DETERMINANTS OF PROFITABILITY OF DEPOSIT-TAKING MICROFINANCE INSTITUTIONS AND CO-OPERATIVE SOCITIES THAT HAVE FRONT OFFICE SERVICE ACTIVITIES REGISTERED WITH SASRA

BY

ONGAKI K. BELYDAH

D61/61514/2010

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

OCTOBER 2012

DECLARATION

STUDENT'S DECLARATION

This research project is my original work and has not been submitted for an award of a degree in any other University.

Signed:..... Date:13/11/2012

BELYDAH K. ONGAKI

REG NO. D61/61514/2010

SUPERVISOR'S DECLARATION

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

Signed:..... Date:13.11.12

MR. ONDIGO HERICK

Lecturer

Department of Finance and Accounting

School of Business

University of Nairobi

DEDICATION

This project is dedicated to husband Obed Nyambego; words alone cannot express what I owe him for his encouragement and patient love that enabled me complete this project.

This project is also dedicated to my parents, Bosco and Jane, who always believed in my potential and who believed from the time I was in kindergarten that I will attain the Master's degree.

ACKNOWLEDGEMENT

This project could not have been completed and submitted without Mr. Ondigo who not only served as my supervisor but also encouraged and challenged me throughout this program. Thank you.

I will be failing in my duty if I do not thank those who have helped and encouraged me in carrying out this project. I am grateful to Fuad, Francis, Divinah, Katherine and Esther for their support. To my children Ryan, Emma-Lynn and Gavin, thank you for making a stronger, better and more fulfilled person.

I also thank my friends who have helped me in any way in the completion of this project, for the lengthy discussions and for enduring my phone calls for direction.

Above all, I want to acknowledge and thank God for His mercy and abundant Grace, for being by my side and guiding me all the way to this destiny. In everything I do, let the Glory be His and His only.

ABSTRACT

The study aimed to examine the determinants of financial performance of deposit-taking microfinance institutions and co-operative societies that have front office service activities and are registered with SASRA.

The research design was descriptive survey. The study used a sample of 11 SACCOs with FOSA and 6 MFIs. Secondary data spanning three years was used. A regression model was used to establish determinants of financial performance of deposit-taking microfinance institutions and co-operative societies that have front office service activities financial performance of portfolios of investment firms in Kenya.

This study found that there is a positive relationship between profit ratio and interest income ratio. Therefore, an increase in interest income ratio leads to an increase in profit margin. This study also found that there is a positive relationship between profit ratio and non interest income ratio. An increase in non interest income ratio leads to an increase in profit margin. The other finding from the results is that there are a negative relationship between profit ratio and non interest expense ratio. An increase in non interest expense ratio leads to a decrease in profit margin. Regression results indicate that there is a negative relationship between profit ratio and liquidity ratio. An increase in liquidity ratio leads to a decrease in profit margin. Regression results also indicate that there is a positive relationship between profit ratio and asset quality ratio. An increase in asset quality ratio leads to an increase in profit margin. Finally, there is a positive relationship between profit ratio and financing ratio. An increase in asset financing ratio leads to an increase in profit margin.

This study recommends that financial institutions should improve the interest income ratio by aggressively marketing their loans products and expanding their market territory. They should also improve non interest income ratio, non interest expense ratio, financing ratio, liquidity ratio and asset quality ratio.

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ACRONYMS

AFC	Agricultural Finance Corporation
ASCA	Accumulating and Rotating Savings and Credit Associations
ATM	Automated Teller Machines
CBK	Central Bank of Kenya
CGAP	Consultative Group to Assist the Poor
MFI	Deposit Taking Micro-finance
FOSA	Front Office Services Activity
FSD	Financial Sector Deepening
KPOSB	Kenya Post Office Savings Bank
KUSCCO	Kenya Union of Savings and Co-operatives
MFI	Microfinance Institution
NBFI	Non-bank Financial Institution
ROSCA	Accumulating and Rotating Savings and Credit Associations
SACCO	Savings and Credit Co-operative
SASRA	Sacco Societies Regulatory Authority
WOCCU	World Council of Credit Unions

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The Kenyan Financial Sector has undergone numerous challenges and transformations during its relatively short span of its existence. Due to the need to survive and grow, financial institutions have had to re-invent and position themselves to maintain their market share and tap into emerging markets. Co-operative Societies in particular have been noted to depart from traditionally being a savings and credit institution to an institution that offers front office services that have long been a preserve of commercial banks such as operation of savings accounts and processing of salaries among other facilities. According to Kenya Union of Savings and Co-operatives (KUSCCO), Savings and Co-operative Societies (SACCOs) in Kenya or the SACCO movement in Kenya is billed as the largest in Africa and among the top 10 globally. With over Ksh 230 billion in assets and a savings portfolio estimated at Ksh 190 billion, the SACCO movement in Kenya constitutes a significant proportion, about 20 per cent, of the country's domestic savings.

The Sacco Societies Regulatory Authority (SASRA), a creation of the Sacco Societies Act 2008, is a Semi-Autonomous Government Agency under the Ministry of Cooperative, Development and Marketing charged with the prime responsibility to license and supervise deposit taking Sacco Societies in Kenya. On the other hand, MFIs are licensed and regulated by CBK. CBK licenses, supervises and regulates MFIs. The CBK formulates and implements the Microfinance Act and regulations issued there under which govern the operations of Deposit Taking Microfinance Institutions.

Among the reasons that have been cited as the main reasons why Co-operative Societies have diversified into deposit taking institutions is accelerated growth, enhanced profitability, diversification of risk, reduction of tax liability, financial benefits and increased market power. On the other hand, Microfinance Institutions (MFI) are developing a variety of customized products and services some of which are geared

towards satisfying needs that were previously best fulfilled by co-operative societies such as cheaper and easily obtainable short term loans and advances.

This study aims at establishing the factors that determine the profitability and financial performance of SACCOs and MFIs and the extent to which the factors do so. The two forms of organizations have increasingly diversified into the same line of business, offered similar products and services and targeted the same clientele. Ideally then their performance should be influenced by the same factors. This study will seek to establish the extent to which the each determinant influences performance and whether the two forms of institutions are affected by these determinants in a similar manner.

1.1.1 Measures of Financial Performance of MFIs and SACCOs

Accounting based measures that involve analysis and interpretation of financial statements assist users in predicting the future by means of comparison, evaluation and trend analysis Odunga (2006). Since financial performance is deemed to be more important than fulfillment of social objectives, it is only right that accounting based measures shall be used to measure and compare financial performance of MFIs and SACCOs.

To capture the overall financial performance of these financial institutions, critical measurement parameters reflecting the various aspects of their performance will be selected for this study. The (1) operational self-sufficiency ratio, the (2) return on assets ratio, and the (3) profit margin ratio will be the key indicators of financial performance in this research. The selection of the financial performance indicators corresponds to the selection of indicators considered by ING Micro Finance in their investment decision making process.

These measures will adequately address the interest of the various stakeholders of the institutions and therefore they are all relevant to the study. Taken together, the measures will provide insights into how well the financial institutions have performed in the

elected study period, identify the factors that influenced the performance and establish the degree to which the determinants influenced the institution's financial performance.

1 1 2 Factors Influencing MFIs and SACCOs Profitability in Kenya

Interest rate charged on loans advanced is one of main determinant of financial performance of financial institutions. Interest rate is seen as the price lenders expect (or in this case, the borrowers pay) for exchanging current claims for greater future claims to goods and services. Interest rates therefore represent cost of money (Kimutai, 2003). Non-Interest income forms another source of the institutions' income, which includes service charge on deposits (that is, payments for the services provided by the institution and include charges on: opening of accounts, banker's cheque processing, salary processing, loan processing, commission, account closing among others) and income from other non-deposit activities (Njihia, 2005)

The level of Non-Interest expenses affects the profitability of financial institutions. The differences in the mix of an institution's activities have an impact on spreads and profitability (Demirgue-kunt and Huzinga, 1999). Margarida and Mendes (2000) observed that the net interest margin reacts positively to operating costs. Guru and Shanmugan (1999) noted efficiency in expense management as one of the most significant determinants of commercial bank's profitability.

According to Demirgue-kunt and Huzinga (1999), financial institutions with relatively high non interest earning assets are less profitable. Margarida and Mendes (2000) observed that the loan to asset ratio has a positive impact on interest margins and profitability. Customer deposit composition also influences levels of income. Guru and Shanmugan (1999) in their research noted that current account deposit was the most profitable probably because there is no direct interest paid on the deposits while time and savings deposits accounts tend to be less profitable.

The levels of liquidity do affect profitability to a certain extent. Liquid assets are notes and coins, balances held at the Central Bank of Kenya and at other banks (Banking Act, Section 19). They are associated with lower rates of return or none at all and thus too

many liquid assets would lead to lower profitability. Market share commanded in terms of deposits is considered to be a more equitable measure due to the fact that asset component may include investments in securities and subsidiaries which certainly may not be homogeneous across firms (Bourke, 1989). Share commanded also determines the profitability of financial institutions.

Other variables that influence the profitability of commercial banks and financial institutions as identified by Cooperman et al (2000) and Mishkin (1998) include interest rate risk management which has to do with management of interest rate risk exposure resulting from unexpected variations in interest rates, credit risk management which has to do with management of credit risk exposure resulting from default on interest and principal repayments on the loans and advances issued to customers, liquidity management which has to do with tradeoff between profitability and liquidity and non-interest revenue management which has to be managed because they provide diversification and greater stability for financial institutions' profits.

1.1.3 Deposit Taking MFIs

The MFIs were 53 in total as at December 2010 according to Association of Microfinance Institute of Kenya. Of these, 6 are licensed as deposit taking microfinance institutions and are regulated by Central Bank of Kenya under the Microfinance Act, 2006 and Agency guideline for DTMs issued there under.

Poleman (1999) identified the 3 crucial roles of MFIs in Kenya's economy as: assisting entrepreneurs and their households increase the amount, accessibility and security of accumulated savings that can be seen as deferred consumption which can be used to improve the welfare and social standing of a household, advancement of loans primarily for investment in working capital and means through which clients are instructed on effective uses of micro-loans and savings by gathering clients into loan groups, supporting loan distribution, and meeting with borrowers to discuss the progress and payment of their loans.

1.1.4 Co-operative Societies with FOSA

Co-operative Societies are licensed and regulated by SASRA; a Semi-Autonomous Government Agency under the Ministry of Cooperative, Development and Marketing that is a creation of the Sacco Societies Act 2008. Available figures indicate that there are 3,983 active SACCOs in Kenya, out of which 6% operate FOSA business. These SACCOs manage 81% of the total asset base controlled by the sub sector. The total membership of SACCOs at Dec 2010 was 1,857,566 accounting for about 4.8% of the total population (PROCASUR Africa 2012). The entire worth of the sub-sector was estimated at Sh. 210 billion in 2010, with deposit taking institutions controlling Sh. 171 billion of this amount. Figures indicate that the Societies sub sector grew by 15% in the total assets during the period ended December 31, compared to 9% in 2009.

SACCOs being primarily depository institutions by their operational nature mobilize deposits from the public and use the deposits to advance loans to various individuals and economic entities. The SACCO movement provides financial services to large numbers of people throughout Kenya. KUSCCO defines the fundamental role of SACCOs as vehicles for cooperation, self-help and the uplifting of wellbeing of members. These are the principles upon which the cooperative movement was founded. Additionally SACCOs are progressively moving towards a market niche of retail banking that includes operation of savings accounts and other services such as salary processing.

1.2 Research Problem

There have been many reforms in Kenya since the late 1990s with an aim of improving profitability, efficiency and productivity of institutions in the finance sector. Commercial banks' had left a substantial gap in service delivery to financial services users particularly low income earners. MFIs and SACCOs have registered remarkable growth as the unbanked population expanded and started patronizing their services. MFIs and SACCOs are viewed predominantly as instruments of social change and their performance is often measured by non-financial parameters. However, the accepted criteria in a number of studies to study the performance of any MFI have been the twain of Financial

Performance and Outreach (Chaves and Gonzales-Vega 1996, Ledgerwood 1999, Yaron, 1992, Yaron 1994, Yaron et al., 1998, as cited in Arsyad, 2005). In Kenya, the implementation of the Microfinance Act 2006 and the appointment and institutionalization of SASRA as the regulator of the SACCO has had a great impact on the operations of these institutions. The need for growth and survival in the dynamic financial market has resulted in the expansion of various institutions in the last 10 years. SACCOs have in particular shifted from just being a collection of individuals with similar interests who pool funds to enable members to borrow from the pool and at affordable costs to full-fledged financial institutions that offer services that were primarily a reserve of commercial banks. However, there is sufficient empirical evidence that poor performance is manifest in these institutions evidenced by low performance of indicators including: high levels of credit risk to members, poor quality loans, limited and or inadequate capitalization, operational inefficiencies, higher incidences of non-performing loans, higher levels of liquidity risk; among others. Although these are mentioned as constraint areas affecting MFIs and SACCOs' performance, they are based on a few studies and non-elaborate methods to generate sufficient conclusions.

This study is therefore an extension of the studies undertaken on the factors that determine the profitability of MFIs and SACCOs with a view of generating sufficient information on these institutions. The study adopts the fundamental indicators that influence financial institutions' performance in general and have been utilized in most studies available.

Much of the literature in this area addresses the social worth of microfinance organizations (e.g., Bruett, 2005), measuring for example; the impact of village level MFIs (Menkhoff and Rungruxsirivorn 2011; Kaboski and Townsend, 2005), the impact of microcredit on the poor (Karlan and Zinman 2010; Roodman and Morduch 2010; Kaboski and Townsend 2011), costs and benefits of subsidies (Armendariz and microfinance and mission drift (Armendariz and Szafarz 2011). Other studies include efficiency of MFIs (Gutierrez-Nieto et al, 2010; Caudill, Gropper and Hartarska 2009), microfinance commercialization (Montgomery and Weiss 2011; Galema and Lensink

009) outreach sustainability trade off (Hermes and Lensink 2011; Cull, Demirguc-Kunt d Morduch 2007) and performance and corporate governance (Mersland and Strom, 2009).

Cull et al (2007) found evidence that raising interest rates resulted in increased profitability for individual based lending MFIs whereas for solidarity based lenders, the reverse is true. This paper also found evidence that raising the interest rates lead to improved financial performance and profitability with lower subsidy dependence and higher operational self-sufficiency. Rai (2012) carried out a study on the factors which affect the financial sustainability of MFIs and found that the capital/ asset ratio, operating expenses/loan portfolio and portfolio at risk> 30 days are the main factors which affect the sustainability of microfinance institutions. Ahlin et al. (2011) concluded that the determinants of performance of MFIs were variables, such as self-sufficiency, borrower growth or loan-size growth that are estimated by macroeconomic variables as well as macro-institutional factors, such as corruption control. One of their main conclusions includes that MFIs performance is not necessarily good or sometimes worse in the country where institutions are more advanced.

Locally, Njagi (2001) made an investigation of factors affecting performance of micro-finance institutions: a case study of Central Division of Embu district in 2011 and concluded that the key reasons behind low performance of the institutions included limited financial resources, loan defaults by recipients, poor management information systems and poor research and development departments among others. Mahinda (2005) carried out a study to evaluate the use of financial performance indicators by microfinance institutions in Nairobi. The study also looked at the relationship between the sources of finance and the financial performance indicators used by these MFIs. Mirichii (2003) looked at financial performance of urban savings and credit co-operatives (SACCOS) in Nairobi.

There have been a number of studies on the performance of MFIs and on SACCOs. There has however, been limited up-to-date scholarly work detailing factors that explain

microfinance profitability. The focus of this study is therefore to answer the question, what are the determinants of financial performance of SACCOs and MFIs?

1.3 Objective of the Study

To establish the determinants of the financial performance of MFIs and SACCOs with FOSA in Kenya.

1.4 Value of the Study

The findings will provide a basis for long term strategic planning for MFIs and SACCOs.

To the investors, the findings will guide them as to whether to invest in MFIs or in SACCOs.

To academia and researchers, the findings will add to the existing body of knowledge in business finance. It will also provide information and impetus for further research on the areas of regulation and other factors that determine the performance of financial institutions.

To the general public, it will offer guidance in deciding which institutions to patronize for financial services and investment.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter contains the studies that have been carried in the line of financial performance of Microfinance institutions and Co-operative Societies with FOSA. The chapter delineates the theoretical framework in this field and provides a summary of empirical review.

2.2 Theoretical Review

2.2.1 Savings of the Poor Theory

Robinson (2001) contends that savings are more crucial to microfinance members than credit. The theory focuses on voluntary savings mobilized from the public. People choose to save excess liquidity for future use and this excess liquidity can be mobilized by financial institutions serving low income people. Proponents of this theory argue that MFIs and SACCOs are an important part of the solution to poor people's problems with dead capital. Savings accounts in regulated financial institutions are legally recognized assets and often the first that poor families acquire. Their banks accounts are fungible assets (live capital), and since banks are legally accountable for their savers deposits the deposits can be used as collateral for loans and mortgages. Regulated MFIs and SACCOs with FOSA provide voluntary savings accounts that are appropriate for low income savers and are legally recognized as loan capital. These deposits rarely earn notable interest and are cheap capital for investment by these institutions. Therefore, higher amounts of deposits should lead to higher profitability depending on how the funds are utilized.

2.2.2 Financial Systems Approach

The theory suggests that poor people are able to pay high interest rate that cover the lender's transaction costs and emphasizes institutional self-sufficiency, Robinson (2001). The main argument to support this theory is that the large scale outreach to the poor on a long term basis can't be guaranteed if MFIs are incapable of standing on their own feet. In other words, MFIs should be maintained by clients, not donors. This is referred to as

operational self sufficiency. According to Otero and Rhyne (1994), this theory brings down its attention to "impact" in terms of measurable business growth and focuses instead on measures of increased access to financial services.

2.2.3 Imperfect Information theory

According to Robinson (2001), this theory is based on the assumption that banks can't differentiate between low risk and high risk loan applicants. In addition, it is thought that formal financial institutions are unable to compete successfully with informal money lenders because such lenders have access to better information about credit applicants than formal institutions can obtain cost effectively. Imperfect information theory suggests that it would be difficult for banks to both operate profitably in developing countries credit markets and to attain extensive out reach. On the basis of this model, it would be difficult for economists, bankers, financial analysts, donors and government decision makers to master enough enthusiasm for advocating entrance of commercial banks into real credit markets or into micro credit markets. On the other hand, the model implies microfinance institutions have more information on loan applicants and will readily tap into this market.

2.3 Empirical Review

Dissanayake (2012) carried out a study to ascertain the significant determinants of Return on Equity in Sri Lankan MFIs was within the period of 2005-2011. The researcher evaluated 11 MFIs that exist in Sri Lanka. Under this study, efficiency and productivity were measured by operating expense ratio, personal productivity ratio and cost per borrower ratio and financing structure was measured by debt/equity ratio. Profitability was measured by return on equity ratio. The study concluded that the Cost per Borrower and Debt/Equity ratios are significant predictor variables in determining return on equity in a MFI. Most notably, the result on relative debt/equity was supported by empirical verifications as well.

Rai (2012) carried out a study on the factors which affect the financial sustainability of MFIS and aimed at proposing a more comprehensive and representative model for financial sustainability and creating an index to observe the financial performance of microfinance sector. The population for the study was all MFIs in India and Bangladesh. The data was sourced from Microfinance Information Exchange, USA (www.mixmarket.org) and the sample period was from the year 2005-06 to 2009-10. The conclusion of the study was that financial data of microfinance institutions from India and Bangladesh suggested that the capital/ asset ratio, operating expenses/loan portfolio and portfolio at risk> 30 days are the main factors which affect the sustainability of microfinance institutions. The study observed that the factors common to both these countries that affect the financial sustainability are Capital/ asset ratio and Operating expenses/Loan Portfolio.

A study by Speed (2005) identified the following benefits which confirm earlier revelations by Bailey's (2001) study. Savings that make members eligible for a loan is the key benefit that a RFI member gets from the MFI or SACCO. Free sensitization, education and training on saving from RFIs and SACCOs on a range of issues, ranging from saving products and services to business practices, health and HIV among other social issues. Members become shareholders in the respective institutions that they save with. Exchange visits with more developed SACCOs or MFIs, such visits are used as forums and case studies through which members are educated on the importance and benefits of saving organizations. There are also added services: such as, money transfers as is the case for deposit taking MFIs and SACCOs.

The aim of microfinance according to Otero (1999) is not just about providing capital to the poor to combat poverty on an individual level, it also has a role at an institutional level. It seeks to create institutions that deliver financial services to the poor, who are continuously ignored by the formal banking sector. Littlefield and Rosenberg (2004) state that the poor are generally excluded from the financial services sector of the economy, so MFIs have emerged to address this market failure. By addressing this gap in the market in a financially sustainable manner, an MFI can become part of the formal financial system

f a country and so can access capital markets to fund their lending portfolios, allowing them to dramatically increase the number of poor people they can reach (Otero, 1999).

In a comprehensive review of literature carried out by Brau and Woller (2004), a conclusion was made that MFIs provide similar products and services to their customers as formal sector financial institutions. The scale and method of delivery differ, but the fundamental services of savings, loans, and insurance are the same. Notwithstanding, to date most efforts to formalize microfinance have focused on enterprise lending (loans for enterprise formation and development) which remain by far today the dominant product offered by MFIs (Nourse (2001), Woller (2002a)). This, however, has slowly begun to change. Increasingly today MFIs have begun to offer additional products, such as savings, consumption or emergency loans, insurance, and business education. Nourse (2001) reviews the context and rise of microfinance products and argues there is a need for savings and insurance services for the poor and not just credit products. He goes on to argue that MFIs need to provide tailored lending services for the poor instead of rigid loan products. Supporting this latter assertion of Nourse (2001), Eyiah (2001) develops a model of small construction management contractors and MFIs in developing countries that provides a tailored lending structure for microenterprise contractors.

Gomez and Santor (2001) provide empirical evidence of the importance of social collateral. In an empirical study of 612 group borrowers and 52 individual borrowers in Canada, they report that group lending and the presence of neighbors have a positive correlation with self-employment earnings. It follows that borrowers with higher earnings will have an easier time of servicing their microloans and performance of MFIs and SACCOs depends on the profile of its members.

A study by Cull et al. (2007) provides a new dimension to the existing literature on financial performance of microfinance institutions. This study attempts to examine financial performance and outreach systematically for the first time in a large comparative study based on a new extensive data set of 124 microfinance institutions in 49 countries. The authors explored whether there is empirical evidence for a trade-off

between the depth of outreach and profitability. They examined this issue by examining whether more profitability is associated with a lower depth of outreach to the poor, and whether there is a deliberate move away from serving poor clients to wealthier clients in order to achieve higher financial sustainability (mission drift). They also test whether a rise in lending rates causes a deterioration of the loan portfolio due to adverse selection and moral hazard.

A study by Kereta (2007) attempted to look at MFIs performance in Ethiopia from outreach and financial sustainability angles using data obtained from primary and secondary sources. The study found that the industry's outreach rose in the period from 2003 to 2007 on average by 22. 9 percent. It identified that while MFIs reach the very poor; their reach to the disadvantaged particularly to women is limited (38.4 Percent). From financial sustainability angle, it found that MFIs are operational sustainable measured by return on asset and return on equity and the industry's profit performance is improving over time. Similarly, using dependency ratio and Non-performing Loan (NPLs) to loan outstanding ratio proxies, the study also finds that MFIs are financial sustainable.

With time microcredit providers have increased their earnings while their costs decreased. In such cases, financial gain has become more important than sustainable development. Cull, Demirguc-Kunt and Murdoch (2007) define mission drift as "… a shift in the composition of new clients, or a reorientation from poorer to wealthier clients among existing clients." P. Engels on his publication on The Influence of Institutional and Country Risk Indicators on the Trade-Off between the Financial and Social Performance of Microfinance Institutions states 'On the downsides of microfinance are the disputable development impact, and the reported cases of high interest rates, and over-indebtedness of its clients. Increasingly more critical attention is given to the profit-making behavior shown by a variety of players in the industry.' Microfinance institutions exist in order to generate profits for their shareholders and thus it is important that sufficient profits are generated to allow for dividend payment and if possible for retention to finance future growth. SACCO members also expect a good return in form of

dividend. Therefore MFIs and SACCOs are gearing their efforts towards the most profitable areas; seeking the best returns relative to the risk their stakeholders are willing to bear.

Bett (2007) carried out a study that sought to investigate the relationship between the lending interest rate and profitability of Credit Savings and Cooperative Societies in Kenya. The study randomly sampled 20 SACCOs whose net profits and lending interest rates formed a fundamental component of analysis. The study set a singular objective of establishing the relationship between the lending interest rate and profitability of the SACCOs. From data analysis procedures that involved correlation and regression analysis and especially the analysis of the variance (ANOVA), the researcher found that there is a significant relationship between lending interest rates and profitability of SACCOs, the lending interest rate is positively correlated with profitability.

Kyereboah-Coleman (2007) carried out a study to examine the impact of capital structure on the performance of microfinance institutions. Panel data covering the ten-year period 1995-2004 was analyzed within the framework of fixed- and random-effects techniques. His findings were that most of the microfinance institutions employ high leverage and finance their operations with long-term as against short-term debt. Also, highly leveraged microfinance institutions perform better by reaching out to more clientele, enjoy scale economies, and therefore are better able to deal with moral hazard and adverse selection, enhancing their ability to deal with risk.

2.4 Summary of Literature Review

A review of literature indicates that SACCOs and MFIs both target low income earners with little access to main stream commercial banking. In addition to that, SACCOs and MFIs have similar aims and goals, to make a good return for the members and shareholders alongside provision of reasonably priced products and services and to enhance the social welfare of their members through education and training. Alongside that, performance MFIs and SACCOs are affected by similar factors, interest rates

charged on loans being one of the biggest factors determining profitability levels of SACCOs and MFIs.

The empirical review provides an overview of the determinants of financial performance of MFIs and SACCOs with emphasis being placed on the effect of changes on interest rates. This study will seek to determine the factors that determine profitability in general and in particular deposit taking MFIs and SACCOs with FOSA.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter contains the research design and the justification of the chosen design is presented. The population, sampling frame, procedure for surveys, and data analysis to be used to test hypotheses is also outlined in this chapter.

3.2 Research Design

This study adopted a descriptive design. According to Donald and Pamela (1998), a descriptive study is concerned with finding out the what and where of a phenomenon and is used to develop a snapshot of a particular phenomenon of interest since they usually involve large samples. A descriptive study was chosen because it enabled generalization of the findings to a larger population. This study relied on secondary data; financial reports, journals, complimented by comments from senior manager and managers who had access to reports. A descriptive study was chosen since it involved collection of data from the members of the population in order to determine the current status of the subject under study with respect to one or more variables to establish a relationship between variables.

3.3 Population

The population of interest was all SACCOs with Front Office Service Activities and deposit taking Microfinance Institutions. From statistics provided by the Central Bank of Kenya, there are 6 deposit taking Microfinance Institutions and 110 Co-operative Societies operating FOSAs that have SASRA certification.

3.4 Sample and Sampling Procedure

The sample consisted of 11 SACCOs and the 6 MFIs. The study considered a window of three years for evaluation to check for differences in financial performance and the factors that have influenced the changes. Random method of sampling was used to determine the institutions that were analyzed.

3.5 Data Collection

Secondary data on financial performance of the institutions was collected from existing records of the institutions such as Annual financial statements and the investor briefings. Information was also drawn from internal circulars. The data was for 3 years (2009 to 2011).

3.6 Data Analysis

This involved testing the level to which the determinants influences the financial performance of SACCOs with FOSA and deposit taking MFIs. Regression analysis was used to analyze the degree to which the determinants of financial performance affected the profitability of the institutions. The data was presented in form of tables. Data was analyzed using SPSS as a tool of analysis.

3.6.1 Analytical Model

The regression model to be used will be of the form:-

$$Y = a + PiXi + P2X2 + P3\&+ 04*4+ PsX5+ P6X6 + e$$

Where Y=Profitability Ratio (Net profit before tax/Total shareholder's Equity)

disinterest Income to Total Income ratio (Interest Income/Total Operating Income)

X2= Non-Interest Income Ratio (Non-Interest Income/Total Operating Income)

X3= Non-Interest Expenses Ratio (Non-Interest Expenses/Total Operating Expenses)

X4= Liquidity Ratio (Quick assets/Total deposits)

X5= Asset quality Ratio (Total loans/Total deposits)

X6= Financing Ratio (Total loans/Total deposits)

e = Residual term

The three basic statistical tests that were used to test for statistical significance are the coefficient of determination (R squared), F test for overall model significance, and t-test.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents the results of the study. The descriptive statistics were presented first followed by the model results. The interpretation and discussion of the results were presented in a separate section. The chapter summary was also given.

4.2 Descriptive Results

This section presents the descriptive results. The measures of central tendency were presented first followed by the trend analysis.

4.2.1 Summary Statistics

The study sought to examine and compare the average of the ratios and financial indicators across the two groups of financial institutions. The two groups of financial institutions were represented by 11 SACCOs with FOSA and 6 MFIS. The findings were presented in table 4.1 below.

Table 4.1: Summary Statistics across SACCOs with FOSA and MFIs

		N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Share capital plus reserves	SACCO	33	54,281,870.75	75,021,901.57	13,059,636.70	574,000.00	313,609,936.54
	MFIS	18	91,271,388.89	18,892,040.35	4,452,896.61	60,000,000.00	134,550,000.00
	Total	51	67,336,994.80	63,578,044.92	8,902,707.01	574,000.00	313,609,936.54
Profitability Ratio	SACCO	33	.2198	.14666	.02553	.01	.58
	MFIS	18	.4855	.10864	.02561	.29	.68
	Total	51	.3136	.18498	.02590	.01	.68
Interest Income to Total Income Ratio	SACCO	33	.9018	.14508	.02526	.65	0.94
	MFIS	18	.9353	.15391	.03628	.70	0.96
	Total	51	.9136	.14760	.02067	.65	0.95
Non Interest Expense Ratio	SACCO	33	.2662	.11805	.02055	.12	.54
	MFIS	18	.4250	.07371	.01737	.30	.57
	Total	51	.3222	.12901	.01807	.12	.57
Liquidity Ratio	SACCO	33	.1627	.05534	.00963	.07	.28
	MFIS	18	1.5236	.33946	.08001	1.03	2.29
	Total	51	.6430	.68742	.09626	.07	2.29

		N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Asset Quality Ratio	SACCO	33	.9796	.02563	.00446	.93	0.99
	MFIS	18	.9483	.02843	.00670	.91	0.99
	Total	51	.9686	.03039	.00426	.91	0.99
Financing Ratio	SACCO	33	2.1232	.91756	.15973	.98	4.31
	MFIS	18	4.2933g	1.34415	.31682	2.50	7.00
	Total	51	2.8891	1.50004	.21005	.98	7.00

Source: Research Findings

The results indicate that the 11 SACCOs had a mean share capital of Ksh. 54,281,870.75. The maximum observed share capital was Ksh. 313,609,936.54. The minimum observed share capital was Ksh. 574,000. The results indicate that the 6 MFIs had a mean share of Ksh. 91,271,388.89. The maximum observed share capital was Ksh. 134,550,000. The minimum observed share capital was Ksh. 60,000,000. The combined average of the two groups of financial institutions was Ksh. 67,336,994.80. The standard deviation results indicate that there was higher variability of share capital among SACCOs compared to MFIs (standard deviation of Ksh.75, 021,901.57 for SACCO and Ksh. 18,892,040.35 for MFIs).

Results reveal that the 11 SACCOs had a mean profitability ratio of 21.98%. The minimum observed profit ratio was 1% and the maximum was 58%. The results indicate that the 6 MFIs had a mean profit ratio of 48.55%. The minimum observed profit ratio was 29% and the maximum profit ratio was 68%. The average profit margin of the two groups of financial institutions was 31.36%. The standard deviation results indicate that there was higher variability of profit ratios among SACCOs compared to MFIs (standard deviation of 14.66% for SACCOs and 10.86% for MFIs).

Findings in table 4.1 reveal that the 11 SACCOs had a mean interest ratio of 90.18%. The minimum observed interest income ratio was 65% and the maximum was 94%. The results indicate that the 6 MFIs had a mean profit ratio of 93.53%. The minimum observed profit ratio was70% and the maximum profit ratio was 96%. The average profit margin of the two groups of financial institutions was 91.36%. The standard deviation

results indicate that there was higher variability of profit ratios among SACCOs compared to MFIs (standard deviation of 14.508% for SACCOs and 15.391% for MFIs).

The results also indicate that the 11 SACCOs had a mean interest income ratio of 90.18%. The minimum observed interest income ratio was 65% and the maximum was 94%. The results indicate that the 6 MFIs had a mean interest income ratio of 93.53%. The minimum observed interest income ratio was 70% and the maximum interest income ratio was 96%. The average interest income ratio of the two groups of financial institutions was 91.36%. The standard deviation results indicate that there was higher variability of interest income ratio among MFIS compared to SACCOs (standard deviation of 14.508% for SACCOs and 15.391% for MFIs).

Additionally, the 11 SACCOs had a mean non interest expense ratio of 26.62%. The minimum observed non interest expense ratio was 12% and the maximum was 54%. The results indicate that the 6 MFIs had a mean non interest expense ratio of 42.5%. The minimum observed non interest expense ratio was 30% and the maximum non interest expense ratio was 57%. The average non interest expense ratio of the two groups of financial institutions was 32.22%. The standard deviation results indicate that there was higher variability of non interest expense ratio among SACCOs compared to MFIs (standard deviation of 11.805% for SACCOs and 7.37% for MFIs).

Findings in table 4.1 reveal that the 11 SACCOs had a mean liquidity ratio of 0.1627. The minimum observed liquidity ratio was 0.07 and the maximum was 0.28. The results indicate that the 6 MFIs had a mean liquidity ratio of 1.52. The minimum observed liquidity ratio was 1.03 and the maximum liquidity ratio was 2.29. The average liquidity ratio of the two groups of financial institutions was 0.643. The standard deviation results indicate that there was higher variability of liquidity ratio among SACCOs compared to MFIs (standard deviation of 0.55 for SACCOs and 0.33for MFIs).

Revealed in the results is the fact that the 11 SACCOs had a mean asset quality ratio of 97.96%. The minimum observed asset quality ratio was 93% and the maximum was 99%.

The results indicate that the 6 MFIs had a mean asset quality ratio of 94.83%. The minimum observed asset quality ratio was 91% and the maximum asset quality ratio was 99%. The average asset quality ratio of the two groups of financial institutions 96.86%. The standard deviation results indicate that there was higher variability of asset quality ratio among SACCOs compared to MFIs (standard deviation of 0025 for SACCOs and 0.028for MFIs).

The findings also reveal that the 11 SACCOs had a mean financing ratio of 2.12. The minimum observed financing ratio was 0.98 and the maximum was 4.31.The results indicate that the 6 MFIs had a mean financing ratio of 4.29. The minimum observed financing ratio was 2.5 and the maximum financing ratio was 7. The average financing ratio of the two groups of financial institutions was 2.88. The standard deviation results indicate that there was higher variability of financing ratio among SACCOs compared to MFIs (standard deviation of 0.917 for SACCOs 1.344 MFIs).

4.2.2 Annual Trends (Overall)

Results in table 4.2 reveal that there was a consistent rise in the mean share capital of the 17 financial institutions. The share capital in year 2009 was Ksh. 57,791,727.76. The share capital rose to Ksh. 66,460,486.93 in year 2010. The share capital further rose to Ksh. 77,758,769.71 in the year 2011.

Results in table 4.2 reveal that there was a consistent rise in other ratios over the three year these ratios were; profitability ratio, interest income ratio, non interest expense ratio, liquidity ratio, asset quality ratio, financing ratio.

Table 4.2: Annual Trends (Overall)

		N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Share_capitat_plusreserves	2009	17	57,791,727.76	54,816,720.78	13,295,007.64	574,000.00	233,080,592.00
	->010	17	66,460,486.93	63,039,228.90	15,289,258.78	660,100.00	268,042,680.80
	2011	17	77,758,769.71	73,755,897.81	17,888,432.77	772,317.00	313,609,936.54
	Total	51	67,336,994.80	63,578,044.92	8,902,707.01	574,000.00	313,609,936.54

		N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Profitability_ Ratio	2009	17	.2691	.15737	.03817	.01	.51
	2010	17	.3096	.18092	.04388	.01	.59
	2011	17	.3621	.21169	.05134	.02	.68
	Total		.3136	.18498	.02590	.01	.68
Interest Income to Total lncome Ratio	2009	17	.7841	.08361	.02028	.65	.94
	2010	17	.9019	.09617	.02333	.74	0.95
	2011	17	1.0549	.11259	.02731	.87	0.96
	Total		.9136	.14760	.02067	.65	0.95
Non Interest ExpensesRati	2009	17	.2766	.10681	.02591	.12	.43
	2010	17	.3181	.12274	.02977	.14	.49
	2011	17	.3720	.14379	.03488	.16	.57
	Total		.3222	.12901	.01807	.12	.57
Liquidity Rati 0	2009	17	.5519	.59384	.14403	.07	1.70
	2010	17	.6347	.68290	.16563	.08	1.96
	2011	17	.7425	.79893	.19377	.10	2.29
	Total		.6430	.68742	.09626	.07	2.29
Asset Quality Ratio	2009	17	.9583	.02889	.00701	.91	0.99
	2010	17	.9693	.02903	.00704	.92	0.99
	2011	17	.9782	.03158	.00766	.93	0.99
	Total		.9686	.03039	.00426	.91	0.99
FinancingRat 10	2009	17	2.4795	1.26746	.30740	.98	5.20
	2010	17	2.8514	1.45758	.35352	1.13	5.98
	2011	17	3.3363	1.70541	.41362	1.32	7.00
	Total	51	2.8891	1.50004	.21005	.98	7.00

Source: Research Findings

4.3 Analytical Model

This section presented the model results. Table 4.3 indicated that the goodness of fit of the model was satisfactory. The coefficient of determination (R square) was 0.875. This implied that 87.5% of the variations in profit ratio were explained by the independent variables. This further implies that 12.5% of the variations in profit ratio were explained by other ratios not in the model.

Table 4.3: Goodness of fit

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.935[a]	.875	.858	.06971

a. Predictors: (Constant), FinancingRatio, AssetQualityRatio, Non_Interest_Income_Ratio, NonlnterestExpensesRatio, InterestlncometoTotaMncomeRatio, LiquidityRatio
Source: Research Findings

Table 4.4 displays the results of the overall model significance. The results indicate that the f statistic of 51.344 was larger than the f critical. A p value of 0.00 indicates that the null hypothesis of "no significance" is rejected. These results indicate hat the overall model was significant.

Table 4.4: Overall model significance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.497	6	.250	51.344	.000[a]
	Residual	.214	44	.005		
	Total	1.711	50			

a. Predictors: (Constant), Financing Ratio, Asset Quality Ratio, NonlnterestlncomeRatio, Non lnterest Expenses Ratio, Interest lncome to Total lncome Ratio, Liquidity Ratio
b. Dependent Variable: Profitability Ratio
Source: Research Findings

Regression results in table 4.5 indicate that there is a positive relationship between profit ratio and interest income ratio. This was evidence by a regression coefficient of 0.148 (p value = 0.012). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in interest income ratio by 1 unit leads to an increase in profit margin by 0.148 unite.

Regression results in table 4.5 indicate that there is a positive relationship between profit ratio and non interest income ratio. This was evidence by a regression coefficient of 0.200 (p value = 0.007). The relationship was significant at 0.05 critical value since the

reported p value 0.000 was less that the critical value of 0.05. An increase in non interest income ratio by 1 unit leads to an increase in profit margin by 0.200 uni/s.

Regression results in table 4.5 indicate that there is a negative relationship between profit ratio and non interest expense ratio. This was evidence by a regression coefficient of -0.789 (p value = 0.000). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in non interest expense ratio by 1 unit leads to a decrease in profit margin by 0.789 uni/s.

Regression results in table 4.5 indicate that there is a negative relationship between profit ratio and liquidity ratio. This was evidence by a regression coefficient of -0.789 (p value = 0.000). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in liquidity ratio by 1 unit leads to a decrease in profit margin by 0.213 uni/s.

Regression results in table 4.5 indicate that there is a positive relationship between profit ratio and asset quality ratio. This was evidence by a regression coefficient of 1.301 (p value = 0.009). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in asset quality ratio by 1 unit leads to an increase in profit margin by 1.301 uni/s.

Regression results in table 4.5 indicate that there is a positive relationship between profit ratio and financing ratio. This was evidence by a regression coefficient of 0.061 (p value = 0.000). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in asset financing ratio by 1 unit leads to an increase in profit margin by 0.061 uni/s.

Table 4.5: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-1.195	.437		-2.735	.009
Interest_Income_to_Total_Income_Ratio	.148	.095	.118	1.566	.012
NonInterestIncomeRatio	.200	.108	.115	1.849	.007
NonInterestExpensesRatio	-.789	.122	-.550	-6.490	.000
Liquidity Ratio	-.213	.029	-.792	-7.340	.000
AssetQual ityRatio	1.301	.475	.214	2.738	.009
FinancingRatio	.061	**.011**	.497	5.363	.000

a. Dependent Variable: ProfitabilityRatio
Source: Research Findings

Profit margin = -1.195 + 0.148 *Interest income to Total Income Ratio*
+ 0.2 *Non Interest Income Ratio* - 0.789 *Non Interest Expenses Ratio*
- 0.123 *Liquidity Ratio* 4- 1.301 *Asset Quality Ratio* + 0.061 *Financing Ratio*

4.4 Interpretation of Findings

The study sought to establish the determinant of financial performance of SACCOs and MFIs. Regression results indicate that there is a positive relationship between profit ratio and interest income ratio. This was evidence by a regression coefficient of 0.148 (p value = 0.012). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in interest income ratio by 1 unit leads to an increase in profit margin by 0.148 uni/s. The findings agree with those in Kimutai (2003) who noted that Interest rate charged on loans advanced is one of main determinant of financial performance of financial institutions. Interest rate is seen as the price lenders expect (or in this case, the borrowers pay) for exchanging current claims for greater future claims to goods and services.

Regression results indicate that there is a positive relationship between profit ratio and non interest income ratio. This was evidence by a regression coefficient of 0.200 (p value = 0.007). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in non interest income ratio by 1 unit leads to an increase in profit margin by 0.200 unite. The findings agree with those in Njihia (2005) who noted that Non-Interest income forms another source of the institutions' income, which includes service charge on deposits (that is, payments for the services provided by the institution and include charges on: opening of accounts, banker's cheque processing, salary processing, loan processing, commission, account closing among others) and income from other non-deposit activities. A high level of non interest income is highly correlated with higher profitability of a financial institution.

Regression results indicate that there is a negative relationship between profit ratio and non interest expense ratio. This was evidence by a regression coefficient of -0.789 (p value = 0.000). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in non interest expense ratio by 1 unit leads to an decrease in profit margin by 0.789 unite. The findings agree with those in Demirgue-kunt and Huzinga (1999) who noted that the level of Non-Interest expenses affects the rate of profitability of financial institutions. The differences in the mix of an institution's activities have an impact on spreads and profitability. The findings agree with those in Guru and Shanmugan (1999) who noted that efficiency in expense management as one of the most significant determinants of commercial bank's profitability. The findings differ with those in Margarida and Mendes (2000) who observed that the net interest margin reacts positively to operating costs.

Regression results indicate that there is a negative relationship between profit ratio and liquidity ratio. This was evidenced by a regression coefficient of -0.213 (p value = 0.000). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in liquidity ratio by 1 unit leads to a decrease in profit margin by -0.213 unirs. The findings agree with those in Bourke (1989)

who noted that the levels of liquidity do affect profitability to a certain extent. Liquid assets are associated with lower rates of return or none at all and thus too many liquid assets would lead to lower profitability. According to Demirgue-kunt and Huzinga (1999), financial institutions with relatively high non interest earning assets are less profitable.

Regression results in indicate that there is a positive relationship between profit ratio and asset quality ratio. This was evidenced by a regression coefficient of 1.301 (p value = 0.009). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in asset quality ratio by 1 unit leads to an increase in profit margin by 1.301 unite. The findings agree with those in to Demirgue-kunt and Huzinga (1999) and Kimutai (2003) who noted that financial institutions with lower levels of non performing loans reported better financial performance.

Regression results indicate that there is a positive relationship between profit ratio and financing ratio. This was evidence by a regression coefficient of 0.061 (p value = 0.000). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in asset financing ratio by 1 unit leads to an increase in profit margin by 0.061 unirs. The findings agree with those in Guru and Shanmugan (1999) and Margarida and Mendes (2000) who noted that financial institution with adequate financing report better financial performance.

CHAPTER FIVE

SUMMARY AND CONCLUSIONS

5.1 Introduction

This chapter delineates the summary and conclusions of the study. It also suggests the recommendations to be implemented following the findings of the study. The chapter also presents the limitations of the study and outlines further areas for research.

5.2 Summary

This study aimed to examine the determinants of financial performance of deposit-taking microfinance institutions and co-operative societies that have front office service activities. In additions to the aim of the study, the first chapter highlighted the various parties that would benefit from findings of this study. The literature review looked at the theories backing the study. These theories were Savings of the Poor Theory, Financial Systems Approach and Imperfect Information theory. The empirical evidence of the study was also given.

The research methodology employed in this study was descriptive study. The chapter three discussed the type of research design, population, and target population, sampling frame, sample, sample size, sampling technique, instruments to be used, pilot test and data analysis.

The findings of the study are presented in chapter four. The study sought to establish the determinant of financial performance of SACCOs and MFIs. Regression results indicate that there is a positive relationship between profit ratio and interest income ratio. This was evidence by a regression coefficient of 0.148 (p value = 0.012). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in interest income ratio by 1 unit leads to an increase in profit margin by 0.148 unirs.

Regression results indicate that there is a positive relationship between profit ratio and non interest income ratio. This was evidenced by a regression coefficient of 0.200 (p value = 0.007). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in non interest income ratio by 1 unit leads to an increase in profit margin by 0.200 uni/s.

Regression results also indicate that there is a negative relationship between profit ratio and non interest expense ratio. This was evidenced by a regression coefficient of -0.789 (p value = 0.000). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in non interest expense ratio by 1 unit leads to a decrease in profit margin by 0.789 uni/s.

Additionally, results indicate that there is a negative relationship between profit ratio and liquidity ratio. This was evidenced by a regression coefficient of -0.213 (p value = 0.000). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in liquidity ratio by 1 unit leads to a decrease in profit margin by 0.213 unirs.

Regression results also indicate that there is a positive relationship between profit ratio and asset quality ratio. This was evidenced by a regression coefficient of 1.301 (p value = 0.009). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in asset quality ratio by 1 unit leads to an increase in profit margin by 1.301 uni/s.

Regression results indicate that there is a positive relationship between profit ratio and financing ratio. This was evidenced by a regression coefficient of 0.061 (p value = 0.000). The relationship was significant at 0.05 critical value since the reported p value 0.000 was less that the critical value of 0.05. An increase in asset financing ratio by 1 unit leads to an increase in profit margin by 0.061 unifs.

5.3 Conclusions

The study concluded that SACCOs had a lower share capital than MFIs. This is because there are regulations as to the minimum capital that a MFI should have. The current regulation by CBK is Ksh. 60,000,000. The study concluded that MFIs have a higher profitability ratio than Saccos. The significant difference in profit margin is explained by the difference in objectives and mission of the two organizations. SACCOs have a mission to empower their members and profitability is not the overriding objective. MFIs on the other hand charge very high interest rates and are guided by strong profit objectives.

The other conclusion was that SACCOs have a lower non interest expense ratio compared to MFIs. This may mean that SACCOs with FOSA may be more efficient compared to MFIs. This may be explained by the low salary costs and administration costs for SACCOs as opposed to MFIs. Alternatively, SACCOs had lower liquidity than the MFIs. This may be explained by the regulations on reserves that have been put in place by the Central Bank of Kenya. On the other hand, SASRA does not put such strict restriction on cash reserves.

The study concluded that SACCOs have a higher asset quality compared to MFIs. This may be explained by the fact that SACCOs are stricter on the amount that a borrower borrows and applies strict policies on guarantors and collateral. The study concluded that SACCOs have a lower financing ratio compared to MFIs. This may be explained by the fact that SACCOs source majority of the funds from member's deposits as opposed to MFIs that may source funds from commercial banks and still lend at a higher interest rate.

This study concludes that there is a positive relationship between profit ratio and interest income ratio. Therefore, an increase in interest income ratio leads to an increase in profit margin. There is a positive relationship between profit ratio and non interest income ratio. An increase in non interest income ratio leads to an increase in profit margin. In addition, there are a negative relationship between profit ratio and non interest expense ratio. An

increase in non interest expense ratio leads to a decrease in profit margin. Regression results indicate that there is a negative relationship between profit ratio and liquidity ratio. An increase in liquidity ratio leads to a decrease in profit margin. The results in indicate that there is a positive relationship between profit ratio and asset quality ratio. An increase in asset quality ratio leads to an increase in profit margin. Finally, there is a positive relationship between profit ratio and financing ratio. An increase in the asset financing ratio results in an increase in profit margin.

5.4 Policy Recommendations

This study recommends that financial institutions should improve the interest income ratio by aggressively marketing their loans products and expanding their market territory. This is because there is a positive relationship between profit ratio and interest income ratio.

This study also recommends that financial institutions should improve the non interest income ratio as doing so would be beneficial. This is because there is a positive relationship between profit ratio and non interest income ratio. An increase in non interest income ratio leads to an increase in profit margin In addition, the study recommends that financial institutions should improve the non interest expense ratio by cutting down on the administrative cost. This is because there is a negative relationship between profit ratio and non interest expense ratio. An increase in non interest expense ratio leads to a decrease in profit margin and it is the financial institutions interest to reduce the non interest expense.

This study recommends that financial institutions should improve their liquidity ratio by ensuring that a minimal non interest yielding assets/cash have been retained. This is because there is a negative relationship between profit ratio and liquidity ratio. An increase in liquidity ratio leads to a decrease in profit margin. This study also recommends that financial institutions should improve on the asset quality ratio through aggressive credit risk management practices. This will include best practices credit

appraisal and debt collection. This is because there is a positive relationship between profit ratio and asset quality ratio. An increase in asset quality ratio leads to an increase in profit margin. Financial institutions should improve the financing ratio through acquiring extra funding from other sources. This is because there is a positive relationship between profit ratio and financing ratio. An increase in asset financing ratio leads to an increase in profit margin.

5.5 Limitations of the study

One of the limitations of the study was that the study did not address the impact of interest rate risk management on the profitability of financial institutions. The study failed to investigate whether SACCOs and MFIs have interest rate risk hedging instruments and whether such instruments affects the profitability of the financial institutions. The impact of credit risk management on the profitability of financial institutions was also not addressed. The study did not highlight the existence and effectiveness of various credit risk management practices. For instance, the study failed to show whether the financial institution use the 5 Cs of credit management and the Know Your Customer Policy (KYC).

The study results are also limited because they did not address the role of corporate governance mechanism on the profitability of financial institutions. For instance, the study did not address the role of separation of power between chairman and CEO, existence of a competence board and the formation of board committees on the financial performance of SACCOs.

The study results are also limited since it did not address the role of human resource and motivation aspect on the financial and non financial performance of financial institutions. Therefore, failure to use non financial measures of performance implies that the measurement of financial performance was narrow. The study was also limited to 11 SACCOs over a span of three years. Further studies should increase the number of institutions and expand the period of consideration.

5.6 Suggestions for Further Research

Suggested further areas of study should be on the impact of interest rate risk management on the profitability of financial institutions. Future studies should concentrate on investigating whether SACCOs and MFIs have interest rate risk hedging instruments and whether such instruments affects the profitability of the financial institutions.

Future studies should address the impact of credit risk management on the profitability of financial institutions. Future areas should focus on the existence and effectiveness of various credit risk management practices. For instance, the study should show whether the financial institution use the 5 Cs of credit management and the Know Your Customer Policy (KYC).

Future studies should address the role of corporate governance mechanism on the profitability of financial institutions. For instance, the study needs to address the role of separation of power between chairman and CEO, existence of a competence board and the formation of board committees on the financial performance of SACCOs.

Future studies should focus on the role of human resource and motivation aspect on the financial and non financial performance of financial institutions. Therefore, future studies should focus on the use of non financial measures of performance. This is because the use of the measurement of financial performance was narrow.

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APPENDIX I:

LIST OF LICENSED DEPOSIT TAKING MICROFINANCE INSTITUTIONS

1. FAULU KENYA MFI LIMITED
2. KENYA WOMEN FINANCE TRUST MFI LIMITED
3. RAFIKI DEPOSIT TAKING MICROFINANCE
4. REMU MFI LIMITED
5. SMEP DEPOSIT TAKING MICROFINANCE LIMITED
6. UWEZO DEPOSIT TAKING MICROFINANCE LIMITED

APPENDIX II

List of SACCOs Licensed By SASRA

	NAMES OF SACCOs
1	ACO
2	AFYA
3	ASILI
4	BANDARI
5	BARAKA.MTG
6	BARINGO FARMERS
7	BARINGO TEACHERS
8	BIASHARA
9	BINGWA-KT
10	BORABU TG
11	BUNGOMA TEACHERS
12	BURETI TEA
13	CHAI (KTDA)
14	CHEMILIL SACCO
15	CHEPSOL TG
16	CHUNA
17	COMOCO
18	DIOCESE OF MERU
19	EMBU TEACHERS
20	FARIJI
21	FORTUNE
22	GITHUNGURI DAIRY
23	GUSH MWALIMU
24	HARAMBEE SACCO
25	HAZINA SACCO
26	IMENTI
27	IRIANYI TEA
28	JAMII
29	KAKAMEGA TEACHERS
30	KEIYO TEACHERS
31	KENPIPE SACCO
32	KENYA BANKERS
33	KENYA CANNERS
34	KENYA POLICE
35	KERICHO TEA - KH
36	KIAMBAA DAIRY
37	KIAMBU UNITY

38 KILIFI TEACHERS
39 KINGDOM
40 KIPSIGIS TCHRS
41 KITE
42 KITUI TEACHERS
43 KMFRI
44 KONOIN
45 KURIA TEACHERS
46 LENGO
47 MACADAMIASACCO/JIJENGE
48 MAGADI SACCO
49 MARAKWET TEACHERS
50 MARSABIT TEACHERS
51 MATHIRA FARMERS
52 MAUA METHODIST
53 MERU MWALIMU
54 MERU NORTH FARMERS
55 MERU SOUTH FMRS
56 METROPOLITAN
57 MOMBASA PORT
58 MOMBASA TEACHERS
59 MUHIGIA
60 MUMIAS O'GROWERS
61 MUNGANIA TG /DAIMA
62 MURAMATI
63 MURANG'A TCHRS
64 MURATA
65 MWALIMU
66 MWITO
67 NACICO
68 NAKU
69 NAKURU TEACHERS
70 NANDI HEKIMA
71 NAROK TEACHERS SACCO
72 NATION STAFF
73 NDEGECHAI
74 NDOSHA
75 NITHI TEA GROWERS SACCO
76 NTIMINYAKIRU RURAL
77 NYAMBENE ARIMI
78 NYAMIRA TEA FMRS

79 NYANDARUATEACHERS
80 NYERI TEACHERS
81 ORTHODOX
82 SAFARICOM
83 SHERIA SACCO
84 SIAYATEACHERS
85 SIMBA CHAI
86 SIRAJI
87 SOT TEA GROWERS
88 SOTICO
89 SOUTH IMENTI TG
90 STIMA
91 SUKARI
92 TAI - KTG
93 TAIFA
94 TAITA TAVETA TEACHERS
95 TEMBO
96 TENHOS
97 THARAKA NITHI TEACHERS
98 THIKA DISTRICT TEACHERS
99 TRANS-NZOIA TEACHER
100 UKULIMA
101 UNITED NATIONS
102 UNIVERSAL TRADERS
103 WAKENYA PAMOJA
104 WAKULIMA DAIRY
105 WANAANGA
106 WANANCHI
107 WANANDEGE
108 WARENG TEACHERS
109 WASHA
110 WAUMINI

APPENDIX III
SUMMARY OF DATA COLLECTED AND CALCULATIONS

le		Share_capital_plus_reser	Profitability	Interest _Total_	Incometo IncomeRa	Non Interest IncomeRa	NonJnterestEx		AssetQu alityRati	
	SaccoName	ves	Ratio	tio		tio	pensesRatio	LiquidityRatio	**0**	FinancingRatio
1	SACCO MU 2009	233,080,592.00	0.428	0.940		0.200	0.180	0.071	0.994	3.200
1	SACCO CH 2009	1,828,078.00	0.330	0.820		0.300	0.120	0.161	0.990	2.000
1	SACCO 2009	15,400,500.00	0.327	0.820		0.180	0.140	0.100	0.990	2.840
1	SACCO Kl 2009	20,352,090.00	0.221	0.780		0.220	0.150	0.110	0.950	1.683
1	SACCO ME 2009	36,872,478.00	0.209	0.763		0.237	0.320	0.130	0.980	1.573
1	SACCO MH 2009	75,869,120.00	0.122	0.647		0.353	0.182	0.134	0.990	0.980
1	SACCO US 2009	574,000.00	0.120	0.830		0.060	0.160	0.150	0.950	1.087
1	SACCO WA 2009	55,232,214.00	0.109	0.800		0.180	0.200	0.090	0.970	1.053
1	SACCO a2009	35,000,000.00	0.106	0.724		0.276	0.280	0.180	0.980	1.274
1	SACCO b2019	20,000,000.00	0.092	0.680		0.320	0.381	0.200	0.960	1.654
1	SACCO C2019	18,250,300.00	0.011	0.710		0.340	0.400	0.210	0.930	2.700
2	MFI KWFT 2009	100,000,000.00	0.508	0.920		0.080	0.301	1.026	0.983	4.908
2	MFI SMEP 2009	60,000,000.00	0.478	0.890		0.274	0.402	1.500	0.947	5.200
2	MFI a2009	75,000,000.00	0.449	0.700		0.300	0.377	1.200	0.930	3.200
2	MFI b2009	80,000,000.00	0.419	0.750		0.250	0.330	1.320	0.910	2.800
2	MFI C2009	85,000,000.00	0.359	0.830		0.170	0.352	1.100	0.920	3.500
2	MFI d2009	70,000,000.00	0.287	0.726		0.110	0.427	1.700	0.917	2.500
1	SACCO MU 2010	268,042,680.80	0.492	1.081		0.230	0.207	0.081	1.009	3.680
1	SACCO CH 2010	2,102,289.70	0.380	0.943		0.345	0.138	0.185	0.990	2.300
1	SACCO 2010	17,710,575.00	0.376	0.943		0.207	0.161	0.115	1.005	3.266
1	SACCO Kl 2010	23,404,903.50	0.254	0.897		0.253	0.173	0.127	0.964	1.935
1	SACCO ME 2010	42,403,349.70	0.241	0.877		0.273	0.368	0.149	0.995	1.809
1	SACCO MH 2010	87,249,488.00	0.140	0.744		0.406	0.209	0.154	0.990	1.127
1	SACCO US 2010	660,100.00	0.138	0.955		0.069	0.184	0.173	0.950	1.250
1	SACCO WA 2010	63,517,046.10	0.126	0.920		0.207	0.230	0.104	0.985	1.211
1	SACCO a2010	40,250,000.00	0.122	0.833		0.317	0.322	0.207	0.995	1.465
1	SACCO b2020	23,000,000.00	0.106	0.782		0.368	0.438	0.230	0.974	1.902
1	SACCO C2020	20,987,845.00	0.013	0.817		0.391	0.460	0.242	0.930	3.105
2	MFI KWFT 2010	115,000,000.00	0.585	1.058		0.092	0.347	1.180	0.997	5.644
2	MFI SMEP 2010	69,000,000.00	0.550	1.024		0.315	0.462	1.725	0.961	5.980
2	MFI a2010	86,250,000.00	0.516	0.805		0.345	0.433	1.380	0.944	3.680
2	MFI b2010	92,000,000.00	0.481	0.863		0.288	0.380	1.518	0.924	3.220
2	MFI c2010	97,750,000.00	0.413	0.955		0.196	0.404	1.265	0.934	4.025
2	MFI d2010	80,500,000.00	0.330	0.835		0.127	0.491	1.955	0.931	2.875
1	SACCO MU 2011	313,609,936.54	0.575	1.265		0.269	0.242	0.095	1.026	4.306
1	SACCO CH 2011	2,459,678.95	0.444	1.103		0.404	0.161	0.217	0.992	2.691
1	SACCO 2011	20,721,372.75	0.440	1.103		0.242	0.188	0.135	1.022	3.821
1	SACCO Kl 2011	27,383,737.10	0.297	1.049		0.296	0.202	0.148	0.964	2.264
1	SACCO ME 2011	49,611,919.15	0.282	1.027		0.319	0.431	0.175	1.012	2.117
1	SACCO MH 2011	102,081,900.96	0.164	0.870		0.475	0.244	0.180	0.990	1.319
1	SACCO US 2011	772,317.00	0.161	1.117		0.081	0.215	0.202	0.950	1.463
1	SACCO WA 2011	74,314,943.94	0.147	1.076		0.242	0.269	0.121	0.985	1.417
1	SACCO a2011	47,092,500.00	0.143	0.974		0.371	0.377	0.242	1.012	1.714
1	SACCO b2021	26,910,000.00	0.124	0.915		0.431	0.513	0.269	0.974	2.225
1	SACCO **C2021**	24,555,778.65	0.015	0.955		0.457	0.538	0.283	0.930	3.633
2	MFI KWFT 2011	134,550,000.00	0.684	1.238		0.108	0.405	1.380	1.014	6.604
2	MFI SMEP 2011	**80,730,000.00**	0.644	1.197		0.369	0.541	2.018	0.978	6.997
2	MFI a2011	100,912,500.00	0.604	0.942		0.404	0.507	1.615	0.944	4.306
2	MFI b2011	107,640,000.00	0.563	1.009		0.336	0.444	1.776	0.939	3.767
2	MFI C2011	**114,367,500.00**	0.483	1.117		0.229	0.473	1.480	0.950	4.709
2	MFI d2011	**94,185,000.00**	0.386	0.976		0.148	0.574	2.287	0.947	3.364

Source: Financial Institutions Financio! Statements and research findings