EFFECT OF CREDIT RISK MANAGEMENT PROCEDURES ON FINANCIAL PERFORMANCE AMONG MICROFINANCE INSTITUTIONS (MFIs) IN KENYA: A CASE OF MFIs IN NAIROBI COUNTY

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A Research Project Submitted to The Graduate School In Partial Fulfillment of The Requirements for The Award of Degree of Master Of Business Administration of Egerton University

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# **DECLARATION AND APPROVAL**

Declaration
I, the undersigned, declare that this research project is my original work and has not been
submitted to any university, college or institution of higher learning for academic credit.
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Approval
This research project has been submitted for Examination with my approval as university
supervisor.
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# **DEDICATION**

I dedicate this work to my family: husband-Peter Mutua, daughters Juliet and Cynthia for their forbearance, moral support and prayers during my period of study. The times I spent away from you in pursuit of knowledge were not in vain.

#### ACKNOWLEDGEMENT

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#### **ABSTRACT**

The purpose of the study was to analyze the credit risk management procedures adopted on financial performance of microfinance institutions in Kenya. Specifically, the study sought to determine the extent to which risk identification, risks monitoring procedures, and risk analysis and assessment procedures are applied in credit risk management by microfinance institutions in Kenya and their overall effect on the financial performance of the MFIs. The study adopted the descriptive design. The population of the study was consisted of credit managers and officers in the 54 Microfinance Institutions in Nairobi County. The researcher used the questionnaires to collect the data. The questionnaire was first pretested on credit managers and their assistants whose results were included in the final results. The data collection was done through a combination of drop and pick and self-administration methods. Data analysis was based on descriptive and inferential statistics. Data analysis was done using the Statistical Package for Social Sciences (SPSS). The results were presented using table and charts. The study found out that the organization considered risk identification, risks monitoring, risk assessment, risk analysis as a process in credit risk management. The study established that these procedures were important as they ensured that the risk management function was established throughout the whole corporation. The study concludes that the management of the Microfinance institutions are enhancing their credit risk management by putting in place measures to curb the risk and this enhances efficiency of services of the institutions. The study recommends that stiff measures should be put in place to run the credit risk management in order to enhance positive performance in the Microfinance institutions. The MFIs should also spearhead in application of procedures which are applied in the management of Microfinance institutions. Lastly, the study recommends further studies to be done on the effects of credit risk management procedures on financial performance of Micro finance institutions in Kenya.

## LIST OF ABBREVIATIONS

**AMFI** Association of Microfinance Institutions

**AIRMIC** Association of Insurance and Risk Managers

**CBs** Commercial Banks

**CBS** Central Bureau of Statistics

**CR** Credit Risk

**CRM** Credit Risk Management

**IAIS** International Association of Insurance Supervisors

**IRM** Institute of Risk Management

**MFIs** Micro Finance Institutions

**PRSP** Poverty Reduction Strategy Paper

**SMEs** Small and Medium Enterprises

**SPSS** Statistical Package for Social Sciences

**UAE** United Arabs Emirates

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#### CHAPTER ONE

### INTRODUCTION

## 1.1. Background of the study

Credit risk management forms a key part of a company's overall risk management strategy. Weak credit risk management is a primary cause of many business failures. Many small businesses, for example, have neither the resources nor the expertise to operate a sound credit management system (Mc Menamin, 1999). When a company grants credit to its customers it incurs the risk of non-payment. Credit management, or more precisely credit risk management, refers to the systems, procedures and controls, which a company has in place to ensure the efficient collection of customer payments thereby minimizing the risk of non-payment (Mokogi, 2003).

World Bank defines Micro Finance Institutions (MFIs) as institutions that engage in relatively small financial transactions using various methodologies to serve low income households, micro enterprises, small scale farmers, and others who lack access to traditional banking services CBS (1999). Financial intermediation is of great importance in any economy (Dondo & Ongila 2006). According to Kenya's Poverty Reduction Strategy Paper (PRSP) and vision 2030, the financial sector is expected to play a catalytic role in facilitating economic growth through SMEs. Access to formal credit by small-scale business persons has been quite poor particularly among the low-income category. This is largely as a result of the credit policies associated with loans provided by the formal sector (Ringeera, 2003).

According to Mokogi (2003), even if granting credit may accrue benefits of increasing sales to the institution, there are high default risks that may adversely affect its future. Financial institutions therefore have to come up with appropriate credit management policies that will yield the maximum benefits and reduce the risk of defaults. Credit policies vary from one institution to another; a firm's unique operating conditions dictate the kind of credit policy to adopt. Myer and Brealey (2003) noted that if services are offered on credit, the profit is not actually earned unless the account is collected.

Financial institutions take into consideration a number of factors before setting the credit standards. They include financial stability of the customer, the nature of credit risk on the basis of prior record of payment among others. In establishing credit terms, the institution should consider the use of cash discount. An increase in the average collection period of a institution may be the result of a predetermined plan to extend credit terms or the consequence of poor credit administration (Block & Hirt, 2005).

In recent years, a growing number of developing countries, including Kenya, have embarked on reforming and deregulating their financial systems, transforming their financial institutions into effective intermediaries and extending viable financial services on a sustainable basis to all segments of the population (Seibel, 2006). By gradually increasing the outreach of their financial institutions, some developing countries have substantially elevated poverty lending, institutional strategies and financial systems approaches. In the process, a new world of finance has emerged, which is demand-led and savings driven and conforms to sound criteria of effective financial intermediation. As a result of the successful integration of microfinance strategies into micro policies, this makes banking in the micro economy and the poor both viable and sustainable.

Throughout 1980s and 1990s, the financial institutions, which were mainly Non-Governmental Organizational-based credit programs, improved on the original methodologies and reviewed their policies about financing the poor. During this period it was demonstrated that poor people, especially women, repaid their loans with near-perfect repayment rates, unheard of in the formal financial sectors of most developing countries, were common among the better credit programs. The poor were also willing and able to pay interest rates that allowed MFIs to cover their costs. As a result of these two features, i.e. high repayment and cost-covering interest rates, enabled some MFIs to achieve long-term sustainability while reaching large numbers of clients. The promise of microfinance as a strategy that combines massive outreach, far reaching impact and financial sustainability makes it unique among development interventions.

## 1.2. Statement of the Problem

Granting credit to customers is an important investment option for financial institution which comes with high risk and thus the need for credit risk management to ensure reduced loan default rate while at the same time advancing credit in a fair and undiscriminating manner. It is estimated that about 18 % of private investment capital in Kenya is sourced from the MFIs mainly by individual and small business entities towards establishing SMEs, procurement of agricultural land, housing and supporting education among other financial needs.

According to Mc Menamin (1999), weak credit risk management is a primary cause of many business failures including financial institutions. Hempel et al. (1994) in his study focusing on national banks that failed in the mid-1980s in the U.S.A found that the consistent element in the failures was the inadequacy of the bank's management system for controlling loan quality. It is strongly recommended that financial institutions should manage their credit risk to avoid exposing their organization to unnecessarily high levels of risk and subsequently a decline in returns. A common approach to customers' credit selection and analysis is the use of the "six Cs" which usually refers to capacity, capital, character, collateral, conditions and control of credit as an initial screening and risk assessment.

A number of studies have been done in both developed and developing countries on credit risk management mainly focusing on large financial institutions such as banks. Most studies in MFIs have focused on their financial performance and the performance of their customers mainly the SMEs (Rukwaro, 2000), Kitaka (2006) and Mokogi (2003). These studies among other findings have indicated a high default rates among the MFIs. CBK Supervision Annual Report (2014) indicated that the ratio of non-performing loans to gross loans increased from 4.4 per cent in December 2011 to 4.7 per cent in December 2012; this has risen to 12.1 per cent in the year 2014. This is against the CBK financial guideline (2013) on financial performance of all financial institution which stipulates that the acceptable limit of non-performing loans is 4% of the gross loans.

With the growing interest by SMEs and individuals in borrowing from MFIs, this problem will likely continue to grow especially where appropriate risk management procedures are not applied. This study therefore seeks to analyse credit risk management practices used by MFIs in Kenya and their effect on financial performance of the institutions with a view of providing important information to the institutions in improving their risk management procedures.

## 1.3 Objectives of the Study

## 1.3.1 General Objective

The general objective sought to determine the effect of credit risk management procedures on financial performance among microfinance institutions in Kenya.

## 1.3.2 Specific Objectives

The study was guided by the following specific objectives:

- i) To establish the extent to which risk identification procedure influenced financial performance of microfinance institutions in Kenya.
- ii) To establish the extent to which risk assessment procedure influenced financial performance of microfinance institutions in Kenya.
- iii) To determine the effect of risk analysis procedure on financial performance of microfinance institutions in Kenya.
- iv) To determine the effect of risk monitoring and evaluation procedures on financial performance of microfinance institutions in Kenya.
- v) To determine the combined effect of credit risk management procedures on financial performance of the microfinance institutions in Kenya.

## 1.4 Hypotheses

The study sought to test the following research hypotheses:

H<sub>0</sub>1: Risk identification procedure does not have a significant effect on financial performance of microfinance institutions in Kenya.

H<sub>0</sub>2: Risk assessment procedure does not have a significant effect on financial performance of microfinance institutions in Kenya.

H<sub>0</sub>3: Risk analysis procedure does not have a significant effect on financial performance of microfinance institutions in Kenya.

H<sub>0</sub>4: Monitoring and evaluation procedures do not have a significant effect on financial performance of microfinance institutions in Kenya.

H<sub>0</sub>5: Credit risk management procedures do not have a significant effect on financial performance of microfinance institutions in Kenya.

## 1.5 Significance of the Study

#### 1.5.1 To MFI's

The study was expected to be of great importance to the management of MFIs, not only in Nairobi County but also in the rest of the Counties. The management would able to know how to effectively handle the issues of credit risk management and how to reduce their exposure to the risk and also improve the organizations' financial performance.

## 1.5.2 To policy makers

In the development of government policy papers, the role of the financial sector greatly needs the effective participation of MFIs. Policy makers such as Association of Microfinance Institutions (AMFI) and Central Bank of Kenya would benefit from the study as it would guide them in making policies to reduce credit risk among MFIs in the country.

#### 1.5.3 To Academicians

The research would provide valuable information regarding the micro financial sector. Being upcoming entrepreneurs the academicians would be furnished with relevant information on credit risks and the management procedures. It would also contribute to the general body of knowledge and form a basis for further research.

## 1.6 Scope of the Study

The study was limited to MFIs in Nairobi registered by December 31<sup>st</sup> 2013. The MFIs were selected since they handle a significant amount of the total credit turnover in the country. In addition, the quality of service of MFI's compare favorably with streamlined commercial banks. The study targeted the senior credit officers/managers in the MFIs in a bid to determine the effect of credit risk management procedures on financial performance of the MFIs.

## 1.7. Limitations of the Study

In the pursuit of conducting this study, few limitations were expected. First, some respondents were unwilling to respond to all questions, or may be for the case of staff, they were restrained from giving some information by the management or due for fear of victimization. The respondents were unwilling to give the right or all the necessary information; thus making it difficult to get reliable data. This however was overcome by reassuring the respondents the intended use of information being sought.

## 1.8. Definitions of Operational Terms

Credit Risk Management (CRM) refers to the systems, procedures and controls, which a company has in place to ensure the efficient collection of customer payments thereby minimizing the risk of non-payment (Richardson, 2002).

**Credit Risk** is the risk of loss due to a debtor's non-payment of a loan or other line of credit (either the principal or interest coupon or both (Naceur & Goaied, 2003).

**Default Risk** is the likelihood that a customer will fail to repay the credit obligation (Richardson, 2002).

**Risk Management** is the practice of creating economic value in a firm by using financial instruments to manage exposure to risk, particularly credit risk and market risk (Parrenas, 2005).

**Financial Performance** is a general measure of a firm's overall financial health over a given period of time. It is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues (DeYoung, 2005).

**Microfinance** is small scale financial services primarily credit and saving provided to people who operate small enterprises or micro enterprises where goods are produced, recycled, repaired, or sold, who provide services, who work for wages or commissions; who gain income from renting out small amounts of land, vehicles, draft animals, or machinery and tools; and to other individuals and groups at the local levels of developing countries, both rural and urban (Robinson, 2001).

**Micro Finance Institutions** are institutions that engage in relatively small financial transactions using various methodologies to serve low income households, micro enterprises, small scale farmers, and others who lack access to traditional banking services (CBS, 1999).

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Introduction

This chapter is concerned with the review of literature related to the study, the theoretical review and the conceptual framework. In the literature, it reviews other authors' works on the credit risk management procedures adopted by microfinance institutions and its effect on financial performance. It further covers the theoretical framework, discussing the theories that guide this study; the chapter lastly conceptualizes and operationalizes the study variables.

## 2.2. MFI Industry in Kenya

The Microfinance industry in Kenya is still growing and requires various interventions to increase outreach and attain sustainability. Recent developments in the microfinance industry both in Kenya and elsewhere have involved the transformation of MFIs into banks or other forms of regulated institutions. Greater emphasis is on the potential of formal financial institutions such as banks to move "down-market", and experiment with other types of financial providers such as postal and savings banks, along with renewed interest in the role of credit unions. The increasing commercialization of microfinance has also shed light on the limitations of microfinance institutions (MFIs) in achieving sufficient scale to reach the mass of poor people who are still unserved (Drake & Rhyne, 2002; Woller, 2002, CGAP, 2004). Many of the expectations to reach this scale have been fueled by the promise of new technologies, which anticipate that electronic banking will lower the transaction costs of service delivery significantly (Cracknell, 2004).

The microfinance movement is large and growing (Rukwaro, 2001). It is reported that more than 100 million customers worldwide are borrowing small loans from around 10,000 microfinance institutions (MFI's). A great deal of attention and funding has been directed towards microfinance by the development partners over the past few decades (Rukwaro, 2001). Levels of success, however defined, vary across MFI's. Some fail and wind-up, while others grow to reach millions of borrowers, covering costs in the process.

Among the most difficult situations facing financial institutions is the existence of uncertainty regarding their inflows which are mainly constituted by their deposits (Baltensperger & Milde, 1976). The financing institution does not know in advance exactly what inflows and outflows it will experience in its deposit accounts. Okutoyi (1988) observes that banks consistently compete for deposits as public confidence in the financial system which keeps them being patronized. This point is further underscored by Channon (1986), who points out that as a result of the growing competition and rapid change more and more financing institutions worldwide are increasing their strategic planning efforts aimed at gaining competitive advantage.

## 2.3. Credit Risk Management

According to Balduino (2000), this is the process of selecting the customers who will be granted credit and determining their individual credit limits. It is the initial stage in the operation of an effective credit management system. Usually, a set of criteria or checklists will be available to perform the initial credit screening. The process of credit selection and analysis is essentially an exercise in risk assessment that is, in assessing the probability of customer non-payment. Sound credit selection procedures help to reduce customer default risk by eliminating unsuitable applicants at the outset, thus avoiding the costly process of chasing slow payments and incurring bad debts later. The old adage "prevention is better than cure" is appropriate here (Mc Menamin, 1999). It is consequently, the logical starting point for the examination of a credit policy. The term credit policy is used to include all the company's systems and includes credit selection, credit standards, credit terms and collection policy (Arnold, 2003).

Several risk-adjusted performance measures have been proposed (Kealhofer, 2003). The measures, however, focus on risk-return trade-off, i.e. measuring the risk inherent in each activity or product and charge it accordingly for the capital required to support it. This does not solve the issue of recovering loanable amount. Effective system that ensures repayment of loans by borrowers is critical in dealing with asymmetric information problems and in reducing the level of loan losses, thus the long-term success of any banking organization (IAIS, 2003). Effective CRM involves establishing an appropriate

CR environment; operating under a sound credit granting process; maintaining an appropriate credit administration that involves monitoring process as well as adequate controls over CR (Greuning & Bratanovic, 2003). It requires top management to ensure that there are proper and clear guidelines in managing CR, i.e. all guidelines are properly communicated throughout the organization; and that everybody involved in CRM understand them.

Considerations that form the basis for sound CRM system include: policy and strategies (guidelines) that clearly outline the scope and allocation of a bank credit facilities and the manner in which a credit portfolio is managed, i.e. how loans are originated, appraised, supervised and collected (Greuning & Bratanovic, 2003). Screening borrowers is an activity that has widely been recommended by, among others, Derban *et al.* (2005). The recommendation has been widely put to use in the banking sector in the form of credit assessment. According to the asymmetric information theory, a collection of reliable information from prospective borrowers becomes critical in accomplishing effective screening.

The assessment of borrowers can be performed through the use of qualitative as well as quantitative procedures. One major challenge of using qualitative models is their subjective nature (Chijoriga, 2000). However, borrowers attributes assessed through qualitative models can be assigned numbers with the sum of the values compared to a threshold. This procedure is termed as "credit scoring" (Heffernan, 2002). The procedure cannot only minimize processing costs but also reduce subjective judgments and possible biases (Derban *et al.*, 2005). The rating systems if meaningful should signal changes in expected level of loan loss (Santomero, 2003). Chijoriga (2000) concluded that quantitative models make it possible to, among others, numerically establish which factors are important in explaining default risk, evaluate the relative degree of importance of the factors, improve the pricing of default risk, be more able to screen out bad loan applicants and be in a better position to calculate any reserve needed to meet expected future loan losses.

Clear established process for approving new credits and extending the existing credits has been observed to be very important while managing credit risk (Heffernan, 2002). Further, monitoring of borrowers is very important as current and potential exposures change with both the passage of time and the movements in the underlying variables (Mwisho, 2001), and also very important in dealing with moral hazard problem (Derban *et al.*, 2005). Monitoring involves, among others, frequent contact with borrowers, creating an environment that the bank can be seen as a solver of problems and trusted adviser; develop the culture of being supportive to borrowers whenever they are recognized to be in difficulties and are striving to deal with the situation; monitoring the flow of borrower's business through the bank's account; regular review of the borrower's reports as well as an on-site visit; updating borrowers credit files and periodically reviewing the borrowers rating assigned at the time the credit was granted (Mwisho, 2001).

Tools like covenants, collateral, credit rationing, loan securitization and loan syndication have been used by banks in developing the world in controlling credit losses (Hugh, 2001). It has also been observed that high-quality CRM staffs are critical to ensure that the depth of knowledge and judgment needed is always available, thus successfully managing the CR in the CBs (Wyman, 1999). Donaldson (2000) and Jeremy and Stein (1999) observed that computers are useful in credit analysis, monitoring and control, as they make it easy to keep track on trend of credits within the portfolio. Marphatia and Tiwari (2004) argued that risk management is primarily about people – how they think and how they interact with one another. Technology is just a tool; in the wrong hands it is useless. This stresses further the critical importance of qualified staff in managing CR.

### 2.4. Financial Performance

Financial soundness is a situation where depositor's funds are safe in a stable banking system. The financial soundness of a financial institution may be strong or unsatisfactory varying from one bank to another (BOU, 2002). Some useful measures of financial performance which is the alternative term as financial soundness are coined into what is referred to as CAMEL. The acronym "CAMEL" refers to the five components of a bank's condition that are assessed: Capital adequacy, Asset quality, Management, Earnings, and

Liquidity. A sixth component, a bank's Sensitivity to market risk was added in 1997; hence the acronym was changed to CAMELS. Ratings are assigned for each component in addition to the overall rating of a bank's financial condition (Jose, 1999). The ratings are assigned on a scale from 1 to 5.

Capital Adequacy: This ultimately determines how well financial institutions can cope with shocks to their balance sheets. The bank monitors the adequacy of its capital using ratios established by The Bank for International Settlements. Capital adequacy in commercial banks is measured in relation to the relative risk weights assigned to the different category of assets held both on and off the balance sheet items (Bank of Uganda, 2002).

Asset Quality: The solvency of financial institutions typically is at risk when their assets become impaired, so it is important to monitor indicators of the quality of their assets in terms of overexposure to specific risks trends in non- performing loans, and the health and profitability of bank borrowers especially the corporate sector. Credit risk is inherent in lending, which is the major banking business. It arises when a borrower defaults on the loan repayment agreement. A financial institution whose borrowers default on their repayments may face cash flow problems, which eventually affect its liquidity position. Ultimately, this negatively impacts on the profitability and capital through extra specific provisions for bad debts (Bank of Uganda, 2002).

Earnings: The continued viability of a bank depends on its ability to earn an adequate return on its assets and capital. Good earnings performance enables a bank to fund its expansion, remain competitive in the market and replenish and /or increase its capital (Bank of Uganda, 2002). A number of authors have argued that, banks that must survive need: Higher Return on Assets (ROA)., better return on net worth/Equity (ROE), sound capital base i.e. the Capital Adequacy Ratio (CAR), adoption of corporate governance ensuring transparency to stakeholders that is equity holders, regulators and the public.

Liquidity: Initially solvent financial institutions may be driven toward closure by poor management of short-term liquidity. Indicators should cover funding sources and capture large maturity mismatches. An unmatched position potentially enhances profitability but also increases the risk of losses (Bank of Uganda, 2002).

## 2.5. Credit Risk Management Procedures

### 2.5.1 Risk Identification

Risk is an inherent part of business and public life (Lyons & Skitmore, 2004). Dynamic market relations increase the uncertainty of the environment where business and public organizations work. Keeping high competitiveness requires the organizations to start initiatives that may have different possible outputs. The possibility of these outputs occurring determines the risk in organizations' activity. Risk covers all aspects of organizational activities and it is included in all management levels. Risk management has become a main part of the organization's activities and its main aim is to help all other management activities to reach the organization's aims directly and efficiently. Risk management is a continuous process that depends directly on the changes of the internal and external environment of the organization. In reality the changes in the environment require continuous attention for identification and control of risks.

Risk identification is the first stage of risk management. It develops the basis for the next steps: analysis and control of risk management. Correct risk identification ensures risk management effectiveness. If risk managers do not succeed in identifying all possible losses or gains that challenge the organization, then these non-identified risks will become non-manageable (Greene & Trieschmann, 2004). The organization will not account for them and will not take any actions related to them and the consequences could be very unexpected. The inability to identify possible gaining risks is as inappropriate as non-identified risks related to the loss. Missing a good positive possibility that an organization seeks is a problem equal to bearing losses (Dickson & Hastings, 2005).

Risk identification has to be considered in a broader way. The attention of managers should not be concentrated only on what can be insured or mitigated. Risk identification should start with the basic questions: How can the organizational resources be threatened?; What adverse effect can prevent the organization from achieving its goals? And what favorable possibility can be revealed?

Risk identification is a process that reveals and determines the possible organizational risks as well as conditions, arising risks. By risk identification the organization is able to study activities and places where its resources are exposed to risks (Williams, Smith and Young, 2001). Risk identification can be described by the following basic elements: sources of risks; hazard factors; perils and exposures to risk.

Investigating the problem of risk identification calls for revealing two important peculiarities according to Williams et al., 2001; risk identification is a continuous process and continuous seeking of new risk. Risk identification is a continuous process. It is wrong to believe that risk identification is a one-off activity which is carried out when the organization is established and the current risks are identified. In today's dynamic economic environment such a point of view is completely wrong. Changes in the environment require continuous attention for identification of new risks. The organizational changes are due to orientation to new activities, introduction of new products, giving up old products, corporate changes as merges with other companies, etc. The environmental changes are due to the macroeconomic frame, changes in the political situation, and changes in civil life. A basic aim of risk managers is to be informed about these changes, to be able to interpret them in accordance with their influence on the organization's resources

Ordinarily risk identification is carried out on the basis of the sources of risk which are known. However, risk identification has to clarify virtual risks as well, which do not affect the organizational resources at the moment. The organization can attempt to move into a new line of business that is considered profitable. Therefore, risk identification has to be carried out at the marketing research stage, when the organization decides to move

into a new line of business, in developing new products, or expansion of the market, etc. Continuous revealing of new risks is part of risk identification. The idea of integrating the new risk into the risk identification process highlights the opinion that the attempt of the organization systematically to identify all risks, present and future, is in the organization's interests.

## 2.5.2 Credit Risk Monitoring

Effective risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place (IRM, AIRMIC and ALARM; 2002). Risk monitoring can be used to make sure that risk management practices are in line and proper risk monitoring also helps bank management to discover mistake at early stage (Al-Tamimi & Al-Mazrooei, 2007).

Monitoring is the last step in the corporate risk management process (Pausenberger & Nassauer, 2005). According to them, control has to be established at different levels. The control by the management board will not be enough to ensure the effective functioning of the risk monitoring system, because the management board members do not have time on their hands to exercise extensive control. Hence, the management board will install an independent unit to complete the task of internal supervision. This task is the responsibility of the internal audit. Also, the supervisory board is obliged to control the risk management process. The supervisory board is supported by the auditor. If the auditor discovers a defect, he will have to inform the supervisory board and the management board. Finally, the shareholders of the corporation can use their rights to demand information in order to judge the efficiency of the risk management system. The director's report enables the shareholders to assess the status of the corporation knowledgeably and thoroughly.

Khan and Ahmad (2001) conducted a survey of risk management practices and found that on average the lowest percentage is on the measuring, mitigating and monitoring risk i.e. 69% score as compared to risk management policies and procedures i.e. 82.4%, and internal control of Islamic banks i.e. 76%. Al-Tamimi and Al-Mazrooei (2007) found that

there is significant difference between UAE national and foreign banks in risk monitoring and controlling. Also, the UAE commercial banks have an efficient risk monitoring and controlling system and it has positive influence on risk management practices. Finally, risk monitoring is important process to ensure that risk management effectively been practiced by banks.

According to Fallon (2006), each bank must apply a consistent evaluation and rating scheme to all its investment opportunities in order for credit decisions to be made in a consistent manner and for the resultant aggregate reporting of credit risk exposure to be meaningful. To facilitate this, a substantial degree of standardization of process and documentation is required. This has lead to standardized ratings across borrowers and a credit portfolio report that presents meaningful information on the overall quality of the credit portfolio. In a single rating system, a single value is given to each loan, which relates to the borrower's underlying credit quality.

According to Fuser (1998), many banks are beginning to develop concentration reports, indicating industry composition of the loan portfolio. This process was initially hampered by the lack of a simple industry index. SIC codes were employed at some institutions, but most found them unsatisfactory. Reports such an industry grouping to illustrate the kind of concentration reports that are emerging as standard in the banking industry. For the investment management community, concentrations are generally benchmarked against some market indexes, and mutual funds will generally report not only the absolute percentage of their industry concentration, but also their positions relative to the broad market indexes. Unfortunately, there is no comparable benchmark for the loan portfolio. Accordingly, firms must weigh the pros and cons of specialization and concentration by industry group and establish subjective limits on their overall exposure (Fuser, Gleiner and Meier, 1998).

## 2.5.3 Risk Analysis

Risk management is a cornerstone of prudent banking practice. Undoubtedly financial institutions in the present-day volatile environment are facing a large number of risks such as credit risk, liquidity risk, foreign exchange risk, market risk and interest rate risk, among others — risks which may threaten a bank's survival and success. In other words, banking is a business of risk. For this reason, efficient risk management is absolutely required. Carey (2001) indicates in this regard that risk management is more important in the financial sector than in other parts of the economy. The purpose of financial institutions is to maximize revenues and offer the most value to shareholders by offering a variety of financial services, and especially by administering risks. Recently many commercial banks have appointed senior managers to oversee a formal risk management function.

The working definitions employed by the Royal Society Study Group (2002) do not include the term risk analysis. According to the study group, risk estimation comprises identification of the outcomes and estimation of both the magnitude of the consequences and the probability of those outcomes. The addition of risk evaluation completes the process of risk assessment. British Standard 4778 considers risk assessment to refer to analysis of inherent risks and their significance in an appropriate context. It therefore seems possible at this stage to conclude that risk assessment and risk analysis are synonymous terms.

Strutt (2003) gives the fullest definition of risk analysis in a third paper where he sets out the concept in seven stages as systematic assessment (item by item - question every part of the system), identification of risks (local and global scale), assessment of risks (frequencies and consequences). This may involve a number of different analyses like establishing acceptable or tolerable levels of risk, evaluation of risks, determine whether the risks are as low as reasonably practicable, and determine risk reduction measures where appropriate.

Risk can be classified into systematic and unsystematic risk. Systematic risk is associated with the overall market or the economy, whereas unsystematic risk is related to a specific asset or firm. Some of the systematic risk can be reduced through the use of risk mitigation and transmission procedures. In this regard Oldfield and Santomero (2000) refer to three generic risk-mitigation strategies: eliminate or avoid risks by simple business practices; transfer risks to other participants; and actively manage risks at the bank level (acceptance of risk).

Thus, financial intermediaries may avoid specific risks by simplifying business practices and minimizing activities that inflict risk. Activities with which the financial institution is committed to proceed can be adeptly managed or transferred. Certain risks which are inevitable or transferred must be engulfed by the bank. Inevitable risks are those too complex to separate from assets. The subsequent risk is accepted by the bank as being crucial to its business; banks are specialized in dealing with this sort of risk, and reap the benefits. According to the consultative paper issued by the Basel Committee on Banking Supervision (1999), for most banks loans are the largest and most obvious sources of credit risk. Banks are increasingly facing credit in various financial instruments other than loans, including acceptances, interbank transactions, trade financing, foreign exchange transactions, financial futures, swaps, bonds, equities, options, the extension of commitments and guarantees, and the settlement of transactions. The Basel II regulation is likely to add fuel in this regard because new rules on how much capital banks must hold, will make a few lending decisions even more profitable.

A comprehensive risk measurement and mitigation methods for various risk arising from financing activities and from the nature of profit and loss sharing in the source of funds especially investment account holders are explained by Sundararajan (2007). He concludes that the application of modern approaches to risk measurement, particularly for credit and overall banking risks is important for banks. Also, he suggests that the need to adopt new measurement approaches is particularly critical for banks because of the role splay, the unique mix of risks in finance contracts.

Risk analysis now goes beyond evaluation to include some of the decision making processes of risk management. Brainstorming is the main intuitive procedure, involving a group generating ideas off the top of their heads with a philosophy of nobody is wrong - let's get the ideas on the board. Although quick and simple, it lacks the comprehensive approaches of the more sophisticated procedures (Strutt, 2003).

#### 2.5.4 Risk Assessment

Risk assessment is a systematic process for identifying and evaluating events (i.e., possible risks and opportunities) that could affect the achievement of objectives, positively or negatively. Such events can be identified in the external environment (e.g., economic trends, regulatory landscape, and competition) and within an organization's internal environment (e.g., people, process, and infrastructure). When these events intersect with an organization's objectives—or can be predicted to do so—they become risks. Risk is therefore defined as "the possibility that an event will occur and adversely affect the achievement of objectives (COSO ERM, 2004).

While organizations have been conducting risk assessments for years, many still find it challenging to extract their real value. The linkage of risk assessment to drivers of shareholder value and key objectives has sometimes been lost. Risk assessments can be mandated by regulatory demands-for example, anti-money laundering, Basel II, and Sarbanes-Oxley compliance all require formalized risk assessment, and focus on such processes as monitoring of client accounts, operational risk management, and internal control over financial reporting. Risk assessments can also be driven by an organization's own goals, such as business development, talent retention, and operational efficiency. Regardless of the scope or mandate, risk assessments must bring together the right parties to identify events that could affect the organization's ability to achieve its objectives, rate these risks, and determine adequate risk responses (Basel Committee on Banking Supervision (2006, 1999).

Risk assessment provides a mechanism for identifying which risks represent opportunities and which represent potential pitfalls. Done right, a risk assessment gives organizations a clear view of variables to which they may be exposed, whether internal or

external, retrospective or forward-looking (COSO ERM, 2004). A good assessment is anchored in the organization's defined risk appetite and tolerance, and provides a basis for determining risk responses. A robust risk assessment process, applied consistently throughout the organization, empowers management to better identify, evaluate, and exploit the right risks for their business, all while maintaining the appropriate controls to ensure effective and efficient operations and regulatory compliance. For risk assessments to yield meaningful results, certain key principles must be considered (PricewaterhouseCoopers, 2008).

A risk assessment should begin and end with specific business objectives that are anchored in key value drivers. These objectives provide the basis for measuring the impact and probability of risk ratings. Governance over the assessment process should be clearly established to foster a holistic approach and a portfolio view—one that best facilitates responses based on risk ratings and the organizations overall risk appetite and tolerance. Finally, capturing leading indicators enhances the ability to anticipate possible risks and opportunities before they materialize. With these foundational principles in mind, the risk assessment process can be periodically refreshed to deliver the best possible insights (PricewaterhouseCoopers, 2008).

### 2.6. Empirical Studies

Wenner et al. (2007) conducted a study to review common credit risk management procedures used in a sample of Latin American financial institutions with agricultural portfolios, identify the factors that contribute to successful credit risk management as measured by several key financial performance indicators in order to assist donors, governments, and owners of financial institutions to promote and adopt the most efficient and robust procedures. The examined the results of a survey of forty-two rural financial institutions in Latin America and provided a detailed analysis of four intermediaries, two in Peru and two in Guatemala. The study concluded that credit risk management in Latin American rural financial institutions is improving and evolving, but much still needs to be done. Many of the institutions surveyed demonstrated success as measured by high overall rates of profitability and low delinquency rates.

Nara (2012) did a study on risk management in savings and credit cooperative societies. The study specifically sought to: outline the different categories of risks faced by SACOS and identify the risks that are more important, identify the need for risk management in SACOS under dynamic context, document the experience on risk management in SACOS and suggest tools and procedures for use by SACOS for better risk management. The survey entailed analyzing the risk management process of five SACOS in five development regions of Nepal. Data was collected from financial statements and portfolio report of five SACOS as well as telephonic interview with board and management of five SACOS. The study found out that majority of Nepalese SACCOS lack systematic and quantitative methods to identify, monitor and control aggregate risk due to lack of comprehensive risk management system. It was concluded that SACCOS should not ignore risk management. When they issue loans, there is a risk of borrower default and when they collect deposits and on-lend them to other clients (i.e. conduct financial intermediation), they put clients' savings at risk.

Sophia (2013) conducted a study to evaluate credit risk management applications and to determine shortcomings. The study attempted to identify the application and implementation of credit risk management in banks. The survey comprises of 7 banks in Chennai. Survey method and MANOVA analysis was done to evaluate and identify the implementation of credit risk management. The study concluded that there is need for the banks to implement a strong credit risk models in banks to avoid loan defaulters. If banks implement better credit risk models to identify the status of the borrowers they will be far from the actual credit risk. Banks need to look forward not only in implementation of regulatory framework but risk models to avoid risk.

Adem Anbar (2006) evaluates the credit risk management applications in the Turkish bank sector. The survey comprised of national and foreign commercial banks and investment-development banks which were established in Turkey. Data was collected through a questionnaire which was sent to risk management managers or credit risk management managers of the banks by e-mail and fax, face-to-face interviews were also conducted. The findings show that there were some shortcomings and problems in credit

risk management, lack of sufficient data about credit risk measurement inputs was one of these problems. It was concluded that banks should accelerate their studies and preparations which are related to data about borrowers and loans that are used in credit risk measurement.

Goko, (2012) conducted a study on the credit risk management strategies, organizational factors and performance of micro finance institutions in Kenya. The study had two objectives; first, the effect of credit risk management strategies on performance of MFIs and secondly, to determine the effect of organizational factors on the relationship between credit risk management strategies and financial performance. The target population of the study was all the 33 MFIs registered with Association of micro finance institutions in Kenya (AMFI) with the target respondents being the credit loan officers. The study analysed data through descriptively as well as through zero order correlation, first order partial correlation and multiple regression Factor analysis was employed to determine underlying factors for credit risk management strategies, management structure and performance. The study found out that there is a significant negative correlation between borrower screening and monitoring and volume of delinquent loans; the portion of performance that does not depend on the credit risk management strategies was also significant.

Wambua, (2012) did a study on the effect of credit risk management practice on loan losses in microfinance institutions in Kenya. This study sought to determine the credit risk management practices on loan losses in micro finance institutions in Kenya. The sample frame constituted the commercial banks offering micro credit and micro finance institutions. The researcher adopted both the stratified random sampling procedure as well as convenience sampling. Stratified random procedure was used to select banks and registered MFIs within Nairobi, which are 31 in number. It was found that MFIs use different strategies to reduce the risk of loan defaulting. Credit risk management practice was found to have direct negative correlation, the higher the credit risk management practice weighted score the lower the rate of defaulted loans.

#### 2.7. Theoretical Review

The theoretical review seeks to establish some of the theories that are attributed by other researchers, authors and scholars and are relevant to credit risk management. This study was guided by Risk-Adjusted Return on Capital Theory.

## 2.7.1 Risk-Adjusted Return on Capital Theory

An increasingly popular model used to evaluate the return on a loan to a large customer is the Risk-Adjusted Return on Capital (RAROC) Model. This model, originally pioneered by Bankers Trust (acquired by Deutsche Bank in 1998) is now adopted by virtually all the large banks in Europe and the US, although with some differences among them (Saunders & Cornett, 2007). The essential idea behind RAROC is that rather than evaluating the actual promised annual cash flow on a loan as a percentage of the amount lent or (ROA), the lenders balance the loan's expected income against the loan's expected risk.

According to Christopher (1996), the immediate purpose of the RAROC risk measurement systems is to provide bank managements with a more reliable way to determine the amount of capital necessary to support each of their major activities and, thus, to determine the overall leverage for the bank as a whole. RARORAC (Risk-adjusted Return on Risk-adjusted Capital) is an indicator measuring efficiency in value creation as a function of risk. It belongs to the category of Risk-adjusted Performance Measures (RAPMs) together with the Return on Risk Adjusted Capital (RORAC) and the Risk-Adjusted Return on Capital (RAROC), among other indicators.

The RAPM approaches, aim to improve traditional valuation measures for business unit or portfolio profitability by quantifying the risk elements associated to uncertain factors. The terminology used for the definition of this methodological framework is wide and sometimes confusing (Saita, 2007). Frequently, this is just the result of using different names for the same indicator, although occasionally the same indicator is defined and implemented in different forms. The RARORAC combines RAROC and RORAC to propose a measure accounting for the risk dimension corresponding in the returns of a business line or on the profitability of investments.

## 2.8. Conceptualization of the Variables

This section presents the conceptual model developed out of a critical review of existing literature on the variables. The conceptualization in this study will be based on the following variables: financial performance (dependent variable) and Risk identification, Risks monitoring, Risk assessment, Risk analysis (independent variables).

Risk assessment

Dependent Variable

Financial Performance

Risk analysis

Political factors
Economic Factors

**Figure 1: Conceptual Framework** 

**Independent Variables** 

**Source:** Own conceptualization, 2013

**Moderating factors** 

Risk identification is the critical first step of the risk management process. The objective of risk identification is the early and continuous identification of events that, if they occur, will have negative impacts on the project's ability to achieve performance or capability outcome goals. The extent of risk identification is expected to have an impact on the risk management process.

Risk monitoring control is the process of keeping track of the identified riks, monitoring residual risks and identifying new risks, ensuring the execution of risk plans, and evaluating their effectiveness in reducing risk. Risk monitoring and control records risk metrics that are associated with implementing contingency plans. Risk monitoring and control is an ongoing process for the life of the project. The risks change as the project matures, new risks develop, or anticipated risks disappear.

Good risk monitoring and control processes provide information that assists with making effective decisions in advance of the risk's occurring. Communication to all project stakeholders is needed to assess periodically the acceptability of the level of risk on the project. The purpose of risk monitoring is to determine if: risk responses have been implemented as planned; risk response actions are as effective as expected, or if new responses should be developed; project assumptions are still valid; risk exposure has changed from its prior state, with analysis of trends; a risk trigger has occurred; proper policies and procedures are followed; risks have occurred or arisen that were not previously identified.

Risk Analysis and assessment is the analytical process to provide information regarding undesirable events; it is the process of estimating probabilities and expected consequences for identified risks. Risk analysis involves the identification of hazards; analyzing or evaluating the risk associated with that hazard; and determining appropriate ways to eliminate or control the hazard. The extent to which all the four procedures as illustrated in the conceptual framework, are adopted and implemented influence the risk management process which further have an effect on the financial performance of the micro finance institutions.

#### CHAPTER THREE

#### RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter presents the methodology that was used to collect data for the study. It covers the research design, the target population, sample of the population, data collection instruments and procedures that were used.

### 3.2. Research Design

Research design refers to the strategy used by the researcher in collecting and analyzing data. According to Cooper and Schindler (2003), a descriptive study is concerned with finding out the what, where and how of a phenomenon. The study adopted descriptive design. Descriptive design method provided quantitative data from the chosen population. The descriptive design is a method which enables the researcher to summarize and organize data in an effective and meaningful way. They provide tools for describing collections of statistical observations and reducing information to an understandable form. The descriptive research design was deemed fit for this study since it provides a multifaceted approach for data collection and can provide statistics about an event while also illustrative how people experienced that event.

### 3.3 Population

A population is defined as the total collection of elements about which we wish to make some inferences (Cooper & Schindler, 2003). According to Cooper and Schindler (2003), a population element is the subject such as a person, an organization, customer database, or the amount of quantitative data on which the measurement is being taken. The population of interest consisted of all the MFI's in Nairobi. There were 54 Microfinance Institutions that were registered with Association of Microfinance Institutions (AMFI) by December 31<sup>st</sup> 2013 (See appendix IV). The study targeted the senior credit officers/managers in the MFIs.

#### 3.4 Data Collection Instruments

The researcher collected both primary and secondary data. The secondary data included the annual financial statements of the MFIs targeted while a questionnaire was used to collect primary data. According to Kombo and Tromp (2006), a self-administered questionnaire is the only way to elicit self-report on people's opinion, attitudes, beliefs and values. Primary data was obtained through questionnaires with closed and openended questions. The closed ended questions enabled the researcher to collect quantitative data while open-ended questions enabled the researcher to collect qualitative data. The questionnaire was divided into two sections. Section one was concerned with the general information about respondents, while section two addressed the study objectives. In each MFI, the study targeted one senior credit officer who was required to fill the questionnaires. The study used a combination of drop and pick and self-administration methods to collect the data.

## 3.5 Validity and Reliability of Research Instrument

Validity involve how accurately the data obtained represents the variables of the study while reliability refers to the degree to which a research instrument yields consistent results or data after repeated trials to establish its reliability (Saunders, et.al., 2003). Validity of the instrument was established by the research supervisor reviewing the items. To ensure reliability, the questionnaires were pre-tested on a pilot scale through selected respondents outside the study area. The objectives of pre-testing was to allow for modification of various questions in order to rephrase, clarify and or clear up any shortcomings in the questionnaires before administering them to the actual respondents.

# 3.6 Data Analysis

Data analysis included summarizing the essential features and relationships of data in order to generalise from the analysis to determine patterns of behaviour and particular outcomes. Before processing the responses, the completed questionnaires were edited for completeness and consistency. Descriptive analysis was employed. Data was then grouped into frequency distribution to indicate variable values and number of occurrences in terms of frequency. Frequency distribution table was informative to

summarize the data from respondents, percentages and other diagrams such as bar charts, grouped frequency distributions and pie charts were used during the analysis. Computer package SPSS were used to aid in the analysis. Tables and other graphical presentations as appropriate were used to present the data analyzed for ease of understanding the results. Further the study adopted regression model to show the form of relationship between variables. The regression equation took the following form;

$$Y = a_{+}B_{1}X_{1+}BX_{2+}B_{3}X_{3+}B_{4}X_{4+}\varepsilon$$

Where:

Y = Dependent Variable (Financial Performance)

 $X_1-X_4$  = Independent variables

 $X_1 =$ Risk identification

 $X_2 =$ Risks monitoring

 $X_3 =$ Risk analysis

 $X_4 = Risk \ assessment$ 

 $\beta_{1-n}$  = the regression coefficient or change included in Y by each  $\chi$ 

e= Error Term

#### **CHAPTER FOUR**

### DATA ANALYSIS AND INTERPRETATIONS

#### 4.1 Introduction

This chapter presents the findings of the study. The chapter presents the background information of the respondents, findings of the analysis based on the objectives of the study. The study targeted a sample of 54 respondents from which 49 questionnaires were successfully filled and returned the making a response rate of 90.7%. The response rate was appropriate for the study to continue and provide reliable results as guided by Mugenda and Mugenda (2003) who revealed that a fifty percent response rate is adequate, sixty percent good and above seventy percent rated very well. This response rate was satisfactory to make conclusions for the study.

### 4.2 Demographic Information

The section presents the background information of the respondents who took part in the study. This information was critical in understanding and classifying the different responses according to the respondents' background information. The background information gathered includes the gender of the respondents, age of the respondents, level of education, designation within the organization and duration worked in Microfinance industry.

# **4.2.1** Gender of the Respondents

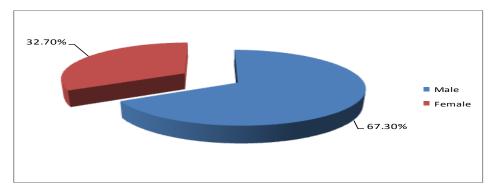


Figure 4.1: Gender of the Respondents

The study sought to determine the gender composition of the respondents, from the findings the study established that majority of the respondents were males as shown by 67.3% whereas 32.7% of the respondents were females, this is an indication that both genders were well involved in this study and thus the finding of the study did not suffer from gender bias.

## 4.2.2 Age of the Respondents

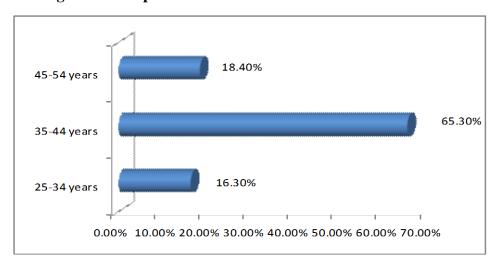


Figure 4.2: Age of the Respondents

The study requested the respondent to indicate their age category, from the findings as shown in figure 4.2 above the study established that majority of the respondents as shown by 65.3% were aged between 35 to 44 years, 18.4% of the respondents were aged between 45 to 54 years and the remaining 16.3% of the respondents were aged between 25 to 34 years. No one indicated to be aged above 55 years. This is an indication that respondents were well distributed in terms of age.

# 4.2.3 Highest level of Education Achieved

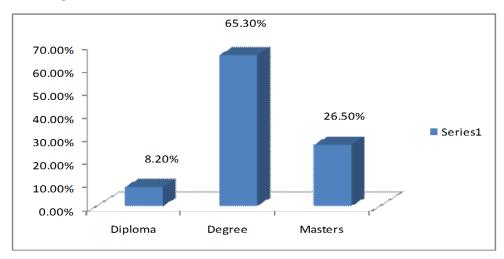


Figure 4.3: Highest level of Education achieved

The study requested respondents to indicate their highest education level, from the findings, 65.3% of the respondents indicated their highest education level as Bachelors' degree,26.5% of the respondents indicated their highest education level as masters whereas 8.2% of the respondents indicated their highest education level as diploma level. This is an indication that majority of the employee engaged in this research had university degree certificates as their highest level of education.

# 4.2.4 Designation within the Organization

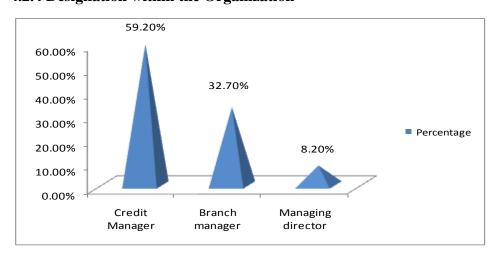


Figure 4.4: Designation within the Organization

The study sought to determine the current designation within organization. From the research findings, the study showed that majority of the respondents as shown by 59.2% indicated to be the credit managers, 32.7% of the respondents indicated to be the branch managers and the remaining 8.2% of the respondents indicated to be the managing directors. This indicates that majority of the respondents were the credit managers.

## 4.2.5 Duration in Microfinance industry

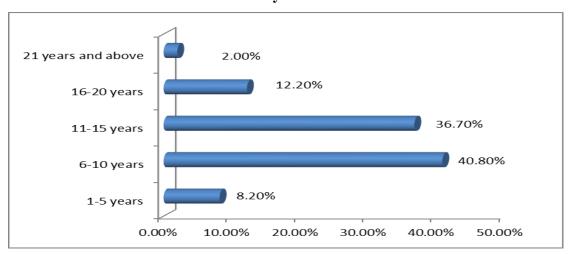


Figure 4.5: Duration in Microfinance Industry

The study sought to determine the period of time the respondents had served in the Micro Finance industry. From the study findings, most of the respondents as shown by 40.8% indicated that their period of service in the microfinance sector was 6 to 10 years, 36.7% of the respondents indicated to have served for a period of 11 to 15 years in the Microfinance sector, 12.2% of the respondents indicated to have served for a period of 16 to 20 years, 8.2% 0f the respondents indicated to have served in the Microfinance sector for a period of 1 to 5 years and the remaining 2% of the respondents indicated to have served for a period of 21 years and above. This indicates that majority of the respondents had served in the Microfinance for ample time and hence were in a position to give reliable information.

#### 4.3 Risk Identification

In this first objective the study sought to establish the extent to which risk identification was applied as a credit risk management procedure in microfinance institutions in Kenya. The results are presented below.

# 4.3.1 Consideration of Risk Identification as a Process in Credit Management

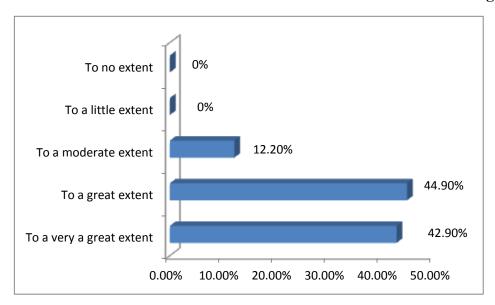


Figure 4.6: Risk Identification as a Process in Credit Management

The study sought to determine the extent to which the respondents' organization considered risk identification as a process in credit risk management. From the research findings, majority of the respondents as shown by 44.9% indicated to a great extent, 42.9% of the respondents indicated to have considered risk identification as a process in credit management to a very great extent and the remaining 12.2% of the respondents indicated to have considered risk identification as a process in credit management to a moderate extent. This indicates that all the respondents agreed that a risk identification as a process in the credit management and this in turn leads to positive performance of the Microfinance institutions.

# 4.3.2 Types of Risks

**Table 4.1: Types of Risks** 

Types of Risk	Mean	Std. Deviation
Interest rate risks	2.18	1.41
Foreign exchange risks	2.94	1.23

The study sought to determine the extent to which organization focuses on the types of risks in the risk identification, from the research findings, majority of the respondents agreed with interest rate risks as shown by a mean of 2.18 while as the other agreed with foreign exchange risks as shown by a mean of 2.94.

### **4.3.3** Involvement of Auditors

**Table 4.2: Involvement of Auditors** 

	Mean	Std.
		Deviation
I I I I I I I I I I I I I I I I I I I	2.31	1.19
generating expectations of accounts balances		
The auditor identifies changes that have occurred in the firm	2.57	1.19
or its environment		
The auditor determines how those changes should interact	2.55	1.13
with historic trends to produce an expected balance in the		
account		

The study sought to determine the extent to which respondents agreed or disagreed with the above statements relating to involvement of auditors in risk identification. From the research findings majority agreed that the auditor begins the inherent risk evaluation process by generating expectations of accounts balances as shown by a mean of 2.31. Others agreed that the auditor determines how those changes should interact with historic trends to produce an expected balance in the account as shown by a mean of 2.55 and other agreed that the auditor identifies changes that have occurred in the firm or its environment as shown by a mean of 2.57.

## 4.3.4 Importance of Risk Identification

**Table 4.3: Importance of Risk Identification** 

Importance of risk identification in credit risk management	Mean	Std.
		Deviation
It is important as it ensures that the risk management function	2.45	1.31
is established throughout the whole corporation		
Risk identification helps to sort risk according to their	2.47	1.12
importance		
Risk identification assists the management to develop risk	2.65	1.07
management strategy to allocate resources efficiently		

**Source: Research Data (2014)** 

The study sought to determine the extent to which the above statement the respondents agreed or disagreed on importance of risk identification in the credit risks management. From the study findings, majority of the respondents agreed that it is important as it ensures that the risk management function is established throughout the whole corporation as shown by a mean of 2.45,others agreed that risk identification helps to sort risk according to their importance as shown by a mean of 2.47 and others agreed that risk identification assists the management to develop risk management strategy to allocate resources efficiently as shown by a mean of 2.65. This indicates that majority of the respondents appreciates the work done on risk identification in credit risk management.

### 4.4 Risk Analysis

The second objective sought to establish the extent to which risk analysis procedures are applied in credit risk management by microfinance institutions in Kenya. The study further established the relationship between risk analysis and credit risk management.

### 4.4.1 Risk analysis as a Comprehensive Risk Measurement and Mitigation Method

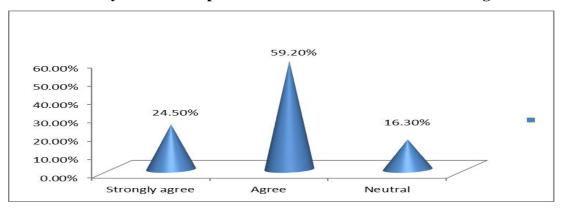


Figure 4.7: Risk analysis as a Comprehensive Risk Measurement/Mitigation Method

The study sought to determine whether risk analysis is a comprehensive risk measurement and mitigation used for various risks .From the research findings, majority of respondents as shown by 59.2% agreed that risk analysis is a comprehensive risk measurement and mitigation method used for various risks,24.5% of the respondents strongly agreed that risk analysis is a comprehensive risk measurement and mitigation method used for various risks and 16.3% of the respondents indicated that risk analysis is a comprehensive risk measurement and mitigation method used for various risks to be neutral.

## 4.4.2 Risk analysis on Credit Risk Management

Table 4.4: Risk analysis on Credit Risk Management

Risk analysis and assessment on credit risk management	Mean	Std.
		Deviation
Risk analysis and assessment comprises identification of the	2.27	1.37
outcomes		
Risk analysis and assessment comprises	2.53	1.26
estimation the magnitude of the consequences		
Risk analysis and assessment comprises the	2.35	1.27
probability of those outcomes		

The study sought to determine the extent to which the respondents agreed or disagreed with the above statements on risk analysis and credit risk management. From the findings, majority of the respondents agreed that risk analysis and assessment comprises identification of the outcomes as shown by a mean of 2.27, others agreed on risk analysis

and assessment comprises the probability of those outcomes as shown by a mean of 2.35 and others agreed on risk analysis and assessment comprises estimation the magnitude of the consequences as shown by a mean of 2.53.

#### 4.5 Risk Assessment

In the third objective, the study sought to determine the extent to which risks assessment procedures are applied as a credit risk management practice by microfinance institutions in Kenya. To achieve this, the study first inquired the extent to which the organization carried out risk assessment as a credit risk management and also the effect of risk assessment on credit risk management.

## 4.5.1 Extent to which Organization Carry Out Risk Assessment

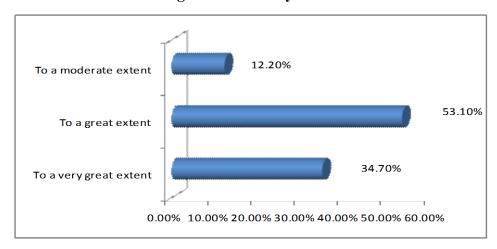


Figure 4.8: Extent to which Organization Carryout Risk Assessment

The study sought to determine the extent to which organization carry out risk assessment. From the study findings, majority of the respondents as shown by 53.1% indicated that organizations carry out risk assessment to a great extent, 34.7% of the respondents indicated that organizations carry out risk assessment to a very great extent and the remaining 12.2% of the respondents indicated that organization carry out risk assessment in moderate extent. This improves the performance of the Microfinance institutions.

# 4.5.2 Risk Assessment and Credit Risk Management

Table 4.5: Risk Assessment and Credit Risk Management

	Mean	Std.
		Deviation
Our organization identifies and evaluates the risks and decide	2.27	1.32
on precautions		
Controls exist for approving decisions regarding financing	2.55	1.21
alternatives and accounting principles, practices, and methods		
The organization record the findings on the risks identified and	2.39	1.27
implement the measures		
The management identifies and analyzes departmental risks	2.55	1.14
relating to circumstances such as changes in the operating		
environment		

The research sought to determine the level at which respondent agreed with the above statements regarding to risk assessment. From the research findings, majority of the respondents agreed that their organization identifies and evaluates the risks and decide on precautions as shown by a mean of 2.27, others agreed that their organization record the findings on the risks identified and implement the measures as shown by a mean of 2.39 ,others said that, controls exist for approving decisions regarding financing alternatives and accounting principles, practices, and methods and also the management identifies and analyzes departmental risks relating to circumstances such as changes in the operating environment as shown by a mean of 2.55.

### 4.6 Risk Monitoring

The fourth objective addressed questions on the extent to which risks monitoring and evaluation procedures are applied as a credit risk management practice by microfinance institutions in Kenya. The findings are presented below.

# 4.6.1 Risk Monitoring in Effective Credit Risk Management

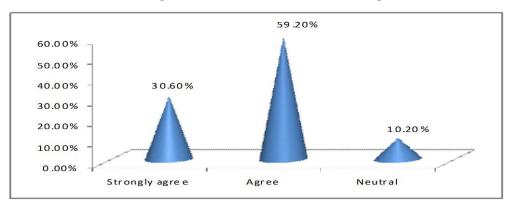


Figure 4.9: Risk Monitoring in Effective Credit Risk Management

The study shows that majority of the respondents as shown by 59.2% agreed that effective credit risk management requires a reporting and review structure,30.6% of the respondents indicated to have strongly agreed that effective credit risk management requires a reporting and review structure while as 10.2% of the respondents indicated to be neutral. This indicates that effective credit risk management requires a reporting and review structure as shown by majority of the respondents.

# 4.6.2 Risk Monitoring and Credit Risk Management

Table 4.6: Risk Monitoring and Credit Risk Management

Risk monitoring in credit risk management	Mean	Std.
		Deviation
Risk monitoring can be used to make sure that risk management	2.29	1.32
practices are in line and proper risk monitoring		
Risk monitoring helps the bank management to discover mistake	2.53	1.26
at early stage		
The director's report on risk monitoring enables the shareholders	2.35	1.27
to assess the status of the corporation knowledgeably and		
thoroughly		

The study sought to determine the extent to which the respondents agreed with the above statements about risk monitoring in the credit risk management. From the research findings, majority agreed that risk monitoring can be used to make sure that risk management practices are in line and proper risk monitoring as shown by a mean of 2.29, others agreed that the director's report on risk monitoring enables the shareholders to assess the status of the corporation knowledgeably and thoroughly as shown by a mean of 2.35 while as the rest agreed that risk monitoring helps the bank management to discover mistake at early stage as shown by a mean of 2.53.

### 4.6.3 Risk Monitoring and Types of Risks

Table 4.7: Risk Monitoring and Types of Risks

	Mean	Std. Deviation
Foreign exchange risk	2.94	1.42
Interest rate risks	2.49	1.22
Market rate risks	2.78	1.14
Liquidity risks	2.18	1.28
Credit risks	1.94	1.23

The study sought to determine the extent to which respondents agreed to the above facts on types of risks to ensure profitability. From the findings, the study established that majority of the respondents strongly agreed with credit risks as shown by a mean of 1.94, other respondents agreed with liquidity risks as shown by a mean of 2.18, other agreed with interest rate risks as shown by a mean of 2.49, others agreed with market rate risks and others agreed with foreign exchange risk as shown by a mean of 2.94.

### 4.7 Credit Risk Management and Financial Performance

# 4.7.1 Credit Risk Management Procedures and Profitability

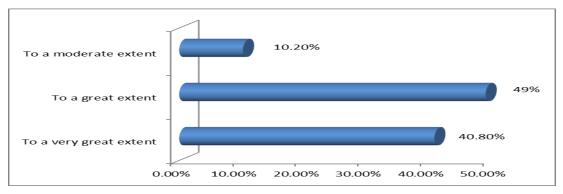


Figure 4.10: Credit Risk Management Procedures and Profitability

In this fifth objective, the study sought to determine the extent to which credit risk management procedures have affected the profitability of their respective Micro Finances. From the research findings, most of the respondents as shown by 49% indicated that credit risk management procedures have affected the profitability to a great extent, 40.8% of the respondents indicated that credit risk management procedures to have affected their organizations profitability to a very a great extent and the remaining 10.2% of the respondents indicated to have affected the profitability to a moderate extent. This revealed that credit risk management procedures have affected the profitability of the respective organizations.

## 4.7.2 Credit Risk Management Procedures

In this section, the study sought to establish the credit risk management procedures adopted by the microfinance institutions. The findings are presented in Table 4.8 below.

**Table 4.8: Credit Risk Management Procedures** 

Statements	Mean	Std. Deviation
To facilitate credit risk management, a substantial degree of	2.39	1.27
standardization of process and documentation is required.		
Credit risk management leads to standardized ratings across	2.55	1.08
borrowers and a credit portfolio report that presents meaningful		
information on the overall quality of the credit portfolio.		
Through standardized procedures, the bank can report the quality	2.53	1.14
of its loan portfolio at any time, along the lines of the report		
presented.		
Credit management procedures ensure that all credits must be	2.51	1.08
monitored, and reviewed periodically.		
Credit management procedures results in a periodic but timely	2.55	1.10
report card on the quality of the credit portfolio and its change		
from month to month		
Credit management procedures ensure that total receivables,	2.63	1.17
including loans, leases and commitments and derivatives, are		
reported in a single format.		

The study sought to determine the extent to which respondents agreed or disagreed with the above statements relating to crediting risk management. From the findings ,the study established that majority of the respondents strongly agreed that to facilitate credit risk management, a substantial degree of standardization of process and documentation is required as shown by mean of 2.39, credit management procedures ensure that all credits must be monitored, and reviewed periodically as shown by mean of 2.51, others agree that through standardized procedures, the bank can report the quality of its loan portfolio at any time, along the lines of the report presented as shown by mean of 2.53, others agree that credit risk management leads to standardized ratings across borrowers and a credit portfolio report that presents meaningful information on the overall quality of the credit portfolio and that credit management procedures results in a periodic but timely report card on the quality of the credit portfolio and its change from month to month and others agreed that credit management procedures ensure that total receivables, including loans, leases and commitments and derivatives, are reported in a single format.

## 4.7.3 Risk Monitoring and Types of Risks

Table 4.9: Risk Monitoring and Types of Risks

	Mean	Std. Deviation
Net profit	2.47	1.42
Gross profit	2.63	1.19
Interest income	2.86	1.35
Earnings before interest and taxes	3.06	1.33
Reduced defaults	2.29	1.29

The study sought to determine the extent to which measures of profitability does the respondents organizations use in assessing the impact of credit risk management. From the study findings, majority of the respondents agreed that reduced defaults as shown by a mean 2.29, others agreed that net profit as shown by a mean of 2.47, others agreed that gross profit was a measure of profitability in their respective organization as shown by a mean of 2.63, others agreed that interest income to be a measure of profitability in their respective organization used in assessing the impact of credit risk management as shown by a mean of 2.86 and others agreed that earnings before interest and taxes to be a measure of profitability their respective organization used in assessing the impact of credit risk management as shown by a mean of 3.06.

# 4.7.4 Credit risk Management procedures adopted and Financial Performance

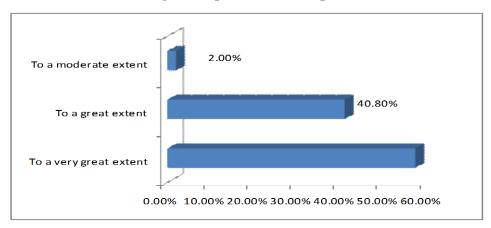


Figure 4.11: Credit risk Management procedures adopted and Financial Performance

The study sought to determine the extent to which credit risk management procedures adopted by the respondents' organization influence the Micro Finance financial performance. From the research findings, majority of the respondents as shown by 57.1% indicated that credit risk management procedures adopted their respective organizations' influenced their financial performance to a very great extent, 40.8% of the respondents indicated that credit risk management procedures adopted influence their respective organizations financial performance to a great extent and the remaining 2% of the respondents indicated credit risk management procedures adopted in their respective organizations to influence the financial performance to a moderate extent. This indicates that all the respondents agreed credit risk management procedures adopted influence the Microfinance institutions financial performance and this leads to growth of the organizations.

# **4.7.5** Financial Performance of the Micro-Finance Institutions

In this section, the study sought to show the performance of micro-finance institutions that took part in the study. The financial performance of the institutions was established through Return on assets (ROA) ratio. This is a financial ratio that shows the percentage of profit that a company earns in relation to its overall resources (total assets).

**Table 4.10: Financial Performance** 

	Name of Micro Finance	ROA
1.	Kenya Women Finance Trust-DTM	0.094407
2.	Rafiki Deposit taking Microfinance Ltd	0.191035
3.	Faulu Kenya DTM	0.091103
4.	SMEP DTM	0.141823
5.	Remu DTM Ltd	0.181636
6.	Uwezo DTM Ltd	0.166544
7.	AAR Credit Services	0.111135
8.	ADOK TIMO	0.442262
9.	Agakhan Foundation	0.312724
10.	Biashara Factors	0.251884
11.	BIMAS	0.878418
12.	Blue Limited	0.242277
13.	Canyon Rural Credit Ltd	0.524279
14.	Eclof Kenya	0.261895
15.	Focus Capital Limited	0.224007
16.	Fort Credit Limited	0.112591
17.	Fountain Credit Services Ltd	0.302656
18.	Fusion Capital Ltd	0.326505
19.	Greenland Fedha Ltd	0.220587
20.	Indo Africa Finance	0.413482
21.	Jitegemea Credit Scheme	-0.04792
22.	Jitegemee Trust	0.216809
23.	Juhudi Kilimo Co.Ltd	0.391919
24.	KADET	0.626956
25.	KEEF-Kenya Entrepreneurship Empowerment Foundation	0.282224
26.	K-rep Development Agency	0.464724
27.	MESPT	0.106361
28.	Micro Africa Ltd	0.682177
29.	Microcredit Programme	0.149417
30.	Microensure Advisory Services	0.09662
31.	Milango Financial Services	0.487594
32.	Mini Savings & Loans Ltd	0.160894
33.	Molyn Credit Ltd	0.159284
34.	Musoni Kenya Ltd	0.371953
35.	Nationwide Credit Kenya Ltd	0.15164
36.	Ngao Credit Ltd	-0.01754
37.	OIKOCREDIT	0.243839
38.	One Africa Capital Ltd	0.173568
39.	Opportunity Kenya	0.10941
40.	Pamoja Women Development Programme	0.58638
41.	Platinum Credit Limited	0.129058
42.	Renewable Energy Technology Assistance Programme (RETAP)	0.162964

43.	Rupia Ltd	0.350818
44.	Samchi Credit Limited	0.241058
45.	Select Management Services Ltd	0.660486
46.	SISDO	0.13174
47.	Springboard Capital	0.186567
48.	Taifa Options Microfinance	0.286106
49.	U&I Microfinance Ltd	0.490741
50.	Unaitas Sacco Society ltd. Formerly Muramati Sacco Society Ltd	0.026724
51.	Women Enterprise Fund	0.192422
52.	Women Enterprise Solutions	0.149495
53.	Yehu Microfinance Trust	0.348327
54.	Youth Initiatives – Kenya (YIKE)	0.183257

Return on assets is a key profitability ratio which measures the amount of profit made by a company per shilling of its assets. It shows the company's ability to generate profits before leverage, rather than by using leverage. Thus higher values of return on assets show that business is more profitable. Results in Table 4.10 shows that institutions such as BIMAS, KADET, Canyon Rural Credit Ltd, Milango Financial Services had high return on assets values as shown: 0.878418, 0.626956, 0.524279, and 0.487594 respectively. Institutions such as Faulu Kenya DTM had an ROA ratio of 0.091103 (9%) while Kenya Women Finance Trust-DTM had a ratio of 0.094407 (9%).

Table 4.11: ROA- Mean

Financial Performance	N	Minimum	Maximum	Mean	Std. Deviation
ROA	54	-0.047920	0.878418	0.26717263	0.186835040
Valid N (listwise)	54				

The results in Table 4.11 show that out of the 54 Microfinance institutions in Kenya; the minimum ROA was -0.047920 while the maximum was 0.878418. The mean was found to be 0.26717263.

## 4.7.6 Relationship between CRM Procedures and Financial Performance

The study used Pearson product-moment correlation analysis to establish the strength of relationship between risk identification, risk analysis, risk assessment and risk monitoring and evaluation on the financial performance of the microfinance institutions in Kenya.

Table 4.12: Relationship between CRM Procedures and Financial Performance

		Risk	Risk	Risk	Risk	Financial
		identificatio	analysi	assessmen	monitorin	performanc
		n	S	t	g and	e
					evaluation	
Risk	Pearson	1	0.488	0.367	0.107	0.315(**)
identificatio	Correlatio					
n	n					
	Sig. (2-tailed)		0.005	0.042	0.037	0.001
Risk analysis	Pearson Correlatio	0.488	1	0.221	0.138	0.505(*)
anarysis	n					
	Sig. (2-	0.005		0.232	0.105	0.004
Risk	tailed) Pearson	0.367	0.221	1	0.206	0.566(*)
	Correlatio	0.367	0.221	1	0.206	0.566(*)
assessment	n					
	Sig. (2-tailed)	0.042	0.232		0.042	0.001
Risk	Pearson	0.107	0.138	0.206	1	0.541(**)
monitoring	Correlatio					
and	n					
evaluation	Sig. (2-tailed)	0.037	0.105	0.042		0.000
Financial	Pearson	0.315(**)	0.505(*	0.566(*)	0.541(**)	1
performanc	Correlatio	` ′	) `		, ,	
e	n		ŕ			
	Sig. (2-	0.001	0.004	0.001	0.000	
	tailed)					

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation results show that there was a strong positive and significant relationship between financial performance and risk identification (r=0.315, P=0.001), risk analysis (r=0.505; p=0.004), risk assessment (r=0.566; p=0.001), risk monitoring and evaluation (r=0.741; p=0.000). This implies that a unit increase in risk identification, risk assessment, risk analysis, risk monitoring and evaluation would significantly increase financial performance of the microfinance institutions.

<sup>\*</sup> Correlation is significant at the 0.05 level (2-tailed).

## 4.7.6.1. Hypothesis Testing

The testing of hypothesis was subjected to statistical analysis. Pearson's correlation analysis was used to test the study hypotheses.

In hypothesis one, H<sub>0</sub>1: Risk identification procedure does not have a significant effect on financial performance of microfinance institutions in Kenya, the study sought to establish whether risk identification influenced financial performance of microfinance institutions in Kenya. The Pearson's correlation analysis results established a positive and statistically significant relationship between risk identification and financial performance as shown by r=0.315, P=0.001, which implies that a unit increase in risk identification would significantly increase financial performance of MFIs in Kenya at a unit of 0.315. Therefore we reject the null hypothesis that risk identification does not have a significant effect on financial performance of microfinance institutions in Kenya; and accept the alternative hypothesis.

In hypothesis two, H<sub>0</sub>2: Risk assessment procedure does not have a significant effect on financial performance of microfinance institutions in Kenya, the study sought to determine whether risk assessment procedures influenced financial performance of microfinance institutions in Kenya. The correlation results found a positive and statistically significant relationship between risk assessment and financial performance (r=0.566; p=0.001). This means that a unit increase in risk assessment would increase financial performance in the MFIs at a unit of 0.566. Therefore we reject the null hypothesis that risk assessment procedures do not have a significant effect on financial performance of microfinance institutions in Kenya and accept the alternative hypothesis.

In hypothesis three,  $H_03$ : Risk analysis procedure does not have a significant effect on financial performance of microfinance institutions in Kenya, the study sought to determine whether risk analysis procedures had an effect on financial performance of microfinance institutions in Kenya. The study established a positive and statistically significant relationship between risk analysis and financial performance (r=0.505; p=0.004). This implies that a unit increase in risk analysis would increase financial

performance of the MFIs at a unit of 0.505. Therefore we reject the null hypothesis that risk analysis procedures do not have a significant effect on financial performance of microfinance institutions in Kenya; and accept the alternative hypothesis.

In hypothesis four,  $H_04$ : Monitoring and evaluation procedures do not have a significant effect on financial performance of microfinance institutions in Kenya, the study sought to establish whether risk monitoring and evaluation procedures have an effect on financial performance of microfinance institutions in Kenya. The study found a positive and statistically significant association between risk monitoring & evaluation and financial performance of MFIs in Kenya (r=0.741; p=0.000). This shows that there is a significant effect between monitoring & evaluation and financial performance as unit increase in monitoring & evaluation would increase financial performance at a unit of 0.741. Therefore, we reject the null hypothesis that monitoring and evaluation procedures do not have a significant effect on financial performance of MFI in Kenya; and accept the alternative hypothesis.

# 4.7.7 Regression Analysis

A multivariate regression model was applied to determine the relative importance of each of the four variables with respect to financial performance of the microfinance institutions.

**Table 4.13: Model Summary** 

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.845(a)	0.714	0.697	0.257

a Predictors: (Constant), Risk identification, Risk assessment, Risk analysis, Risks monitoring and evaluation

The  $R^2$  is called the coefficient of determination and tells us how financial performance varied with credit risk management procedures. The results show that the value of  $R^2$  is 0.714. This implies that, there was a variation of 71.4% between financial performance of MFIs and the credit risk management procedures (risk identification, risks assessment, risk analysis and risk monitoring). This is to mean that, credit risk management

procedures explained 71.4% of financial performance in the MFIs in Kenya at a confidence level of 95%.

**Table 4.14: ANOVA Results** 

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.718	4	2.930	44.231	0.000(a)
	Residual	4.703	71	0.066		
	Total	16.421	75			

a Predictors: (Constant), Risk identification, Risk assessment, Risk analysis, Risks monitoring and evaluation

The study used ANOVA to establish the significance of the regression model from which an f-significance value of p<0.001 was established. This shows that the regression model has a less than 0.001 likelihood (probability) of giving a wrong prediction. This therefore means that the regression model has a confidence level of over 95% hence high reliability of the results.

**Table 4.15: Coefficients Results** 

	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	В	Std. Error	Beta		
(Constant)	0.116	0.186		0.623	0.535
Risk identification	0.577	0.068	0.559	8.478	0.000
Risks monitoring	0.157	0.043	0.257	3.676	0.000
Risk analysis	0.052	0.024	0.139	2.115	0.038
Risk assessment	0.008	0.001	0.505	7.097	0.000

a Dependent Variable: Financial Performance

The co-efficient results show that there is a positive relationship between financial performance and all the four credit risk management procedures- risk identification, risks monitoring, risk analysis, risk assessment. The established regression equation was:

$$Y = 0.116 + 0.577X_1 + 0.157X_2 + 0.052X_3 + 0.008X_4$$

b Dependent Variable: Financial Performance

From the above regression model, holding risk identification, risks monitoring, risk analysis and risk assessment constant, financial performance of the MFIs would be achieved at a unit of 0.116. It was also established that a unit increase in risk identification would cause an increase in financial performance by a factor of 0.577, a unit increase in risk analysis and risk assessment would cause an increase in financial performance of the MFIs by a factor of 0.052 and 0.008 respectively.

The study further shows a significant relationship between financial performance of the MFIs and the credit risk management procedures; Risk identification (p= 0.000<0.05), risk assessment (p= 0.000<0.05), risk analysis (p = 0.038<0.05) and risks monitoring (p=0.000<0.05) as shown by the p values.

In hypothesis five, H<sub>0</sub>5: Credit risk management procedures do not have a significant effect on financial performance of microfinance institutions in Kenya, the study sought to determine the combined effect of credit risk management procedures on financial performance of the microfinance institutions in Kenya. The regression results above show that credit risk management procedures have a significant effect on financial performance of MFIs in Kenya as a unit increase in risk identification, risk assessment, risk analysis and risks monitoring & evaluation would significantly increase financial performance of MFIs in Kenya. This implies that we therefore reject the null hypothesis that credit risk management procedures do not have a significant effect on financial performance of microfinance institutions in Kenya; and accept the alternative hypothesis that credit risk management procedures have a significant effect on financial performance of MFIs in Kenya

#### **CHAPTER FIVE**

## SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents the summary, conclusion and recommendations that were made. The responses were based on the objectives of the study. The researcher had intended to determine the credit risk management procedures adopted by microfinance institutions in Kenya and how they affect their financial performance.

## **5.2 Summary of Findings**

The study found out that the organization considered risk identification as a process in credit risk management. It was established that majority of the respondents indicated to have considered risk identification as a process in credit management. On whether organization focuses on the types of risks in the risk identification, majority of the respondents agreed with interest rate risks as shown by a mean of 2.18 while as the other agreed with foreign exchange risks as shown by a mean of 2.94. This indicated that most people were keen on risks control to maximize the profit of their respective organizations. The findings shows majority agreed that the auditor begins the inherent risk evaluation process by generating expectations of accounts balances as shown by a mean of 2.31. Also auditors were involved in identifying changes that have occurred in the firm or its environment while us others were involved in determining how those changes should interact with historic trends to produce an expected balance in the account.

On risk identification the study findings shows that majority of the respondents agreed that it is important as it ensures that the risk management function is established throughout the whole corporation as shown by a mean of 2.45, others agreed that risk identification helps to sort risk according to their importance and others agreed that risk identification assists the management to develop risk management strategy to allocate resources efficiently. This indicates that majority of the respondents appreciates the work done on risk identification in credit risk management.

On risk analysis that majority of respondents (59.2%) agreed that risk analysis is a comprehensive risk measurement and mitigation method used for various risks, others agreed that risk analysis is a comprehensive risk measurement and mitigation method used for various risks while as, others indicated that risk analysis is a comprehensive risk measurement and mitigation method used for various risks to be neutral.

The findings established that majority of the respondents strongly agreed that to facilitate credit risk management, a substantial degree of standardization of process and documentation is requirement as shown by mean of 2.39, credit management procedures ensure that all credits must be monitored, and reviewed periodically, others agree that through standardized procedures, the bank can report the quality of its loan portfolio at any time, along the lines of the report presented, others agree that credit risk management leads to standardized ratings across borrowers and a credit portfolio report that presents meaningful information on the overall quality of the credit portfolio and that credit management procedures results in a periodic but timely report card on the quality of the credit portfolio and its change from month to month and others agreed that credit management procedures ensure that total receivables, including loans, leases and commitments and derivatives, are reported in a single format.

The study shows that majority of the respondents agreed with reduced defaults as shown by a mean 2.29, others agreed with net profit, others agreed that gross profit as a measure of profitability in their respective organization, others agreed that interest income to be a measure of profitability in their respective organization used in assessing the impact of credit risk management and others agreed that earnings before interest and taxes to be a measure of profitability their respective organization used in assessing the impact of credit risk management.

The study also determined the extent to which credit risk management procedures adopted by the respondents' organization influence the Microfinance institutions financial performance. From the research findings, majority of the respondents as shown by 57.1% indicated that credit risk management procedures adopted their respective organizations' influenced their financial performance to a very great extent, other

respondents indicated that credit risk management procedures adopted influence their respective organizations financial performance to a great extent while as other respondents indicated credit risk management procedures adopted in their respective organizations to influence the financial performance to a moderate extent.

#### 5.3 Discussion

### 5.3.1 Risk Identification and Financial performance

The research findings show majority of the respondents as shown by 44.9% indicated to a great extent, 42.9% of the respondents indicated to have considered risk identification as a process in credit management to a very great extent. This is in line with Greene and Trieschmann (2004) who indicated that risk identification is the first stage of risk management. They also assert that correct risk identification ensures risk management effectiveness such that, if risk managers do not succeed in identifying all possible losses or gains that challenge the organization, then these non-identified risks will become non-manageable.

The findings also shows that majority agreed that the auditor begins the inherent risk evaluation process by generating expectations of accounts balances as shown by a mean of 2.31. Others agreed that the auditor determines how those changes should interact with historic trends to produce an expected balance in the account as shown by a mean of 2.55 and other agreed that the auditor identifies changes that have occurred in the firm or its environment. Auditors have a role to continuously indentify the risks in the organization; this is in line with Williams et al. (2001) who revealed that investigating the problem of risk identification calls for risk identification as a continuous process and continuous seeking of new risk.

Majority of the respondents also agreed that risk identification was important as it ensures that the risk management function is established throughout the whole corporation as shown by a mean of 2.45, others agreed that risk identification helps to sort risk according to their importance as shown by a mean of 2.47 and others agreed that risk identification assists the management to develop risk management strategy to

allocate resources efficiently as shown by a mean of 2.65. This is also in line with Williams et al. (2001) ho revealed that risk identification is a process that reveals and determines the possible organizational risks as well as conditions, arising risks. By risk identification the organization is able to study activities and places where its resources are exposed to risks.

### 5.3.2 Risk Analysis and Financial Performance

The research findings show that majority of respondents (59.2%) agreed that risk analysis is a comprehensive risk measurement and mitigation method used for various risks, 24.5% of the respondents strongly agreed that risk analysis is a comprehensive risk measurement and mitigation method used for various risks and 16.3% of the respondents indicated that risk analysis is a comprehensive risk measurement and mitigation method used for various risks. This is in line with Strutt (2003) who revealed that risk analysis is set of stages of systematic assessment which may involve a number of different analyses like establishing acceptable or tolerable levels of risk, evaluation of risks, determine whether the risks are as low as reasonably practicable, and determine risk reduction measures where appropriate.

Majority of the respondents agreed that risk analysis and assessment comprises identification of the outcomes (2.27), others agreed on risk analysis and assessment comprises the probability of those outcomes (2.31) and others agreed on risk analysis and assessment comprises estimation the magnitude of the consequences (2.57). According to Strutt (2003), risk analysis now goes beyond evaluation to include some of the decision making processes of risk management.

## **5.3.3** Risk Assessment and Financial performance

Majority of the respondents agreed that their organization identifies and evaluates the risks and decide on precautions (2.27). Others agreed that their organization record the findings on the risks identified and implement the measures (2.39). On the other hand, the respondents agreed that controls exist for approving decisions regarding financing alternatives and accounting principles, practices, and methods and also the management identifies and analyzes departmental risks relating to circumstances such as changes in

the operating environment (2.55). Majority of the respondents (53.1) also indicated that organizations carry out risk assessment to a great extent. According to Royal Society Study Group (2002) risk estimation comprises identification of the outcomes and estimation of both the magnitude of the consequences and the probability of those outcomes; the addition of risk evaluation completes the process of risk assessment which is a vital stage in credit risk management.

### 5.3.4 Risk Monitoring and Financial performance

Majority agreed that risk monitoring can be used to make sure that risk management practices are in line and proper risk monitoring (2.29). The respondents further agreed that the director's report on risk monitoring enables the shareholders to assess the status of the corporation knowledgeably and thoroughly (2.35) while as the rest agreed that risk monitoring helps the bank management to discover mistake at early stage (2.53). These findings are in line with those of Al-Tamimi and Al-Mazrooei (2007) who agreed that risk monitoring can be used to make sure that risk management practices are in line and proper risk monitoring also helps bank management to discover mistake at early stage.

The study shows that majority of the respondents (59.2%) strongly agreed that effective credit risk management requires a reporting and review structure, 30.6% of the respondents indicated that to have agreed that effective credit risk management requires a reporting and review structure. This indicates that effective credit risk management requires a reporting and review structure as revealed by majority of the respondents. This agrees with IRM, AIRMIC and ALARM, (2002) who revealed that effective risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place.

### 5.3.5. Credit Risk Management Procedures and Financial Performance

The study results established that credit risk management procedures influenced financial performance to a great extent. These findings were also confirmed by the regression results which found that there was a positive and statistically significant relationship between financial performance of MFIs and credit risk procedures as shown: Risk

identification (p= 0.000<0.05), risk assessment (p= 0.000<0.05), risk analysis (p = 0.038<0.05) and risks monitoring (p=0.000<0.05).

#### **5.4 Conclusion**

The study established that auditors were involved in risk identification for various reasons. They began the inherent risk evaluation process by generating expectations of account balances; they also identify changes that have occurred in the firm or its environment and also determine how those changes should interact with historic trends to produce an expected balance in the account which in turn leads to growth of the organizations.

The study also identified the importance of risk identification in credit risk management. It outlined that risk identification in credit risk management ensured that the risk management function is established throughout the whole operation, it helps to sort risk according to their importance and assists the management to develop risk management strategy to allocate resources efficiently. This in turn helps the management of the Microfinance institutions in putting in place measures to curb the risk and this enhances efficiency of services of the institutions.

The study established that risk monitoring can be used to make sure that risk management practices are in line and proper risk monitoring. It also established that risk monitoring helps in the MFI's management to discover mistake at early stage and that directors report on risk monitoring enables the shareholders to assess the status of the corporation knowledgeably and thoroughly.

It can be concluded that there is a positive and statistically significant relationship between credit risk management procedures and financial performance of the MFIs. This implies that increase in risk identification procedures, risk assessment, risk analysis and risks monitoring and evaluation could help reduce credit risks in the institutions and further increase the profitability the MFIs.

### **5.5 Recommendations**

The study recommends that stiff measures should be put in place to run the credit risk management in order to enhance positive performance in the Microfinance institutions.

The management in the Microfinance institutions should spearhead in application of procedures which are applied in the management of Microfinance institutions.

Effective CRM involves establishing an appropriate credit risk environment; operating under a sound credit granting process; maintaining an appropriate credit administration that involves monitoring process as well as adequate controls over credit risk. It requires top management to ensure that there are proper and clear guidelines in managing credit risk, that is, all guidelines are properly communicated throughout the organization; and that everybody involved in CRM understand them.

There is need for increased assessment of borrowers through the use of qualitative as well as quantitative techniques. Clear established process for approving new credits and extending the existing credits is very important while managing credit risks. Also risk analysis, and risk monitoring and evaluation of the financial performance should be carried out regularly in order to enhance good performance of the Micro-finance institutions. The study also recommends further studies to be done on the effects of credit risk management procedures on financial performance of Micro finance institutions in Kenya.

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### **APPENDICES**

## **Appendix I: Questionnaire**

Foreign exchange risks

### **SECTION A: DEMOGRAPHIC INFORMATION**

1. Gender:									
Male () Female	e ()								
2. Age bracket:									
25 - 34  years ()	35 – 44	years	()	45 – 5	4 ye	ears		)	
Above 55 years									
3. What is your highest qualificat	tion ach	ieved?							
Diploma ()	]	Degree						)	
Masters ()	(	Others (please	specify						
4. What is your current designation	on with	in the organiza	ation?						
Credit Manager (	() ]	Branch Manag	ger	()					
Managing Director (	()	Others (please	specify					•	
5. How many years have you bee	n in the	Micro Financ	e indus	try?					
1-5 years ()	(	6 – 10 years	()	11 - 1	5 ye	ears		)	
16 - 20  years ()	2	21 years and a	bove	()					
SECTION B: RISK IDENTIFICAT	ION								
1.To what extent does your organization	on cons	sider risk iden	tificatio	n as a <sub>l</sub>	oroc	cess	in	cre	dit
risk management?									
To a very great extent (	()	Γο a great exte	ent		()				
To a moderate extent (	()	Γo a little exte	nt		()				
To no extent (	()								
2. In credit risk management, interest	t rate ri	sks and foreig	gn excha	inge ris	sks	are	the	ma	iin
domain of the financial department. l	In view	of this stater	nent, pl	ease ra	ite 1	the	ext	ent	to
which your organization focuses on th	ne types	of risks in the	risk id	entifica	itio	n st	ep.	Use	e a
scale of 1 to 5 where 1 is to a great ext	tent and	l 5 is to no ext	ent.						
Risk identification					1	2	3	4	5
Interest rate risks									

Other, please specify					
3.To what extent does the organization involve the auditors in the following	_	-			
identification process? Use a scale of 1 to 5 where 1 is to a great exten	t an	d 5	is	to 1	10
extent.					
Involvement of auditors in risk identification	1	1 2	2 3	4	5
The auditor begins the inherent risk evaluation process by generating	5				
expectations of accounts balances  The auditor identifies changes that have occurred in the firm or its		+			
environment	,				
The auditor determines how those changes should interact with historic	2				
trends to produce an expected balance in the account	$\perp$	$\perp$			
4. To what extent do you agree with the following statement about the	in	ıpoı	rtan	ce	of
risk identification in credit risk management? Rate using a scale of 1	to 5	<b>w</b> ]	here	1	is
strongly agree, 2 is Agree, 3 is Neutral, 4 is Disagree and 5 is Strongly dis	sagı	ree.			
Importance of risk identification in credit risk management	1	2	3	4	5
It is important as it ensures that the risk management function is	;	1			
established throughout the whole corporation	$\bot$	+		_	
Risk identification helps to sort risk according to their importance	_	$\perp$			
Risk identification assists the management to develop risk management strategy to allocate resources efficiently	-				
Other, please specify	+	+			
			1		
SECTION C: RISK ANALYSIS					
5. Risk analysis is a comprehensive risk measurement and mitigation n	neth	od	use	d f	or
various risks arising from financing activities and from the nature of	pro	ofit	and	l lo	SS
sharing in the source of funds especially investment account holders.	-				
do you agree with the statement?					
Strongly agree () Agree () Neutral			()		
Disagree () Strongly disagree ()					
6. To what extent do you agree with the following statement about ris	sk a	anal	lysis	s ar	nd
credit risk management? Rate using a scale of 1 to 5 where 1 is stror	ıgly	ag	ree,	. 2	is
Agree, 3 is Neutral, 4 is Disagree and 5 is Strongly disagree.					
Risk analysis and assessment in credit risk management	1	2	3	4	5
Risk analysis and assessment comprises identification of the outcomes					

Risk analysis and assessment comprises estimation the magnitude of the			
consequences			
Risk analysis and assessment comprises the probability of those			
outcomes			
Other, please specify			

7. Which are the main approaches used in risk analysis and assessment	in	cre	dit	ris	sk
management in your organization?					
		•••		•••	
			•••		••
		• • •			
SECTION D: RISK ASSESMENT					
8. To what extent does your organization carry out risk assessment as management and profitability of your	a	cre	dit	ris	sk
Very great extent () great extent () Moderate ext	ent		()		
Little extent () No extent ()					
9. To what extent do you agree with the following statement on risk as credit risk management? Rate using a scale of 1 to 5 where 1 is strong Agree, 3 is Neutral, 4 is Disagree and 5 is Strongly disagree.					
Risk Assessment	1	2	3	4	5
Our organization identifies and evaluates the risks and decide on precautions					
Controls exist for approving decisions regarding financing alternatives and					
accounting principles, practices, and methods					
The organization record the findings on the risks identified and implement					
the measures					
The management identifies and analyzes departmental risks relating to					

### **SECTION E: RISK MONITORING**

10. Effective credit risk management requires a reporting and review	struct	ure	to	en	ısu1	re
that risks are effectively identified and assessed and that appro	priate	co	ntro	ols	an	ıd
responses are in place. To what extent do you agree with the state	ment in	a vi	ew	of	ris	sk
monitoring in the credit risk management in your organization to en						
	-		mac	<i>)</i> 111	ty.	
Strongly agree () Agree () Neutral	(	)				
Disagree () Strongly disagree ()						
11. To what extent do you agree with the following statement about	t risk i	moı	nito	rin	ıg i	in
credit risk management? Rate using a scale of 1 to 5 where 1 is	strong	ly a	ıgre	ee,	2	is
Agree, 3 is Neutral, 4 is Disagree and 5 is Strongly disagree.						
Risk monitoring in credit risk management		1	2	3	4	5
Risk monitoring can be used to make sure that risk management practices.	ctices		Ŧ			
are in line and proper risk monitoring		l				
Risk monitoring helps the bank management to discover mistake at	early					
stage						
The director's report on risk monitoring enables the shareholders to a	issess					
the status of the corporation knowledgeably and thoroughly						
12. Which are the main challenges of risk monitoring in your organization	ation?					
10 T 1						•
13. To what extent does risk monitoring in your organization co.	nsider	the	tol	llov	W1r	ıg
types of risks to ensure profitability? Use a scale of 1 to 5 where 1 is	to a gre	eat	ext	ent	an	ıd
5 is to no extent.						
Risk monitoring and types of risks	1	2	3	} _ 4	4	5
Foreign exchange risk						
Technology risks						
Interest rate risks						
Market rate risks						
Liquidity risks		$\perp$				
Credit risks						

# SECTION F: CREDIT RISK MANAGEMENT PROCEDURES AND FINANCIAL PERFORMANCE

14. To what extent do you think credit r	isk management procedures ha	ave	aff	ect	ed	th	e
profitability of your organization?							
To a very great extent []	To a great extent			[	]		
To a moderate extent []	To a little extent			[	]		
To no extent []							
15. To what extent do you agree with	the following statements at	ou	t c	red	it 1	ris	k
management procedures in your organ	ization? Rate using a scale of 1	l to	5 v	vhe	ere	1 i	is
strongly agree, 2 is Agree, 3 is Neutral	, 4 is Disagree and 5 is Strongly	y di	sag	ree			
Credit risk management procedures			1	2	3	4	5
To facilitate credit risk management, a sub of process and documentation is required.	stantial degree of standardization	on					
Credit risk management leads to standardize a credit portfolio report that presents mean	•						
quality of the credit portfolio.							
Through standardized procedures, the band portfolio at any time, along the lines of the	* * *	an					
Credit management procedures ensure that loans, leases and commitments and derivat format.	total receivables, including						
Credit management procedures ensure that and reviewed periodically.	all credits must be monitored,						
Credit management procedures results in a on the quality of the credit portfolio and its		ĺ					
Other, please specify							
16. Which measures of profitability does y	our organization use in assessi	ng 1	the	imj	pac	et c	of
credit risk management? Use a scale of	f 1 to 5 where 1 is to a great e	xteı	nt a	nd	5 i	s t	О
no extent.							
Risk monitoring and types of risks		1	2	3	4	ļ	5
Net profit							
Gross profit		<u> </u>					
Interest income		ļ 					
Earnings before interest and taxes		ĺ	1				

Reduced defaults							
17. On overall, to what extent do your organization influence its			lure	s ac	dopí	ted	by
To a very great extent	[]	To a great extent			[	]	
To a moderate extent	[]	To a little extent	[	]			
To no extent	[]						

### THANK YOU FOR PARTICIPATION

**Appendix II: Secondary Data Collection Sheet** 

		Total Assets (at the start of the Yr)	Total Assets (at the end of the Yr)	Average Total Assets	Net income	ROA
1	Kenya Women Finance Trust-DTM	15249396315	16192657943	15,721,027,129	1484174000	0.094407
2	Rafiki Deposit taking Microfinance Ltd	826028348.5	877122885.5	851,575,617	162681100	0.191035
3	Faulu Kenya DTM	4949684544	5255850598	5,102,767,571	464875000	0.091103
4	SMEP DTM	1386159086	1471900886	1,429,029,986	202670000	0.141823
5	Remu DTM Ltd	90823470.68	96441417.32	93,632,444	17007000	0.181636
6	Uwezo DTM Ltd	764499063.1	811787664.9	788,143,364	131260400	0.166544
7	AAR Credit Services	401808604.8	426662745.3	414,235,675	46036000	0.111135
8	ADOK TIMO	122564080.3	130145363.7	126,354,722	55881900	0.442262
9	Agakhan Foundation	237409426.4	252094545.6	244,751,986	76539800	0.312724
10	Biashara Factors	304986296.1	323851427.9	314,418,862	79197000	0.251884
11	BIMAS	93782361.59	99583332.41	96,682,847	84928000	0.878418
12	Blue Limited	269619182.4	286296657.6	277,957,920	67342700	0.242277
13	Canyon Rural Credit Ltd	147377382.6	156493509.4	151,935,446	79656500	0.524279
14	Eclof Kenya	162510207.1	172562384.9	167,536,296	43877000	0.261895
15	Focus Capital Limited	52468825.81	55714320.19	54,091,573	12116900	0.224007
16	Fort Credit Limited	47625328.69	50571225.31	49,098,277	5528000	0.112591

16	Fountain Credit Services Ltd	189589410	201316590	195,453,000	59155100	0.302656
17	Fusion Capital Ltd	188005780.2	199635003.8	193,820,392	63283400	0.326505
18	Greenland Fedha Ltd	76194014.1	80907045.9	78,550,530	17327200	0.220587
19	Indo Africa Finance	170270131.5	180802304.5	175,536,218	72581000	0.413482
20	Jitegemea Credit Scheme	60955166.66	64725589.34	62,840,378	-3011000	-0.04792
21	Jitegemee Trust	56196878.22	59672973.78	57,934,926	12560800	0.216809
22	Juhudi Kilimo Co.Ltd	67176433.35	71331676.65	69,254,055	27142000	0.391919
23	KADET	82112781.44	87191922.56	84,652,352	53073300	0.626956
24	KEEF-Kenya Entrepreneurship Empowerment Foundation	58153396.35	61750513.65	59,951,955	16919900	0.282224
25	K-rep Development Agency	516376113.7	548316904.3	532,346,509	247394000	0.464724
26	MESPT	466537419.6	495395404.4	480,966,412	51156000	0.106361
27	Micro Africa Ltd	86578216.21	91933569.79	89,255,893	60888300	0.682177
28	Microcredit Programme	229078060.5	243247837.5	236,162,949	35286800	0.149417
29	Microensure Advisory Services	62112753.99	65954780.01	64,033,767	-6187000	-0.09662
30	Milango Financial Services	42769047.94	45414556.06	44,091,802	21498900	0.487594
31	Mini Savings & Loans Ltd	41128000	43672000	42,400,000	6821900	0.160894
32	Molyn Credit Ltd	40784168.95	43306901.05	42,045,535	6697200	0.159284
33	Musoni Kenya Ltd	63006624.51	66903941.49	64,955,283	24160300	0.371953
34	Nationwide Credit Kenya	56319743.27	59803438.73	58,061,591	29983000	0.5164

	Ltd					
36	Ngao Credit Ltd	49943424.02	53032707.98	51,488,066	-47242200	-0.91754
37	OIKOCREDIT	58113517.71	61708168.29	59,910,843	14608600	0.243839
38	One Africa Capital Ltd	37499387.14	39818936.86	38,659,162	6710000	0.173568
39	Opportunity Kenya	407809073.3	433034376.8	420,421,725	-382334000	-0.90941
40	Pamoja Women Development Programme	508180944.6	539614817.4	523,897,881	-307202000	-0.58638
41	Platinum Credit Limited	336596007.2	357416378.8	347,006,193	4.48E+07	0.129058
42	Renewable Energy Technology Assistance Programme(RETAP)	243822018.8	258903793.2	251,362,906	40963022.9	0.162964
43	Rupia Ltd	91339790.04	96989673.96	94,164,732	33,034,700	0.350818
44	Samchi Credit Limited	150349355	159649315.1	154,999,335	37,363,800	0.241058
45	Select Management Services Ltd	46919891.34	49822152.66	48,371,022	31,948,400	0.660486
46	SISDO	39796315.13	42257942.87	41,027,129	5,404,900	0.13174
47	Springboard Capital	50028348.49	53122885.51	51,575,617	9,622,300	0.186567
48	Taifa Options Microfinance	157884543.9	167650598.1	162,767,571	46,568,700	0.286106
49	U&I Microfinance Ltd	47559086.42	50500885.58	49,029,986	24,061,000	0.490741
50	Unaitas Sacco Society ltd. Formerely Muramati Sacco Society Ltd	1070523471	1136741417	1,103,632,444	29,493,000	0.026724
51	Women Enterprise Fund	667499063.1	708787664.9	688,143,364	132,414,000	0.192422
52	Women Enterprise Solutions	595808604.8	632662745.3	614,235,675	91,825,000	0.149495

53	Yehu Microfinance Trust	316564080.3	336145363.7	326,354,722	113,678,000	0.348327
54	Youth Initiatives – Kenya (YIKE)	43409426.42	46094545.58	44,751,986	8,201,100	0.183257

### **Appendix III: List of Micro Finance Institutions**

- 1. AAR Credit Services
- 2. Agakhan Foundation
- 3. Biashara Factors
- 4. BIMAS
- 5. Blue Limited
- 6. Canyon Rural Credit Ltd
- 7. Eclof Kenya
- 8. Focus Capital Limited
- 9. Fort Credit Limited
- 10. Fountain Credit Services Ltd
- 11. Fusion Capital Ltd
- 12. Greenland Fedha Ltd
- 13. Indo Africa Finance
- 14. Jitegemea Credit Scheme
- 15. Jitegemee Trust
- 16. Juhudi Kilimo Co.Ltd
- 17. KADET
- 18. KEEF-Kenya Entrepreneurship Empowerment Foundation
- 19. K-rep Development Agency
- 20. MESPT
- 21. Micro Africa Ltd
- 22. Microcredit Programme
- 23. Microensure Advisory Services
- 24. Milango Financial Services
- 25. Mini Savings & Loans Ltd
- 26. Molyn Credit Ltd
- 27. Musoni Kenya Ltd
- 28. Nationwide Credit Kenya Ltd

- 29. Ngao Credit Ltd
- 30. OIKOCREDIT
- 31. One Africa Capital Ltd
- 32. Opportunity Kenya
- 33. Pamoja Women Development Programme
- 34. Platinum Credit Limited
- 35. Renewable Energy Technology Assistance Programme(RETAP)
- 36. Rupia Ltd
- 37. Samchi Credit Limited
- 38. Select Management Services Ltd
- 39. SISDO
- 40. Springboard Capital
- 41. U&I Microfinance Ltd
- 42. Unaitas Sacco Society ltd. Formerely Muramati Sacco Society Ltd
- 43. Women Enterprise Fund
- 44. Women Enterprise Solutions
- 45. Yehu Microfinance Trust
- 46. Youth Initiatives Kenya (YIKE)

#### **DTMs**

- 1. Kenya Women Finance Trust-DTM
- 2. Rafiki Deposit taking Microfinance Ltd
- 3. Faulu Kenya DTM
- 4. SMEP DTM
- 5. Remu DTM Ltd
- 6. Uwezo DTM Ltd
- 7. Century DTM Ltd
- 8. Sumac Credit DTM Ltd

Source: Association of Microfinance Institutions (AMFI), 2013