

Loan Risk Analysis and Financial Performance of Microfinance Institutions in Western Region, Kenya

Christine Osinde¹, & Dr. Tecla Kirwa²

Department of Economics, Finance and Accounting, Kibabii University

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ABSTRACT

The study was conducted to establish the effect of loan risk analysis on financial performance of microfinance institutions in western Kenya. The study was guided by credit risk theory. This study utilised a descriptive research design. The target population of this examination comprised of all the 15 registered microfinance institutions in Western region as per the records of Central Bank of Kenya. This study used census to target fifty-six respondents from the fifteen microfinance institutions. Questionnaires were used to collect data targeting the credit managers, accountants and the finance managers of the microfinance institutions since they were better placed to offer the required information for the investigation. Inferential as well as descriptive statistics was used in analyzing data. This was done using simple regression model and frequency distribution using mean, standard deviation and percentages. The study findings revealed that loan risk analysis ($\beta=0.159$, $t = 2.276$, $p=0.028 < 0.05$) had a significant influence on financial performance of Microfinance Institutions in western region Kenya. The study concludes that when microfinance institutions analyse their loans by evaluating loan terms, contacting clients who are late in payment and putting in place the right mechanisms for limiting exposure to bad debts, this may enhance their financial performance. The study recommends that policy makers and institutional administration should prioritise mechanisms for limiting loan exposures while strengthening recovery measures to enhance overall financial performance of microfinance institutions.

Keywords: Loan risk analysis, Financial Performance, Loan Portfolio.

INTRODUCTION

Saving as well as loaning are essential commercial activities for most Micro Finance institutions. The biggest asset and prevailing income source is Loan portfolio and hence should be managed well so as to yield the desired financial performance. In that capacity, it is perhaps the greatest source of risk to Micro Finance liquidity and it cannot be overlooked. It is critical to have an understanding of the determinants of the MFIs benefit to an economy (Babalola, 2012). Financial performance in any economy fills in as an impetus for development and advancement. Micro finances can play out this job through their critical elements of efficient payment system provision, financial intermediation, and the facilitation of implementing monetary policies (Aburime, 2008). Management of loan portfolio includes customer screening, planning of loan portfolio, and loan risk control (Karekaho, 2009).

Microfinance institutions (MFIs) in Western Region, Kenya, operate in an environment characterized by high credit demand, irregular borrower incomes, limited collateral, and exposure to economic shocks. These conditions elevate loan risk, making effective loan risk analysis essential for financial sustainability. Despite the region's dependence on MFIs for financial inclusion, recent studies indicate rising non-performing loans (NPLs), weak portfolio quality, and declining profitability among microfinance providers in Kenya. Evidence from Western Region further shows that gaps in loan appraisal, limited risk assessment tools, and weak monitoring systems undermine MFIs' ability to accurately assess borrower risk and maintain sound financial performance (Kadima et al., 2023).

While several studies in Kenya have examined credit risk management broadly, there is limited region-specific empirical evidence on how loan risk analysis itself, through appraisal quality, borrower screening, and risk profiling, affects financial performance indicators such as ROA, ROE, and portfolio at risk among MFIs in Western Kenya. This gap justifies a focused investigation to quantify the effect of loan risk analysis on MFI performance in this region, where economic vulnerability makes accurate risk assessment particularly important.

Theories and Hypothesis Development

Credit Risk Theory explains the likelihood that a borrower will fail to meet loan repayment obligations and how this risk affects the financial stability of lending institutions. Originating from the foundational work of Merton (1974) and later expanded by Jarrow and Turnbull (1995), the theory posits that default is not random but can be predicted using borrower-specific and loan-specific characteristics. The theory emphasizes that lenders must assess the probability of default, estimate potential losses, and design mechanisms to minimize credit exposure.

For microfinance institutions (MFIs), particularly those operating in high-risk environments such as Western Region, Kenya, Credit Risk Theory underscores the importance of rigorous loan risk analysis, covering borrower appraisal, cash-flow evaluation, collateral assessment and continuous monitoring, to reduce non-performing loans. Effective credit risk assessment enhances MFIs' financial performance by improving asset quality, increasing loan recovery, and stabilizing profitability indicators such as ROA and ROE. Conversely, weak analysis exposes MFIs to higher loan defaults, higher provisioning costs and deteriorating financial results.

Thus, Credit Risk Theory provides a strong foundation for examining how loan risk analysis influences the financial performance of MFIs, especially in economically vulnerable regions where accurate assessment is critical for sustainability. Assessing the likelihood of borrower's repayment failure and losses caused to the financier when the debtor fails for any reason to repay the contractual obligations is a critical component in managing financial performance of Microfinance Institutions.

Different empirical examinations affirm credit portfolio comprises a huge extent of the majority of banks assets is generally illiquid and shows the most elevated peril on credit Koch and Macdonald (2015), The biggest risk source for any money related organization breeds in its loan portfolio. The loan portfolio is obviously anticipated to be the organization's biggest resource. It ought to be noticed that since most little financing firms are not upheld by a bankable insurance, the nature of the credit portfolio is totally of essence (Koch & Macdonald, 2015).

Wakaria (2016) completed an investigation about the influence of management of credit on the Kenyan microfinance establishments' financial performance. This study utilized descriptive research as it gives an exhaustive investigation of management of credit risk as well as its relationship with the performance in the finance of microfinance organizations. The study discovered that a majority of MFIs in Kenya face credit risk as shown by the critical undesirable connection amongst the money related performances (estimated by earnings on value) and on credit risk. The examination suggested that the microfinance institutions in Kenya should give consistent consideration to credit risk as a significant hazard to loans that are non-performing.

Kalio and Kirui (2012) examined the effect of LPM on microfinance organizations' credit efficiency in Baringo County. The gap is that it was only carried out in Baringo County and this is what my study will attend to by conducting the research in a different swarea (Western Region) The investigation utilized a descriptive research design. They thought the procedure was suitable as it allowed them to collect verifiable material from the available respondents. In their exploration, they looked at 88 credit officials and 7 Managers from MFIs in Baringo County. Since both of the division managers and credit officers were fully focused on their investigation, a statistical approach was used. They discovered that there is a clear positive correlation between consumer examination as well as MFI loan performance.

RESEARCH METHODOLOGY

This study utilized descriptive research design to obtain qualitative and quantitative information. As per Cooper and Schindler (2003), descriptive research design can be categorized into survey studies that attempt to describe the current state of affairs, correlation studies that look into the relationship between factors, and developmental studies that track progress over time. The application of the descriptive method included describing and observing the situation without changing the variables (Saunders et al., 2009). The study targeted 15 Microfinance Institutions within western region, Kenya. Specifically, credit managers, accountants and finance managers who totalled to 56 in number were the targeted respondents through census method.

Measurement Variables

This research examined the effect of loan risk analysis on financial performance on microfinance institutions in Western Kenya. Measurement of variables was done through indicators obtained through reviewed literature and measured using a structured questionnaire. The measures of each construct consisted of a number of items rated using a five-point likert scale ranging between 1=strongly Disagree and 5= Strongly Agree.

Dependent Variable: The dependent variable in this study is financial performance. It was measured with the help of items quantifying: Microfinance institutions use return on equity to measure their profitability, MFIs use return on assets to measure their profitability, MFIs rely mostly on return on asset to maximize profit margin, return on equity has significant effect to shareholders investment, The total asset has a significant effect to profit margin among others. These indicators have been crafted based on previous studies concerning performance of financial institutions.

Independent Variables: Loan Risk Analysis was the independent variable operationalise in the dispensation of controlling risks associated with loan portfolios, limiting exposure to bad debts, recovery measures in place for clients who fail to pay their loans, evaluation of loan term enforcement, contacting clients with late payments among others. These indicators have been crafted from credit risk theory.

RESULTS AND DISCUSSIONS

The table below shows the sampling adequacy and sphericity test results of loan risk analysis and financial performance

Table 1: Sampling Adequacy and Sphericity Test Results

Variable	Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy	Bartlett's Test of Sphericity			
		Approx. Chi-Square	Degrees of freedom	p-value	
Financial Performance	0.620	38.391	21	0.012	
Loan Risk Analysis	0.652	52.819	21	0.000	

Source: Field data (2026)

The study reveals that the KMO outcomes for sampling adequacy for the variables were greater than the 0.5 minimum threshold value set by Kaiser (1974); the measure for sampling adequacy for Financial Performance was 0.620 and Loan Risk Analysis was 0.652. On all of the factors, these findings showed an appropriate level of sampling adequacy. Relevant results of Bartlett's Test of Sphericity found that the sampled items for each variable were from a population with equal variation, as seen in table 4.2; (χ^2 (15) = 38.391, $p=0.012 < 0.05$) for Financial Performance, (χ^2 (21) = 52.819 and $p=0.000 < 0.05$) for Loan Risk Analysis.

The descriptive summary findings presented below shows the extent to which the respondents agree or disagree on loan risk analysis and financial performance.

Table 2: Descriptive Analysis for Financial Performance

Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
MFIs use return on equity to measure their profitability.	3 7%	4 9%	6 13%	19 42%	13 29%
MFIs use return on assets to measure their profitability.	5 11%	2 4%	5 11%	22 49%	11 24%
MFIs rely mostly on return on asset to maximize profit margin.	3 7%	2 4%	9 20%	19 42%	12 27%
MFIs rely mostly on return on equity to maximize profit margin.	2 4%	2 4%	7 16%	24 53%	10 22%
Return on equity has significant effect to shareholders investment.	2 4%	2 4%	8 18%	20 44%	13 29%
The total asset has a significant effect to profit margin.	2 4%	2 4%	7 16%	22 49%	12 27%
The higher the return, the more productive and efficient management utilizes economic resources.	3 7%	1 2%	7 16%	15 33%	19 42%
Average level of FP	Mean(%Mean)	Std. Dev.	Std. Error of mean	Minimum	Maximum
	3.8444 (77%)	0.62406	0.09303	2.00	4.57

Source: Field data (2026)

Most of the respondents approved that MFIs use return on equity to measure their profitability, that MFIs use return on assets to measure their profitability, that MFIs rely mostly on return on asset to maximize profit margin, that MFIs rely mostly on ROE to maximize profit margin, that ROE has significant effect to shareholders investment and lastly agreed that the total asset has a significant effect to profit margin as indicated by 42%, 49%, 42%, 53%, 44% and 49% respectively in table 4.9. Additionally, 42% of the respondents strongly concurred that the higher the return, the more productive and efficient management utilizes economic resources. On average, the level of financial performance of MFIs in Kenyan Western Region was 77% (mean=3.8444, std. dev. =0.62406) rated very high as exhibited in table 4.9. This is an implication that majority of the MFI's in Western Region seems to have a high Financial Performance which might be positively influenced by the Loan Portfolio Management.

Table 3: Descriptive Analysis for Loan Risk Analysis

Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Loan risk analysis has backed the profitability of your institution.	13 29%	7 16%	3 7%	8 18%	14 31%
Your institution has a mechanism of limiting exposure to bad debts.	14 31%	3 7%	14 31%	7 16%	7 16%
Do you have a recovery measure in place in case a client fails to pay the loan.	7 16%	5 11%	8 18%	13 29%	12 27%
Your institution evaluates loan term enforcement mechanism.	10 22%	5 11%	8 18%	9 20%	13 29%
Your institution contacts clients if the	6	2	11	15	11

payments are late.	13%	4%	24%	33%	24%
Do you think the loan collection policy used by your institution is effective.	7	2	2	14	20
	16%	4%	4%	31%	44%
The institution analyzes the financial statements of borrowers to appraise the amount and timing of cash flows.	13	4	6	16	6
	29%	9%	13%	36%	13%
Average level of Loan Risk Analysis	Mean(%Mean)	Std. Dev.	Std. Error of mean	Minimum	Maximum
	3.2540(65%)	0.92627	0.13808	1.00	4.86

Source: Field data (2026)

Evidently, most of the respondents strongly agreed that the Loan risk analysis has backed the profitability of their institution as indicated by 31% in table 4.10. On the contrary, 31% of the respondents strongly disagreed that their institutions have a mechanism of limiting exposure to bad debts while other 31% were undecided about the same. Additionally, 29% of the respondents agreed that they have a recovery measure in place in case a client fails to pay the loan while another 29% strongly agreed that their institution evaluates loan term enforcement mechanism. Similarly, 33% agreed that their institution contacts clients if the payments are late while 44% strongly agreed that the loan collection policy utilised by their institution is efficient. Lastly, 36% of the respondents agreed that their institution analyses the financial statements of borrowers to appraise the amount and timing of cash flows. Generally, the average level of Loan Risk Analysis was at 65% (mean= 3.2540, Std. dev. = 0.13808) rated moderate as exhibited in table 4.10. An implication that majority of the MFI's in the Western Region seems to be moderately involved in analysing the probability of borrower's repayment failure as well as the loss caused to the firm when the debtor does not adhere to his contractual obligations.

Table 4: Simple Linear Regression for loan risk analysis and financial performance

Model Summary						
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	
1	.328 ^a	.108	.087		0.42970	
a. Predictors: (Constant), Loan Risk Analysis						
b. Dependent Variable: Financial Performance						
ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.957	1	.957	5.180	.028 ^b
	Residual	7.940	43	.185		
	Total	8.896	44			
a. a. Dependent Variable: Financial Performance						
b. Predictors: (Constant), Loan Risk Analysis						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		β	Std. Error	Beta		
1	(Constant)	3.417	.236		14.453	.000
	Loan Risk Analysis	.159	.070	.328	2.276	.028
a. a. Dependent Variable: Financial Performance						

Source: Field data (2026)

The table 4. ANOVA test results of $F(1, 43) = 5.180$, $P = 0.028 < 0.05$, indicates that the dataset was well-suited to the Simple Linear Regression model. The model (Loan Risk Analysis) managed to clarify 8.7% of the variation in the financial performance of MFIs in Kenyan Western region as shown by the Adjusted R Square = 0.087 as seen in the table 4. model summary.

The results of the regression coefficients revealed the unstandardized Beta coefficient for the loan risk analysis variable was significant ($\beta = 0.159$, $t = 2.276$, $p = 0.028 < 0.05$). This implies that a unit improvement in the Loan Risk Analysis was likely to produce a 0.159 positive outcome in the Financial Performance of MFIs in Western region Kenya holding other factors constant. To forecast the Financial Performance of MFIs in Western Region Kenya when given the level of Loan Risk Analysis, the following model is suggested by the study:

$$\text{Financial Performance} = 3.417 + 0.159 \text{ Loan Risk Analysis}$$

The findings show that Loan Risk Analysis plays a crucial role in enhancing financial performance of MFIs in Western Region, Kenya. The examination agrees with Wakaria (2016) who completed an investigation about the influence of management of credit on the Kenyan microfinance establishments' financial performance and revealed that a majority of MFIs in Kenya face credit risk as shown by the critical undesirable connection amongst the money related performances (estimated by earnings on value) and on credit risk. The examination suggested that the microfinance institutions in Kenya should give consistent consideration to credit risk as a significant hazard to loans that are non-performing. The study also concurs with Musyoki and Kadubo (2012) conducted a research investigation about the effect of management on the credit risk concerning money related to Kenyan banks performance and demonstrated that managing of risk involved in credit is a significant indicator of banks financial performance relies upon the management of risk. The investigation outcomes likewise demonstrated that the rate of default as one of the pointers of risk management is a significant indicator of the banks financial performance execution, then followed by bad debt cost and in conclusion marginally impacted by the cost per asset loan with bank performance.

DISCUSSION AND CONCLUSION

The study analyzed the effect of loan risk analysis on financial performance of MFIs in Western region Kenya. The findings indicated that loan risk analysis had a statistically significant effect on MFIs financial performance. From the findings of the study, it was strongly agreed that the loan collection policy utilized by the MFIs was effective and they have set up a recovery measure in place in case a client fails to pay the loan. Furthermore, the overall level of Loan Risk Analysis was ranked modest at sixty five percent (mean = 3.2540, standard deviation = 0.13808). Majority of MFIs in the Western Region seem to be moderately interested in evaluating the likelihood of borrower repayment failure as well as the damage caused to the firm when the debtor does not adhere to his contractual obligations, this implies that majority of MFIs in the Western Region are moderately involved in analyzing the risk of borrower repayment failure as well as the loss caused to the firm when the debtor does not adhere to his contractual obligations. This therefore has a positive impact on their financial performances. From regression analysis Coefficient outcomes revealed that $\beta = 0.328$, $t = 14.453$, $p = 0.000 < 0.05$; concluding that Loan Risk Analysis had a statistically significant influence on the financial performance of MFIs in Western region Kenya, a finding that reinforces Kadima et al. (2023), who similarly established that credit risk management significantly influences the financial performance of microfinance institutions in Kenya.

The study concluded that there exists positive and significant relationship between Loan risk analysis and financial performance of MFIs in Western Region Kenya. This implies that Loan Risk Analysis would lead to increase in the financial performance of MFIs in Western region Kenya. Microfinance Institutions that put in place measures of controlling risks associated with loans offered to their clients are likely to improve on their financial performance. There is also need to contact clients by giving them reminders for loan payments delayed. Institutions that evaluate loan terms and put measures in place for those clients that fail to pay their loans are likely to have high recovery and less default resulting to high financial performance. This is consistent with Warue (2012), who identified weak recovery mechanisms and delayed follow-up on

defaulting clients as key drivers of loan delinquency among microfinance institutions in Kenya, and with Kitonyi, Sang and Muriithi (2019), who found that non-performing loans significantly and negatively affect the financial performance of microfinance institutions in Kenya.

Therefore, policy makers and institutional administration should prioritise mechanisms for limiting loan exposures while strengthening recovery measures to enhance overall financial performance of microfinance institutions. This recommendation aligns with the Central Bank of Kenya's consultative proposals for reviewing microfinance sector legislation, which emphasise strengthened risk-management and prudential oversight frameworks as prerequisites for the sector's financial stability (CBK, 2018).

The study recommends that Loan risk analysis has significant influence on the financial performance of MFIs in Western Region Kenya. Therefore, the investigation recommends that the management of MFIs in Western region of Kenya ought to have complete, accurate as well as comprehensive analysis of credit worthiness of customers, making credit decisions and loan monitoring during the loan analysis process.

Finally, academicians, researchers, government, commercial banks as well as non-bank institutions for instance SACCOs would use and benefit from the recommendations established by this study.

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