

**THE EFFECT OF OPERATIONAL GROWTH ON FINANCIAL
PERFORMANCE OF DEPOSIT TAKING MICRO FINANCE
INSTITUTIONS IN KENYA**

BY

SAMUEL OCHIENG ODONGO

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

OCTOBER 2015

DECLARATION

This research project is my original work and has not been presented to any other University or Institution for higher learning for academic award.

Signature.....Date.....

Samuel Ochieng Odongo

D61/70894/2014

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

Signature: Date:

Mr Herick Ondigo

**Lecturer:
Department of Finance and Accounting
University of Nairobi**

TABLE OF CONTENTS

DECLARATION	i
ACKNOWLEDGEMENTS	v
DEDICATION	vi
LIST OF ABBREVIATIONS.....	vii
LIST OF TABLES	viii
ABSTRACT.....	v
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the Study	1
1.1.1 Operational Growth	2
1.1.2 Financial Performance	4
1.1.3 Effects of Operational Growth on Financial Performance	4
1.1.4 Deposit Taking Microfinance Banks in Kenya.....	6
1.2 Research Problem	7
1.3 Research Objectives.....	9
1.4 Value of the Study	9
CHAPTER TWO: LITERATURE REVIEW	11
2.1 Introduction.....	11
2.2 Theoretical Review	11
2.2.1 Reduction of Financial Cost Theory	11

2.2.2 Information Provision Theory	12
2.2.3 Financial Sustainability Theory.....	13
2.3 Determinants of Financial Performance	15
2.3.1 Operational Capital	15
2.3.2 Branch Network.....	15
2.3.3 Number of Customers Served.....	17
2.3.4 Operational Growth	17
2.4 Literature Review.....	18
2.4.1 International Evidence.....	18
2.4.2 Local Evidence	20
2.5 Summary of Literature Review.....	23
CHAPTER THREE: RESEARCH METHODOLOGY	24
3.1 Introduction.....	25
3.2 Research Design.....	25
3.3 Population of Study.....	25
3.4 Data Collection	25
3.5 Data Analysis	25
3.5.1 Analytical Model	26
3.5.2 Test of Significance	27

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND INTERPRETATION	28
4.1 Introduction.....	28
4.2 Descriptive Statistics.....	28
4.3 Inferential Statistics	29
4.3.1 Correlation Analysis	29
4.3.2 Regression Analysis.....	30
4.3.3 Analysis of Variance.....	32
4.3.4 Regression Model Coefficients.....	34
4.4 Interpretation of the Findings.....	35
CHAPTER FIVE: SUMMARY ,CONCLUSIONS AND RECOMMENDATIONS.....	39
5.1 Introduction.....	39
5.2 Summary	39
5.3 Conclusion	41
5.4 Recommendation for Policy and Practice.....	42
5.5 Limitation of the Study	42
5.5 Suggestion for Further Research.....	43
REFERENCES.....	44
APPENDICES.....	48

ACKNOWLEDGEMENTS

My sincere gratitude goes to my supervisor Mr Herick Ondigo for the intellectual advice and encouragement that he has given me. Special thanks go to my family members especially my wife Lilian and son Dylan for creating a conducive environment for learning during my studies. I also thank the entire administration and management of the University of Nairobi for their co-operation and all those who have sacrificed their time towards the contribution of this noble exercise. I am deeply indebted to many others like Dr.Samuel Okwachi whom I also consulted in the course of preparing this Project. I thank them for being supportive and co-operative in various ways.

DEDICATION

I dedicate this research Project to my wife for her support during this process. I will remain forever grateful.

LIST OF ABBREVIATIONS

AMFI	Association of Microfinance Institutions
CBK	Central Bank of Kenya
CGAP	Consultative Group to Assist the Poor
DTMFIs	Deposit Taking Micro Finance Institutions
FD	Financial Deepening
NGOs	Non-Governmental Organizations
OSS	Operational Self-sufficiency
ROA	Return on Asset
ROCE	Return on Capital Employed
ROE	Return on Equity
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for Social Sciences
SACCOs	Saving and Credit Cooperative Organizations

LIST OF TABLES

Table 4.1 Descriptive Statistics.....	24
Table 4.2 Correlation Analysis.....	26
Table 4.3 Model Summary.....	27
Table 4.4 ANOVA.....	29
Table 4.5 Regression coefficients.....	34

ABSTRACT

Operational growth is critical to modern day organizations even for microfinance sector, but achieving operational growth can be a challenge for even the most ambitious organizations. Deposit Taking microfinance institutions experiences an enduring problem how to attain operational growth and financial performance. The objective of this study is to determine the effect of operational growth on financial performance of Deposit Taking Microfinance Institutions in Kenya. Even though some researches have been conducted on this area of study, the problem has attracted attention of numerous researchers in recent past and as a result many strategies have been put in place to ensure operational growth. A descriptive research design was used in this study. The study focused on 12 licenced DTMFIs in Kenya. The researcher obtained secondary data for four years (2010-2014) from the Association of Microfinance Institutions (AMFI), Central Bank of Kenya (CBK) and published newspapers, and the DTMFIs' websites. The data analysis method to be used was based on quantitative approach using descriptive statistics and inferential methods which include; measures of central tendency (mean, median, mode), measures of dispersion (range, variance, standard deviation,), measures of relative position and measures of relations and associations, correlation and regression. The regression analysis established that the four independent variables (operational growth, operational capital, branch network, and customers served) have a positive correlation with the dependent variable (financial performance). A positive correlation between the study variables was established by R-square value of 0.013. ANOVA analysis findings established that that there was correlation between the predictor variables, including operational growth, operational capital, branch network, and number of customers served; and response variable, which is the financial performance since P- value of 0.888 (88.8%) at 0.95 (95%), which revealed a positive relationship between the variables used in this study. The study therefore recommends that further studies should be carried out in future when the DTMFIs have been in existence for a longer period.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Microfinance is defined as “financial services for poor and low income clients” (microfinance gateway, 2009). Gert Va Maannen (2004) defines microfinance as “banking the unbankables, bringing credit, savings and other essential finance services within the reach of millions of people who are too poor to be served by regular banks, in most cases because they are unable to offer sufficient collateral”(Maanen,2004).Although microfinance transactions has historical origins, such as borrowing from relatives or friends based on trust, the formal birth of microfinance was in 1970s when Mohammed Yunus, who won Nobel Prize in 2006, established Grameen Bank(Cull et al, 2009)

In Kenya and indeed in most of the African countries, microfinance emerged in early 1980’s. The concept of financing at community or micro level is however not a totally new invention but rather an evolution very much like any social activities and traditions. The need for economic development has seen the growth of micro finance institutions which in normal cases start as Chamas. Chamas are small group of individuals who come together with an aim of accomplishing an investment objective. According to Onumah (2002) the development of Chamas has led to the development of micro finance Institutions in and the sector has rapidly expanded in Kenya as a source of credit for small scale businesses.

MFI can be proclaimed to be self-sustainable if, without using of subsidies, grants or other concession resources can profitably provide finance to poor on an acceptable scale (Pissarides, 2004). Sustainable MFIs have repeatable operations, they are able to serve poor now and in future as well. For example, over the last 17 years, as lending methodologies and systems improved, Faulu Kenya has grown to become a company with 27 branches and a presence in most counties of Kenya besides launching a number of other savings and credit products in response to the market needs of its existing and potential clients. It is in line with this background that the study wishes to determine the effects of sustainable growth on financial performance of Microfinance Institutions in Kenya.

1.1.1 Operational Growth

Businesses in the real world are faced by a challenge to either grow their portfolio or shut down due to the state of competition in many industries. The shareholders also demand value for their investments. Managers in these organizations have to craft and implement strategies that will spur growth. It is only by adhering to the parameters that determine quality growth will any institution be said to grow.

Operational growth is vital to sustained profitability and enterprise success. Organizations that fully leverage operational excellence routinely achieve improved lead-times, greater flexibility and higher levels of responsiveness and can capitalize on each to gain competitive advantage and expand market share. The results include: accelerated new product development cycles, improved cross-functional execution and achieving a greater percentage of strategic objectives. It involves a firm being able to operate with minimum level of resources (inputs) to produce outputs

and remain competitively over an extended period of time (Mayes, Harts & Lansbury, 1994) and using its available resources to produce outputs of a given quality (Bhagavath, 2009)

Operational growth in the microfinance industry may be characterized by increased breadth and width of the existing micro finance Institutions, increased competition diversification of the products and connection to the private and commercial institutions (Mbogo and Ashika, 2011).As long as there is a segment of our population living in poverty, there would be an urgent need for microfinance to provide them with opportunities to increase their economic activity, foster their spirit of entrepreneurship, facilitate employment and improve the quality of their lives and that of their community. More access to microfinance loans can therefore change the future on the poor communities while transforming an entire economy.

1.1.2 Financial Performance

According to Armstrong (2006), performance is often defined simply in output terms- the achievement of quantified objectives. It includes the measurement of the results of an organization's policies and operations in monetary terms. The results are reflected in the organization's returns, assets, value added. Otley (2009) asserts that accounting measures have been the mainstay of qualitative approaches to organizational performance measurement.

Financial performance measures the results of a firm's policies and operation in monetary terms. It can be seen as a measure of organization's ability to generate income over a given period of time. The recommended measures for financial analysis that determine a firm's financial performance are grouped into five broad categories: liquidity, solvency, profitability, repayment capacity and financial efficiency (Woller & Gary, 1999).Indicators of financial performance are:

sales growth, return on investment (ROI), return on sales(ROS), return on equity (ROE),earnings per share(EPS) and operational efficiency(Ndichu, 2013). A profitable institution earns a positive net income (Lafourcade, 2006)

Deposit-taking MFIs earn financial revenue from loans and other financial services in the form of interest fees, penalties, and commissions. Profitable MFIs earn a positive net income i.e. operating income exceeds total expenses (Lafoucarde, 2005). There are varied measures of financial performance. In traditional management studies, financial ratios are classified according to the following performance aspects: liquidity, leverage, and financial performance (Richard et al, 2009).These ratios can be computed directly using financial statement information.

The essence of financial performance measurement is to provide for the organization the maximum return on the capital employed in the business (Stiglitz, 2001). For the purposes of DTM financial performance, we'll look at how well they use their available resources and assets to generate revenues. This is measured in terms of the MFI's returns, assets and value added. Financial ratios such as Return on asset (ROA), Return on capital employed (ROCE), Return on equity (ROE), and return on investment are used as indicators.

1.1.3 Effect of Operational Growth on Financial performance

Organizational growth has been a focus in the literature with many researchers associating operational growth with entrepreneurship (Davidson, 2002).But growth as a measure of firm performance has had mixed results in the literature. Delmar et al (2003) suggest that one possible reason for this is that researchers use different measures of growth and that growth itself is

heterogeneous in nature. The use of growth as a measure of firm financial performance is generally based on the belief that growth is a precursor to the attainment of competitive advantages and profitability (Markman, 2002).

Overall, it is difficult to imagine operational growth without profitability. Without funding growth through retained earnings, the firm must rely on additional debt or equity finance. The relationship between operational growth and financial performance is therefore an important consideration. MacMillan and Day (1987) considered that rapid growth could lead to higher profitability based on evidence that new firms become more profitable when they enter markets quickly and on a large scale.

In addition, larger firms have higher rates of survival (Aldrich, 1986), and may have the benefits of associated economies of scale. The alternative view is that fast growing firms may encounter difficulties associated with growth that leads to reduced profitability and perhaps financial difficulty. On the other hand, Hoy (1992) concluded that the pursuit of high growth may be minimally or even negatively correlated with firm profitability. Sexton et al (2000) found that firm profitability was correlated with operational growth, while Chandler and Jensen (1992) found that sales growth and profitability were not correlated.

According to Van Horne, the management of growth requires careful balancing of the sales objectives of the firm with its operating efficiency and financial resources (Pickett, 2004). Unsustainable operational growth, if not corrected, could exert tremendous stress on the company's financial and operating characteristics and may lead to financial distress (Gieger,

Reyes), thus, activities focused on operational growth seem to benefit MFI's financial performance. When looking at the separate determinants of operational growth it becomes possible to shed more light on how exactly they relate to aspects of firm performance.

1.1.4 Deposit Taking Microfinance Banks in Kenya

Microfinance institutions world over have been identified as critical institutions to nations quest for solutions to the development challenge (CGAP, 2002). DTMBs currently operate in over 100 countries, serving 92 million clients (Kashyap & Jeremy, 2004). In Kenya, the microfinance act which became operational on 2nd May 2008 saw most of the then micro-finance institutions apply for licenses to allow them to take deposits from members and the general public. According to Longman (2012), a deposit-taking financial institution is one into which people can pay money so that it can be held there and earn interest in the process thus improving its financial performance.

In a report by CBK (2015), there are currently twelve DTMBs operating in Kenya. Central Bank of Kenya (CBK) granted a license to Caritas DTMFIs (hereafter referred to as Caritas MFB) to carry out nationwide microfinance bank thus becoming the twelfth microfinance bank to be licensed in Kenya. The essence of transforming to deposit taking is to allow the institutions access cheaper funds, which they could then lend to the public at a lower rate rather than depending on expensive credit from financial institutions. The primary goal of the Deposit Taking Microfinance Institutions is to give low income earners an opportunity to become self-sufficient by providing a means of saving money, borrowing money and insurance. Since the clients of DTMBs have lower incomes and often have limited access to other financial services,

micro finance products tend to be for smaller monetary amounts. These services include loans, savings, insurance and remittances.

1.2 Research Problem

Operational growth is critical to modern day organizations even for microfinance sector. In simple terms and with reference to a business, it is the capability of an organization to deliver products or services to its customers in the most cost-effective manner possible while still ensuring the high quality of its products, service and support. It is often achieved by streamlining a company's core processes in order to more effectively respond to continually changing market forces in a cost-effective manner. In order to attain operational growth an organization needs to minimize redundancy and waste while leveraging the resources that contribute most to its success and utilizing the best of its workforce, technology and business processes. The reduced internal costs that result from operational efficiency and growth enable a company to achieve higher profit margins or be more successful in highly competitive markets

Achieving operational growth can be a challenge for even the most ambitious organizations. In microfinance, it refers to the long-term continuation of the microfinance programme after the project activities have been discontinued. It is seen through the following indicators; operational self-sufficiency (OSS) which measures operating revenue as a percentage of operating and financial expenses (Guntz, 2011), number of customers served, infrastructure, managerial quality, and geographical coverage.

For Deposit Taking microfinance institutions, an enduring problem has been how to attain operational growth and financial performance (Dunford, 2003; Woller, 2000; Hollis & Sweetman, 1998). The problem has attracted attention of numerous researchers in recent past and as a result many strategies have been put in place to ensure operational growth (Randhawa and Gallardo, 2003; Schreiner, 2000). Therefore, the need for microfinance to be operationally and financially sustainable in order to provide microfinance facilities and contribute to poverty reduction is very critical (LOGOTRI, 2006; Schreiner, 2000; Hollis & Sweetman, 1998). Only those MFI's which are operationally and financially stable stand a chance of reaching the vast millions of the poor (Thapa, 1992).

However, studies done in Kenya have not exhaustively focused on all the factors influencing operational growth and financial performance of Deposit Taking MFIs. According to Kipkoech & Muturi (2014) capital structure, capital adequacy, number of clients served, branch network are hypothesized to influence MFI performance in Kenya. Kimando (2012) found out that financial regulations, number of clients served, financial coverage and volume of credit transacted were the factors that highly affected the operability of microfinance institutions. Maina (2011) pointed out technology, management, staff motivation and infrastructure as factors influencing operational growth of MFI's.

Notably, none of the studies carried out had focused on the effects of operational growth on financial performance of Deposit Taking MFI's in Kenya. In light of this, the researcher felt that there is need for a research on this area and it is from this perspective that this paper seeks to fill

the knowledge gap by addressing the following research question: What is the effect of operational growth on financial performance of deposit taking MFIs?

1.3 Objectives of the study

To determine the effect of operational growth on financial performance of Deposit Taking Microfinance Institutions in Kenya

1.4 Value of the Study

Financial performance analysis generally gives investors an idea of how their investments are faring so that they can decide whether to carry on with the investment or halt it. Analyzing the performance of DTMs assessed the viability of the investment in them and more so, the viability of deposit-taking. The investors would therefore decide whether to proceed with this investment as is, put in more funds into the business or to pull-out all together.

The Society too would benefit from this study. Majority of Kenya population are poor and hence depend on MFIs as source of capital and general finance. Since the study seeks to establish effects of operational growth on financial performance of Deposit Taking MFIs, the study would prove invaluable information to them indirectly, though, for it would eventually help further MFI sustainability which is a source for finance to them.

The study also provided a source of reference for future studies on microfinance institutions since it acted as a source of literature for academics in the field of entrepreneurship. Regulators and Practitioners too benefited from this study. The estimated impact of deposit taking on financial performance of MFIs provided valuable information as to whether the introduction of

deposit taking is a success. If successful, it paved way for other similar regulations that resulted in the advancement of the industry and institution building for financial capacity widening and deepening in locally constituted organizations

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The second chapter discusses the theoretical review, determinants of financial performance and the summary of review.

2.2 Theoretical Review

In this section, the study shall review different theories that focus on Microfinance Institutions and their existence by critically outlining all applicable theories that support the MFI concept. In this respect, the study shall critically review key theories on which the importance of financial performance of MFIs is based i.e. the theory of financial sustainability, reduction of financial cost theory and information provision theory.

2.2.1 Reduction of Financial Cost Theory

The theory states that financial intermediaries transform the credit portfolio demanded by borrowers into a deposit portfolio desired by lenders Santomero (1998). This is done in two fold. Firstly, an intermediary is able to exploit economies of scale considerations by writing and enforcing debt contracts with firms and individuals. Secondly, financial intermediaries reduce transaction costs through the payment system.

Centralizing this process at the level of financial intermediaries avoids wasteful duplication of verification costs. Notably also, MFIs are able to lower the costs that would otherwise be incurred while engaging in the process of borrowing. In the case of DTMs, this is more evident as the cost of funds is reduced given that the DTMs borrow from other financial institutions at high interest rates and thereafter lend at even higher interest.

Reduction of Financial cost theory could therefore provide the critical insight that underpins cost management and in return help Deposit Taking MFI make more informed decisions about cutting costs in places that are not driving its competitive advantage thus enabling operational growth in a much more effective way.

2.2.2 Information Provision Theory

This strand of theory is based on the notion that the borrower is likely to have more information than the lender about the risks of the project for which they receive funds. This leads to the problems of moral hazard and adverse selection (Matthews & Thompson (2008) thus reducing the efficiency of the transfer of funds from surplus to deficit units.

In the case of DTMs, the risk associated with information asymmetry is highly reduced by group-lending such that individual members act as guarantors to each other. In most, if not all cases, the groups are composed of people who know each other very well and are therefore able to make follow-up with defaulting members of the group.

Research by Armstrong, 2008 based on information from several countries across the globe show that existence of credit registries is associated with increased lending volume, growth of consumer lending improved access to financing and more stable banking sector. Credit information sharing through the Credit reference bureau allows lending institutions to collect and share data on millions of potential borrowers, thus gathering information on the creditworthiness of each.

By facilitating information sharing among lenders, credit bureaus has since enables lending institutions sort good borrowers from bad, price loans appropriately, decrease processing time and reduce screening and other transaction costs.(Kago,2014). Jappelli and Pagano (2005) asserts Information sharing about borrowers' characteristics and their indebtedness can have important effects on credit markets activity since it help improves the banks' knowledge of applicants' characteristics and permits a more accurate prediction of their repayment probabilities.

Information Provision Theory therefore underpins the notion that information is the lifeblood of the modern economy (Kagi, 2014) and it can impact on the performance and sustainability of Deposit Taking MFI's in Kenya. It is on this basis that the researcher feels that this theory helped contribute in addressing the research gap.

2.2.3 Financial Sustainability Theory

As a general rule, MFIs work toward a double bottom-line-financial and social-unlike the typical formal financial institution which works solely toward a financial bottom-line (Brau, 2004). This study is keen on the financial bottom line aspect. The Financial sustainability theory underlies

the models of microfinance promoted since the mid-1990s by most donor agencies and the best practice approach promoted by USAID, UNDP and CGAP. The ultimate aim is to grow large programs which are profitable and fully self-supporting in competition with other private sector and banking institutions which are able to raise funds from international financial markets rather than relying on funds from development agencies.

According to Ganka (2010), the need for MFIs to be financially sustainable cannot be overemphasized. The study further argues that unsustainable MFIs may help the poor now but will not help them in future as the MFIs will be gone. The study further notes that it may better not to have MFIs than to have unsustainable ones as the latter may hurt the people they are supposed to be helping. The study goes on to show how important the financial sustainability of MFIs is and studying factors that affect it. It also shows that it is imperative that MFIs become financially sustainable if the objective of these MFIs is to be achieved.

It is argued that financial sustainability of MFIs is a necessary condition for institutional sustainability (Hollis & Sweetman, 1998). Unsustainable MFIs will not help the poor in the future because the MFIs will be gone (Schreiner, 2000). According to Tuhulu (2013) as cited in Nyamsogoro (2010), it is better not to have MFIs than having unsustainable ones indicating how important the sustainability of MFIs is.

Therefore, financial Sustainability theory is undoubtedly important in this study since it provides the researcher with a comprehensive literature review and a framework that help in addressing

the following research question: What is the effect of operational growth on financial performance of deposit taking MFIs?

2.3 Determinants of Financial Performance

Financial performance is determined by a number of factors which include operation capital, branch network, number of customers served and operational growth.

2.3.1 Operation Capital.

Microfinance is a capital-intensive activity, and MFIs require sustained injections of capital for on-lending (Moussa, 2007). Most MFIs need to make intensive investments in promoting new and poor clients. Alarcon (2008) indicates that the most important constraint for MFIs not to expand their outreach is the limited sources of funds. Brugger (2004) notes that MFIs, like any other financial institution, must have a minimum amount of its own capital for reducing the risks of its lenders and depositors and that the costs of doing business are high relative to the value of loans and deposits involved. Smaller MFIs struggle to cover the high operational costs and diversify their product offerings in order to compete with larger microfinance providers (Gupta, 2008). A microfinance intermediary will not only need to manage funds provided by the government or donors for the credit operations, it was also need to transform maturities, volumes and risks. Incoming deposits have to be matched with outgoing loans. Cautious risk management must ensure the safety of deposits. At the same time, liquid deposits will require higher standards of liquidity management to ensure accessibility (Deshpande, 2007; Fiebig, Hannig & Wisniwski, 1999). Operation capital was measured in terms of working capital which is a measure of both a

company's efficiency and its short term financial health. The working capital is calculated as: Current assets less current liabilities. The ratio indicates whether a company has enough short term assets to cover its short term debt. Anything below 1 indicates negative working capital while anything over 2 means that the company is not investing excess assets.

2.3.2 Branch Network

According to Hubbard (2004), branch Network is the offices which belong to an organization that are located in different locations but are interlinked by use of technology. Large branch network ensures that clients can access the branch network for savings deposits or loan repayment.

According to Hubbard (2004), branch banking leads to more sustainable banking systems as it enables banks to diversify loans and deposits to a wider geographical location. Institutions with large branch network are less likely to experience bank crisis in case of unpredictable event. Robinson (2001) posits that successful MFIs organize their branches as profit centres and employ a method of transfer pricing that ensures full-cost coverage throughout the branch network.

Furthermore, the size and branch network of microfinance institutions could also imply that large microfinance institutions and those with wide network coverage tend to have a large capital and therefore can reach a relatively bigger number of clients. A study by Kyereboah & Osei (2008) in their study on outreach and profitability of microfinance institutions in Ghana found that the size and branch network of MFIs had significant positive impact on the profitability of the MFI.

2.3.3 Number of Customers Served

Various studies have used the number of borrowers as a measure of performance of microfinance institutions (Ganka 2010; Mersland&Strom, 2009; Harneset *al*, 2008). It is generally assumed that the larger the number of borrowers the better the performance of microfinance institutions. According to Harneset *al* (2008), the larger number of borrowers is found to be the biggest sustainability factor.

According to Standard newspaper of 16th June, 2015(Corporate interview with Faulu bank's new managing Director,CharlesNjuguna),Faulu micro finance bank has been a household name in the micro lending industry for years. The bank spend a lot of resources marketing to investment groups(Chamas) and their current growth strategy to tap on more customers include mobile banking, rolling out their own ATM,s and expanding branch networks.

On the contrary, Ganka (2010) in the study on Tanzanian microfinance institutions reported negative and significant relationship between number of borrowers and financial sustainability. The study concludes on the result that increased in number of borrower itself does not improve financial sustainability of microfinance institutions. The reason could be increased inefficiency as a result of increased number of borrowers. However, Hartarska (2005) reports that number of borrowers had no significant impact on financial sustainability.

2.3.4 Operational growth

Operational growth accompanies the concept of operational self-sufficiency (OSS) which measures operating revenue as a percentage of operating and financial expenses, including loan

loss provision expense and the like. If this ratio is greater than 100 percent, the MFI is covering all of its costs through own operations and is not relying on contributions or subsidies from donors to survive (Churchill and Frankiewicz, 2006). OSS in general includes all the cash costs of running a MFI, depreciation and the loan loss reserve. Sometimes donors will exclude the cash costs of funds from their analysis because “those MFIs that begin to access the commercial financial markets and pay the cost of capital would look relatively worse than other institutions with the same costs and outreach, but who have remained reliant on donor capital to fund their portfolio” (UNCDF, 2002). This applies due to the fact that some donor fund dependent institutions do not have the same financing cost as commercial MFIs. The United Nations Capital Development Fund (UNCDF) in 2009 defines OSS simply as operating revenue as a percentage of total operating expenses. OSS is calculated as operating income divided by total operating expenses

2.4 Literature Review

This section re-examine literature related to the subject of the study which is based on global view narrowing to the local view. The review entails studies that have been conducted in relation to Microfinance institutions’ growth and its determinants with aspects from different regions to give an overview of the situation in different parts of the world.

2.4.1 International Evidence

Arysad (2005) carried and assessed the performance and operational growth of MFIs in Indonesia. Using a case study on village credit institutions, he found out that growing economy and supporting government policy at all levels through provision of a legal basis for the MFI and the Central Bank regulation (formal institutions) had contributed to the success of the MFIs. Thus, based on the necessary conditions of sustainable microfinance institution proposed by

some scholars (Yaron, 1994); (Christen, 1998), he concluded that the Gianyar district village credit institutions (Lembaga Perkreditan Desa or LPD) have been operationally sustainable, and by that implication they had positive net social benefits for their clients.

According to a study in Ethiopia by Kereta (2007) on outreach and financial Performance of Microfinance Institutions, it identified that while MFIs reach the very poor, their reach to the disadvantages particularly to women is limited (38.4 Percent). From financial sustainability angle, it observed that MFIs performance as measured by return on asset, return on equity and the industry's profit performance is improving over time.

A study by Ganka (2010) on Tanzanian rural microfinance found negative and strongly statistically significant relationship between the number of borrowers per staff and financial sustainability. Moreover, Ganka (2010) states that although financial structure affects the financial sustainability, having different sources of capital do not improve financial sustainability. Ganka also identified that equity is a relatively cheaper source of financing and, therefore, improves financial sustainability (Ganka, 2010).

Kinde (2012) studied on financial sustainability of Microfinance Institutions in Ethiopia. This research study was conducted following a quantitative approach using a balanced panel data set of 126 observations from fourteen MFIs operating in Ethiopia over the period 2002-2010. He concluded that microfinance breadth of outreach, depth of outreach, dependency ratio and cost per borrower affect the financial sustainability of microfinance institutions. However, the

microfinance capital structure and staff productivity have insignificant impact on financial sustainability of MFIs in Ethiopia for the study periods.

Jeje (2014) sought to investigate the contribution of both product development and market development on outreach performance of Tanzania-Based Savings and Credit Cooperative Societies. Through a multiple regression analysis, the study tested seven hypotheses which were geared towards finding the contribution of both product development and market development on outreach performance. A cross-sectional survey design and multistage probability sampling technique enabled the participation of 167 key SACCOs' managers (loan officers) from three zones of Tanzania whose views were collected through questionnaires. The study revealed there is significant contribution of both product development and market development on outreach performance and further suggest that SACCOs need to design sustainable growth strategies which suit the needs of their clients and their characteristics. Although an outreach performance can be driven by intensive growth strategies, SACCOs' growth should also be harmonized with their financial performance.

2.4.2 Local Evidence

The Kenyan microfinance sector has been strengthened by progressive policies and innovative approaches to delivering financial services.

According to Hassan (2002), the motivation behind microfinance is simple. Financial institutions can extend loans to the poor while, at the same time, making a reasonable profit. By charging high interest rates, microfinance institutions can afford the high transaction costs of processing large volumes of loans as small as a few dollars. He did a study of the Grameen bank in

Bangladesh, which is infamous for its success in transforming the microfinance industry and has been studied worldwide by countries interested in growing their microfinance sector. His emphasis was on the sustainability of microfinance institutions and defined it as the ability of the MFI to achieve its goals in the short term without harming its ability to meet long term goals. He concluded that to prevent their future demise, it is crucial that MFI's establish procedures that would assist them in becoming both operationally and financially self-sufficient, by eliminating the dependency on donor funding and generating self-sustaining income.

Mugo (2010) study on the effects of financial innovation on the growth of Micro Finance Institutions (MFIs) in Kenya, sought answers to the two research questions namely; which financial innovations were adopted by Micro Finance Institutions in Kenya, and how these affected the growth of MFIs in Kenya. The research findings showed that most MFIs have innovated new services like mobile banking, business accounts, SME loans, school fee loans, financial trainings and partnerships. Other MFIs have networked their offices, opened new branches and innovated new products in a bid to grow their firms. Besides, there was strong positive correlation between financial growth and reason like addressing clients' needs, clients' retention and reducing transaction time. The research concluded that financial innovation by MFIs lead to an aggregate growth of firm in various dimensions like number of products, market share, loan sales and the overall profitability. The research findings indicated that financial innovations were a crucial growth strategy adopted by various Micro Finance Institutions.

Maina (2011) studied on the factors influencing the growth of MFI's in Nyeri Central District. This research study was conducted in order to study the factors that are responsible for the

growth of microfinance institutions. The study sought to establish the economic factors influencing the growth microfinance institutions in Nyeri Central District, to find out how growth in information and communications technology has impacted on the growth of microfinance institutions in Nyeri Central District, to find out the marketing strategies employed by microfinance institutions and how these strategies have impacted on growth of the institutions and to establish how the management structures adopted by the micro finance institutions in Nyeri Central District have influenced growth of these institutions.

Ngunjiri (2012) did a study on the Impact of Microfinance services on the financial performance of small and medium scale enterprises in Kakamega County. The main objective of carrying out the study was to examine the impact of microfinance services on financial performance of SMEs in Kakamega County. The findings of the study suggested that microfinance services have had a positive impact on the various dimensions that constitute financial performance. The research therefore concluded that microfinance services have improved the financial performance of SMEs in Kakamega County, Kenya.

In his study on the effect of microfinance services on financial performance of small and medium enterprises in Narok County, Leseyio (2014) found out a positive relationship between micro finance and financial performance of SMEs. The aim of the study was to investigate the effect of microfinance services on financial performance of SMEs in Narok County. Multiple regression analysis was employed to measure the relationship of the variables. The regression results showed a positive relationship between variables. The study showed that existence of

MFI contributed to the development of SMEs' and the provision of credit has increasingly been regarded as an important tool for raising incomes of the youth.

2.5 Summary of Literature Review

From literature reviewed the information available identified various factors affecting financial performance and operational growth of Microfinance Institutions. This include Central Bank regulation Arysad (2005), breadth of outreach, depth of outreach Kinde (2012), financial innovations Mugo (2010), Information Communications Technology, marketing strategies and management structures according to Maina (2011)

Results from the empirical studies cited therein have conflicted implying the inconclusiveness about these studies. International studies reviewed in the literature were also done in other countries whose strategic approach and financial footing is different from that of Kenya. Few studies have also been carried out on the effect of operational growth on financial performance of MFIs through statistical manipulation even though Deposit Taking microfinance activity is growing considerably in Kenya.

Therefore, this study has the potential to contribute towards reaching a generalized conclusion on the effect of operational growth on financial performance of Deposit Taking MFIs in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter looks at the methods used in the survey of the factor influencing sustainability in microfinance institution in Kenya. This chapter is structured into research design, population of study, data collection and data analysis.

3.2 Research Design

This study used descriptive survey. According to Shields (2003), a descriptive study is a research strategy, an empirical inquiry that investigates a phenomenon within its real-life context. It aims at describing the effect causation in order to find underlying principles characteristics of a group and focuses its attention on the objectives of the study (Shields, 2013). In this study, a descriptive survey was employed to collect the required information from the population targeted after which the data collected was analysed through quantitative methods to show the causation factor of operational growth on Financial performance of Deposit Taking MFIs in Kenya.

3.3 Population of Study

According to Cooper and Schindler (2000), a population is the total collection of elements about which we wish to make inferences. The target population for this study include the Deposit

Taking financial institutions which are members of the Association of the Microfinance Institutions in Kenya (AMFI-K).AMFI-K membership ranges from large, mature banks to relatively smaller MFIs, Deposit taking Microfinance Institutions, Sacco's, developmental institutions, wholesalers and retailers as well as micro-insurance providers. As at 31th June 2015, the Deposit Taking MFI's membership stood at 12 financial institutions serving the poor and middle class families with financial services throughout the country. (Appendix III).

3.4 Data Collection

Secondary sources of data were used to ensure that the study is accurate and reliable. This data was collected from MFI's annual reports and financial statements which were used to evaluate the effect of operational growth on the MFI's financial performance. The secondary data were from deposit taking MFI under study throughout the period of study 2010 to 2014 and sourced from the management of the institutions. The computer program aided analysis for this study was done using the statistical package for the social sciences (SPSS).

3.5 Data Analysis

The whole process which starts immediately after data collection and ends at the point of interpretation and processing data is data analysis (Cooper & Schindler, 2003). The data analysis method to be used was based on quantitative approach using descriptive statistics and inferential methods which include; measures of central tendency (mean, median, mode), measures of dispersion (range, variance, standard deviation,), measures of relative position and measures of relations and associations, correlation and regression.

Data analysis was based on the variables that have been identified in the literature review in section 2.3 above. A multiple regression was undertaken to establish the relationship between operation capital, branch network, number of customers served, operational growth and financial performance of DTM's in Kenya.

3.5.1 Analytical Model

A Multiple hierarchical regression model was used in this study. According to Mogull (2004), a multiple hierarchical regression allows simultaneous investigation of the effect of two or more variables. The model was employed so as to establish the relationship between the operational growth of the DTMs and Financial performance.

The regression model to be used is the model indicated below:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon$$

Where:

Y_{it} represent financial performance of the MFIs as measured by ROE

X_{1it} represent operation growth measured by operating income as a percentage of total operating expenses

X_{2it} represent Operation capital as measured by working capital

X_{3it} represent branch network measured in the logarithm of the aggregate number of branches for period i

X_{4it} represent number of customers served measured in the logarithm of the aggregate customer base for period i

α is Constant which defines the financial performance without inclusion of independent variables

i.e. the value of Y when the value of X is zero

B_i is Coefficients of variable i which measures the extent to which the variation in Y is explained by the variations in X

ε = is the error term of the test equation

3.5.2 Test of Significance

The significance of the model was tested by the use of correlation coefficient (r) and the coefficient of determination (r^2) at 95% significance level. Correlation coefficient(r) is a measure that determines the degree to which two variable's movements are associated while coefficient of determination (r^2) is a measure of the proportion of variance of a predicted outcome. The value of r^2 ranges from 0-1. The value of 0 shows no relationship at all, 0.5 shows moderate relationship and from 0.6 to 1 shows a strong relationship. Analysis of Variance (F-test) was also be conducted to test the significance and reliability of the developed model.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1 Introduction

The study focus is based on operational growth effects on the financial performance of DTMFI's in Kenya. This chapter contains data analysis, presentation and interpretation of research findings. The study also sought to determine whether operation growth measured by operating income as a percentage of total operating expenses, operation capital as measured by working capital, branch network, and number of customers served affect financial performance of DTMFIs in Kenya.

4.2 Descriptive Statistics

The following descriptive statistics, shown table 4.1 were gathered from the study.

Table 4.1: Descriptive Statistics

	Mean		Std. Deviation	Variance
	Statistic	Std. Error	Statistic	Statistic
Operational growth	.102	.0250	.1839	.034
Customers served	14622.6667	1290.65133	9484.31158	89952166.075
Working capital	7489.9526	1051.88342	7729.73293	59748771.230
Branch network	2.92	1.02	0.67	0.54
ROE	.0115	.00816	.05996	.004

Source: Research Findings

The findings gathered from this study established that financial performance of DTMFIs is influenced by operational growth, customers served, and operational capital (working capital), and branch network as presented by the corresponding mean in table 4.1.

4.3 Inferential Statistics

This section explored correlation analysis, regression analysis, and ANOVA.

4.3.1 Correlation Analysis

The researcher used a correlation analysis to establish statistical relation between two or more variables such that systematic changes in the value of one variable are accompanied by systematic changes in the other variable. Pearson correlation established that the variables used in the study had strong relationship, as shown in table 4.2. The findings obtained from this study indicated a high correlation operational capital (working capital), this was followed by operational growth, the number of customers served, and lastly branch networks as indicated by the corresponding Pearson Correlation matrix in the following table 4.2.

Table 4.2: Correlation Analysis

		Correlations				
		Operational growth	Working capital	Customers served	Branch Network	ROE
Operational growth	Pearson Correlation	1	.044	.140	.123	.045
	Sig. (2-tailed)		.753	.312	.234	.746
Working capital	Pearson Correlation	.044	1	.309*	.212	.101
	Sig. (2-tailed)	.753		.023	.302	.469
Customers served	Pearson Correlation	.140	.309*	1	.205	.010
	Sig. (2-tailed)	.312	.023		.017	.940
Branch Network	Pearson Correlation	.045	.101	.010	1	.023
	Sig. (2-tailed)	.746	.469	.940	.0461	.072

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

Source: Research Findings

4.3.2 Regression Analysis

The study was to determine the nature of the relationship, that is, the strength and the direction of the relationship that exist between the study variables. The regression analysis results were as presented in the following table 4.3.

Table 4.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.112 ^a	.013	.047	.06135

a. Predictors: (Constant), customers served, branch networks, operational growth, working capital

Source: Research Findings

R square refers to the co-efficient of determination that provides the variation in the dependent variables caused by changes in the independent variables. The findings shown in the table 4.3, had the value of adjusted R-squared was provided as 0.047 that revealed that that there was a 4.7% financial performance among the DTMFIs as a result of the positive increase in operational growth, working capital, and the number of customers served at 95% confidence interval. R is the correlation co-efficient that indicated the relationship between the variables employed for the purposes of this study. The findings establish a strong relationship of 0.112 between the study variables. The study is based on dependence and independence association analysed using a multiple regression analysis, and thus a multiple regression analysis is mathematically expressed as: $Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon$

Where:

Y_{it} represent financial performance of the MFIs as measured by ROE

X_{1it} represents operation growth measured by operating income as a percentage of total operating expenses

X_{2it} represent Operation capital as measured by working capital

X_{3it} represent branch network measured in the logarithm of the aggregate number of branches for period i

X_{4it} represent number of customers served measured in the logarithm of the aggregate customer base for period i

α is Constant which defines the financial performance without inclusion of independent variables i.e. the value of Y when the value of X is zero

B_i is Coefficients of variable i which measures the extent to which the variation in Y is explained by the variations in X

ε = is the error term of the test equation

The use of multiple regression analysis was employed to study five variables used in this study, including operational growth, working capital, branch networks, and customers served with a focus to financial performance of DTMFIs in Kenya.

4.3.3 Analysis of Variance

The probability value (p-value) of a statistical hypothesis test helps to obtain a value of the test statistic as either extreme or more than extreme than that observed by chance alone, which implies that if the null hypothesis H_0 is true. The probability, p-value is then compared with the actual significance level of the test and when it is smaller, the result obtained is viewed as significant. The smaller the p-value, the more it is convincing to reject the null hypothesis.

The ANOVA findings in table 4.4 determined that a correlation exists between the predictor variables, including operational growth, working capital, branch networks and number of

customers served and the response variable, which is the financial performance of DTMFIs since P- value of 0.888 that is less than 0.95 (95%).

Table 4.4: ANOVA

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.002	3	.001	.212	.888 ^b
	Residual	.188	50	.004		
	Total	.191	53			

a. Dependent Variable: ROE

b. Predictors: (Constant), customers served, branch networks, operational growth, working capital

Source: Research Findings

Letters used in the table 4.3.3 above represent the following.

df: shows degrees of freedom

F: represents Anova

α : shows level of significance

F_o: shows the calculated value of F

F_c: shows the critical value of F

α_o : shows the calculated value of α

α_c : shows the critical value of α .

The Anova summary tabulated above presents the discussion and analysis of the variance. The analysis of variance tests differences in variables means or group means for statistical

significance. Therefore, the Anova partitions the total variance into component that is due to true random error and that due to differences between means.

The analysis of variance using Anova investigates whether the variation in the independent variables explains the observed variance in the outcome this study has on the DTMFIs financial performance. The Anova findings show that the independent variables significantly ($F=0.212$; $p=0.888$) explain the variance on financial performance. As explored in the previous discussion, the dependent variable is the level of financial performance whereas the independent or the predictor variables including operational growth, working capital, branch networks, and customers served.

4.4.3 Regression Model Coefficients

The determination of coefficients regression equation is presented in the following table 4.4.3.

Table 4.5: Regression Coefficients

Model	Coefficients ^a				t	Sig.
	Unstandardized Coefficients		Standardized Coefficients	Beta		
	B	Std. Error				
(Constant)	.006	.016			.397	.693
Operational growth	.014	.046	.044		.313	.756
Working capital	8.354	.000	.108		.729	.469
Branch network	1.312	.001	.042		.246	.942
Customers served	1.831	.000	.029		.194	.847

a. Dependent Variable: ROE

Source: Research Findings

From the table 4.4.3 findings above, the established regression equation can be as shown below.

$$Y = 0.006 + 0.014 X_1 + 8.354 X_2 + 1.312 X_3 + 1.831 X_4$$

Where:

Constant = 0.006, shows that if operational growth, working capital, branch network, and customers served, then the financial performance of DTMFIs would be 0.006

$X_1 = 0.014$ shows that a unit change in operational growth results in 0.014 units increase in financial performance.

$X_2 = 8.354$ shows a unit change in working capital results in 8.354 units increase in financial performance.

$X_3 = 1.312$ shows a unit change in branch network that results in 1.312 units increase in financial performance.

$X_4 = 1.831$ shows a unit change in customers served that results in 1.831 units increase in financial performance.

4.5 Interpretation of the Findings

This study aims to determine dependence and independence relationship, and a multivariate model was conducted to establish the relative effect of each of the five variables with respect to the effects of operational growth on financial performance of DTMFIs in Kenya. The findings of this study found that operational growth, working capital, branch network and customers served influence financial performance of DTMFIs. Descriptive statistics findings established that

customers served has the most influence on financial performance, among the other three variables, as presented in table 4.1.

Inferential statistics findings gathered from the regression analysis and the coefficient of determination (the R squared of 0.013) in table 4.3 shows the variation in the dependent variable as a result of changes that occurred in the independent variables. The findings obtained from this study reveal that the regression analysis shows operational growth, operational capital (working capital), at 95% confidence interval. R is the correlation coefficient that presents the relationship between the study variables. From the findings shown in table 4.3, there was a strong positive relationship between the study variables as indicated by the correlation coefficient R of 0.112.

ANOVA analysis intended to ascertain whether variation in the independent variables explain the observed variance in the outcome, which is the financial performance of DTMFIs in this study. ANOVA findings in table 4.4 indicate that there is correlation between the predictor variables, which are operational growth, operational capital, branch network, and customers served, and the response variable is the financial performance since P-value of 0.888. This study establishes that there is strong relationship between the study variables. The coefficient of determination R, explains the extent to which the dependent variable can be explained by the independent variable.

Table 4.5 provided the constant of 0.006 indicates that if operational growth, operational capital, branch network, and customers served were rated as zero, then the financial performance would be 0.006. $X_1 = 0.014$ shows that a unit changes in operational growth results in 1.014 units

increase in financial performance. $X_2 = 8.354$ shows a unit change in operational capital (working capital) results in 8.354 units increase in financial performance. $X_3 = 1.312$ shows a unit change in branch network that results in 1.312 units increase in financial performance, while $X_4 = 1.831$ shows a unit change in customers served that results in 1.831 units increase in financial performance.

From these findings, it implies that operational capital (working capital), followed by number of customers served have the greatest positive impact on financial performance, and this is followed by ratio/ percentage of revenue from new ideas divided by the branch network and finally interest operational growth. The study findings concur with the study conducted by Maina (2011) on the factors influencing the growth of MFI's in Nyeri Central District; a research study was conducted in order to study the factors that are responsible for the growth of microfinance institutions.

This study also conforms to the study conducted by Ngunjiri (2012) on the Impact of Microfinance services on the financial performance of small and medium scale enterprises in Kakamega County, whose objective was to examine the impact of microfinance services on financial performance of SMEs in Kakamega County. The findings of the study suggested that microfinance services have had a positive impact on the various dimensions that constitute financial performance.

The study findings conform to the study conducted by Mugo (2010) on the effects of financial innovation on the growth of Micro Finance Institutions (MFIs) in Kenya, whose research

findings established that most MFIs have innovated new services like mobile banking, business accounts, SME loans, school fee loans, financial trainings and partnerships. Other MFIs have networked their offices, opened new branches and innovated new products in a bid to grow their firms.

However, the study disagreed with the study conducted by Kinde (2012) on financial sustainability of Microfinance Institutions in Ethiopia, which established that microfinance capital structure and staff productivity have insignificant impact on financial sustainability of MFIs in Ethiopia for the study periods.

The study findings further disagrees with the study by Ganka (2010) on Tanzanian rural microfinance found negative and strongly statistically significant relationship between the number of borrowers per staff and financial sustainability. Ganka (2010) also reported that although financial structure affects the financial sustainability, having different sources of capital do not improve financial sustainability.

CHAPTER FIVE

SUMMARY AND CONCLUSIONS

5.1 Introduction

This chapter has been divided into four sections that provide a summary of findings of the study; section 5.2 provides a summary of the findings; section 5.3 discusses the conclusion, and section 5.4 explains the limitations of the study and Section 5.5 gives the recommendations for further research.

5.2 Summary

The objective of this study was to determine effects of operational growth on financial performance of Deposit Taking Microfinance Institutions (DTMFIs). A quantitative descriptive design was used to study licensed Deposit Taking Microfinance Institutions (DTMFIs) with the use of secondary data on financial reports were gathered from Association of Microfinance Institutions (AMFIs), Central Bank of Kenya (CBK), DTMFIs websites, local newspapers, and relevant reports from DTMFIs management. This study has been based on dependence and independent relationship with moderate multiple regression analysis being employed. A multivariate regression model was used to determine the relative importance of each of the four variables which included operational growth, operational capital, branch network, and customers served on the financial performance of DTMFIs.

Descriptive statistics employed in this study established that financial performance of DTMFIs is highly influenced by customers served, operational capital, branch network, and operational

grow as tabulated in the table 4.1. The ANOVA analysis was performed to determine whether the variation in the independent variables explains the observed variance in the outcome, which is the financial performance in this study. ANOVA findings in this study revealed that there was correlation between the predictor variables including operational growth, operational capital (working capital), branch network, and customers served and response variable being financial performance since P- value of 0.888 that is less than 0.95 (95%), which implied that there was a strong positive relationship between variables used for the purposes this study.

The probability value (p-value) of a statistical hypothesis test is obtaining a value of the test statistic that is either extreme or more extreme than that observed by chance alone, which implies that if the null hypothesis H_0 is true. The p-value is compared with the actual significance level of the test and, if it is smaller, the result is significant. The smaller the better, since it is the more convincing to reject the null hypothesis. ANOVA analysis indicated that there was correlation between the predictor variables, including operational growth, operational capital, branch networks, and customers served, and the response variable, that is, financial performance since P-value of 0.888 was less than 0.95. The results obtained from ANOVA analysis indicated that the independent variables significantly ($F=0.212$; $p=0.888$), which provide explanation about the variance in financial performance.

A regression analysis was conducted to establish that four of the independent variables, including operational growth, operational capital, branch network, and customers served have a positive correlation with the dependent variable, which is the financial performance (measured in ROE) of DTMFIs. The conducted regression analysis showed that coefficient of determination (R) was

0.112, correlation coefficient (R-squared) found to be 0.013, F-test statistics (0.212), while the generated P-value was found to be 0.888. Since R was positive (0.212) it can be deduced that the relationship between operational growth and financial performance of DTMFIs was positive.

5.3 Conclusion

Drawing in reference to the findings of this study, it can be concluded that positive financial performance of DTMFIs is due to the results of increased changes in operational growth, operational capital, branch network, and customers served. Key stakeholders in the DTMFIs should inject more operational capital to stimulate financial performance of these critical institutions. The government of Kenya should legislate less stiffer rules and regulations regarding opening of more branch networks, which are critical components of the performance of DTMFIs.

Customers served are critical for better financial health of DTMFIs, thus their employees; specifically the client service management team should work towards maintaining and acquiring new customers through quality and effective service delivery. Product and development team, as well as sales and marketing workforce should work collaboratively in designing quality DTMFI products that attract a bigger clientele. Continuous product innovation and development should be enhanced, and effective sales and marketing strategies to be employed to outcompete competitors in the market.

Deposit-taking Microfinance Institutions (DTMFIs) to offer more financial services such provision of financial literacy, access to credit, and accessibility to market products, since these

are also critical components, which drive financial performance of DTMFIs. Financial literacy services, for example, would stimulate increased number of clients served, thus the need to increase branch network of the DTMFIs.

5.4 Recommendation for Policy and Practice

The government of Kenya should put in place effective regulatory framework that stimulates operation growth of DTMFIs branch networks as this influences financial performance positively. DTMFIs should open more branches to increase branch networks across the country since this is a critical component of operational growth. They should come up with innovative financial products to have a competitive edge over other financial institutions. Innovative products also attract other customers served by the DTMFIs. Management of DTMFIs should inject more operating capital to stimulate financial performances. More current assets than current liabilities should be maintained to make sure that there is a high working capital, which is critical component of operational growth that positively influences financial performance.

5.5 Limitations of the Study

The study was limited to licenced DTMFIs since their data are readily available at the CBK. DTMFIs are not centrally located in one location, and thus the researcher had to travel long distances, thus long hours were taken to travel the long distances. In addition to long travel hours, the researcher had to incur a lot of costs on data collection. The limitation of financial funding made it almost difficult at some stages to obtain all the required information.

Remotely located DTMFIs branches outside Nairobi were hardly reached, thus their data were generalized for the purposes of this study findings. Data obtained at their head offices were thus employed. Several DTMFIs had not published their annual reports on their websites, thus making it difficult to obtain such data online. The researcher therefore had to visit individual DTMFIs to obtain such information.

5.6 Suggestion for Further Research

Since the study was limited to DTMFIs, a further study can be recommended to be conducted on other microfinance institutions, specifically on their financial performance.

More studies should be conducted on the contribution of information sharing on the financial performance of DTMFIs in Kenya. The reason for this suggestion is that information sharing is also a critical variable on financial performance.

A further study can be conducted on progressive policy and financial innovation on the performance of DTMFIs. Poorly formulated and implemented policies as well as lack of financial innovation may impact negatively on the financial performance of DTMFIs. More studies can be conducted on financial innovation effects of the DTMFIs on the financial empowerment of smallholder enterprises in Kenya. A further study can be recommended on effects of extended loans by DTMFIs on the poor and marginalized population, drawing references to Kenya as the case study.

REFERENCES

- Aleke, D. (2003). The Microfinance landscape in Kenya; *Paper presented to the Kenya Bankers Association*
- Amando, M. (2005). Stimulating the growth of microfinance in the Philippines. Central Bank of Philippines
- Adongo, C., & Stork, A. (2005). *Factors influencing the financial sustainability of selected microfinance institutions in Namibia*. NEPRU Research Report No 38, ISSN 1026.
- CBK (2015). *Microfinance Act and Regulations Review*. Policy Brief, June 2015, Central Bank of Kenya.
- Christopher, J. & Colin, H. (2006). Finance for Small Enterprises Growth and Poverty Reduction in Developing Countries. *Journal of International Development J.Int. Dev.* 18, 1017-1030
- Craig, F. (1997). *Managing Growth: The Organizational Architecture of Microfinance Institutions*. Accion International
- Cull, R., Demirgüç-Kunt A. & Morduch, J. (2009a). Microfinance Meets Market; *Journal of Economic Perspectives* 23: 167:192.
- Cull, R., Demirgüç-Kunt A. & Morduch, J. (2009b). Banks and Micro banks; *Policy Research Working Paper 5078*, the World Bank
- Davidsson, P. (1989) Continued Entrepreneurship and small firm growth; Stockholm School of Economics, Stockholm
- Davidsson, P., Delmar, F., & Wiklund, J. (2006). *Entrepreneurship and the growth of firms*; Northampton, MA: Edward Elgar
- Davidsson, P., & Henreksson, M. (2002). Institutional determinants of the prevalence of start-ups and high growth firms: evidence from Sweden. *Small Business Economics*, 19(2): 81-104. Economic Survey (2005). Central Bureau of Statistics, Ministry of Planning and National Development.

- Evangelista, R. (2000). Sectoral patterns of Technological Change in Services, Economics of Innovation. *Economics of Innovation and New Technology*, 9, 183–221
- Government of Kenya (1997). The Economic Survey, 1997, *Ministry of Planning and National Development*, Government printers, Nairobi
- Hermes, N., Lensink, R. & Meesters, A. (2008). *Outreach and Efficiency of Microfinance institutions*; University of Groningen, the Netherlands
- Hermes, N., Lensink, R. & Meesters, A. (2009). *Financial Development and the Efficiency of Microfinance Institutions*; Centre for International Banking, Insurance and Finance Working Paper, University of Groningen.
- Hospes, R. (2002). *An Evaluation of Micro-Finance Programmes in Kenya as Supported through the Dutch Co-Financing Programme*; A study commissioned by: Steering Committee for the Evaluation of the Netherlands Co-financing Program.
- Jeje, K. (2014). Intensive Growth Strategies and Outreach Performance of Tanzania-Based Savings and Credit Cooperative Societies.
- Kateeba, J.N. (2001). “The Strategic Importance and Use of Information Technology in Providing Management Information Today and In the Future” *The Micro Banker* 11- 13
- Kereta, B. (2007). Outreach and Financial Performance Analysis of Microfinance Institutions in Ethiopia.
- Kitabu, B. (2007). *An assessment of the impact of credit services on women micro entrepreneurs in Kenya: Case of KWFT credit services in Nairobi*. Nairobi, Kenya
- Koson, S. (2007). The impact of ICT on the Growth of the service Industries Available at: <http://ideas.repec.org/p/tik/inowpp/20070531.html>
- Koch, B.S., Mayper, A.G. & Wilner, N.A. (2009). The Interaction of Accountability and Post-Completion Audits on Capital Budgeting Decisions. *Academy of Accounting & Financial Studies Journal* 13, 1-26
- Lincoln, A. (2005). An assessment of performance and sustainability of micro finance institutions: A case study of village credit institutions in Gianyar, Bali, Indonesia. *GadjahMada International Journal of Business*, VII (3)
- Maina W. (2011) *Factors Contributing to Growth of MFIs in Nyeri Central District, Kenya*; Unpublished MBA project, University of Nairobi
- McIntosh, C. & Wydick, B. (2005). Competition and Microfinance; *Journal of Development Economics* 78: 271–29.

- McIntosh, C., Janvry A., & Sadoulet, E. (2005). How Rising Competition among Microfinance Institutions Affects Incumbent Lenders; *The Economic Journal* 115: 987-1004.
- Mogull, R.G. (2004). Second-Semester Applied Statistics; Kendall/Hunt Publishing Company, p. 59. ISBN 0-7575-1181-3
- Motta, M. (2004). *Competition Policy: Theory and Practice*; Cambridge, UK: Cambridge University Press.
- Mugo, G. (2010). *The Effect of Financial Innovation on the Growth of Micro Finance Institutions in Kenya*. Unpublished MBA project, University of Nairobi
- Munguti, K. (2005). *Analysis of effects of micro financing on micro and small enterprises: A case of K-rep Bank's Juhudi and Katikati loan programmes*. Nairobi, Kenya
- Munyiri, M. (2010). *Factors Influencing the Growth of Micro Finance Institutions in Kenya*; Unpublished MBA project, University of Nairobi
- Navajas, S., Conning, J. & Gonzalez-Vega, C. (2003). Lending Technologies, Competition and Consolidation in the Market for Microfinance in Bolivia, *Journal of International Development* 15: 747-770
- Okiro, K. (2010). *Impact of Mobile and Internet Banking on Performance of Financial Institutions in Kenya*; Unpublished MBA project, University of Nairobi
- Olivares-Polanco, F. (2005). Commercializing Microfinance and Deepening Outreach: Empirical Evidence from Latin America, *Journal of Microfinance*, 7: 47-69
- Omondi, G. (2005). Factors influencing the establishment of micro finance schemes in Kenya. Unpublished MBA project, University of Nairobi
- Porteous, D. (2006). *Competition and Microcredit Interest Rates*. CGAP Focus Note No. 33.
- PRSP, (1999), Poverty Reduction Strategy Paper (PRSP) of 1999 Government of Kenya.
- Rhyne, E. & Otero, M. (2006). Microfinance Through the Next Decade Visioning the Who, What, Where, When and How; *A Paper Commissioned by the Global Microcredit Summit, ACCION International, Boston*
- Sajjad, Z. & Imran, M. (1999). *Wider impacts of microfinance institutions: Issues and concepts*; Bangladesh Institute of Development Studies, Bangladesh. Copyright 2004 John Wiley & Sons, Ltd

- Sircar,S., Turnbow, J.L. &Bordoloi, B. (1998). The Impact of Information Technology Investments on Firm Performance: A Review of the Literature, *Journal of Engineering Valuation and Cost Analysis 1*, 171- 178.
- Stiglitz, J. (2001) ‘Principles of financial regulation: a dynamic portfolio approach’. The World Bank Research Observer, 16(1):1-18.
- Totolo, A. (2005). An Exploration of the Theories that Explain the Failure of Information Technology Adoption in Africa; *Proceedings of the 6th conference on Information technology education ACM: NY*, pp. 389 –390.
- Tilman, E. (2006). *Optimizing Capital Supply in Support of Microfinance Industry Growth*; Working paper, Washington, D.C.: Microfinance Investor Roundtable.
- Trivedi, S. (2010). Financial Performance.
- United Nations (2005). Microfinance and the millennium development goals; <http://www.unitednations.org>
- Webster,F. &Riopelle, (1996). Constraints to Growth in Sub Saharan Africa, Pretoria, South Africa

APPENDICES

Appendix I: Letter of Introduction



UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA PROGRAMME

Telephone: 020-2059162
Telegrams: "Varsity", Nairobi
Telex: 22095 Varsity

P.O. Box 30197
Nairobi, Kenya

DATE...02/09/2015

TO WHOM IT MAY CONCERN

The bearer of this letter

Registration No.....DE1/70894/2014.....

is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.


PATRICK NYABUTO
MBA ADMINISTRATOR
SCHOOL OF BUSINESS



Appendix II: List of Deposit Taking Microfinance Institutions in Kenya as at June 2015

1. Faulu Kenya DTM Limited
Date Licensed: 21st May 2009
2. Kenya Women Finance Trust DTM Limited
Date Licensed: 31st March 2010
3. SMEP Deposit Taking Microfinance Limited
Date Licensed: 14th December 2010
4. Remu Deposit Taking Microfinance Limited
Date Licensed: 31st December 2010
5. Rafiki Deposit Taking Microfinance Limited
Date Licensed: 14th June 2011
6. Uwezo Deposit Taking Microfinance Limited
Date Licensed: 8th November 2010
7. Century Deposit Taking Microfinance Limited
Date Licensed: 17th September 2012
8. SUMAC Deposit Taking Microfinance Limited
Date Licensed: 29th October 2012
9. U & I Deposit Taking Microfinance Limited
Date Licensed: 8th April 2013
10. Daraja Microfinance Bank Ltd
Date Licensed: 12th January 2015
11. Choice DTMFIs
Date Licenced: 13th May 2015
12. Caritas Microfinance Bank Ltd
Date Licensed: 2nd June 2015

Source: Central Bank of Kenya 2015

APPENDIX III: Branches of Deposit Taking Microfinance Institutions in Kenya

DTMFIs	2010	2011	2012	2013	2014
Faulu Kenya DTMFI	24	27	27	27	32
KWFT DTMFI	4	12	17	24	29
SMEP DTMFI	2	5	5	7	7
Remu DTMFI	2	2	2	3	3
Rafiki DTMFI	-	2	7	17	17
Uwezo DTMFI	1	2	2	2	2
Century DTMFI	-	-	1	1	1
SUMAC DTMFI	-	-	1	2	3
U & I DTMFI	-	-	-	1	2
Daraja DTMFI	-	-	-	-	1
Choice DTMFIs	-	-	-	-	1
Caritas DTMFI	-	-	-	-	1

Source: Central Bank of Kenya 2015

APPENDIX IV: Operational Growth of Deposit Taking Microfinance Institutions

DTMFIs	2010	2011	2012	2013	2014
Faulu Kenya DTMFI	18.8%	20.8%	23.4%	24.2%	25.1%
KWFT DTMFI	81.2%	68.9%	62.5%	57.4%	61.3%
SMEP DTMFI	n/a	8.1%	7.0%	6.5%	7.1%
Remu DTMFI	n/a	0.5%	0.6%	0.4%	0.7%
Rafiki DTMFI	n/a	1.8%	5.6%	4.2%	8.2%
Uwezo DTMFI	n/a	1.8%	n/a	0.6%	0.8%
Century DTMFI	n/a	1.0%	n/a	0.5%	11.2%
SUMAC DTMFI	n/a	n/a	0.6%	0.3%	7.8%
U & I DTMFI	n/a	0.6%	0.5%	0.4%	0.7%
Daraja DTMFI	n/a	n/a	n/a	n/a	0.2%
Choice DTMFIs	n/a	n/a	n/a	n/a	0.6%
Caritas DTMFI	n/a	n/a	n/a	n/a	0.4%

Source: Annual Reports 2010-2014: AMFI (Association of Microfinance Institutions, 2013_14)

n/a: Not applicable

APPENDIX V: Working Capital of Deposit Taking Microfinance Institutions

DTMFIs	2010 '000'	2011 '000'	2012 '000'	2013 '000'	2014 '000'
Faulu Kenya DTMFI	512	865.7	5012.2	7025.2	8521.5
KWFT DTMFI	618.7	1202.7	5402.8	7064.8	8526.7
SMEP DTMFI	n/a	1752.8	5802.54	7501.6	8896.5
Remu DTMFI	n/a	2087.6	5902.8	7801.3	8902.4
Rafiki DTMFI	n/a	3368.2	6012.5	7802.5	8912.4
Uwezo DTMFI	n/a	4059.7	n/a	7902.4	8986.2
Century DTMFI	n/a	4326.5	n/a	7998.4	9145.2
SUMAC DTMFI	n/a	n/a	6084.2	8041.6	9234.6
U & I DTMFI	n/a	4563.2	6246.8	8123.4	9776.2
Daraja DTMFI	n/a	n/a	n/a	n/a	9806.6
Choice DTMFIs	n/a	n/a	n/a	n/a	9902.1
Caritas DTMFI	n/a	n/a	n/a	n/a	n/a

Source: Annual Reports 2010-2014

APPENDIX VI: ROE of Deposit Taking Microfinance Institutions

DTMFIs	2010	2011	2012	2013	2014
Faulu Kenya DTMFI	-24.5%	2.0%	7.1%	7.6%	8.4%
KWFT DTMFI	16.7%	13.1%	8.2%	57.4%	61.3%
SMEP DTMFI	1.6%	6.2%	10.3%	12.4%	11.6%
Remu DTMFI	n/a	-13.6%	-7.4%	0.4%	0.7%
Rafiki DTMFI	n/a	-11.4%	3.6%	4.2%	6.7%
Uwezo DTMFI	n/a	1.8%	n/a	0.6%	0.8%
Century DTMFI	n/a	n/a	-23.9%	-12.5%	4.2%
SUMAC DTMFI	n/a	5.6%	5.5%	3.2%	6.4%
U & I DTMFI	n/a	0.6%	0.5%	0.4%	0.7%
Daraja DTMFI	n/a	n/a	n/a		
Choice DTMFIs	n/a	n/a	n/a		
Caritas DTMFI	n/a	n/a	n/a		

Source: Annual Reports 2010-2014

APPENDIX VII: Customer Served by Deposit Taking Microfinance Institutions

DTMFIs	2010	2011	2012	2013	2014
Faulu Kenya DTMFI	4,254	6,348	11,123	14,096	21,234
KWFT DTMFI	6,082	6,407	11,214	15,126	22,197
SMEP DTMFI	n/a	7,145	11,913	16,023	22,904
Remu DTMFI	n/a	7,254	12,023	15,120	23,156
Rafiki DTMFI	n/a	8,296	12,197	16,134	24,124
Uwezo DTMFI	n/a	8,596	n/a	16,142	25,140
Century DTMFI	n/a	9,895	n/a	19,116	25,254
SUMAC DTMFI	n/a	n/a	13,024	20,025	26,863
U & I DTMFI	n/a	10,231	14,002	21,123	28,112
Daraja DTMFI	n/a	n/a	n/a	n/a	n/a
Choice DTMFIs	n/a	n/a	n/a	n/a	n/a
Caritas DTMFI	n/a	n/a	n/a	n/a	n/a

Source: Annual Reports 2010-2014