RELATIONSHIP BETWEEN CREDIT RISK MANAGEMENT PRACTICES AND FINANCIAL PERFORMANCE OF MICROFINANCE INSTITUTIONS IN KENYA

BY

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

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DECLARATION

This research project is my original work and has not been presented for the award of a degree in any other university.

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

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DEDICATION

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LIST OF ABBREVIATIONS

AMFI-	Association of Microfinance Institutions
BCG-	Boston Consulting Group
CRM-	Credit Risk Management
FSD-	Financial Sector Deepening
MFIs-	Microfinance Institutions
PAR-	Portfolio at-Risk

ABSTRACT

An 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. Credit risk arises from non performance by a borrower by either inability or unwillingness to perform in the pre-committed contracted manner. While Kenya has more than 250 organizations that practice some form of microfinance business, only 20-practice pure microfinance, of which 3 are deposit-taking and 17 are credit only. This study sought to investigate the relationship between credit risk management practices and financial performance of Microfinance Institutions in Kenya.

The objective of the study was to examine the effects of credit risk management practices on financial performance of Microfinance Institutions in Kenya. Exploratory research design was chosen because it enabled the researcher to generalise the findings to a larger population. The population of this study comprised of all licensed Microfinance Institutions in Kenya. The population of this study comprised all the 43 licensed Microfinance Institutions in Kenya. Inferential statistic was used to establish the relationship between credit risk management practices and the financial performance of MFIs, financial performance of MFIs was measured by their profitability.

From the findings the study concludes that Microfinance Institutions in Kenya have adopted various credit risk management practices which are; Risk Monitoring, Risk Identification, Risk Analysis and Assessment. The study concluded that there is positive relationship between credit risk management practices and financial performance of Microfinance Institutions in Kenya.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Credit risk management is essential to optimizing the performance of financial institutions. Lending has been, and still is, the mainstay of financial institution, and this is more true to emerging economies of developing countries where capital markets are not yet well developed. To most of the transition economies lending activities have been controversial and a difficult matter. This is because business firms on one hand are complaining about lack of credits and the excessively high standards set by financial institutions, while financial institutions on the other hand have suffered large losses on bad loans (Richard, 2006). It has been found out that in order to minimize loan losses and there by improving financial performance, it is essential for financial institutions to have an effective credit risk management system in place (Basel, 2006). Given the asymmetric information that exists between lenders and borrowers, financial institutions must have a mechanism to ensure that they not only evaluate default risk that is unknown to them ex ante in order to avoid adverse selection, but also that can evolve ex post in order to avoid moral hazards.

An 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. 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 and 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 techniques. One major challenge of using qualitative models is their subjective nature. However, borrowers attributes assessed through qualitative models can be assigned numbers with the sum of the values compared to a threshold. The technique 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. BrownBridge, (1998) 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.

Financial institutions are very important in any economy. Their role is similar to that of blood arteries in the human body, because they pump financial resources for economic growth from the depositories to where they are required (Shanmugan and Bourke, 1992). FIs are key providers of financial information to the economy. They play a critical role in emergent economies where borrowers have no access to capital markets. There is evidence that well-functioning financial institutions accelerate economic growth, while poorly functioning Financial Institutions impede economic progress and exacerbate poverty (Barth et al., 2004).

Effective credit risk management 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 (Basel, 1999). It requires top management to ensure that there are proper and clear guidelines in managing credit risk. All guidelines should be stipulated throughout the organization and everybody involved in credit risk management understand them.

Credit risk arises from non performance by a borrower by either inability or unwillingness to perform in the pre-committed contracted manner. This affects the lender holding the loan contract as well as other lenders to the creditor. Therefore the financial condition of the borrower as well as the current value of any underlying collateral is of

considerable interest to its credit union. The deviation of portfolio performance was from expected value result to real credit risks that faces the financial institutions. Credit risk is hard to eliminate but it can be diversified because a portion of the default risk may result from the systematic risk. In addition, the idiosyncratic nature of some portion of these losses remains a problem for creditors in spite of the beneficial effect of diversification on total uncertainty. This is particularly true for banks that lend in local markets and the ones that take highly illiquid assets. In such cases, credit risk is not easily transferred and accurate estimates of loss are difficult to obtain. (Independence Federal Savings Bank, 2005)

Credit risk is a major risk to microfinance and other financial institutions by the nature of its activity. In terms of potential losses, it is typically the largest type of risk. The default of a small number of members may result in a very large loss for the microfinance (Bessis 2003) .Credit risk is the risk that a borrower defaults and does not honor his or her obligation to service debt. It can occur when the member in microfinance is unable to pay or cannot pay on time. There can be many reasons for default. In most cases, the obligor is in a financially stressed situation and may be facing a bankruptcy procedure. He can also refuse to comply with the debt service obligation, for example in the case of a fraud or a legal dispute.

Credit risk is the potential change in net asset value due to changes in the perceived ability of counterparties to meet their contractual obligations. It occurs when a borrower does not pay back the loan. The definition makes it clear that credit risk arises much earlier than the final failure to pay becomes visible. According to Mwirigi (2006) most financial institutions as early as one month late repayment, a loanee was considered a defaulter and thus collections efforts were intensified and this explains why microfinance institutions commend low default rates. Those who didn't pay on time, their property was sold to recover the money, followed by write off of the balance and others would consider writing off the balance and allow defaulters to repay the principal only.

As MFIs continue to grow and expand rapidly, serving more customers and attracting more mainstream investment capital and funds, they need to strengthen their internal

capacity to identify and anticipate potential risks to avoid unexpected losses and surprises. Creating a risk management framework and culture within an MFI is the next step after mastering the fundamentals of individual risks, such as credit risk, treasury risk, and liquidity risk (Altman, 1993). Further, more clarity about the roles and responsibilities of managers and board members in risk management helps build stronger institutions. A comprehensive approach to risk management reduces the risk of loss, builds credibility in the marketplace, and creates new opportunities for growth (Berger and Udell 1993)

Empirically, in Kenya, there are about 41 microfinance institutions offering poor people loans sometimes as small as $100 or less. Jamii Bora, the largest such institution in Kenya, has 260,000 members and has lent a total of $43 million in 10 years (AMFIs, 2009).

Microfinance institutions offers a wide range of financial products to the poor and uses innovative technology to provide better service as well as managing credit risks. Microcredit was conceived in the 1970s by Muhammad Yunus, the Bangladeshi economist and Nobel laureate. His Grameen Bank is considered the world's first microfinance institution. At Bimas, interest rates on microloans are manageable due to management of credit risks and attain performance of 17 per cent. Due to management of credit risks facing microfinance institutions, the impoverished often turn to informal money lenders or loan sharks who charge crippling interest rates of up to 100 per cent or more. Repayment rates for microloans are around 90 per cent to 95 per cent. As a development tool, experts say microcredit is much more sustainable than handing out money or aid because it empowers people while giving them a sense of responsibility and performs better due to better adoption of credit risk management practices (Altman, 1993).

MFIs have developed very effective lending methodologies that reduce the credit risk associated with lending to microenterprises, including group lending, cross guarantees, stepped lending, and peer monitoring (Drzik, 1995). Other key issues that affect MFIs' credit risk include portfolio diversification, issuing larger individual loans, and limiting

exposure to certain sectors (agricultural or seasonal loans). Each type of lending has a different risk profile and requires unique loan structures and underwriting guidelines .Effective approaches to managing credit risk in MFIs have been developed in microfinance institutions. This includes well-designed borrower screening, careful loan structuring, close monitoring, clear collection procedures, and active oversight by senior management. Delinquency is understood and addressed promptly to avoid its rapid spread and potential for significant loss. To reduce the probability of a down-side risk policies are introduced before a risk occurs. Reducing the probability of an adverse risk increases people's expected income and reduces income variance and both effects increase welfare (Fallon, 1996).

These include policies regarding sound macroeconomics, public health, the environment, and education and training. Preventive SP interventions are typically linked to measures to reduce the risks in the labor market, notably the risk of UN- or under P employment or low wages due to inappropriate skills or poorly functioning labor markets. They are concerned with labor standards and the (mal-) functioning of the labor market, resulting from skill-mismatch, bad labor market regulations, or other distortions. With reduction strategies, mitigation strategies are also employed before the risk occurs. Whereas preventive strategies reduce the probability of the risk occurring, mitigation strategies reduce the potential impact if the risk were to occur. Risk mitigation can take several forms where portfolio diversification reduces the variability (Harrington and Niehaus G1999)

1.1.1 Microfinance Institution in Kenya

Microfinance Institution is a term commonly used to define financial institutions dedicated to assisting small enterprises, the poor, and households who have no access to the more institutionalized financial system, in mobilizing savings, and obtaining access to financial services. Through microfinance, small enterprises, low income people and women who are considered low income earners have been able to run small businesses which constitute a significant share of economic activity in developed and transitioning economies (Kwan and Eisenbeis, 2005).

To meet the unsatisfied demand for financial services to small enterprises, low income people and women who are considered low income earners, a variety of MFIs have emerged over time in Africa. Some of these institutions concentrate only on providing credit, others are engaged in providing both deposit and credit facilities, and some are involved only in deposit collection. They range from non governmental organizations, savings and credit cooperatives, commercial Microfinance Institutions and regulated specialized providers (Jorion, 1997)

In 1999, the Association of Microfinance Institutions (AMFI) was registered under the Societies Act as an umbrella organization to represent the microfinance institutions operating in Kenya. The AMFI's activities are aimed at supporting the growth and development of MFIs by promoting sustainable, efficient, and effective delivery of microfinance services. AMFI has been playing a vital role in promoting the growth of microfinance in Kenya in addition to supporting MFIs to build capacity in order to overcome some of the challenges facing the sector. AMFI was instrumental in drafting and preparing the Microfinance Bill, which was passed and enacted into law in 2006 (Basel, 2006)

While Kenya has 41 organizations that practice some form of microfinance business, only 20-practice pure microfinance, of which 3 are deposit-taking and 17 are credit only. The remaining 41 MFIs combine microfinance with social welfare activities. According to the Microfinance Act, MFIs in Kenya are classified into three different tiers, with the first tier being deposit-taking institutions such as Microfinance Institutions, the second tier being credit only facilities, and the third tier being informal organizations supervised by an external agency other than the government .These distinct classifications have led to some of the Micro Finance Institutions specializing in certain niche markets, which have contributed to their growth and sustainability in delivering microfinance services (Association of Microfinance Institutions of Kenya, 2007)

1.2 Statement of the Problem

Granting credit to the microfinance institution members is an important activity and therefore it is important to manage credit risks facing the microfinance institutions, coupled with taking necessary measures to reduce loan defaulters which at the same time advance credit in a fair and undiscriminating manner so as to continue offering service to their members. Weak credit risk management is a primary cause of many business (particularly small business) failures. A study carried out of National banks that failed in the mid 1980s in the U.S.A found out that the consistent element in the failures was the inadequacy of the bank's management system for controlling loan quality ((Parrenas, 2005).

Strong risk management practices can help MFIs reduce their exposure to credit risks, and enhance their ability to compete in the market with other well established financial institutions like banks (Iqbal and Mirakhor, 2007). The micro finance institutions adopt various credit risks management practices in managing credit. In Bangladesh a microfinance institution called Grameen Bank has managed credit risk and at the end of 2000 reported 2.4 million members, where 95 percent of them were women, with $225 million outstanding loan. Thailand also has reported impressive outreach through agricultural lending by the Bank for Agriculture and Agricultural Cooperative (Meyer 2002). In general, a big number of microfinance institutions have registered impressive outreach in several developing economies including India, Cambodia, and others which result to improved performance of the institution. The wide variety of performance in microfinance institutions is released due to credit risk management adopted by the organization. Large-sample studies of the industry have documented the existence of profits and a positive link between MFI financial performance and good macroeconomic conditions. Studies reviewe (Altman, 1993).

The researcher identified few local studies on credit risk management practices and especially focusing on Savings Credit and Cooperative Society. They include; Kimeu (2008) who studied credit risk management techniques of unsecured banks loans of commercial banks in Kenya, Ngare (2008) who studied credit risk management practices

by commercial banks and found that credit risk management has impact on performance of commercial banks, Wambugu (2008) who studied the Survey of Credit Risk Management Practices by Micro-Finance Institutions in Kenya.Simiyu (2008) studied techniques of credit risk management in microfinance institutions in Kenya, Mutwiri (2003), The Use Of 6 C's Credit Risk Appraisal Model And Its Relationship With The Level Of Non performing Loans Of Commercial Banks In Kenya. Muteru (2007) indicated that credit risk management practices impacted positively on performance of Pharmaceuticals manufacturing firms in Kenya. To the researcher's knowledge there is no known study done on relationship between credit risk management practices and financial performance of Microfinance Institutions in Kenya, much of the work done relating to credit risk management practices on financial performance of microfinance institutions has been conducted in the developed world. This study seeks to fill this gap of knowledge by investigating the relationship between credit risk management practices and financial performance of microfinance situations in Kenya, which is a developing country.

1.3 Objectives of the Study

The objectives of the study are:

i. To identify the credit risk management practices adopted by Microfinance Institutions in Kenya

ii. To ascertain the strength and nature of relationship between credit risk management practices and financial performance of Microfinance Institutions in Kenya

1.4 Significance of the Study

The Microfinance Institutions would benefit from the study as they will gain knowledge on impact of credit risk management on financial performance of Microfinance Institutions. The study will present varied practices which can be shared by many Microfinance Institutions in the industry.

The study will be of great importance to the government through the regulatory agency as it would help in designing policies pertaining to the lending of MFIs in the country. Finally, the study would contribute to the broader realm of business and academic research. In business, through its recommendations, the study will add value to better credit management practices in businesses and service quality. In academia, the study will be of significance to academic research in the broader area of credit risk management practices and provide a foundation for future studies.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature review on the credit. It summarizes the information from other researchers who have carried out their research in the same field of study. The chapter presents theoretical background, the empirical review, conceptualization and the operationalization.

2.2 Review of Theories

The Basel committee on Banking supervision define Credit risk as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with the agreed terms (Basel, 2000). The CBK in their risk guideline define credit risk as the current or prospective risk to earnings and capital arising from an obligor's failure to meet the terms of any contract with the bank or if an obligor otherwise fails to perform as agreed. Financial risk is the risk that a company will not be able to repay its debts in full or on time because its debt burden is too big It can also be defined as the possibility that money lent will not be repaid Credit risk is the potential variation in net income and market value of equity resulting from non payment or delayed payment .They also say that different types of assets and off balance sheet items have different default probabilities. Loans typically exhibit the greatest credit risk (Merton, 1995)

In general, the largest source of credit risk is loans, albeit that credit risk exists throughout the other activities of the bank both on and off the balance sheet. These other activities include acceptances, inter-bank transactions, trade financing, foreign exchange transactions, futures, swaps, options and guarantees. Given the significant size of the loan portfolio in balance sheets of local banks, credit risk remains the largest risk type in the local banking sector. Default risk is the possibility that a borrower will be unable to meet interest and/or principal repayment obligations on a loan agreement. Default risk has a significant effect on the value of a bond: if a borrower's ability to repay debt is impaired, default risk is higher and the value of the bond will decline (Morris, 2001).

Several concepts have been built to address credit risk and analysis. Banks mainly use portfolio theory in order to reduce the risks on the loans they offer. The idea stems from the fact that a group of assets held together is less risky than the risks of the individual assets making up the portfolio. The components of credit risk include the probability of a borrower defaulting, expected bank exposure, and expected bank loss given default.

A number of models are used to analyze default correlation of bank loans. For instance Monte Carlo simulation model is used to measure default risk and assess comparative statistics of default correlations. Also by assessing the company's asset values at a given point in time, their variance/covariance matrix and their liability structures (Merton, 1995). Using historical default data to estimate default correlations are also used to gauge default risk.

The principles of portfolio analysis play a great hand in the management of credit risk. As the father of portfolio theory Harry Markowitz and William Sharp found. The effect of concentrating risk has led to banks diversifying their exposure limits across the borrowers and among various types of debt facilities. Capital asset pricing model (CAPM) developed by William Sharp is well applicable in investment decisions (Markowitz, 1952). It describes the identification of an investment's return and diversification of risk on the investments at hand.

CAPM MODEL

$r_i = r_f + \beta_i (r_M - r_f)$

Where; $\beta_i = \frac{\sigma_{iM}}{\sigma^2_M}$

r_i is the expected return on asset i

r_f is a risk free rate

β_i is a risk measure of asset i

r_M is the expected market return

Accordingly, a Microfinance Institutions can lend money with rate of interest or buy bond. The market return r_m, describes the market which contains the asset. Financial institutions can establish limits on the amount of credit to advance to a borrower or industry, diversify the portfolio composition and be able to reduce the risk of credit loss thereby contributing to higher marginal returns.

2.3 Credit Risk facing MFIs

Many people agree that the initial success of MFIs can be largely attributed to the management of credit risks. Successful MFIs have managed to maintain high levels of loan recovery rates, generally over 95%. These remarkably high loan recovery ratios triggered the initial wave of funds from funding agencies and the subsequent inflow from a variety of social investors which they could use to expand their operations. While many successful MFIs continue to contain credit risks within desired levels, they face greater challenges than before as indicated by the increased volatility of their portfolio at- risk (PAR) ratios. The sources of these challenges include increased competition in the market, addition of new credit products with longer-term structures, shift to individual lending, increased scale of operations, and geographical expansion and efforts to deepen the outreach. Credit risk also has other dimensions. Initially, microfinance credit risk was assumed to have been confined almost entirely to risk associated with the possible default by borrowers of MFIs. This is reflected in the definition of credit risk as the risk to earnings or capital due to borrowers' late and nonpayment of loan obligations (Richard, 2006).

However, a broader definition of credit risk also includes the risk of default by other financial institutions, which have payment obligations to MFIs (Sundarajan, 2007). This is particularly true with MFIs that continue as NGOs. Such payment obligations may arise because MFIs use those institutions as depository institutions, investment outlets, or for money transfers. Also, such risks may arise due to the agency services that MFIs provide to other financial institutions. MFIs suffer losses when these institutions are unable or unwilling to meet their payment obligations. However, MFIs tend to overlook

this dimension of credit risk although it is real, as evident in some cases. For example, when the National Bank (central bank) of Cambodia suspended the license of the Farmers' Bank in 1997, the bank ceased operations and ACLEDA (which was an NGO-MFI at that time) was not able to recover $267,932 that it held on account with the Farmers' Bank . Similarly, a number of cooperative rural banks in Sri Lanka lost access to their deposits when a commercial bank that held a significant amount of their deposits ran into difficulties and its accounts were frozen and operations were suspended by the central bank. Credit risks are more acute today than in the early stages for those MFIs which have accumulated a significant amount of reserves, part of which in turn is kept in other financial institutions in the form of deposits or investments. Aside from generally recognized default risks by clients, another type of credit risk arises when MFI clients deposit their savings in other financial institutions which are weak and not covered by a credible deposit protection scheme. Clients may not have ready access to their funds and thus lose a source of loan repayment for their MFI loan if the bank where they keep their deposits runs into difficulties (Bryce, 2005). In such cases, loan recovery rates may suddenly fall

2.4 Credit Risk Management Practices

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). 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. Harker and Satvros (1998) consider that risk management is the making of decisions concerning risks and their subsequent implementation, and flows from risk estimation and risk evaluation. Similar to general risk management, financial risk management requires identifying its sources, measuring it, and plans to address them. Financial risk management can be qualitative and quantitative. As a specialization of risk management, financial risk management focuses on when and how to hedge using financial instruments to manage costly exposures to risk. In the banking sector worldwide, the Basel Accords are generally adopted by internationally active banks for tracking, reporting and exposing operational, credit and market risks.

According to Boston Consulting Group, (2001), credit risk is the oldest and important risk which banks exposure and important of credit risk and credit risk management are increasing with time because of some reasons like economic crises and stagnation, company bankruptcies, infraction of rules in company accounting and audits, growth of off-balance sheet derivatives, declining and volatile values of collateral, borrowing more easily of small firms, financial globalization and BIS risk-based capital requirements. Greuning and Iqbal, (2007) define credit risk as the risk of losses caused by the default of borrowers. Default occurs when a borrower can not meet his financial obligations. Credit risk can alternatively be defined as the risk that a borrower deteriorates in credit quality. This definition also includes the default of the borrower as the most extreme deterioration in credit quality. Credit risk is managed at both the transaction and portfolio levels. But, banks increasingly measure and manage the credit risk on a portfolio basis instead of on a loan-by-loan.

According to Fuser and Meier, (1999), in credit risk management banks use various methods such as credit limits, taking collateral, diversification, loan selling, syndicated loans, credit insurance, and securitization and credit derivatives. Credit risk has an importance place, but, credit risk measurement and credit risk management are not to be in desired level. It is important for staff of banking institutions to understand the aspect of risk in the banking operations and the risks that are inherent and exposed in their business operations. Better understanding of risk management is also necessary especially in the financial intermediation activities where managing risk is one its important activities.

Boston Consulting Group (2001) found that the sole determining success factors are not the technical development but the ability to understand risk strategically and also the ability to handle and control risk organizationally. Secondly, in order to realize a risk based management philosophy, the attitude and mindset of the employees need to be changed whereby they must be brought to understand that managing risk is crucial for success. This implies that there must be intensive training, clearly defined structures and responsibilities, as well as commitment to change. In addition, it was identified that banks concentrate on risk management primarily to enhance their competitive positions (Wambugu 2008).

2.4.1 Risk Identification

The first step in organizing the implementation of the risk management function is to establish the crucial observation areas inside and outside the corporation (Luck 1998). Then, the departments and the employees must be assigned with responsibilities to identify specific risks. For instance, interest rate risks or foreign exchange risks are the main domain of the financial department.

Peters et al. (1989) described the development of a conceptual model of how auditors assess inherent risk in a normal audit environment and its implementation as a knowledge-based (expert) system. Peters et al. (1989) asserted that the auditor begins the inherent risk evaluation process by generating expectations of accounts balances. The auditor identifies changes that have occurred in the firm or its environment and determines how those changes should interact with historic trends to produce an expected balance in the account. Peters et al. (1989) conceptual model included both historical firm data and the historic evaluation of management and control as essential factors contributing to the auditor's assessment of inherent risk. It is important to ensure that the risk management function is established throughout the whole corporation; apart from parent company, the subsidiaries too have to identify risks, analyze risks and so on. There are many other approaches for risk identification, for instance, scenario analysis or risk mapping. An organization can identify the frequency and severity of the risks through risk mapping which could assist the organization to stay away from high frequency and low severity risks and instead focus more on the low frequency and high severity risk. Risk identification process includes risk-ranking components where these ranking are usually based on impact, severity or dollar effects. Accordingly, the analysis helps to sort risk according to their importance and assists the management to develop risk management strategy to allocate resources efficiently (Kipchirchir 2008).

The techniques of risk identification are facilitative tools, intended to maximize the opportunity of identifying all the risks or hazards inherent in a particular facility, system, or product. The tools may be categorized under the broad headings of intuitive, inductive and deductive techniques.

2.4.2 Risk Analysis and Assessment

Notwithstanding the report title, Risk: Analysis, Perception and Management, the working definitions employed by the Royal Society Study Group (1992) 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 (1993) outlines an engineering approach which defines risk analysis in the same terms as the Royal Society Study Group defines risk estimation and indeed claims that risk analysis is also called risk estimation. This is a narrower definition which now suggests that the preliminary conclusion above is mistaken. However, in another paper (Strutt, 1993), the same author expands his definition of risk analysis to include evaluation of acceptance or tolerance to the risk.

Strutt (1993) gives the fullest definition of risk analysis in a third paper where he sets out the concept in seven stages as systematic assessment of risks. 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.

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 play, 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 technique, 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 techniques.

2.4.3 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 and Al-Mazrooei, 2007). Monitoring is the last step in the corporate risk management process (Pausenberger and Nassauer, 2000).

According to Parrenas, (2005), 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 that is 69% score as compared to risk management policies and procedures that is 82.4%, and internal control of banks that is 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.

According to Baldoni, (1998), the area of interest rate risk is the second area of major concern and on-going risk monitoring and management. Here, however, the tradition has been for the banking industry to diverge somewhat from other parts of the financial sector in their treatment of interest rate risk. Most commercial banks make a clear distinction between their trading activity and their balance sheet interest rate exposure. Investment

banks generally have viewed interest rate risk as a classic part of market risk, and have developed elaborate trading risk management systems to measure and monitor exposure. For large commercial banks and European-type universal banks that have an active trading business, such systems have become a required part of the infrastructure, (Akkizidis and Khandelwal, 2008). But, in fact, these trading risk management systems vary substantially from bank to bank and generally are less real than imagined. In many firms, fancy value-at-risk models, are up and running. But, in many more cases, they are still in the implementation phase. In the interim, simple ad hoc limits and close monitoring substitute for elaborate real time systems. While this may be completely satisfactory for institutions that have little trading activity and work primarily on behalf of clients, the absence of adequate trading systems elsewhere in the industry is a bit distressing.

2.4.4 Credit Risk Management Procedures

According to Fallon, (1996), 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.

At some institutions, a dual system is in place where both the borrower and the credit facility are rated. In the latter, attention centers on collateral and covenants, while in the former, the general credit worthiness of the borrower is measured. Some banks prefer such a dual system, while others argue that it obscures the issue of recovery to separate the facility from the borrower in such a manner. Parrenas, (2005) hold that such an approach, whether it is a single or a dual rating system allows the credit committee some comfort in its knowledge of loan asset quality at any moment of time. It requires only that new loan officers be introduced to the system of loan ratings, through training and

apprenticeship to achieve a standardization of ratings throughout the bank. Given these standards, the bank can report the quality of its loan portfolio at any time, along the lines of the report presented.

According to Luck, (1998), total receivables, including loans, leases and commitments and derivatives, are reported in a single format. Assuming the adherence to standards, the entirety of the firm's credit quality is reported to senior management monthly via this reporting mechanism. Changes in this report from one period to another occur for two reasons, loans have entered or exited the system, or the rating of individual loans has changed over the intervening time interval. The first reason is associated with standard loan turnover. Loans are repaid and new loans are made. The second cause for a change in the credit quality report is more substantive.

Variations over time indicate changes in loan quality and expected loan losses from the credit portfolio. In fact, credit quality reports should signal changes in expected loan losses, if the rating system is meaningful. Studies by Harrington, (1999) on their rating system have illustrated the relationship between credit rating and ex post default rates. A similar result should be expected from internal bank-rating schemes of this type as well. However, the lack of available industry data to do an appropriate aggregate migration study does not permit the industry the same degree of confidence in their expected loss calculations.

For credit quality report to be meaningful, all credits must be monitored, and reviewed periodically. It is, in fact, standard for all credits above some dollar volume to be reviewed on a quarterly or annual basis to ensure the accuracy of the rating associated with the lending facility. In addition, a material change in the conditions associated either with the borrower or the facility itself, such as a change in the value of collateral, will trigger a re-evaluation. This process, therefore, results in a periodic but timely report card on the quality of the credit portfolio and its change from month to month (Haron and Hock, 2007). Generally accepted accounting principles require this monitoring. The credit portfolio is subject to fair value accounting standards, which have recently been tightened by The Financial Accounting Standards Board (FASB). Microfinance

Institutions are required to have a loan loss reserve account which accurately represents the diminution in market value from known or estimated credit losses (IFSB, 2005).

As an industry, banks have generally sought estimates of expected loss using a two-step process, including default probability, and an estimate of loss given default. This approach parallels the work of Harrington, (1999) referred to above. At least quarterly, the level of the reserve account is re-assessed, given the evidence of loss exposure driven directly from the credit quality report, and internal studies of loan migration through various quality ratings. Absent from the discussion thus far is any analysis of systematic risk contained in the portfolio. Traditionally mutual funds and merchant banks have concerned themselves with such risk exposure, but the commercial banking sector has not. This appears to be changing in light of the recent substantial losses in real estate and similar losses in the not-too-distant past in petrochemicals (Grais, and Kulathunga, 2007).

According to Fuser et all, (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 et al, 1998).

Drzik, (1995) hold that credit report is not the result of any analytical exercise to evaluate the potential downside loss, but rather a subjective evaluation of management's tolerance, based upon rather imprecise recollections of previous downturns. In addition, there is the emergence of portfolio managers to watch over the loan portfolio's degree of concentration and exposure to both types of risk concentration discussed. Most

organizations also will report concentration by individual counterparty. To be meaningful, however, this exposure must be bank wide and include all related affiliates. Both of these requirements are not easily satisfied. For large institutions, a key relationship manager must be appointed to assure that overall bank exposure to a particular client is captured and monitored. This level of data accumulation is never easy, particularly across time zones.

Nonetheless, such a relationship report is required to capture the disparate activity from many parts of the bank. Transaction with affiliated firms needs to be aggregated and maintained in close to real time. Each different lending facility is reported. In addition, the existing lines of credit, both used and open, need to be reported as well. Generally, this type of credit risk exposure or concentration report has both an upper and lower cut-off value so that only concentrations above a minimum size are recorded, and no one credit exposure exceeds its predetermined limit. The latter, an example of the second technique of risk management is monitored and set by the credit committee for the relationship as a whole (Christen and Douglas, 2005).

For institutions that do have active trading businesses, value-at-risk has become the standard approach. Similar systems are in place at other firms. In that much exists in the public record about these systems, there is little value to reviewing this technique here. Suffice it to say that the daily, weekly, or monthly volatility of the market value of fixed-rate assets are incorporated into a measure of total portfolio risk analysis along with equity's market risk, and that of foreign-denominated assets. For balance sheet exposure to interest rate risk, commercial banking firms follow a different drummer. Given the Generally Accepted Accounting Procedures (GAAP) established for bank assets, as well as the close correspondence of asset and liability structures, commercial banks tend not to use market value reports, guidelines or limits. Rather, their approach relies on cash flow and book values, at the expense of market values (Baldoni, 1998)

This system (gap methodology), has been labeled traditionally a gap reporting system as the asymmetry of the repricing of assets and liabilities results in a gap. This has classically been measured in ratio or percentage mismatch terms over a standardized

interval such as a 30-day or one-year period. This is sometimes supplemented with a duration analysis of the portfolio. However, many assumptions are necessary to move from cash flows to duration. Asset categories that do not have fixed maturities, such as prime rate loans, must be assigned a duration measure based upon actual repricing flexibility. A similar problem exists for core liabilities, such as retail demand and savings balances. Nonetheless, the industry attempts to measure these estimates accurately, and include both on- and off-balance sheet exposures in this type of reporting procedure (Archer and Haron, 2007).

According to Drzik, (1995), most banks, however, have attempted to move beyond this gap methodology. They recognize that the gap and duration reports are static, and do not fit well with the dynamic nature of the banking market, where assets and liabilities change over time and spreads fluctuate. In fact, the variability of spreads is largely responsible for the highly profitable performance of the industry over the last two years. Accordingly, the industry has added the next level of analysis to their risk management procedures. Currently, many banks are using balance sheet simulation models to investigate the effect of interest rate variation on reported earnings over one-, three- and five-year horizons. These simulations, of course, are a bit of science and a bit of art. They require relatively informed repricing schedules, as well as estimates of prepayments and cash flows.

In terms of the first issue, such an analysis requires an assumed response function on the part of the bank to rate movement, in which bank pricing decisions in both their local and national franchises are simulated for each rate environment. In terms of the second area, the simulations require precise prepayment models for proprietary products, such as middle market loans, as well as standard products such as residential mortgages or traditional consumer debt. In addition, these simulations require yield curve simulation over a presumed relevant range of rate movements and yield curve shifts. Once completed, the simulation reports the resultant deviations in earnings associated with the rate scenarios considered. Whether or not this is acceptable depends upon the limits imposed by management, which are usually couched in terms of deviations of earnings from the expected or most likely outcome (Drzik, 1995)

According to Iqbal and Mirakhor, 2007, every institution has an investment policy in place which defines the set of allowable assets and limits to the bank's participation in any one area; see, all institutions restrict the activity of the treasury to some extent by defining the set of activities it can employ to change the bank's interest rate position in both the cash and forward markets. Some are willing to accept derivative activity, but all restrict their positions in the swap caps and floors market to some degree to prevent unfortunate surprises. As reported losses by some institutions mount in this area, however, investment guidelines are becoming increasingly circumspect concerning allowable investment and hedging alternatives. In this area there is considerable difference in current practice. This can be explained by the different franchises that coexist in the banking industry. Most banking institutions view activity in the foreign exchange market beyond their franchise, while others are active participants. The former will take virtually no principal risk, no forward open positions, and have no expectations of trading volume (Iqbal and Mirakhor, 2007).

2.5 Empirical Review

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 minimize the risk of non-payment, (Naceur and Goaied, 2003).Credit risk management forms a key part of a company's overall risk management strategy. Weak credit risk management is a primary course of many business failures. Many small businesses, for example, have neither the resources nor the expertise to operate a sound credit management system (Richardson, 2002).

The largest source of risk for any financial institution resides in its loan portfolio. Loan portfolio is ideally expected to be the bank's largest asset. It should also be noted that since most banks financing is not supported by bankable collateral, the quality of the loan portfolio is absolutely crucial. Three accounting ratios are used to measure portfolio quality including: Portfolio at risk (PAR) which measures the portion of the loan portfolio contaminated by arrears as a percentage of the total portfolio where the desired

level is less than 10 per cent; Risk coverage ratio which shows what proportion of the portfolio at risk is covered by actual loan losses where the rate could be as high as 90 per cent (Jansson, 2002) and Loans written off ratio which represents the amount of loans removed from the accounting books because of a substantial loss where a maximum of 4 per cent is envisaged (Saltzman and Salinger,1998).

Profitability indicators are used to gauge the schemes' net income in relation to the structure of its balance sheet. These indicators provide an indication of whether a bank is earning an adequate return on the funds invested on the institution. This performance indicator is also linked with portfolio quality and efficiency indicators. Financial institution's capital can be seen in two ways. Narrowly, it can be seen as the amount contributed by the owners of the institution that gives them the right to enjoy all the future earnings of the Microfinance (Naceur, 2003).

More comprehensively, it can be seen as the amount of owners' funds available to support microfinance's business (Athanasoglou et al., 2005). The later definition includes reserves, and is also termed total shareholders' funds. No matter the definition adopted, microfinance's capital is widely used to analyze the status of its financial strength (Bobáková, 2003).

There is positive correlation between credit risk management and capital (Eisenbeis, 2005). Naceur and Goaied (2003) indicated that the best performing Microfinances are those who have struggled to improve credit risk management and capital productivity and those who have been able to reinforce their equity. Naceur (2003) agreed that well-capitalized microfinance face lower need to external funding and lower loan defaults and funding costs and this advantage translates into better profitability.

In January 1998, K-Rep implemented a credit risk program that brought employees Back to Basics," which reemphasized the fundamental principles of Microfinance and its commitment to the micro entrepreneur after experiencing poor performance in loans portfolio quality had diminished from 5.0% to 18.3% . K-Rep lowered the maximum initial loan size from $431 to $238, reduced the rate of increase for subsequent loans, and

shortened loan terms (Jackson-Moore 2007). In addition, K-Rep enhanced management's supervision of credit officers, and increased the amount and frequency of loan portfolio monitoring. These changes returned the focus to the original target population and discouraged the participation of higher income clients. By the end of 1998, K-Rep had delinquency under control and reduced its portfolio at risk ratio to 8.8 percent (Kim and Santomero, 1993).In this regards there is need to carry out the study to establish the relationship between credit risk management practices and the performance of the Microfinance Institutions in Kenya.

2.6 Impact of Credit Risk Management Practices on Performance

The justification for studying organizations' activities by focusing on risk management can be traced to Merton (1995) who argued that financial systems should be analyzed in terms of a "functional perspective" rather than an "institutional perspective" since over long periods of time functions have been much more stable than institutions. Research on financial services has followed this functional approach by relating organisations' activities to the functions performed by them. Merton (1989) suggested that, inter alia, the central function of a financial institution is its ability to distribute risk across different participants. According to Saunders and Cornett (2006), modern financial institutions are in the risk management business as they undertake the functions of beating and managing risks on behalf of their customers through the pooling of risks and the sale of their services as risk specialists.

Given the importance of credit risk management in Microfinance's functioning, the efficiency of microfinance's risk management is expected to significantly influence its financial performance (Harker and Satvros, 1998). According to Pykhtin, (2005), credit risk management is an important function of financial institutions in creating value for shareholders and customers. The corporate finance literature has linked the importance of risk management with the shareholder value maximization hypothesis. This suggests that Microfinance will engage in risk management policies if it enhances shareholder value (Ali and Luft, 2002). Thus, effective credit risk management either in non-banking firms or in banking entities is expected to enhance the value of the firm and shareholder wealth.

Linbo Fan (2004) examined efficiency versus risk in large domestic USA banks. He found that profit efficiency is sensitive to credit risk and insolvency risk but not to liquidity risk or to the mix of loan products. Harker and Satvros (1998) conducted an empirical study on interest rate and exchange rate exposures of institutions in pre-crisis Korea. Results indicated that Korean commercial banks and merchant banking corporations had been significantly exposed to both interest rate and exchange rate risks, and that the subsequent profitability of Microfinance Institutions was significantly associated with the degree of pre-crisis exposure. The results also indicated that the Korean case highlights the importance of upgrading financial supervision and credit risk management practices as a precondition for successful financial liberalization.

Credit Risk management dictates that as long as the demand for liquidity from depositors and borrowers is not too highly correlated, the intermediary should pool these two classes of customers together to conserve on its need to hold costly liquid assets the buffer against unexpected deposit withdrawals and loan take downs. Liquidity risk management is entering a new and much more demanding era. The Basel Committee on Banking Supervision and the International Institute of Finance has set high hurdles in terms of principles and recommendations. The UK Financial Services Authority (FSA), meanwhile, will soon be publishing its proposals for reinvigorating its liquidity risk regulations.

Funding growth through core saving has become largely a thing of the past. The advent of nonbank competition and the rise of third-party funding mean that community banks now operate in a dynamic funding market, which requires the use of more sophisticated liquidity risk management practices. Industry experts point to many different underlying causes for the demise of growth in deposits, such as the increased financial sophistication of the public, demographic shifts, the rise of nonbank competitors offering a whole wave of alternative investment products, new delivery systems such as the Internet, and competition from credit unions and insurance companies.

2.7 Conclusion

In conclusion MFIs, has to adopt better internal risk management which will yield similar benefits. As MFIs continue to expand their serving more customers and attracting more mainstream investment capital and funds, they need to strengthen their internal capacity to identify and anticipate potential risks to avoid unexpected losses and surprises. Creating a credit risk management framework and culture within an MFI is the next step after mastering the fundamentals of individual risks, such as credit risks. Further more clarity about the roles and responsibilities of managers and board members in credit risk management helps build stronger institutions. A comprehensive approach to risk management reduces the risk of loss, builds credibility in the marketplace, and creates new opportunities for growth.

This study has offered credit risk management practices which could be used by conventional financial institutions and suggest ways in which MFIs further adapt and innovate to create the optimal risk management culture within their own organizations. Most financial institutions and some regulated MFIs have a separate fund management or treasury department whose main function is to manage risks associated with interest rate changes. Asset and liability management functions are usually centralized in the head office to cost-effectively manage borrowed funds and the investment portfolio. We can therefore conclude that with well defined and accurately implemented credit risk management practices profitability of Microfinance Institutions as well as increased opportunities for growth and development will be realised.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter describes the methods that were used in the collection of data pertinent in answering the research question. It was divided into research design, study population, sample design, data collection, data analysis methods, ethical issues and chapter summary.

3.2 Research Design

An exploratory design was used for the purpose of this study. The design describes the relationships that exist between the independent and dependent variables, (Kothari, 2003). Donald (2006) notes that a research design is the structure of the research, it is the ''glue '' that holds all the elements in a research project together. Kothari (2003) defines a research design as the scheme, outline or plan that is used to generate answers to research problems. Exploratory research design was chosen because it enabled the researcher to generalise the findings to a larger population. This study therefore was able to generalise the findings to all the Microfinance Institutions in Kenya.

3.3 Target Population

According to Ngechu (2006), a population is a well defined or set of people, services, elements, events, group of things or households that are being investigated. This definition ensures that population of interest is homogeneous. And by population the researcher means complete census of the sampling frames. Population studies also called census are more representative because everyone has equal chance to be included in the final sample that is drawn according to Mugenda and Mugenda (2003).

The population of this study comprised of all licensed Microfinance institutions in Kenya. The staff of these Microfinance institutions was the group from which the sample was drawn. These Microfinance Institutions in Kenya are licensed and regulated pursuant to the provisions of the Association of Microfinance Institutions. Currently there are 41 Licensed Microfinance institutions (AMFIs, 2009).

3.4 Sample Population

The researcher undertook a census of the population given the low number of licensed Microfinance Institutions in Kenya. The researcher targeted the Microfinance managers from the licensed Microfinance Institutions.

3.5 Data Collection

The researcher used both primary and secondary data. The study used semi structured questionnaire to collect primary data. The researcher administered the questionnaire individually. According to Sekaran (2003) a self administered questionnaire is the only way to elicit self report on people's opinion, attitudes, beliefs and values.

Primary data was collected directly from respondents and questionnaires administered through drop and pick later method. Secondary data involves the collection and analysis of published material and information from other sources such as annual reports, published data. Thus in this study the researcher employed the use of survey questionnaire for data collection. Cooper and Schindler (2006) explain that secondary data was a useful quantitative technique for evaluating historical or contemporary confidential or public records, reports, government documents and opinions. Mugenda and Mugenda (2003) add that, numerical records can also be considered a sub category of documents and that such record include figures, reports and budgets. This basically implied the incorporation of valuable statistical data in the study.

3.6 Data Analysis

The collected data was thoroughly examined and checked for completeness and comprehensibility. The data was then summarized, coded and tabulated. Descriptive statistics such as means, standard deviation and frequency distribution was used to analyze the data. Data was coded and entered into the Statistical Package for Social Sciences (SPSS) for analysis. SPSS was used to perform the analysis as it aids in organizing and summarizing the data by the use of descriptive statistics such as tables. Data presentation was done by the use of pie charts, graphs, percentages and frequency

tables. This ensured that the gathered information is clearly understood. Inferential statistic was used to establish the relationship between credit risk management practices and the financial performance of MFIs, performance of MFIs was measured by their profitability while credit risk management practice was quantified from likert questions. Correlation analysis was used to establish the strength of the relationship between credit risk management practices and the financial performance of MFIs

$Y = \alpha + \beta_1 X_1 + \varepsilon$

Where:

Y = finance performance of MFIs

α = Constant Term

β_1= Beta coefficients

X_1= Credit Risk Management Practices

ε = Error Term

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION

4.1 Introductions

This chapter presents analysis and findings of the research. From the study population target of 41 respondents, 35 respondents filled and returned their questionnaires, constituting 85.36% response rate. Data analysis was done through Statistical Package for Social Scientists (SPSS). Frequencies and percentages were used to display the results which were presented in tables, charts and graphs.

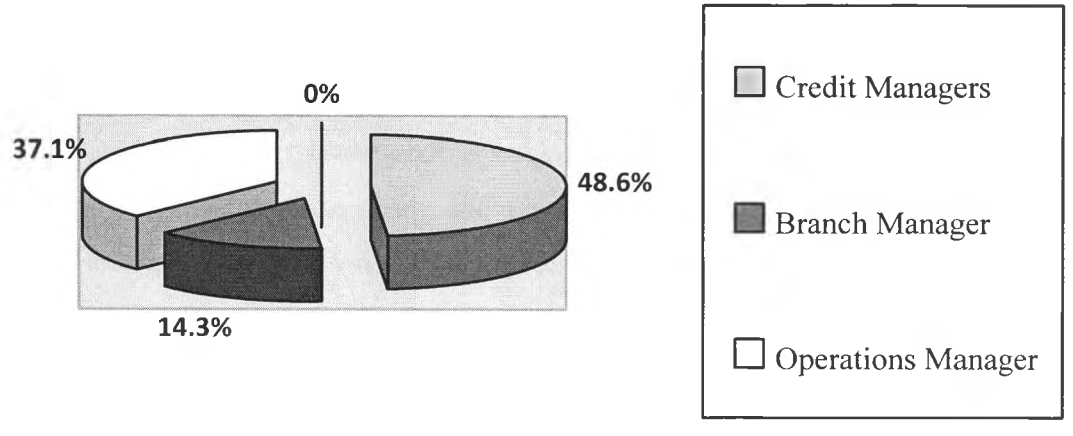
4.2 Analysis of General information

Table 4. 1: Distribution of respondent by designation

Designation	Frequency	Percent
Credit Manager	17	48.6
Branch Manager	5	14.3
Operations Manager	13	37.1
Total	35	100.0

Source: Author (2010)

Respondents Designation



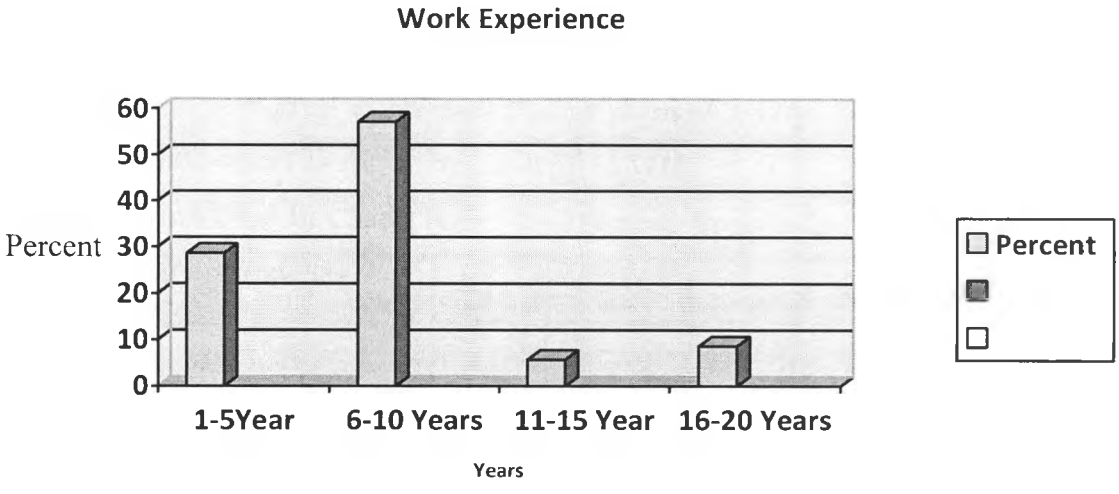
On the respondent designation the study found that most of the respondent were credit managers as shown by 48.6%, 37.1% of the respondent were operation managers

whereas 14.3% were branch managers, this information gave credibility to the to the data collected since most the respondent were well versed with the topic under the study.

Table 4. 2: Respondent number of years with MFIs

	Frequency	Percent
1 – 5 years	10	28.6
6 – 10 years	20	57.1
11 – 15 years	2	5.7
16 – 20 years	3	8.6
Total	35	100.0

Source: Author (2010)



The study sought to know the respondent working experience in terms of years they had worked with the microfinance, from the result the study found that majority of the respondent as shown by 57.1% had worked for 6 to 10 years, 28.6% indicated that they had worked with MFIs for 1 to 5 years, 8.6% had worked for 16 to 20 years and 5.7% had worked for 11 to 15 years. This information shows that most of the respondent had worked with MFIs long enough to understand their operations.

4.3 Credit Risk Management

Table 4. 3: Various parties involved in formulating credit management policies

Parties involved in credit policies	Very Great extent	Great extent	Moderate extent	Less extent	No extent	
The institution	24	8	2	1	0	1.4286
Third parties	9	3	12	6	5	2.8571

Source: Author (2010)

On the extent to which various parties are involved in formulation of credit management policies for the loans the study found that most of the respondent indicated the institution was being involved to very great extent as shown by mean of 1.4286. Third parties were being used to moderate extent as shown by mean of 2.8571.

Table 4. 4: Indicators Used In Credit Risk Management Approaches to Loans

Credit management approaches	Very Great extent	Great extent	Moderate extent	Less extent	No extent	Mean
Operating efficiency	18	17	0	0	0	1.4857
Loan portfolio indicators	21	5	7	2	0	1.7714

Source: Author (2010)

On the extent to which respondent Microfinance use various indicators in its credit risk management approaches to loans, the study found that operation efficiency were being used as indicator to very great extent as shown by mean of 1.4857. Loan portfolio indicators were being used to great extent as shown by mean of 1.7714.

Table 4. 5: Factors in Establishing Loan Portfolio Policy

Loan portfolio policies	Very Great extent	Great extent	Moderate extent	Less extent	No extent	Mean
Existing Credit Policy	28	7	0	0	0	1.2000
Overhead cost	12	11	12	0	0	2.0000
General trend of credit	11	18	6	0	0	1.8571
State of the economy	15	7	3	8	2	2.2857

Source: Author (2010)

On the extent to which Microfinance consider various factors in establishing a loan portfolio policy, the study found that most of respondent indicated that Existing Credit Policy was being considered to very great extent. Those considered to great extent were General trend of credit as shown by mean of 1.8571, overhead cost as shown by mean of 2.0 and state of the economy as shown by mean of 2.2857.

Table 4. 6: People Participate In Formulating Your Loan Portfolio Policies

People participating in formulation of loan portfolio policies	Very Great extent	Great extent	Moderate	Less extent	No extent	Mean
Executive management	28	5	2	0	0	1.3143
Employee suggestions	9	12	5	5	4	2.5143
Board of directors	13	8	10	2	2	2.2000
Credit manager	16	12	4	3	0	1.8286
Credit analyst	15	12	1	7	0	2.0000

Credit committee	22	11	1	1	0	1.4571

Source: Author (2010)

The study sought the extent to which various people participate in formulating your loan portfolio policies; the study found that most of the respondent indicated that Executive management and Credit committee participated in formulating your loan portfolio policies to very great extent as shown by mean of 1.3143 and 1.4571 respectively. Those who participated in formulation of loan portfolio policies to great extent were Credit manager as shown by mean of 1.8286, Credit analyst as shown by mean of 2.0 and Board of directors as shown by mean of 2.2. Employee suggestions were involved in formulating your loan portfolio policies to moderate extent as shown by mean of 2.5143.

Table 4. 7: Extent of use of accounting ratios to measure portfolio quality

Accounting ratios for measuring portfolio quality	Very Great extent	Great extent	Moderate extent	Less extent	No extent	Mean
Portfolio at risk (PAR) which measures the portion of the loan portfolio contaminated by arrears as a percentage of the total portfolio where the desired level is less than 10 per cent	24	10	1	0	0	1.3429
Risk coverage ratio which shows what proportion of the portfolio at risk is covered by actual loan losses where the rate could be as high as 90 per cent	22	5	8	0	0	1.6000
Loans written off ratio which represents the amount of loans removed from the accounting books because of a substantial loss where a maximum of 4 per cent is envisaged	11	13	5	6	0	2.1429

Source: Author (2010)

On the use of various accounting ratio by Microfinance Institutions to measure portfolio quality, the study found that most of the respondent indicated that Portfolio at risk (PAR) which measures the portion of the loan portfolio contaminated by arrears as a percentage of the total portfolio where the desired level is less than 10 per cent were being used to very great extent as shown by mean of 1.3429. Those used to very great extent were Risk coverage ratio which shows what proportion of the portfolio at risk is covered by actual loan losses where the rate could be as high as 90 per cent as shown by mean of 1.6 and Loans written off ratio which represents the amount of loans removed from the accounting books because of a substantial loss where a maximum of 4 per cent is envisaged as shown by mean of 2.1429.

4.4 Risk Identification

Table 4. 8 : Respondent view on extent to which microfinance focuses on the types of risks

Risk identification	Very Great	Great extent	Moderate	Less extent	No extent	Mean
Interest rate risks	30	3	2	0	0	1.2000
Foreign exchange risks	4	7	8	6	10	3.3143

Source: Author (2010)

The researcher posed the following statement to the respondent in credit risk management, interest rate risks and foreign exchange risks are the main domain of the financial department. In view of the above statement, the study sought the respondent rating of the statement, from the results in the table the study found that Microfinance focuses on Interest rate risks to very great extent as shown by mean of 1.2. Microfinance's focused on Foreign exchange risks to moderate extent as shown by mean of 3.3143.

Table 4. 9 : Microfinance involving various parties in the risk identification process

Parties involved in risk identification	Very Great extent	Great extent	Moderate	Less extent	No extent	Mean
Internal auditors	21	13	1	0	0	1.4286
External auditors	11	9	12	3	0	2.2000
Senior employees	18	11	4	2	0	1.7143
Middle and lower level employees	12	11	3	4	5	1.7714

Source: Author (2010)

On the extent to which Microfinance involve the various parties in the risk identification process, the study found that Internal auditors were involved in risk identification to very great extent as shown by mean of 1.4286. Those involved in risk identification to very great extent were senior employees as shown by mean of 1.7143, Middle and lower level employees as shown by mean of 1.7714 and external auditors as shown by mean of 2.2.

Table 4. 10 : Respondent level of agreement on the importance of risk identification in credit risk management

Importance of risk identification in credit risk management	Strongly agree	Agree	Moderate	Disagree	Strongly disagree	Mean
It ensures that the risk management function is established throughout the whole corporation	30	5	0	0	0	1.1429
Risk identification helps to sort risk according to their importance	19	10	6	0	0	1.6286

Risk identification assists the management to develop risk management strategy To allocate resources efficiently	19	4	12	0	0	1.8000

Source: Author (2010)

On the respondent level of agreement with various statements about the importance of risk identification in credit risk management, the study found that respondent strongly agreed that it ensures that the risk management function is established throughout the whole corporation as shown by mean of 1.1429. Respondent agreed that Risk identification helps to sort risk according to their importance as shown by mean of 1.6286 and Risk identification assists the management to develop risk management strategy to allocate resources efficiently as shown by mean of 1.8.

4.5 Risk Analysis and Assessment

Table 4. 11: Extent of application of modern approaches to risk measurement for microfinance

	Frequency	Percent
strongly agree	18	51.4
Agree	17	48.6
Total	35	100.0

Source: Author (2010)

The study found that most of the respondent as shown by 51.4% strongly agreed that the application of modern approaches to risk measurement, particularly for credit and overall banking risks is important for Microfinance, 48.6% agreed that the application of modern approaches to risk measurement, particularly for credit and overall banking risks is important for Microfinance.

Table 4. 12: Risk analysis and assessment in credit risk management

Risk analysis and assessment in credit risk management	Strongly agree	Agree	Moderate	Disagree	Strongly disagree	Mean
Risk analysis and assessment comprises identification of the	7	11	6	11	0	2.6000

outcomes						
Risk analysis and assessment comprises estimation the magnitude of the consequences	20	9	6	0	0	1.6000
Risk analysis and assessment comprises the probability of those outcomes	17	11	5	2	0	1.8286

Source: Author (2010)

The study sought the respondent level of agreement with various statements relating to risk analysis and assessment in credit risk management, the study found that most of the respondent agreed that Risk analysis and assessment comprises estimation, the magnitude of the consequences as shown by mean of 1.6 and Risk analysis and assessment comprises the probability of those outcomes as shown by mean 1.8286. Respondent were neutral on that risk analysis and assessment comprises identification of the outcomes as shown by mean of 2.6. The study established that the main approaches used in risk analysis and assessments in credit risk management in your company are probability of outcomes, assessment comprises estimation, the magnitude of the consequences and assessment comprises identification of the outcomes.

4.6 Risk Monitoring

Table 4. 13: Extent to which effective credit risk management requires a reporting and review structure

	Frequency	Percent
strongly agree	12	34.3
Agree	21	60.0
disagree	2	5.7
Total	35	100.0

Source: Author (2010)

The study found that majority of the respondent as shown by 60% agreed that effective credit 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,34.3% strongly agreed while 5.7% of the respondent disagreed that effective credit

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.

Table 4. 14 : Extent Risk Monitoring In Credit Risk Management

Risk monitoring in credit risk management	Strongly agree	Agree	Moderate	Disagree	Strongly disagree	Mean
Risk monitoring can be used to make sure that risk management practices are in line with proper risk monitoring	12	13	10	0	0	1.7429
Risk monitoring helps the microfinance management to discover mistake at early stage	12	13	10	0	0	1.9429
The director's report on risk monitoring enables the shareholders to assess the status of the corporation knowledgeably and thoroughly	11	15	8	1	0	1.9714

Source: Author (2010)

The study sought the respondent level of agreement on various statements relating to risk monitoring in credit risk management, from the results the study found that most of the respondent agreed that Risk monitoring can be used to make sure that risk management practices are in line with proper risk monitoring as shown by mean of 1.7429, Risk monitoring helps the Microfinance management to discover mistake at an early stage as shown by mean of 1.9429 and The director's report on risk monitoring enables the shareholders to assess the status of the corporation knowledgeably and thoroughly as shown by mean of 1.9714. The study established that the main challenges of risk monitoring are lack of data, many policies and increase in number of clients.

Table 4. 15: Measures of performance that microfinance use

	Great Very extent	Great extent	Moderate extent	Less extent	No extent	Mean
Improving shareholders values improve saving	12	22	1	0	0	1.6857
Improve Microfinance Wealth	15	13	5	2	0	1.8286
Development of alternative investment products e.g. insurance	24	3	5	1	2	1.6857
Increase in shareholders of the Microfinance	9	12	13	1	0	2.2000
Improved reduction of defaults	18	9	5	3	0	1.8000

Source: Author (2010)

The study sought the extent to which various measures of performance are used in Microfinance in assessing the impact of credit risk management, the study found that most of the respondent rated the following measures to great extent they include; improving shareholders values, improve saving and development of alternative investment products e.g. insurance as showing by mean of 1.6857 in each case, improved reduction of defaults as shown by mean of 1.8, improve Microfinance wealth as shown by mean of 1.8286 and increase in shareholders of the Microfinance as shown by mean of 2.2.

4.7 Regression Analysis and Interpretations

Table 4. 16: ANOVA Statistics

Model Statistics	
R	0.270
R Square	.0.073
Adjusted R Square	0.105
Std. Error of the Estimate	94.30671

	Sum of Squares	df	Mean Square	F	Sig.
Regression	18214.49	5	3642.898	0.41	0.838
Residual	231237.6	26	8893.755		
Total	249452.1	31			

Source: Author (2010)

Adjusted R^2 is known as the coefficient of determination which tells us the change in dependent variable due to changes in the independent variable; from the finding the adjusted R^2 was 0.105 which is equivalent to 10.5% meaning that there was a 10.5% variation in dependent variable due to changes in the independent variables. The model was arrived at a significance level of 83.8% meaning that the model is adequate in drawing a conclusion on the population parameters.

R is correlation coefficient and tells the strength of relationship between the credit risk management practices and finance performance of MFIs. From the above there was positive correlation between credit risk management practices and finance performance of MFI as shown by correlation factor of 0.270.

Table 4. 17: Model Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	2.205	2.722		1.116	0.275
Price	2.106	1.512	0.01	0.034	0.973

Source: Author (2010)

From the above table of coefficient the established regression equation was:

$Y = 1.205 + 2.106X_1 + e$

From the above regression equation it was established that holding performance of MFIs constant credit risk management practices would be at 1.205. A unit increase in financial performance of MFIs result to increase in credit risk management practices by a factor of 2.106. This shows that there was a positive relationship between credit risk management practices and finance performance of MFIs.

4.8 Summary of Findings and Interpretation

The study established that various people participate in formulating respondents loan portfolio policies; the study found that most of the respondent indicated that Executive management and Credit committee participated in formulating your loan portfolio policies to very great extent as shown by mean of 1.3143 and 1.4571 respectively. Those who participated in formulation of loan portfolio policies to great extent were Credit manager as shown by mean of 1.8286, Credit analyst as shown by mean of 2.0 and Board of directors as shown by mean of 2.2. Employee suggestions were involved in formulating your loan portfolio policies to moderate extent as shown by mean of 2.5143.This clearly indicates that various personnel in the management of Microfinance Institutions are involved in approving credit facilities of the clients as a way of managing credit risks facing the MFIs.

Various Microfinance institutions considered various factors in establishing a loan portfolio policy; such as existing credit policy , General trend of credit as shown by mean of 1.8571, overhead cost as shown by mean of 2.0 and state of the economy as shown by mean of 2.2857. This was dome to ensure that credit risk assessment was effective in mitigating the MFIs from the credit risks.

The study established that credit risk management, interest rate risks and foreign exchange risks are the main domain of the financial department. In view of the above statement, the study sought the respondent rating of the statement, from the results in the table the study found that Microfinance focuses on Interest rate risks to very great extent as shown by mean of 1.2. Microfinance's focused on Foreign exchange risks to moderate extent as shown by mean of 3.3143.This implies that MFIs management should understand the various credit risks that faces the MFIs to adopt an effective credit risks measures to minimize the effects of credit risks on financial performance.

The study established that the application of modern approaches to risk measurement, particularly for credit and overall banking risks is important for Microfinance, particularly for credit and overall banking sector.

The study discovered that level of agreement with various statements relating to risk analysis and assessment in credit risk management. The study found that most of the respondent agreed that Risk analysis and assessment comprises estimation, the magnitude of the consequences as shown by mean of 1.6 and Risk analysis and assessment comprises the probability of those outcomes as shown by mean 1.8286. Respondent were neutral on that risk analysis and assessment comprises identification of the outcomes as shown by mean of 2.6. The study established that the main approaches used in risk analysis and assessments in credit risk management in your company are probability of outcomes, assessment comprises estimation, the magnitude of the consequences and assessment comprises identification of the outcomes.

The study found that majority of the respondent as shown by 60% agreed that effective credit 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,34.3% strongly agreed while 5.7% of the respondent disagreed that effective credit 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.

The study established that risk monitoring can be used to make sure that risk management practices are in line with proper risk monitoring as shown by mean of 1.7429. Therefore Risk monitoring helps the Microfinance management to discover mistake at an early stage as shown by mean of 1.9429 and The director's report on risk monitoring enables the shareholders to assess the status of the corporation knowledgeably and thoroughly as shown by mean of 1.9714. The study established that the main challenges of risk monitoring are lack of data, many policies and increase in number of clients. This implies that MFIs may adopt risk monitoring as a credit risk management practices in MFIs to enhance its financial performance.

The study discovered that various measures of performance are used in Microfinance in assessing the impact of credit risk management, the study found that most of the

respondent rated the following measures to great extent they include; improving shareholders values, improve saving and development of alternative investment products e.g. insurance as in each case, improved reduction of defaults and increase in shareholders of the Microfinance .This implies that Credit Risks Management Practices adopted by the MFIs has a positive effects on the financial performance of the MFIs

From regression equation the study established that holding performance of MFIs constant credit risk management practices would be at 1.205. A unit increase in financial performance of MFIs result to increase in credit risk management practices by a factor of 2.106. This shows that there was a positive relationship between credit risk management practices and finance performance of MFIs.

CHAPTER FIVE: DISCUSSIONS,CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

From the analysis and data collected, the following discussions, conclusions and recommendations were made. The responses were based on the objectives of the study. The researcher had intended to identify the credit risk management practices adopted by Microfinance Institutions in Kenya, to examine the effects of credit risk management practices on financial performance of Microfinance Institutions in Kenya and to establish the relationship between credit risk management practices and financial performance of Microfinance Institutions in Kenya.

5.2 Discussions

From the findings the study found that various parties involved in formulation of credit management policies for the loans were institution and third parties. On the extent to which respondent Microfinance use various indicators in its credit risk management approaches to loans, it was found that operation efficiency and Loan portfolio indicators were being used to great extent. The various factors considered in establishing a loan portfolio policy, were existing credit policy, general trend of credit, overhead cost and state of the economy.

The study sought the extent to which various people participate in formulating your loan portfolio policies; the study found that most of the respondent indicated that Executive management and credit committee participated in formulating your loan portfolio policies to very great extent. Those who participated in formulation of loan portfolio policies to great extent were credit managers, credit analysts and board of directors. Employees' suggestions were involved in formulating your loan portfolio policies to moderate extent. On the use of various accounting ratio by Microfinance Institutions to measure portfolio quality, the study found that Portfolio at risk (PAR) which measures the portion of the loan portfolio contaminated by arrears as a percentage of the total portfolio where the desired level is less than 10 per cent were being used to very great extent. Those used to very great extent were Risk coverage ratio which shows what proportion of the portfolio

at risk is covered by actual loan losses where the rate could be as high as 90 per cent and Loans written off ratio which represents the amount of loans removed from the accounting books because of a substantial loss where a maximum of 4 per cent is envisaged.

On whether credit risk management interest rate risks and foreign exchange risks are the main domain of the financial department, the study found that Microfinance focuses on Interest rate risks to very great extent. Microfinance's focused on foreign exchange risks to moderate extent. On the extent to which Microfinance involve the various parties in the risk identification process, the study found that Internal auditors was involved in risk identification to very great extent. Those involved in risk identification to very great extent were senior employees, Middle and lower level employees and external auditors.

On the respondent level of agreement with various statements about the importance of risk identification in credit risk management, the study found that respondent strongly agreed that it ensures that the risk management function is established throughout the whole corporation. Respondent agreed that Risk identification helps to sort risk according to their importance and Risk identification assists the management to develop risk management strategy to allocate resources efficiently. The study found that that the application of modern approaches to risk measurement, particularly for credit and overall banking risks is important for Microfinance. The study found that most of the respondent agreed that Risk analysis and assessment comprises estimation, the magnitude of the consequences and Risk analysis and assessment comprises the probability of those outcomes. Respondent were neutral on that risk analysis and assessment comprises identification of the outcomes. The study established that the main approaches used in risk analysis and assessments in credit risk management in your company are probability of outcomes, assessment comprises estimation, the magnitude of the consequences and assessment comprises identification of the outcomes.

The study found that effective credit 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. The study found that most of the respondent agreed that Risk monitoring can be used to make sure that risk management practices are in line with proper risk monitoring, Risk monitoring helps the Microfinance management to discover mistake at an early stage and the director's report on risk monitoring enables the shareholders to assess the status of the corporation knowledgeably and thoroughly. The study established that the main challenges of risk monitoring are lack of data, many policies and increase in number of clients and on assessing the impact of credit risk management, the study found that the measures to great extent they include; improving shareholders values, improve saving and development of alternative investment products e.g. insurance, improved reduction of defaults, improve Microfinance wealth and Increase in shareholders of the Microfinance.

Adjusted R^2 is known as the coefficient of determination which tells us the change in dependent variable due to changes in the independent variable; from the finding the adjusted R^2 was 0.105 which is equivalent to 10.5% meaning that there was a 10.5% variation in dependent variable due to changes in the independent variables. The model was arrived at a significance level of 83.8% meaning that the model is adequate in drawing a conclusion on the population parameters.

R is correlation coefficient and tells the strength of relationship between the credit risk management practices and finance performance of MFIs. From the above there was positive correlation between credit risk management practices and finance performance of MFIs as shown by correlation factor of 0.270. From the regression analysis the established regression equation was: $Y = 1.205 + 2.106X_1 + e$

From the above regression equation it was established that holding performance of MFIs constant credit risk management practices would be at 1.205. A unit increase in financial performance of MFIs result to increase in credit risk management practices by a factor of 2.106. This shows that there was a positive relationship between credit risk management practices and finance performance of MFIs.

5.3 Conclusion

From the findings the study concludes that Microfinance Institutions in Kenya have adopted various credit risk management practices which include; risk monitoring, risk identification, Risk Analysis and Assessment.

The study also concludes that there were effects of credit risk management practices on financial performance of Microfinance Institutions in Kenya; the study found that increase in financial performance resulted to further increase in credit risk management practices. The study concludes that there is positive relationship between credit risk management practices and financial performance of Microfinance Institutions in Kenya, the established regression equation for the study was $Y = 1.205 + 2.106X_1 + e$.

5.4 Recommendation

The study recommends that for MFIs to remain financially stable and flourish in the industry they must adopted viable credit risk management practices that will help in sustaining their financial performance.

5.5 limitations of the study

The following limitations were encountered in the course of this study: Firstly it was not possible for the researcher to carry out this study with a wider coverage necessary to obtain responses from all MFIs due to limited time.

Secondly, due to the confidential nature of the information sought, the respondents were skeptical of the researcher hence some respondents were initially reluctant to fill the questionnaire. However with the assurance of confidentiality of the information obtained, this problem was minimized.

The study also faced challenges of time resources limiting the study from collecting information for the study particularly where the respondent delayed in filling the questionnaire and travelling for collection of the filled questionnaires.

This study only covered Microfinance Institutions and did not consider other Financial Institutions like the SACCOs and other Financial Institutions across all sectors so as to provide a more broad based analysis. However, financial and time resource constraints placed this limitation.

5.6 Suggestions for further research

A finding of this research reveals that there is a relationship between Credit Risk Management Practices and Financial Performance of MFIs in Kenya.

A similar research on relationship between Credit Risk Management Practices and Financial Performance can be done in SACCOs and in commercial banks.

Also a research can be done to find out challenges facing Credit risk Management Practices in MFIs and other Financial Institutions like SACCOS and Commercial Banks in Kenya.

A further study should be undertaken to investigate the effects of credit risks management practices on profitability of Microfinance Institutions.

A further study should be carried to determine impact of credit risk assessment on Portfolio performance in Microfinance Institutions in Kenya.

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APPENDICES

Appendix I: Questionnaire

SECTION A: DEMOGRAPHIC INFORMATION

What is your current designation within the Microfinance?

Credit Manager ( ) Branch Manager ( )

Operations Manager ( ) Others (please specify.....)

How many years have you been in the Microfinance you work in ?

1 – 5 years ( ) 6 – 10 years ( ) 11 – 15 years ( )

16 – 20 years ( ) 21 years and above ( )

SECTION B: CREDIT RISK MANAGEMENT

LOAN PORTFOLIO

1. To what extent do you involve the following parties in formulating the credit management policies for the loans? Use a scale of 1 to 5 where 1 is to a great extent and 5 is to no extent.

Parties involved in credit policies	1	2	3	4	5
The institution					
Third parties					
Other, please specify					

2. To what extent does your Microfinance use the following indicators in its credit risk management approaches to loans? Use a scale of 1 to 5 where 1 is to a great extent and 5 is to no extent.

Credit management approaches	**1**	**2**	**3**	**4**	**5**
Operating efficiency					
Loan portfolio indicators					
Other, please specify					

3. To what extent does your Microfinance consider the following factors in establishing a loan portfolio policy? Where 1 is to a very great extent and 5 is to no extent.

Loan portfolio policies	**1**	**2**	**3**	**4**	**5**
Existing Credit Policy					
Overhead cost					
General trend of credit					
State of the economy					
Other, please specify					

4. To what extent do the following people participate in formulating your loan portfolio policies? Use a scale of 1 to 5 where 1 is to a great extent and 5 is to no extent.

People participating in formulation of loan portfolio policies	**1**	**2**	**3**	**4**	**5**
Executive management					
Employee suggestions					
Board of directors					
Credit manager					
Credit analyst					
Credit committee					
Other, please specify					

5. To what extent does your Microfinance Institution use the following accounting ratios to measure portfolio quality? Use a scale of 1 to 5 where 1 is to a great extent and 5 is to no extent.

Accounting ratios for measuring portfolio quality	**1**	**2**	**3**	**4**	**5**
Portfolio at risk (PAR) which measures the portion of the loan portfolio contaminated by arrears as a percentage of the total portfolio where the desired level is less than 10 per cent					

Risk coverage ratio which shows what proportion of the portfolio at risk is covered by actual loan losses where the rate could be as high as 90 per cent					
Loans written off ratio which represents the amount of loans removed from the accounting books because of a substantial loss where a maximum of 4 per cent is envisaged					
Other, please specify					

RISK IDENTIFICATION

6In credit risk management, interest rate risks and foreign exchange risks are the main domain of the financial department. In view of this statement, please rate the extent to which this microfinance focuses on the types of risks in the risk identification step. Use a scale of 1 to 5 where 1 is to a great extent and 5 is to no extent.

Risk identification	1	2	3	4	5
Interest rate risks					
Foreign exchange risks					
Other, please specify					

7. To what extent does the microfinance involve the following parties in the risk identification process? Use a scale of 1 to 5 where 1 is to a great extent and 5 is to no extent.

Parties involved in risk identification	**1**	**2**	**3**	**4**	**5**
Internal auditors					
External auditors					
Senior employees					
Middle and lower level employees					
Other, please specify					

8. To what extent do you agree with the following statement about the importance of risk identification in credit risk management? Rate using a scale of 1 to 5 where 1 is strongly agree, 2 is Agree, 3 is Neutral, 4 is Disagree and 5 is Strongly disagree.

Importance of risk identification in credit risk management	**1**	**2**	**3**	**4**	**5**
It ensures that the risk management function is established throughout the whole corporation					
Risk identification helps to sort risk according to their importance					
Risk identification assists the management to develop risk management strategy to allocate resources efficiently					
Other, please specify					

Risk Analysis and Assessment

8. The application of modern approaches to risk measurement, particularly for credit and overall banking risks is important for Microfinance. To what extent do you agree with this statement in view of risk analysis and assessment as a credit risk management practice in your Microfinance?

Strongly agree ( )
Agree ( )
Neutral ( )
Disagree ( )
Strongly disagree ( )

9. To what extent do you agree with the following statement about risk analysis and assessment in credit risk management? Rate using a scale of 1 to 5 where 1 is strongly agree, 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					

10.Which are the main approaches used in risk analysis and assessment in credit risk management in your company?

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RISK MONITORING

11. Effective credit 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. To what extent do you agree with the statement in view of risk monitoring in the credit risk management in your organization to ensure profitability?

Strongly agree ( )
Agree ( )
Neutral ( )
Disagree ( )
Strongly disagree ( )

12. To what extent do you agree with the following statement about risk monitoring in credit risk management? Rate using a scale of 1 to 5 where 1 is strongly agree, 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 are in line with proper risk monitoring					
Risk monitoring helps the microfinance management to discover mistake at early stage					

The director's report on risk monitoring enables the shareholders to assess the status of the corporation knowledgeably and thoroughly					
Other, please specify					

13. Which are the main challenges of risk monitoring in your bank?

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14. Which measures of performance does your microfinance use in assessing the impact of credit risk management? Use a scale of 1 to 5 where 1 is to a great extent and 5 is to no extent.

	1	2	3	4	5
Improving shareholders values improve saving					
Improve Microfinance Wealth					
Development of alternative investment products e.g. insurance					
Increase in shareholders of the Microfinance					
Improved reduction of defaults					
Other (specify.....)					