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Effects of Credit Risk Management Procedures on Financial Performance among Microfinance Institutions (MFIs) In Kenya: A Case of MFIs in Nairobi County

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Abstract

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

Keywords: Credit Risk Management Performance Microfinance Institutions

1. INTRODUCTION

1.1. Background of the Study

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

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

has been quite poor particularly among the low-income category. This is largely as a result of the credit policies associated with loans provided by the formal sector (Ringeera, 2003).

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

Financial institutions take into consideration a number of factors before setting the credit standards. They include financial stability of the customer, the nature of credit risk on the basis of prior record of payment among others. In establishing credit terms, the institution should consider the use of cash discount. An increase in the average collection period of a institution may be the result of a predetermined plan to extend credit terms or the consequence of poor credit administration (Block and Hirt, 1992).

In recent years, a growing number of developing countries, including Kenya, have embarked on reforming and deregulating their financial systems, transforming their financial institutions into effective intermediaries and extending viable financial services on a sustainable basis to all segments of the population (Seibel, 1996). By gradually increasing the outreach of their financial institutions, some developing countries have substantially elevated poverty lending, institutional strategies and financial systems approaches. In the process, a new world of finance has emerged, which is demand-led and savings driven and conforms to sound criteria of effective financial intermediation. As a result of the successful integration of microfinance strategies into micro policies, this makes banking in the micro economy and the poor both viable and sustainable.

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

1.2. Statement of the Problem

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

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

collateral, conditions and control of credit as an initial screening and risk assessment.

A number of studies have been done in both developed and developing countries on credit risk management mainly focusing on large financial institutions such as banks. Most studies in MFIs have focused on their financial performance and the performance of their customers mainly the SMEs (Rukwaro (2000), Kitaka (2006) and Mokogi (2003). These studies among other finding have indicated a high default rates among the MFIs. This is also collaborated by CBK financial guideline (2013) on financial performance of all financial institution. With the growing interest by SMEs and individuals in borrowing from MFIs, this problem will likely continue to grow especially where appropriate risk management procedures are not applied. This study therefore seeks to analyse credit risk management practices used by MFIs in Kenya and their effect on financial performance of the institutions with a view of providing important information to the institutions in improving their risk management procedures.

1.3. General Objective

The main objective of the study was to determine the credit risk management procedures adopted on financial performance of microfinance institutions in Kenya

1.4. Specific Objectives

The study was guided by the following specific objectives:

- To establish the extent to which risk identification is applied as a credit risk management procedure in microfinance institutions in Kenya.

- To establish the extent to which risk analysis procedures are applied in credit risk management by microfinance institutions in Kenya.

- To establish the extent to which risks assessment procedures are applied as a credit risk management practice by microfinance institutions in Kenya.

- To establish the extent to which risks monitoring and evaluation procedures are applied as a credit risk management practice by microfinance institutions in Kenya.

- To determine the effect of risk identification, risk analysis, risk assessment and risk monitoring and evaluation on the financial performance of the microfinance institutions in Kenya.

1.5. Research Questions

The study sought to answer the following research questions:

- To what extent do the microfinance institutions in Kenya adopt risk identification as a credit risk management procedure?

- To what extent are the risk analysis procedures adopted in credit risk management by microfinance institutions in Kenya?

- To what extent are the risk assessment procedures adopted in credit risk management by microfinance institutions in Kenya?

- To what extent do the microfinance institutions in Kenya adopt monitoring and evaluation procedures as a credit risk management procedure?

- What is the effect of the credit risk management procedures adopted on the financial performance of the microfinance institutions in Kenya?

2. RESEARCH METHODOLOGY

The study adopted descriptive design. Descriptive design method provided quantitative data from the chosen population. The descriptive design is a method which enables the researcher to summarize and organize data in an effective and meaningful way.

They provide tools for describing collections of statistical observations and reducing information to an understandable form. The descriptive research design was deemed fit for this study since it provides a multifaceted approach for data collection and can provide statistics about an event while also illustrative how people experienced that event. The population of interest consisted of all the MFI's in Nairobi. There were 54 Microfinance Institutions that were registered with Association of Microfinance Institutions (AMFI) by December 31st 2013 (See appendix IV). The study targeted the senior credit officers in the MFIs.

The researcher collected both primary and secondary data. The secondary data included the annual financial statements of the MFIs targeted while a questionnaire was used to collect primary data. The questionnaire was divided into two sections. Section one was concerned with the general information about respondents, while section two addressed the study objectives. In each MFI, the study targeted one senior credit officer who was required to fill the questionnaires. The study used a combination of drop and pick and self-administration methods to collect the data.

Data was then grouped into frequency distribution to indicate variable values and number of occurrences in terms of frequency. Frequency distribution table was informative to summarize the data from respondents, percentages and other diagrams such as bar charts, grouped frequency distributions and pie charts were used during the analysis. Tables and other graphical presentations as appropriate were used to present the data analyzed for ease of understanding the results. Further the study adopted regression model to show the form of relationship between variables. The regression equation took the following form;

$$Y = a + B_1 X_1 + B X_{2+} B_3 X_{3+} B_4 X_{4+\epsilon}$$

Where: Y = Dependent Variable (Financial Performance)

X_1-X_4 = Independent variables

X_1 = Risk identification

X_2 = Risks monitoring

X_3= Risk analysis

X_4 = Risk assessment

β_1-n = the regression coefficient or change included in Y by each χ,

e= Error Term

3. RESULTS

3.1. Demographic Information

The section presents the background information of the respondents who took part in the study. This information was critical in understanding and classifying the different responses according to the respondents' background information. The background information gathered includes

Fig1. Gender of the Respondents

32.70%

Male
Female

67.30%

Source: Research Data (2015)
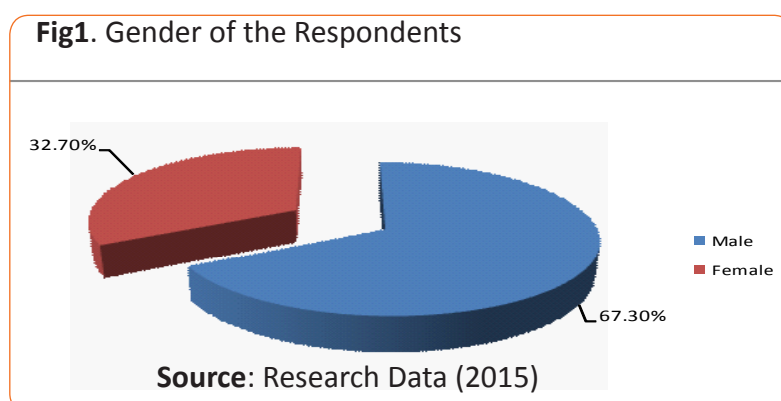
the gender of the respondents, age of the respondents, level of education, designation within the organization and duration worked in Microfinance industry.

The study sought to determine the gender composition of the respondents, from the findings the study established that majority of the respondents were males as shown by 67.3% whereas 32.7% of the respondents were females, this is an indication that both genders were well involved in this study and thus the finding of the study did not suffer from gender bias.
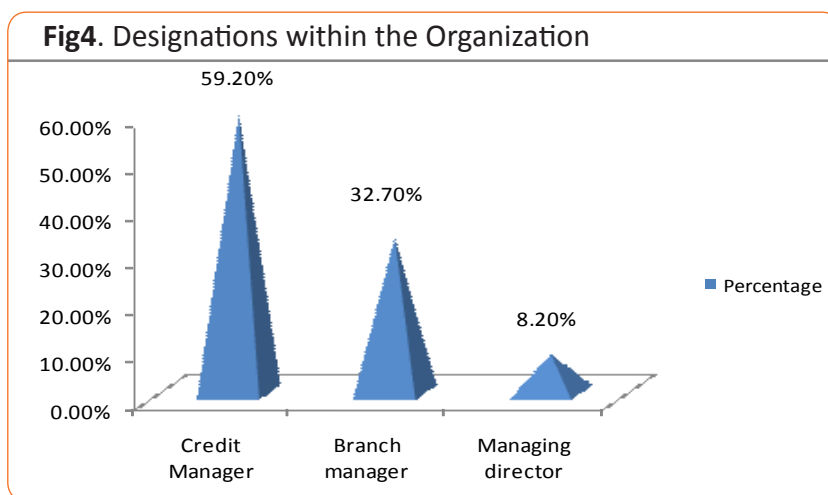
Fig2. Age of the Respondents
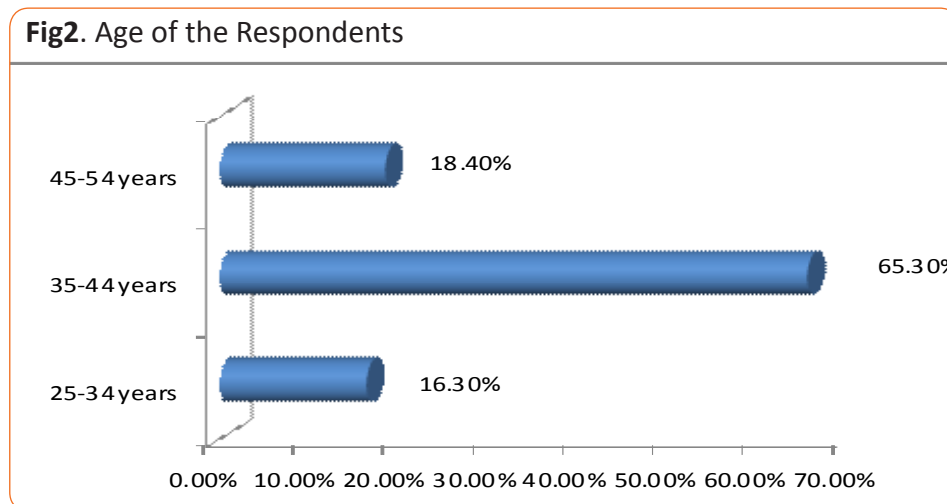
Source: Research Data (2015)

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

Fig3. Highest level of Education Achieved
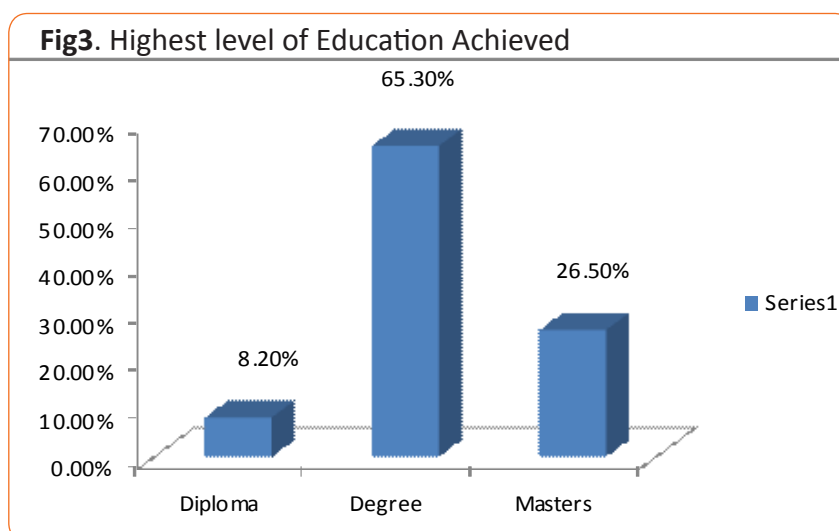
Source: Research Data (2015)

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

Fig4. Designations within the Organization

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

Fig5. Duration in Microfinance industry
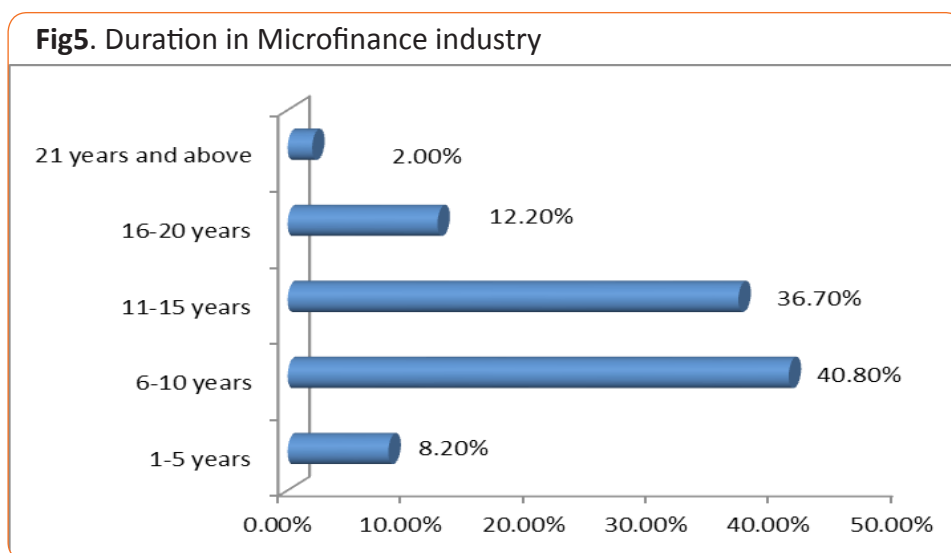
The study sought to determine the period of time the respondents had served in the Micro Finance industry. From the study findings, most of the respondents as shown by 40.8% indicated that their period of service in the microfinance sector was 6 to 10 years, 36.7% of the respondents indicated to have served for a period of 11 to 15 years in the Microfinance sector, 12.2% of the respondents indicated to have served for a period of 16 to 20 years, 8.2% 0f the respondents indicated to have served in the Microfinance sector for a period of 1 to 5 years and the remaining 2% of the respondents indicated to have served for a period of 21 years and above. This indicates that majority of the respondents had served in the Microfinance for ample time and hence were in a position to give reliable information.

3.2. Risk Identification

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

Fig6. Risk Identification as a Process in Credit Management
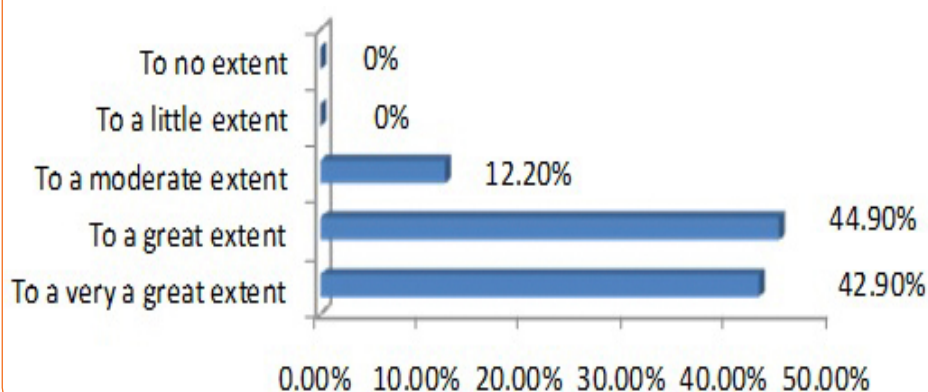
Source: Research Data (2015)

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

Table1. Types of Risks

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

Source: Research Data (2015)

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

Table2. Involvement of Auditors

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

Source: Research Data (2015)

The study sought to determine the extent to which respondents agreed or disagreed with the above statements relating to involvement of auditors in risk identification. From the research findings majority agreed that the auditor begins the inherent risk evaluation process by generating expectations of accounts balances as shown by a mean of 2.31. Others agreed that

the auditor determines how those changes should interact with historic trends to produce an expected balance in the account as shown by a mean of 2.55 and other agreed that the auditor identifies changes that have occurred in the firm or its environment as shown by a mean of 2.57.

Table3. Importance of Risk Identification

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

Source: Research Data (2015)

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

3.3. Risk Analysis

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

Table4. Risk analysis as a Comprehensive Risk Measurement and Mitigation Method
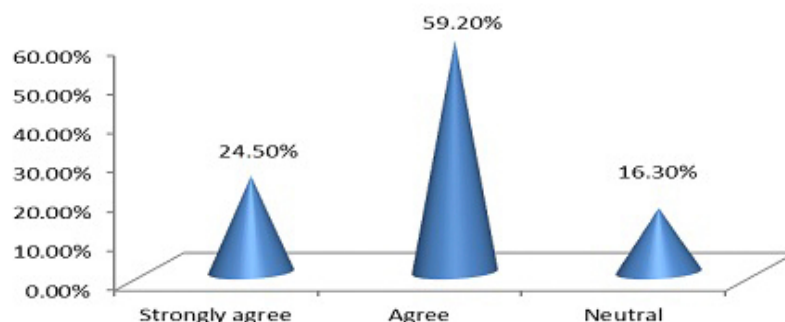
Source: Research Data (2015)

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

The study sought to determine the extent to which the respondents agreed or disagreed with the above statements on risk analysis and credit risk management. From the findings,

majority of the respondents agreed that risk analysis and assessment comprises identification of the outcomes as shown by a mean of 2.27, others agreed on risk analysis and assessment comprises the probability of those outcomes as shown by a mean of 2.31 and others agreed on risk analysis and assessment comprises estimation the magnitude of the consequences as shown by a mean of 2.57.

**Table5.** Effect of Risk analysis on Credit Risk Management

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

Source: Research Data (2015)

3.4. Risk Assessment

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

Table6. Extent to which Organization Carry out Risk Assessment
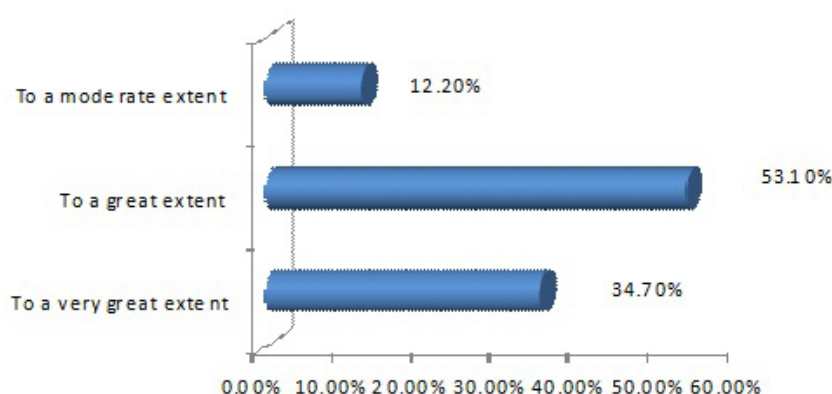
Source: Research Data (2015)

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

Table7. Risk Assessment and Credit Risk Management

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

Source: Research Data (2015)

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

3.5.Risk Monitoring

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

Table8. Risk Monitoring in Effective Credit Risk Management
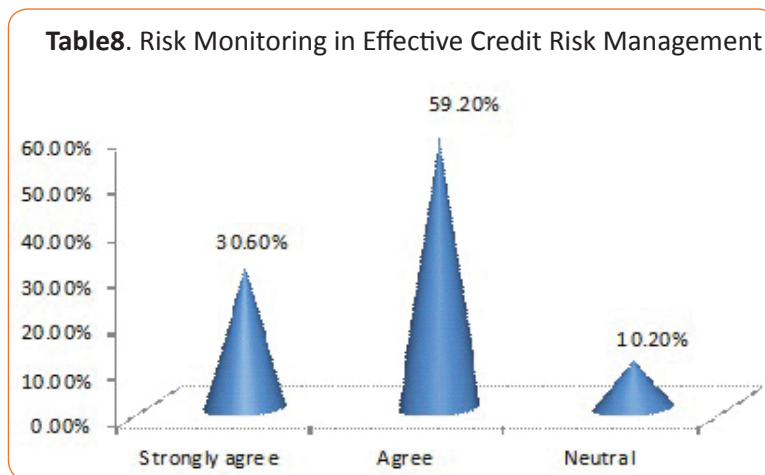
Source: Research Data (2015)

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

Table9. Risk Monitoring and Credit Risk Management

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

Source: *Research Data (2015)*

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

Table10. Risk Monitoring and Types of Risks

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

Source: Research Data (2015)

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

3.6.Credit Risk Management and Financial Performance

Table11. Credit Risk Management Procedures and Profitability
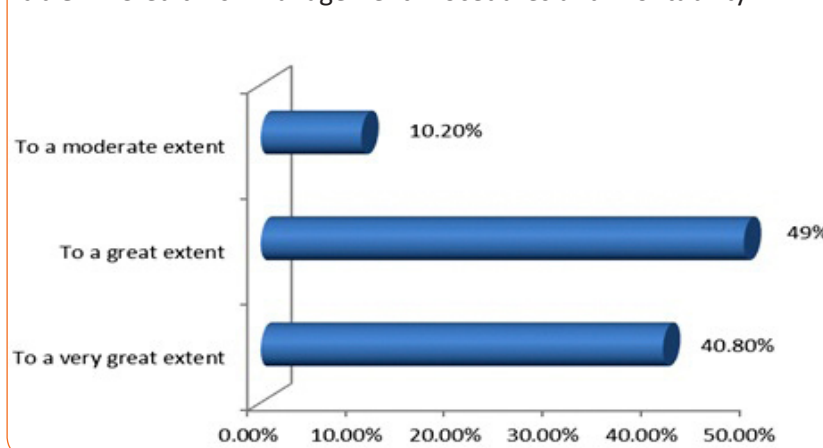
Source: Research Data (2015)

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

3.7. Credit Risk Management Procedures

The study sought to determine the extent to which respondents agreed or disagreed with the above statements relating to crediting risk management. From the findings ,the study established that majority of the respondents strongly agreed that to facilitate credit risk management, a substantial degree of standardization of process and documentation is requirement as shown by mean of 2.39, credit management procedures ensure that all credits must be monitored, and reviewed periodically as shown by mean of 2.51, others agree that through standardized procedures, the

bank can report the quality of its loan portfolio at any time, along the lines of the report presented as shown by mean of 2.53, others agree that credit risk management leads to standardized ratings across borrowers and a credit portfolio report that presents meaningful information on the overall quality of the credit portfolio and that credit management procedures results in a periodic but timely report card on the quality of the credit portfolio and its change from month to month and others agreed that credit management procedures ensure that total receivables, including loans, leases and commitments and derivatives, are reported in a single format.

Table12. Credit Risk Management Procedures

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

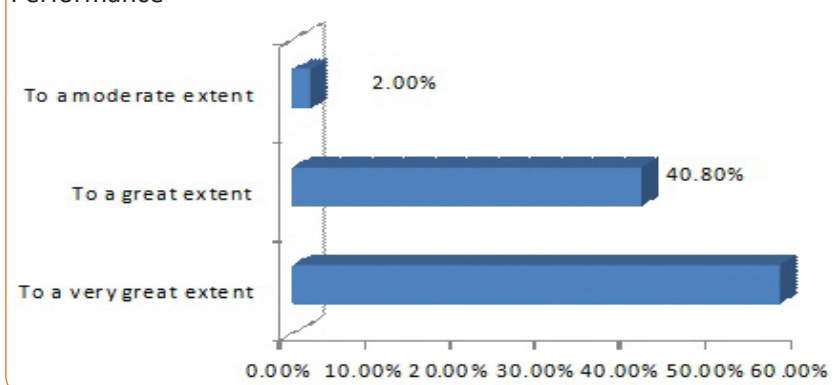**Source:** *Research Data (2015)*

3.8. Risk Monitoring and Types of Risks

Table13. Risk Monitoring and Types of Risks

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

Source: *Research Data (2015)*

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

Table13. Credit risk Management procedures adopted and Financial Performance

Source: Research Data (2015)

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

3.9. Effect of CRM Procedures on Financial Performance

Table14. Effect of CRM Procedures on Financial performance

	Min	Max	Mean	Std. Deviation
Risk identification	1	5	2.523	1.167
Risk analysis	1	5	2.383	1.30
Risk assessment	1	5	2.440	1.235
Risks monitoring	1	5	2.390	1.283

Source: Research Data (2015)

The results on the summary of the variables in Table 4.10 above shows that risk analysis had a great impact on financial performance of the micro finance institutions as shown by a mean of 2.383 followed by risk monitoring with a mean of 2.390, then Risk assessment with a mean score of 2.440 and lastly risk identification with a mean score of 2.523.

3.10. The Relationship between CRM Procedures and Financial Performance

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

The Pearson correlation results show that there was a strong positive and significant relationship between financial performance and risk identification (r=0.315, P=0.001), risk analysis (r=0.505; p=0.004), risk assessment (r=0.566; p=0.001), risk monitoring and evaluation (r=0.741; p=0.000).

Table15. Relationship between CRM Procedures and Financial Performance

		Financial performance	Risk identification	Risk analysis	Risk assessment	Risk monitoring and evaluation
Risk identification	Pearson Correlation	0.315(**)	1			
	Sig. (2-tailed)	0.001	.			
Risk analysis	Pearson Correlation	0.505(*)	0.488	1		
	Sig. (2-tailed)	0.004	0.005	.		
Risk assessment	Pearson Correlation	0.566(*)	0.367	0.221	1	
	Sig. (2-tailed)	0.001	.042	0.232	.	
Risk monitoring and evaluation	Pearson Correlation	0.541(**)	0.107	0.138	0.206	1
	Sig. (2-tailed)	0.000	0.037	0.105	0.042	.

** Correlation is significant at the 0.01 level (2-tailed).

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

This implies that a unit increase in risk identification risk analysis, risk assessment, risk monitoring and evaluation would significantly increase financial performance of the Microfinance institutions.

3.11. Regression Analysis

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

Table16. Model Summary

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

A Predictors: (Constant), Risk identification, Risks monitoring, Risk analysis, Risk assessment

Source: Research Data (2015)

The R2 is called the coefficient of determination and tells us how financial performance varied with credit risk management procedures- risk identification, risks monitoring, risk analysis, risk assessment. The results show that the value of adjusted R^2 is 0.697. This implies that, there was a variation of 69.7% of financial performance of microfinance institutions with the four credit risk management procedures. This is to mean that, risk identification, risks monitoring, risk analysis and risk assessment explained 69.7% of financial performance at a confidence level of 95%.

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

Table4.13. ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.718	4	2.930	44.231	.000(a)
	Residual	4.703	71	.066		
	Total	16.421	75			

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

b Dependent Variable: Financial Performance

Source: Research Data (2016)

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

Table14. Coefficients Results

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

A Dependent Variable: Financial Performance
Source: Research Data (2015)

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

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

From the above regression model, holding risk identification, risks monitoring, risk analysis and risk assessment constant, financial performance of the MFIs would be achieved at a unit of 0.116. It was also established that a unit increase in risk identification would cause an increase in financial performance by a factor of 577, a unit increase in risk analysis and risk assessment would cause an increase in financial performance of the MFIs by a factor of 0.052 and 0.008 respectively. The study further shows a significant relationship between financial performance of the MFIs and the four credit risk management procedures; Risk identification ($p = 000 < 0.05$), risks monitoring $p = 000 < 0.05$), risk analysis ($p = 0.038 < 0.05$) and risk assessment ($p = 000 < 0.05$) as shown by the p values.

4. SUMMARY OF FINDINGS

4.1. Risk Identification and Financial Performance

The research findings show majority of the respondents as shown by 44.9% indicated to a great extent, 42.9% of the respondents indicated to have considered risk identification as a process in credit management to a very great extent. This is in line with Greene and Trieschmann (2004) who indicated that risk identification is the first stage of risk management.

They also assert that correct risk identification ensures risk management effectiveness such that, if risk managers do not succeed in identifying all possible losses or gains that challenge the organization, then these non-identified risks will become non-manageable.

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

Majority of the respondents also agreed that risk identification was important as it ensures that the risk management function is established throughout the whole corporation as shown by a mean of 2.45, others agreed that risk identification helps to sort risk according to their importance as shown by a mean of 2.47 and others agreed that risk identification assists the management to develop risk management strategy to allocate resources efficiently as shown by a mean of 2.65. This is also in line with Williams et al. (2001) ho revealed that risk identification is a process that reveals and determines the possible organizational risks as well as conditions, arising risks. By risk identification the organization is able to study activities and places where its resources are exposed to risks.

4.2. Risk Analysis and Financial Performance

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

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

4.3. Risk Assessment and Financial Performance

Majority of the respondents agreed that their organization identifies and evaluates the risks and decide on precautions (2.27). Others agreed that their organization record the findings on the risks identified and implement the measures (2.39). On the other hand, the respondents agreed that controls exist for approving decisions regarding financing alternatives and accounting principles, practices, and methods and also the management identifies and analyzes departmental risks relating to circumstances such as changes in the operating environment (2.55). Majority of the respondents (53.1) also indicated that organizations carry out risk assessment to a great extent. According to Royal Society Study Group (2002) risk estimation comprises identification of the outcomes and estimation of both the magnitude of the consequences and the probability of those outcomes; the addition of risk evaluation completes the process of risk assessment which is a vital stage in credit risk management.

4.4. Risk Monitoring and Financial Performance

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

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

5. CONCLUSION

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

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

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

6. RECOMMENDATIONS

The study recommends that stiff measures should be put in place to run the credit risk management in order to enhance positive performance in the Microfinance institutions. The management in the Microfinance institutions should spearhead in application of procedures which are applied in the management of Microfinance institutions.

The study also recommends that new technology should be used in monitoring and evaluating of procedures which are applied in credit management. Also risk analysis, risk assessment and risk monitoring and evaluation of the financial performance should be carried out regularly in order to enhance good performance in the Microfinance institutions.

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Appendix I: Questionnaire

Section A: Demographic Information

1. Gender:

Male   ( )   Female   ( )

2. Age bracket:

25 – 34 years   ( )   35 – 44 years   ( )   45 – 54 years ( )   Above 55 years

3. What is your highest qualification achieved?

Diploma   ( )   Degree   ( )

Masters   ( )   Others (please specify…………………

4. What is your current designation within the organization?

Credit Manager   ( )   Branch Manager ( )

Managing Director   ( )   Others (please specify…………………

5. How many years have you been in the Micro Finance industry?

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

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

Section B: Risk Identification

1. To what extent does your organization consider risk identification as a process in credit risk management?

      To a very great extent   ( )   To a great extent   ( )
      To a moderate extent   ( )   To a little extent   ( )
      To no extent   ( )

2. In 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 your organization 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					

3. To what extent does the organization involve the auditors in the following steps in risk identification process? Use a scale of 1 to 5 where 1 is to a great extent and 5 is to no extent.

Involvement of auditors in risk identification	1	2	3	4	5
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					
The auditor determines how those changes should interact with historic trends to produce an expected balance in the account					

4. 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 is important as 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					

Section C: Risk Analysis

1. Risk analysis is a comprehensive risk measurement and mitigation method used for various risks arising from financing activities and from the nature of profit and loss sharing in the source of funds especially investment account holders. To what extent do you agree with the statement?

Strongly agree ( )   Agree ( )   Neutral ( )

Disagree   ( )   strongly disagree   ( )

2. To what extent do you agree with the following statement about risk analysis and 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					

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

Section D: Risk Assesment

1. To what extent does your organization carry out risk assessment as a credit risk management and profitability of your

Very great extent   ( )   great extent   ( ) Moderate extent   ( )   Little extent   ( )   No extent   ( )

2. To what extent do you agree with the following statement on risk assessment and 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 Assessment	1	2	3	4	5
Our organization identifies and evaluates the risks and decide on precautions					
Controls exist for approving decisions regarding financing alternatives and accounting principles, practices, and methods					
The organization record the findings on the risks identified and implement the measures					
The management identifies and analyzes departmental risks relating to circumstances such as changes in the operating environment					

Section E: Risk Monitoring

1. 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 ( )

2. 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 and proper risk monitoring					
Risk monitoring helps the bank 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					

3. Which are the main challenges of risk monitoring in your organization? ....

4. To what extent does risk monitoring in your organization consider the following types of risks to ensure profitability? Use a scale of 1 to 5 where 1 is to a great extent and 5 is to no extent.

Risk monitoring and types of risks	1	2	3	4	5
Foreign exchange risk					
Technology risks					
Interest rate risks					
Market rate risks					
Liquidity risks					
Credit risks					

Section F: Credit Risk Management Procedures and Financial   Performance

1. To what extent do you think credit risk management procedures have affected the profitability of your organization?

   To a very great extent   [ ]   To a great extent   [ ]

   To a moderate extent   [ ]   To a little extent   [ ]

   To no extent   [ ]

2. To what extent do you agree with the following statements about credit risk management procedures in your organization? 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.

Credit risk management procedures	1	2	3	4	5
To facilitate credit risk management, a substantial degree of standardization of process and documentation is required.					
Credit risk management leads to standardized ratings across borrowers and a credit portfolio report that presents meaningful information on the overall quality of the credit portfolio.					
Through standardized procedures, the bank can report the quality of its loan portfolio at any time, along the lines of the report presented.					
Credit management procedures ensure that total receivables, including loans, leases and commitments and derivatives, are reported in a single format.					
Credit management procedures ensure that all credits must be monitored, and reviewed periodically.					
Credit management procedures results in a periodic but timely report card on the quality of the credit portfolio and its change from month to month					
Other, please specify					

3. Which measures of profitability does your organization 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.

Risk monitoring and types of risks	1	2	3	4	5
Net profit					
Gross profit					
Interest income					
Earnings before interest and taxes					
Reduced defaults					

4. On overall, to what extent does the credit risk management procedures adopted by your organization influence its financial performance?

To a very great extent   [ ]   To a great extent   [ ]
To a moderate extent   [ ]   To a little extent   [ ]
To no extent   [ ]

Thank You for Participation

Appendix 11: List of Micro Finance Institutions

 1. Blue Limited

 2. K-rep Development Agency

 3. Eclof Kenya

 4. KADET

 5. BIMAS

 6. SISDO

 7. Micro Africa Ltd

 8. Opportunity Kenya

 9. Yehu Microfinance Trust

10. Fusion Capital Ltd

11. Canyon Rural Credit Ltd

12. One Africa Capital Ltd

13. Jitegemea Credit Scheme

14. AAR Credit Services

15. Agakhan Foundation

16. Microcredit Programme

17. ADOK TIMO

18. Pamoja Women Development Programme

19. Juhudi Kilimo Co.Ltd

20. Musoni Kenya Ltd

21. Molyn Credit Ltd

22. Renewable Energy Technology Assistance Programme(RETAP)

23. Rupia Ltd

24. Taifa Options Microfinance

25. U&I Microfinance Ltd

26. Select Management Services Ltd

27. Greenland Fedha Ltd

28. Youth Initiatives – Kenya (YIKE)

29. Biashara Factors

30. Platinum Credit Limited

31. Ngao Credit Ltd

32. Indo Africa Finance

33. Springboard Capital

34. Mini Savings & Loans Ltd

35. KEEF-Kenya Entrepreneurship Empowerment Foundation
36. Women Enterprise Solutions
37. Focus Capital Limited
38. Samchi Credit Limited
39. Fountain Credit Services Ltd
40. Milango Financial Services
41. Nationwide Credit Kenya Ltd
42. Fort Credit Limited
43. Unaitas Sacco Society ltd. Formerely Muramati Sacco Society Ltd
44. Microensure Advisory Services
45. Jitegemee Trust
46. OIKOCREDIT
47. MESPT
48. Women Enterprise Fund

DTMs

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

Source: Association of Microfinance Institutions (AMFI), 2013