitability, *Financial Practice and Education*, 8, 37-45.

# Appendix I: List of MFIs involved in Deposit Taking Business

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: Data Collection Form

| **Year** | **2012** | **2013** | **2014** | **2015** | **2016** |
|---|---|---|---|---|---|
| Financial performance: **ROA** | | | | | |
| Liquidity | | | | | |
| Size of the Firm | | | | | |
| GDP growth | | | | | |
| The rate of inflation | | | | | |

## Appendix III: Raw data

| **1. Faulu Kenya DTM Limited** | **2012** | **2013** | **2014** | **2015** | **2016** |
|---|---|---|---|---|---|
| Financial performance: **ROA** | 0.76 | 1.475 | 0.02 | 0.45 | 0.18 |
| Liquidity | 15.09 | 11.69 | 13.98 | 19.8 | 14.3 |
| Size of the Firm | 6 | 7 | 7 | 7 | 7 |
| GDP growth | 4.5 | 5.9 | 5.4 | 5.7 | 5.9 |
| The rate of inflation | 9.64 | 5.71 | 6.88 | 6.58 | 6.32 |
| **2. Kenya Women Finance Trust DTM Limited** | **2012** | **2013** | **2014** | **2015** | **2016** |
| Financial performance: **ROA** | 0.85 | 1.8 | 1.9 | 1.2 | 0.7 |
| Liquidity | 25.11 | 20.27 | 17.77 | 19.60 | 19.53 |
| Size of the Firm | 7 | 7 | 7 | 8 | 8 |
| GDP growth | 4.5 | 5.9 | 5.4 | 5.7 | 5.9 |
| The rate of inflation | 9.64 | 5.71 | 6.88 | 6.58 | 6.32 |
| **3. SMEP Deposit Taking Microfinance Limited** | **2012** | **2013** | **2014** | **2015** | **2016** |
| Financial performance: **ROA** | 2.3 | 1.9 | -4.2 | -0.1 | -5.0 |
| Liquidity | 16.2 | 40.1 | -4.07 | 13.5 | 17.6 |
| Size of the Firm | 3 | 3 | 3 | 3 | 3 |
| GDP growth | 4.5 | 5.9 | 5.4 | 5.7 | 5.9 |
| The rate of inflation | 9.64 | 5.71 | 6.88 | 6.58 | 6.32 |
| **4. Remu DTM Limited** | **2012** | **2013** | **2014** | **2015** | **2016** |

| | | | | | |
|---|---|---|---|---|---|
| Financial performance: **ROA** | -0.41 | -1.7 | 0.7 | -3.8 | -0.3 |
| Liquidity | -3.8 | 4.2 | 33.7 | 21.9 | 17.4 |
| Size of the Firm | 3 | 3 | 3 | 3 | 3 |
| GDP growth | 4.5 | 5.9 | 5.4 | 5.7 | 5.9 |
| The rate of inflation | 9.64 | 5.71 | 6.88 | 6.58 | 6.32 |
| **5. Rafiki Deposit Taking Microfinance** | **2012** | **2013** | **2014** | **2015** | **2016** |
| Financial performance: **ROA** | 0.00 | 0.02 | 0.03 | 0.4 | 0.5 |
| Liquidity | 0.27 | 3.1 | 8.7 | 5.4 | 6.7 |
| Size of the Firm | 4 | 4 | 4 | 4 | 4 |
| GDP growth | 4.5 | 5.9 | 5.4 | 5.7 | 5.9 |
| The rate of inflation | 9.64 | 5.71 | 6.88 | 6.58 | 6.32 |
| **6. Century Deposit Taking Microfinance Limited** | **2012** | **2013** | **2014** | **2015** | **2016** |
| Financial performance: **ROA** | 0 | -16.4 | -14.7 | -26.9 | -0.18 |
| Liquidity | 0 | 0.9 | 6.7 | 15.7 | 6.6 |
| Size of the Firm | 0 | 1 | 1 | 1 | 1 |
| GDP growth | 0 | 5.9 | 5.4 | 5.7 | 5.9 |
| The rate of inflation | 0 | 5.71 | 6.88 | 6.58 | 6.32 |
| **7. Uwezo Deposit Taking Microfinance Limited** | **2012** | **2013** | **2014** | **2015** | **2016** |

| | | | | | |
|---|---|---|---|---|---|
| Financial performance: **ROA** | -2.5 | -1.8 | 0.62 | 0.1 | 1.8 |
| Liquidity | 25.6 | 9.3 | 6.25 | 4.9 | 6.7 |
| Size of the Firm | 2 | 2 | 2 | 2 | 2 |
| GDP growth | 4.5 | 5.9 | 5.4 | 5.7 | 5.9 |
| The rate of inflation | 9.64 | 5.71 | 6.88 | 6.58 | 6.32 |
| **8. SUMAC DTM Limited** | **2012** | **2013** | **2014** | **2015** | **2016** |
| Financial performance: **ROA** | 0 | -3.5 | 1.02 | 1.2 | 0.17 |
| Liquidity | 0 | 7.8 | 7.9 | 9.8 | 8.2 |
| Size of the Firm | 0 | 2 | 2 | 3 | 3 |
| GDP growth | 0 | 5.9 | 5.4 | 5.7 | 5.9 |
| The rate of inflation | 0 | 5.71 | 6.88 | 6.58 | 6.32 |
| **9. U&I Deposit Taking Microfinance Limited** | **2012** | **2013** | **2014** | **2015** | **2016** |
| Financial performance: **ROA** | 0 | 1.25 | 1.45 | 3.8 | 1.9 |
| Liquidity | 0 | 4.6 | 29.9 | 15.2 | 15.6 |
| Size of the Firm | 0 | 2 | 2 | 2 | 2 |
| GDP growth | 0 | 5.9 | 5.4 | 5.7 | 5.9 |
| The rate of inflation | 0 | 5.71 | 6.88 | 6.58 | 6.32 |