



EFFECT OF LOAN LIMITS AS A DEFAULT RISK MITIGATION STRATEGY ON FINANCIAL PERFORMANCE OF MICROFINANCE INSTITUTIONS IN KENYA

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Abstract

Microfinance institutions are recording high rates of default which presupposes that most microfinance institutions are not achieving the internationally accepted standard portfolio at risk of 3%, which is a cause for concern therefore the study sought to determine the effect of loan limits as a default risk mitigation strategy on financial performance of microfinance institutions in Kenya. The study adopted a descriptive research design. The targeted were operational managers, credit officers, finance managers and loan officers from 13 microfinance institution making the total target population of the study to be 52 respondents. Since the study population was small, census design was adopted to include all the targeted respondents. Questionnaire was used to collect the primary data desirable for the study. A pilot study was conducted in Eclof microfinance and Real People microfinance in Nakuru town where 5 questionnaires was issued out to branch manager, finance manager, and credit officers. Data was analyzed in form of descriptive and inferential statistics. Data presentation was done in form of tables. The findings indicated that there exists a moderate positive and significant relationship between loan limits and financial performance of microfinance institutions in Kenya ($r=0.518$ and $p=0.000$). The study recommended that the management of MFIs should set up a risk management committee report any incidences of risk exposure in a timely manner. MFIs should also set up mechanisms of ensuring that risk management practices and these mechanisms should be followed to the latter.

Keywords: Loan Limits, Financial Performance, Microfinance Institutions, Kenya



INTRODUCTION

Default risk is the chance that companies or individuals will be unable to make the required payments on their debt obligations. Lenders and investors are exposed to default risk in virtually all forms of credit extensions. To mitigate the impact of default risk, lenders often charge rates of return that correspond to the debtor's level of default risk. Default risk can change as a result of broader economic changes or changes in a company's financial situation (Kwakwa, 2014). Default risk goes up if a debtor has large number of liabilities and poor cash flow. Generally speaking, companies and persons with high default risk stand a greater chance of a loan being denied and pay a higher interest rate on the loans they do receive. Risk mitigation strategies are a term to describe different ways of dealing with risks. These strategies include risk avoidance, transfer, and elimination, sharing and reducing to an acceptable level. Measures to mitigate default risks normally comprise clearly defined policies that express the lenders' default risk management philosophy and the parameters within which default risk is put to control, (Ahmad, 2014).

Numerous financial institutions in the USA have implemented default risk management in their business operations because of the understanding that risk exists as part of an environment in which they operate, (Tchankova, 2016). For instance, Ditcher, (2015) observed that banks in USA gave credit to customers with high interest rate which discouraged borrowing. As a result, the concept of credit did not become popular until the economic boom in the USA when banks had access to liquidity and wanted to lend excess cash. In India, the main causes of default of loans from industrial sector is improper selection of an entrepreneur, deficient analysis of project viability, inadequacy of collateral security/equitable mortgage against loans, unrealistic terms and schedule of repayment, lack of follow up measures and default due to natural calamities (Berger & De Young, 2015).

Available statistics from the Bank of Uganda annual supervision report, 2015 indicated high incidence of default reflected by increasing non-performing loans (NPLs) by Microfinance Deposit Taking Institution (MDIs). The situation has adversely impacted on their profitability and overall asset quality has deteriorated. The NPL ratio (NPLs to total gross loans) increased from 3.2% in December 2011 to 5.3% December 2012 it decreased marginally in December 2013 to 3.4% and again rose to 4.2% in December 2014 and then rose to 6.6% in December 2015. This trend not only threatens the viability and sustainability of MDI's but also hinders the goals for which they were intended to achieve that is provision of microfinance services mainly to small and medium enterprises (SME's) (MFPED, 2016).

From the findings of the study conducted by Warue (2016) in Kenya, most cases of loan delinquency are caused by microfinance institutions and self-help groups' management failure

to efficiently manage specific factors which are considered to be within the direct control of the MFIs' and Self Help Groups' (SHGs') management. The external factors outside the direct control of the MFIs' and SHGs' management seem to contribute little to the levels of delinquent loans. Therefore, for effective management of delinquency, it is critical for MFIs to understand and focus more on the internal causes of delinquency which they have more control over and seek practical and achievable solutions to redress these problems.

Microfinance institutions in Kenya are regulated under The Microfinance Act, 2006 and the Microfinance Regulations issued there under sets out the legal, regulatory and supervisory framework. The Microfinance Act became operational with effect from 2nd May 2008. The principal object of the Microfinance Act is to regulate the establishment, business and operations of microfinance institutions in Kenya through licensing and supervision. The Act enables Deposit Taking Microfinance Institutions licensed by the Central Bank of Kenya to mobilize savings from the general public, thus promoting competition, efficiency and access. It is therefore expected that the microfinance industry will play a pivotal role in deepening financial markets and enhancing access to financial services and products by majority of the Kenyans (Central Bank of Kenya, 2013).

In Kenya, MFIs are supervised by a body called Association of Microfinance Institutions in Kenya (AMFIK). The microfinance institutions have received substantial support from both bilateral and multilateral donors (Chowdbury, 2009). By December 2012, a report showed that MFIs had 669 branches across the country. According to the report, Nairobi has the highest (136 branches) followed by Rift Valley (112) and Central region (90) and the least branches are found in Western (32) and North Eastern (5) branches. The sector has employed 12,377 staff and the sector without the banks has 4,856 (AMFIK, 2013). In Kenya the Financial systems approach emphasizes the importance of financially sustainable MFIs that guarantee a large-scale outreach to the poor on a long-term basis. A research conducted by Achou & Tenguh (2015) on bank performance and default risk management found that there is a significant relationship between financial institutions performance (in terms of profitability) and default risk management (in terms of loan performance). In Kenya the microfinance institution mainly provides credit through group lending of the table banking groups and other forms of collateral not employed by the formal, financial sector because many microcredit borrowers either have microenterprises or have informal income-generating activities (Kamau, 2017).

Financial performance is the ability to operate efficiently, profitably, survive, grow and react to the environmental opportunities and threats. Financial performance is measured by how efficient the enterprise is in use of resources in achieving its objectives, (Turyahebya, 2014). As

financial performance of MFIs dwells entirely on generated returns of assets from operations; loan portfolio falls as a critically valuable asset that unfortunately exposes the institution to financial risks (default risk, market risk and liquidity risks). As performance is majorly pinned on loan returns, default risk begins when these loans are extended to the borrowers since the possibility of defaulting with interest is considered (Dziobek, 2016). MFIs might lose a significant amount of the loans issues which results in ruining the loan portfolio and eventually escalate to poor financial performance such as losses, bankruptcy, economic downturn. In any organization especially financial institutions, financial performance is affected by default risk. The sustainability of microfinance institutions depends largely on their ability to collect their loans as efficiently and effectively as possible. In other words to be financially viable or sustainable, microfinance institutions must ensure high portfolio quality based on 100% repayment, or at worst low delinquency/default, cost recovery and efficient lending (Addae-Korankye, 2014).

Statement of the Problem

Microfinance institutions are recording high rate of default by their clients which presupposes that most microfinance institutions are not achieving the internationally accepted standard portfolio at risk of 3%, which is a cause for concern (AMFI, 2017). Loan default rate among the individual's borrowers was 13.7% in the year (2015) which is quite high compared to group's borrowers at 5.9% (AMFIK, 2016). Micro-finance sector loss hit Ksh 752,930,000 million for the period ended 2017, from a loss of Ksh 388,310,000 million over a similar period in 2016 (CBK, 2017). A number of studies have been done in both developed and developing countries on default 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, 2015); Kitaka, 2016; Mokogi, 2014). The studies among other findings have indicated a high default rates among the MFIs. However there are very few studies on credit default risk among financial institutions. Therefore the study sought to determine the effect of loan limit as default risk mitigation strategy on financial performance of microfinance institutions in Kenya.

Research Hypothesis

H₀₁: Loan limits as default risk mitigation strategy have no statistical significant influence on financial performance of microfinance institutions in Kenya.

LITERATURE REVIEW

Theoretical Review

The study was informed by the agency theory and the modern portfolio theory.

Agency Theory

The agency theory was developed by Jensen and Meckling in 1976. The theory explains a possible mismatch of interest between shareholders, management and debt holders due to asymmetries in earning distribution, which can result in the firm taking too much risk or not engaging in positive net value projects (Mayers & Smith, 1987). In finance management agency theory focuses on how actors of the economy make contractual agreements based on the asymmetric information available (Shapiro, 2005). Smith and Stulz (2000) posit that agency issues have been shown to influence managerial attitudes toward risk taking and hedging in the field of corporate risk management. Consequently, agency theory implies that defined hedging policies can have an important influence on firm value.

The strength of the theory lies in the ability to find theoretical ways to motivate agents to make the right decisions even under the insurance contract. The procedure has been used in agency theory framework and in several typical situations known as adverse selection moral hazard. In adverse selection models, the characteristic of the agent is not open to the principal, (Fite & Pfleiderer, 2014). The relationship between agency theory and the chances of a borrower failing to make loan repayment is so significant for MFIs to consider when issuing loans. The study recognizes the relationship between agency theory and the likelihood of borrowers to default their loan obligations. Information asymmetry between Microfinance Institutions and their borrowers leads to some borrowers to acquire loan even when the probability of repayment is low. In normal situations, borrowers are expected to choose actions that result into additional cost when there is additional program management. Normally, it is expected that the borrower will choose actions such that the additional benefit of each action equals its additional cost.

The Modern Portfolio Theory

The modern portfolio theory was developed by Harry Markowitz in 1952. It is often described as modern portfolio theory. The theory assumes that for a long time financial institutions have been faced with credit defaults. Most of the MFIs are using the value at risk along with portfolio at risk to handle exposure brought about by interest rate and market dynamics. This theory lets investors assess the expected risk and return in their investment portfolios (Wong, 2013). (MPT) is a refined investment approach that has turned out to be concept financial institutions

and investors build their asset portfolios. Markowitz quantified exposure and demonstrated quantitatively the reduction of risk by portfolio diversification thus increasing return on investment for investors.

This theory is relevant to the study as it helps in examining the relationship between portfolio at risk and financial stability and performance. It considers how diversification of financial products minimizes credit risk hence improving on financial performance, therefore the theory address the issues of loan repayment duration and financial performance of the micro finance institution in Kenya.

Conceptual Framework

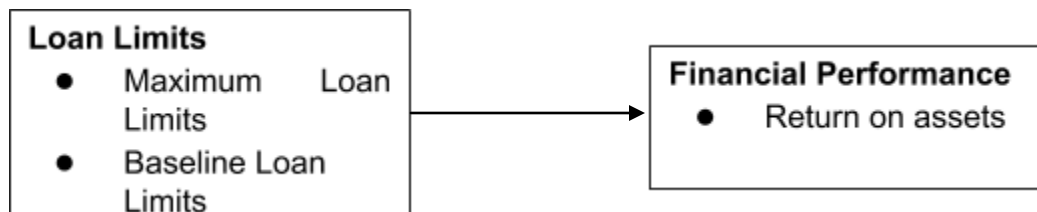


Figure 1: Conceptual Framework

Loan Limits on Financial Performance of Microfinance Institutions

Loan limits are the maximum amount of money a lender will allow a consumer to spend using a credit card or revolving line of credit. The limits are determined by banks, alternative lenders, and credit card companies based on several pieces of information related to the borrower. They examine the borrower's credit rating, personal income, loan repayment history, and other factors, (Wakaria, 2016). Limits can be set for both unsecured credit and for secured credit. Unsecured credits with limits are generally credit cards and unsecured lines of credit, (Kairu, 2015). If the line of credit is secured backed by collateral the lender takes the value of the collateral into account. For example, if someone takes out a home equity line of credit, the loan limit varies based on the equity in the borrower's home.

When the lending institutions are assessing the loan limit of the borrower they use indicators such as credit history, personal income and loan repayment history (Din 2017). According to Din credit history refers to the ability of the borrowed to repay debts and demonstrated responsibility in repaying debts. Later, Tahir and Memon, (2016) observed that personal income is an individual's total earnings from wages, investment enterprises, and other ventures. The lending institution assesses the personal income of the borrower before issuing the loan, (Kozmetsky 2015).

Lenders don't want to issue a high loan limit for someone who won't be able to pay it back. If a consumer has a high loan limit, it means a creditor sees the borrower as a low risk borrower. For borrowers, longer loans signal shallower outreach because the most creditworthy and hence the least-poor usually get the longest loans (Conning, 2016). Term also matters because lenders usually allow borrowers only one loan at a time. Thus, if borrowers use loans to pay for periodic purchases, for example, monthly additions to inventory shorter terms would be more valuable than longer terms. On the other hand, if loans purchase fixed assets whose returns take longer to realize, longer terms would be more valuable both because such fixed-asset purchases are infrequent and because longer terms better match the size and timing of installments with the size and timing of returns from the fixed asset. In general, longer loans signal greater profitability but less depth of outreach, (Conning, 2016).

Empirical Review on Research Variables

A research by Thuku (2017) conducted on the factors affecting loan limit to small and medium enterprises in Kenya: a case study of agriculture sector in Nyeri County. A descriptive research design was employed to gather quantifiable information through the use of open and close-ended questions. The target population was 200 SMEs in agriculture sector that have been in operation for more than 3 years. Stratified random sampling was used to select a sample size of 67. Data was analyzed using descriptive statistics and Statistical Package of Social Sciences (SPSS). The findings of the study revealed that that majority of the respondents agreed that the size of a firm and location affects access to finance and older firm (more than 3 years) have more experiences of applying for loans than younger firms below 3 years. Credit does not enable SMEs to meet their expansion plan. The findings on financial characteristics and loan limit revealed that respondents agreed that they have adequate book keeping records hence easy access to credit and audited financial statements and lack of collateral which affects access to finance. Financial institutions are more reluctant to provide long term finance to SMEs and credit does not have a positive effect on business performance and growth.

Mokua (2012) conducted a study on the factors influencing loan limit of small scale business enterprises, in Kisii County, Kenya. This study highlighted the factors that influence loan limits of small business enterprises in Kisii town and give possible policies and measures on enhancing their growth. The study employed the descriptive survey research design and employed questionnaire to collect data from 160 SSB in Kisii town. The researcher sampled 160 SSB out of the population of 560 SSB using a simple stratified sampling technique. The questionnaires were tested in a selected sample of 20 businesses within Kisii town which were

similar to the actual sample which was used in this study. The study found out that the enterprises had inadequate funds. It was also revealed that the enterprises had stagnated in their financial status due to corruption in the municipality. It was also revealed that the enterprises had inadequate finances due to procedures that are too long to get the funding from financial institutions.

Mutiria (2017) conducted a research on factors influencing the credit limits to small and medium enterprises: a case of Kiambu County, Kenya. A descriptive survey research design was adopted to carry out the study. The study had a population of 2, 750 SMEs in Kiambu county, out of which, a stratified sampling technique was used to pick a sample of 384 respondents. The sampling frame was adopted from office of economics and statistical data in Kiambu County. This study utilized primary data. Data was collected using structured questionnaire. The findings on types of SME financing revealed a significant relationship exists between types of SME financing and credit limits. Under this question personal savings, funds from family and friends, bank loans, microfinance loans, venture capital funds, asset-based financing, SACCO loans, NGO loans and government loans were explored, and were all statistically significant.

Critique of the Existing Literature Relevant to the Study

Various studies have been conducted on default risk mitigation Thuku (2017) conducted a study on the causes of loan default within MFIs and Financial Intermediaries (FIs) in Kenya. He targeted 48 MFIs institutions. He adopted multistage sampling procedure. Random sampling was used to select the respondents since each participant had an equal opportunity to be selected. Primary data was collected by the use of a questionnaire and analyzed by quantitative methods by use of SPSS; Version 21. Data was presented in form of frequency tables, bar charts and pie charts for easy interpretation of results. However the study only adopted primary data and left out secondary which is very crucial in determining the financial performance of MFIs.

Mokua (2012) also conducted a study to investigate the effect of credit risk management on the financial performance of microfinance institutions in Kenya. Secondary data was gathered from microfinance institutions yearly reports (2011- 2015). The study population was 13 microfinance institutions licensed by CBK and 22 non deposit taking MFIs, though data was obtained from 27 MFIs. The data collected was subjected to a multiple regression analysis, correlation, and ANOVA, however the study only relied on secondary data therefore the study will not get first-hand information from the respondents through primary data.

In a study by Mutiria (2017) on the determinants of loan repayment default in micro-finance institutions in Kenya, the study adopted a cross-sectional design was used to collect information from a sampled population which represented a larger population of the study area. The target population of this research study was 49 MFIs operating and registered in Nairobi County in Kenya as per the AMFI-K 2016 Annual Report. The study applied purposive sampling technique to select one loan officers from every institution and one customer from the MFIs giving a sample size of 98 respondents. Questionnaires were used to gather primary data that was analyzed using regression model. The study used cross-sectional research design this study will adopt.

Research Gaps

Thuku (2017) investigated causes of loan default within MFIs and Financial Intermediaries (FIs) in Kenya. However, the study only focused on the influence of loan characteristics on loan default in MFIs and FIs and left out other factors like the loan limits, collateral requirement, credit appraisal and loan repayment duration which will be included in the current study. Mokuu (2012) investigated the effect of credit risk management on the financial performance of microfinance institutions in Nairobi. The study was conducted in the whole country and the findings may not be confined to one county. Thus the need to conduct a study in Kenya. Mutiria, (2017) conducted a study on the determinants of loan repayment default in micro-finance institutions in Kenya. The findings of the study revealed that, loan characteristics had an insignificant relationship with loan repayment default this implies that the study was confined on the loan characteristics as opposed to the current study which will be exclusively on the loan limits, collateral requirement and the loan appraisal.

Summary of the Reviewed Literature

The study was informed by the modern portfolio theory & Information asymmetry between microfinance institutions and their borrowers leads to some borrowers to acquire loan even when the probability of repayment is low. In normal situations, borrowers are expected to choose actions that result into additional cost when there is additional program management. Normally, it is expected that the borrower will choose actions such that the additional benefit of each action equals its additional cost. Modern Portfolio Theory allows investors to project the risk exposure that they face as well as the expected return by using a statistical measure for their asset portfolios.

RESEARCH METHODOLOGY

Research Design

The study will adopt a descriptive research design. Descriptive research is a social research design with the primary aim of describing (rather than explaining) a particular phenomenon (Bless & Higson-Smith, 2013). Descriptive research design allows for gathering in-depth information that may be either quantitative or qualitative in nature. Further the descriptive research design gives researcher the opportunity to use both quantitative and qualitative data, in order to find data and characteristics about the population or phenomenon that is being studied.

Population & Census

The unit of analysis were microfinance institutions in Kenya. The study purposively selected 13 MFIs licensed by CBK and whose financial statements have been captured in the Annual Supervision Report of the CBK in the last five years. The study targeted operational manager, credit officers, finances manager and loans officer. Therefore the total target population of the study was 52 respondents. Since the target population was small the study adopted census technique to incorporate all the targeted respondents, therefore the study sample size was 18 branch managers, 18 credit officers and 18 officers in charge of finances in microfinances in 18 selected microfinance institutions in Kenya.

Data collection instruments

The study depended on both primary and secondary data. Questionnaire was used to collect the primary data desirable for the study. Questionnaire is a data collection tool, designed by the researcher whose main purpose is to communicate to the respondents what is intended and to elicit desired response in terms of empirical data from the respondents in order to achieve research objectives (Mugenda & Mugenda, 2012). The questionnaire contained structured questions which are the questions that the researcher has given the respondents the choices of the answers that the respondents can answer. The design of the questionnaire was based on a multiple-item measurement scale. Questionnaire was the most applicable due to its ease of distribution and data collection, ease of data analysis, standardization of the questions and cost efficiency (Wellington, 2014).

The study collected secondary data to determine the financial performance of microfinance institutions. The study used financial statement of the last three years which was derived CBK Annual Supervision.

Data Collection Procedure

Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer the stated research questions, test hypotheses, and evaluate outcomes. The researcher first received a formal letter from the University which facilitated the acquisition of research permit from the National Commission for Science and Technology and Innovation (NACOSTI). The researcher later presented the letter from the university to the managers of different microfinance institutions for the purposes of seeking formal authorization to undertake data collection. After the necessary authorization the questionnaires were delivered to the respondents.

Pilot Test Pilot Test

A pilot study was conducted in Eclaf microfinance and Real People microfinance in Nakuru town where 5 questionnaires were issued out to branch manager finance manager and credit officers. Cronbach's Alpha Test was conducted where the two variables gave Cronbach's Alpha threshold values greater than 0.7. From the pilot study the Cronbach Alpha values was 0.715, and 0.722 respectively. Therefore, loan limits, and financial performance had Cronbach values which were greater than 0.7. According to George and Mallery (2003), Cronbach correlation coefficients greater or equal to 0.7 are acceptable.

Data Analysis and Presentation

Before the process of data entry was initiated all the questionnaires were sorted. The researcher went through all the data selected and summarize them. The data that was gathered in this study was quantitative in nature, it was analyzed by utilization of Statistical Package for Social Sciences (SPSS) version 24. Descriptive and inferential statistics was employed in the study to analyze Quantitative Data. Descriptive statistics involved the use of measures of central tendency (mean, median, and mode) and measures of dispersion (standard deviation). Inferential statistics involving the use of correlation and regression analysis.

RESEARCH FINDINGS AND DISCUSSION

Response Rate

The study targeted a sample size of 52 respondents out of which 50 filled and returned the questionnaires giving a response rate of 96%. Two questionnaires were not obtained from the respondents 4 % response failure. With a 96% response rate, the study had a considerable sample size adequate for the research.

Table 1: Response Rate

Sampled No. of respondents	No. of Questionnaires Returned	Response Rate (%)
52	50	96

Demographic Profile of the Respondents

The study analyzed the demographic profile of the respondents based on duration the institutions has been in operation, market coverage of MFIs and number of employees among MFIs. The results of the analysis are indicated in Table 2.

Table 2: Duration the Institutions has been in Operation

Years	Frequency	Percentage
0-5	6	12
6-10	28	56
11-19	14	28
More than 20 years	2	4
Total	50	100.0

From the finding 12% of the MFIs stated they have been in operational for less than 5 years, 56% of the MFIs stated they have been in operational for 6-10 years, 28% of the MFIs stated they have been in operational for 11-19 years while 4% of the MFIs stated they have been in operational for more than 20 years This implies that the majority of MFIs have been operational for 6-10 years.

Descriptive Statistics for the study variables

Loan Limits on Financial Performance of Microfinance Institutions

The first objective of the study sought to establish the effect of loan limits on financial performance of microfinance institutions. The findings of the study is shown in Table 3.

Table 4: Effect of loan limits on financial performance of microfinance institutions

Loan Limits Statement	SA	A	N	D	SD	N	Mean	Std
Micro finance institutions have a baseline lending policy to new clients	46%	44%	4%	6%	0%	50	4.64	0.876
Micro finance institutions have a maximum loan limits policy for new clients	43%	52%	2%	3%	0%	50	4.82	0.765

Micro finance institutions have a policy to increase loan threshold to credit worthy clients	41%	52%	2%	5%	0%	50	4.46	0.567
Limiting the amount of credit reduces cases of bad debt in case the borrower fail to pay	47%	33%	7%	10%	0%	50	4.17	0.641
Majority of microfinance institutions determine loan limit using past credit history	52%	33%	6%	9%	0%	50	4.23	0.643
Micro finance institutions have a baseline lending policy to new clients	56%	34%	4%	6%	0%	50	4.45	0.876

Table 3...

From the findings, majority of the respondents agreed with a (mean = 4.64; std dev = 0.876) that microfinance institutions have a baseline lending policy to new clients. In addition the majority of respondents agreed (mean = 4.82; std dev = 0.765) that by microfinance institutions have a maximum loan limits policy for new clients. The study agrees with Scott (2014) findings which noted that for microfinance to provide to offer loan the borrower must show that they can repay the loan out of the company's cash flow. Besides analyzing the borrower, microfinance will look at the overall economy, industry trends and even the direction of politics.

Further majority of the respondents agreed with a (mean = 4.46; std dev = 0.567) that microfinance institutions have a policy to increase loan threshold to credit worthy clients. It was also noted that majority of the respondents agreed (mean = 4.17; std dev = 0.641) that limiting the amount of credit reduces cases of bad debt in case the borrower fail to pay. In addition majority of respondents (mean = 4.23; std dev = 0.643) agreed that limiting the amount of credit reduces cases of bad debt in case the borrower fail to pay. From the findings majority of respondents agreed with a (mean = 4.45; std dev = 0.876) that majority of microfinance institutions determine loan limit using past credit history. This is in line with Onsong, (2012) who noted that when the borrower applies for a loan, lenders assess the credit risk based on a number of factors, including the business credit/payment history. Qualifying for the different types of credit hinges largely on the credit history of the business. The microfinance need business credit report which primarily details the list of the credit history, consisting of information provided by lenders that have extended credit to the business. While information may vary from one credit reporting agency to another, the credit reports include the same types of information, such as the names of lenders that have extended credit to the business, types of credit the business has and the payment history.

In addition to the credit report, Situma, (2013) noted that microfinance may also use a credit score that is a numeric value usually between 300 and 850 based on the information contained in the credit report. The credit score serves as a risk indicator for the lender based on the credit history. Generally the higher the score, the lower the risk. While many microfinance

may use credit scores to help them make their lending decisions, each lender has its own criteria, depending on the level of risk it finds acceptable for a given credit product.

Financial Performance of Microfinance Institutions

The dependent variable of the study was to establish the financial performance of microfinance institutions. The respondents were asked to indicate the aspect of financial performance of MFIs. The results were as shown in Table 4.

Table 4: Financial performance of microfinance institutions

Financial Performance	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Std.
Microfinance institution has improved on its cost-to-income ratio.	68	23	2	4	3	4.258	0.886
The institution has posted better profit on revenue streams that were not profitable	69	21	0	5	5	4.403	0.557
The institution has experience and increase in the number of customers	40	55	0	2	3	4.145	0.807
The institution has improved on its return on investment after recovering loans	49	33	12	3	3	4.452	0.592

The respondents further agreed that micro finance institution has experience an increase in the number of customers (mean=4.258, SD=0.886). This findings agrees with Schlottmann, (2015) who observed that at the end of 2017, MFIs reached an estimated 139 thousand low-income countrywide and underserved clients with loans totaling an estimated Ksh 114 billion. These levels represented a growth of 5.6% in total borrowers and 15.6% in loan portfolio. Thus implying growth in the number of customers. The findings' are also in line with Tippins & Sohi (2013) who noted that since most of the MFIs have effectively integrated BPR in their operations, this has geared the institution towards offering excellent customer service resulting in standardized and consistent delivery of services thus attracting customer irrespective of the economic climate.

On the same note, majority of the respondents agreed that micro finance institution has improved on its return on investment after recovering loans (mean=4.452, SD=0.592). The findings concurs with Nagarajan (2014) who observed that MFIs have credit committees involved in making decisions regarding loans which are essential in reducing default/credit risk, the use of credit checks on a regular basis enhances credit management, and penalty for late

payment enhances customers commitment to loan repayment, this strategies has helped the MFIs to recover the loans successfully thus increasing their investment margins.

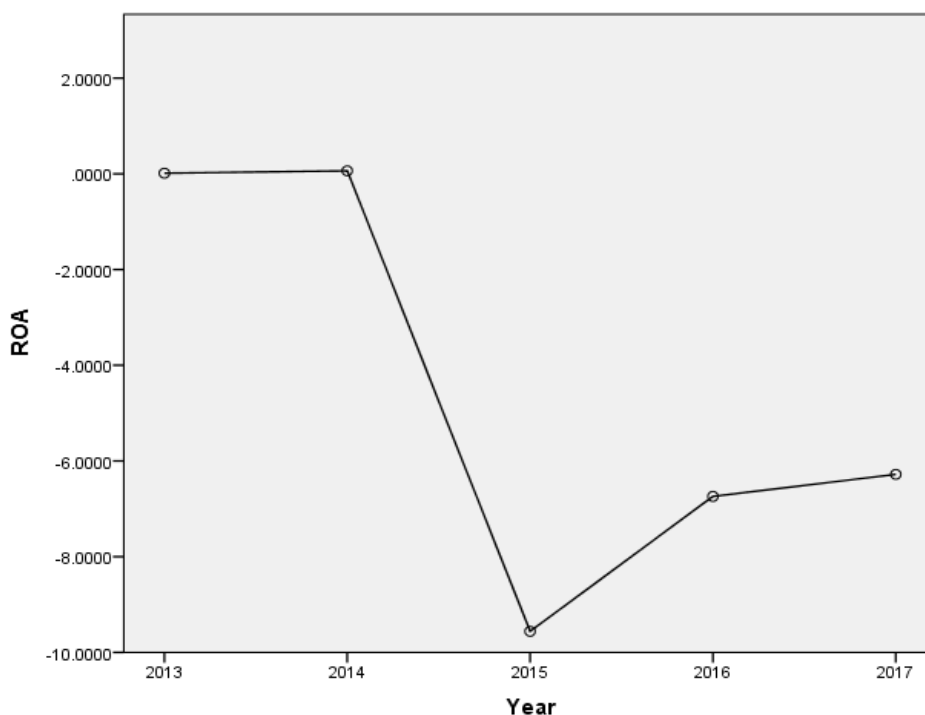


Figure 2: Financial performance of MFIs in Kenya over the past 5 years

Source: Central Bank Of Kenya

Inferential Statistics

The researcher undertook correlation analysis to establish the nature and strength of the relationships between the independent and the dependent variables of the study.

Correlation Analysis

The researcher undertook correlation analysis to establish the nature and strength of the relationships between the independent and the dependent variables of the study.

Table 6: Correlation between Loan Limits on Financial Performance of Microfinance Institutions

	Loan Limits	
	Pearson Correlation	.518**
Financial performance of microfinance institutions	Sig. (2-tailed)	.000
	N	50

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

The study conducted a correlation analysis between loan limits on financial performance of microfinance institutions in Kenya. The findings indicated that $r=0.518$ and $p=0.000$. This indicated that there exists a moderate positive and significant relationship between loan limits and financial performance of microfinance institutions in Kenya. Therefore the findings imply that loan limits enhances financial performance of microfinance institutions in Kenya. This agrees with Orlando (2013) who observed that credit limit of the business helps the MFIs to determine if the borrower has the ability to repay the debt. The study also shows that the loan limit has a positive relationship with the increase in the financial performance of the deposit taking microfinance organization. Proper assessment of the loan limit in an organization would increase its financial performance.

Regression Coefficients

Table 4: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	Beta	Std. Error	Beta		
(Constant)	1.082	.127		8.529	.000
1 Loan limits	.314	.033	.433	9.470	.000

a. Dependent Variable: Financial performance of microfinance institutions.

The value of financial performance of microfinance institutions without the influence of the predictor variables is 1.082. This explains that, at any given time, financial performance of microfinance institutions in Kenya will be 1.082 holding other factors constant at 0. The results also illustrate that, a unit change in loan limits would result to 0.314 times change in financial performance of microfinance institutions in Kenya.

$$Y = 1.082 + 0.314X_1 + \epsilon$$

The study sought to test the hypothesis that: H_{01} : Loan limits have no statistical significant influence on financial performance of microfinance institutions in Kenya. From the findings the p-value was 0.000 which was less the 0.01 significance level. Therefore, based on the rule of significance, the study rejects the null hypothesis (H_{01}) and concluded that loan limits have a significant influence on financial performance of microfinance institutions in Kenya. This agrees with Orlando (2013) who observed that credit limit of the business helps the MFIs to determine if the borrower has the ability to repay the debt. The study also shows that the loan limit has a positive relationship with the increase in the financial performance of the deposit taking microfinance organization.

CONCLUSIONS

From the findings the researcher concluded that MFIs assess credit history to determine the amount of loan a customer gets which reduce cases of credit default risks. Limiting the amount of credit reduces cases of bad debt in case the borrower fails to pay. Limiting the amount of loan issued help in reduction of credit default risk. Majority of microfinance institutions determine loan limit using past credit history. The study sought to test the hypothesis that: H_{01} : Loan limits have no statistical significant influence on financial performance of microfinance institutions in Kenya. From the findings the p-value was 0.000 which was less the 0.01 significance level. Therefore, based on the rule of significance, the study rejects the null hypothesis (H_{01}) and concluded that loan limits have a significant influence on financial performance of microfinance institutions in Kenya.

RECOMMENDATIONS

The management of MFIs should set up a risk management committee report any incidences of risk exposure in a timely manner. MFIs should also set up mechanisms of ensuring that risk management practices and these mechanisms should be followed to the latter. Credit managers should be less concerned with adjustments in the ratios of capital adequacy ratio, loss given default ratio and loan loss provision ratio as the values of these ratios have no significant effects on performance but should instead be more prudent on the management of the nonperforming loans ratio as it has a significant effect on performance.

The researcher recommended that further studies should be undertaken to assess default transfer techniques on financial performance of microfinance institutions in Kenya.

REFERENCES

- Altman, I. Edward, Gabriele Sabato, and Nicholas Wilson. *The value of qualitative information in SME risk management*. Leed University Business School, UK, 2009.
- Andersen, K, and A Terp. "Perspectives on Strategic Risk Management." *Business School Press*, 2006: 44-45.
- Bierens, Herman J. "The logit model: Estimation, Testing and Interpretation." 2008.
- Achou, L., & Tenguh, S. (2015). Factors that Affect Financial Sustainability of Microfinance Institution: a Literature Review. *European Journal of Business and Management*, 7(7), 223-225
- Addae-Korankye, S. (2014). Determinant of Loan Default and Its Effect on Financial Performance of Commercial Banks in Ghana. A Case Study of Fidelity Bank Limited Research Paper.
- AMFI, (2017). The Microfinance Act. No. 19
- Balogun, L., & Alimi, S. (2016). Credit Management Practices and Financial Performance of Microfinance Institutions in Nairobi Central Business District, Kenya. *International Journal of Scientific and Education Research* Vol. 2.
- Berger, K., & De Young, (2015). Effects of Credit Risk Management on the Financial Performance of Commercial Banks in Kenya. Unpublished MBA of University of Nairobi.
- Bessis, J. (2010). Risk management in banking. Chichester: John Wiley.

- Bles, N., & Higson-Smith, Z. (2013). Financial Performance in the Selected Microfinance Institutions In Uganda (unpublished master's thesis) Kampala International University, West campus
- Bol, G. (2013). Credit risk: measurement, evaluation and management. New York: Physica-Verlag.
- Central Bank of Kenya, (2013). Central Financial institution of Kenya report (2013): <http://www.centralfinancialinstitution.go.ke>
- Chowdbury, E. (2009). The Impact of Effective Credit Risk Management on Commercial Banks Liquidity Performance: the Case of Egypt, International Journal of Accounting and Financial Management Research, 3(2), 13-32
- Conning, T. (2016). The Effect of Credit Risk Management on The Financial Performance of Commercial Financial institutions in Rwanda, unpublished MBA project, University of Nairobi
- Din, P. (2017). The Association of Insurance and Risk Managers (AIRMIC) and The National Forum for Risk Management in the Public Sector Risk_Management_Standard_030820.pdf.
- Ditcher, P. (2015). Effect of Credit Risk on Financial Performance of Commercial Banks in Kenya. Unpublished MBA of University of Nairobi.
- Dziobek, G. (2016). Microfinance Institutions in Ethiopia, Kenya and Uganda: Loan Outreach to the Poor and the Quest for Financial Viability. African Development Review, 27(2), 117-129
- Fite, L., & Pflleiderer, S. (2014). "Incentives in Principal-Agent Relationships". Journal of Economic Perspectives. 5 (2), 45-66.
- George, K., & Mallery, K. (2003). Analyzing Banking Risk: A Framework for assessing Corporate Governance and Financial Risk Management Published by the World Bank
- Jin, M. (2016). The Effect of Credit Risk on Corporate Liquidity of Deposit Taking Microfinance Institutions in Kenya, unpublished MBA project, University of Nairobi.
- Kairu, P. (2015). The Effect of Credit Risk on Corporate Liquidity of Deposit Taking Microfinance Institutions in Kenya, unpublished MBA project, University of Nairobi.
- Kamau, L. (2017). An Investigation of Strategies Implemented to Reduce Default Rates in loan lending Institutions. A Survey of equity Bank Nyeri County. Unpublished MBA (Strategic Management Option) of Kenyatta University
- Kitaka, S. (2016) Effect of Financial Risk on Financial Performance of Commercial Banks in Kenya. Unpublished Doctor of Philosophy (Finance) of Jomo Kenyatta University of Agriculture and Technology.
- Kozmetsky, O. (2015). Bank Risk Management Theory. Conference on Risk Management and Deregulation in Banking. Jerusalem
- Markowitz , H. (1952) Portfolio selection with monotone mean-variance preferences. Journal on Mathematical Finance, 19(3), 487-521
- Maughan, K., & Burdett, P.(2013). Risk assessment and management: the engineering approach, Centre for Industrial Safety and Reliability, Cranfield University, unpublished paper.
- Mayers, P., & Smith, F. (1987). Financial Inclusion and Financial Sector Stability with Reference to Kenya: A Review of Literature. Journal of Applied Finance & Banking, 2(6), 95-120.
- MFPEd, (2016). Annual Report on the Microfinance Sector in Kenya. 2ed.
- Mokogi, K. (2014). Determinants of Loan Defaults in Commercial Banks in Uganda a Case Study of Eco bank (U) Ltd. Unpublished MBA of Makerere University.
- Mokua, L. (2012) Microfinance Institutions in Ethiopia, Kenya and Uganda: Loan Outreach to the Poor and the Quest for Financial Viability. African Development Review, 27(2), 117-129.
- Mugenda, M. & Mugenda, G. (2013). Research Methods Approaches. Nairobi: Acts Press.
- Murray, S. (2015). Financial institution Funding, Liquidity, and Capital Adequacy: A Law and Finance Approach. Cheltenham, UK: Edward Elgar Publishing
- Mutiria, M. (2017). Value-at-risk capital requirement regulation, risk taking and asset allocation: a mean-variance analysis. The European Journal of Finance, 21(3), 215-241.
- Myers, K. & Brealey, P. (2015). Rural institutional finance in Bangladesh and Nepal: Review and agenda for reforms, 3rd ed. Manila, Philippines: Asian Development Bank, Economics and Development Resource Center.

- Nagarajan, K. (2014). The Determinants of Credit Risk in Malaysia. *International journal of Social and Behavioral Sciences* 4(34), 301 -308
- Onsongo, A. (2012). The Effect of Credit Risk Management on Financial Performance of Deposit Taking Microfinance Institutions in Kenya, unpublished MBA project, University of Nairobi
- Orlando (2013) Project risk management in the Queensland engineering construction industry: a survey", *International Journal of Project Management*, 22, 51-61.
- Orodho, A. (2005). *Basic of Education and Social Science Research Methods*. Mosoal Publisher, Nairobi.
- Rukwaro, E. (2015). Microfinance Institutions in Ethiopia, Kenya and Uganda: Loan Outreach to the Poor and the Quest for Financial Viability. *Journal on African Development Review*, 27(2), 117-129.
- Schlottmann, A. (2015). *The Commercialization of Microfinance: Balancing Business and Development*. Bloomfield, CT, Kumarian Press
- Scott, H. (2014). Imperfect information, uncertainty, and credit rationing, *Quarterly Journal of Economics* 90, 651 - 666.
- Shapiro, J. (2005). Does agency theory provides a general framework for audit pricing?". *International Journal of Auditing*. 8(3), 253–262.
- Situma, P. (2013). Monetary policy and credit conditions: Evidence from the Composition of External Finance, *The American Economic Review*: 83, 78-98
- Smith, L., & Stulz, K. (2000). Conflicts between Principals and Agents: Evidence from Residential Brokerage. *Journal of Financial Economics* (76), 627–65
- Tahir, K., & Memon, F. (2016). Modern instruments for Measuring Organizational Performance. *Journal of Auditory performance and Economics* 1(2):13
- Tchankova, S. (2016). Microfinance Institutions in Ethiopia, Kenya and Uganda: Loan Outreach to the Poor and the Quest for Financial Viability. *African Development Review*, 27(2), 117-129.
- Thuku, G. (2017). Determinant of Loan Default and Its Effect on Financial Performance of Commercial Banks in Ghana. A Case Study of Fidelity Bank Limited Research Paper
- Tippins, K., & Sohi, W. (2013). The Relationship between Credit Risk Management Techniques and Loan Default Rates among Commercial Banks in Kenya. Unpublished MBA of University of Nairobi
- Turyahebya, G. (2014). Financial Sustainability of Microfinance Institutions (MFIs) in Ethiopia. *European Journal of Business and Management*, 4(15), 1–10.
- Wakaria, L. (2016). The Effect of Credit Risk Management on the Financial Performance of Microfinance Institutions in Kenya. Unpublished Master of Science in Finance, School of Business, University of Nairobi
- Warue, J. (2016). Sustainability Dilemmas: Mission Drift and Performance of Microfinance Institutions in Kenya. *International Journal of Development and Economic Sustainability*, 3(5), 47-60.
- Wellington, T. (2014). The Impact of Effective Credit Risk Management on Commercial Banks Liquidity Performance: the case of Egypt, *International Journal of Accounting and Financial Management Research*, Vol 3, Issue 2, pp. 13-32
- Wong, T. (2013). An analytic derivation of the efficient portfolio frontier," *Journal of Financial and Quantitative Analysis* 2(23), 1851-1872