

Influence of Credit Risk Management Practices on Loan Performance: A Case of Selected Microfinance Institutions in Tanzania

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<i>Abstract</i>	<i>Journal of Policy and Development Studies (JPDS)</i>
<p><i>This research investigates the influence of credit risk management practices on loan performance of microfinance institutions. The variables of interest in this study are credit appraisal, credit supervision, credit monitoring (as predictor variables) and loan performance (as dependent variable). However, the study includes average credit processing time as a control variable. The study focuses on five microfinance institutions operating in Tanzania. The research utilizes probability and non-probability sampling to select 140 respondents from the study population. The study collected both primary and secondary data. Data analysis was carried out by applying multiple regression analysis following the assumptions of ordinary least squares (OLS). The findings reveal that credit supervision, credit monitoring, and average credit process time are significant in influencing loan performance in microfinance institutions. Contrary, there is no evidence, whatsoever to suggest that credit supervision influences loan performance in microfinance institutions.</i></p>	<p>Vol. 15. Issue 2 (2024) ISSN(p) 0189-5958 ISSN (e) 2814-1091 Home page https://www.ajol.info/index.php/jpds</p> <p>ARTICLE INFO:</p> <p>Keyword: Credit risk; Loan performance; Microfinance institutions</p> <p>Article History Received 29th January 2024 Accepted: 25th April 2024 DOI: https://dx.doi.org/10.4314/jpds.v15i2.3</p>

1. Introduction

The emergence of microfinance worldwide began in the late 1970s as a response to concerns about states' ability to supply and distribute low-cost loans and subsidized credits to low-income people. In Tanzania, microfinance began in the mid-1990s with the invasion of savings and Credit Cooperative Societies and Organizations (SACCOS) and microfinance-based non-governmental organizations (NGOs).

Like in many economies, microfinance institutions came into existence because of the failure of large commercial banks to cater for the financial needs of poor individuals and small entrepreneurs (Mohamed & Elgammal, 2023). As a result, there has been an influx of microfinance institutions of different sizes across the world. In 2018, the loan portfolio for microfinance reached approximately \$ 124.1 billion to 139.9 million lenders (Mohamed & Elgammal, 2023). Therefore, the start of microfinance institutions in Tanzania and elsewhere in the world has been viewed as a critical replacement for financial services, particularly those that are provided by commercial banks. Thus, microfinance institutions have stepped up and enhanced financial inclusion around the world by providing relatively affordable and accessible financial services to small groups of clients who were excluded or failed to access the same from commercial banks (Abebe & Kegne, 2023; Mutai & Opuodho, 2021; Mohamed & Elgammal, 2023).

Various scholarly works commend the role of microfinance institutions in advancing world economies and reducing poverty levels (Bassem, 2012; Hasan et al., 2022; Paul & Musiega, 2020). Despite their crucial role in assisting the poor and underserved, including small entrepreneurs, microfinance institutions have been facing several setbacks, including failure to manage credit risks properly, which ultimately led to their failures.

Credit risk is the most critical risk confronting lending institutions across the globe (Paul & Musiega, 2020). Credit risk management is integral to the overall risk management strategy of microfinance institutions, commercial banks, and the entire financial sector. Weak credit risk management practices have been identified as one of the primary factors contributing to the failures of microfinance institutions (Akomeah et al., 2020; Kalui & Kiawa, 2020). The primary factor contributing to heightened credit risks in microfinance institutions is the nature of lenders. Extending loans to financially disadvantaged individuals entails significant information asymmetry, making it challenging to enforce repayment in cases of default, particularly since borrowers lack stable incomes (Chliova et al., 2015; Mohamed & Elgammal, 2023). Factors such as inadequate monitoring, credit analysis, debt recovery, including post-disbursement follow-up, and governance instability are recognized as key contributors to heightened credit risk in microfinance operations (Paul & Musiega, 2020).

Given the issues above, the significance of credit risk management has significantly intensified due to substantial financial setbacks experienced by microfinance institutions on a global scale (Nikolaidou & Vogiazas, 2014). Consequently, financial crises have impelled microfinance institutions to adopt proactive strategies aimed at diverting potential financial losses stemming from mismanagement in the distribution and allocation of credits. Arguably, credit risk management comprises a critical component of a comprehensive approach to risk management in microfinance institutions (Arora & Kumar, 2014).

Microfinance institutions' main business is advancing credit, especially to small entrepreneurs. Nevertheless, in most cases, granting credits comes with great credit risk (Bhatt & Tang, 2002). Therefore, effectual credit risk management approaches are designed to manage microfinance's activities. This creates credit risk exposures that significantly minimize the chances that such

activities will negatively impact microfinance institutions' revenues and capital (Idama et al., 2014). The failure to manage credit risk will likely lead to the deterioration of microfinance operations and profits in the long run. There is a huge demand for appropriate credit risk management approaches to enhance loan performance and alleviate poor loans and, in the same vein, advance credit in a fair, equitable and undiscriminating manner (Kalui & Kiawa, 2015).

Various scholars have published extensive literature regarding the management of credit risks. Contrariwise, a large part of the available literature concentrated more on credit risk management in commercial banks and little about microfinance institutions (Aliu & Sahiti, 2016; Idama et al., 2014; Kaimu & Muba, 2021; Mogga et al., 2018; Mrindoko et al., 2020; Tamwesigire & Eton, 2022). Concentrating this analysis on microfinance institutions makes a lot of sense because they are the ones confronting more challenges related to credit risk management than commercial banks. This is a fact because of the size and type of lenders they serve. The majority of these lenders have no stable incomes and collaterals to surrender (Mohamed & Elgammal, 2023).

Whenever scholarly works focus on microfinance institutions, little consideration has been given to the influence of credit supervision, credit appraisal, and credit monitoring on loan performance (Kalui & Kiawa, 2015). Building on these facts, this study aims to investigate the influence of credit risk management practices (credit appraisal, credit supervision, and credit monitoring) on the loan performance of microfinance institutions in Tanzania.

2. Literature Review

A significant portion of the credit risk management literature has predominantly focused on commercial banks, leaving microfinance institutions relatively understudied in this area. These institutions encounter significant challenges in effectively navigating credit risks. While the existing literature highlights credit risk management within commercial banks and its broader implications on financial performance, there is a limited exploration into how different credit risk management strategies mitigate the occurrence of non-performing loans within microfinance institutions. Additionally, evidence regarding the efficacy of credit appraisal, supervision, and monitoring, particularly within the Tanzanian microfinance context, remains scarce. The subsequent section offers a critical examination of the literature within this research realm.

Tamwesigire & Eton (2022) investigated the credit risk management on loan performance of commercial banks in Uganda. The study found that the variables credit risk identification, credit risk assessment, credit risk monitoring and credit risk control have a significant influence on loan performance. However, the study considered monitoring variables, leaving credit appraisal and supervision with less attention. In addition, the study dedicated its analysis to commercial banks, which have better credit risk management practices compared to microfinance institutions. On the other hand, Temba et al. (2024) investigated the impact of the quality of credit risk management practices on the financial performance of commercial banks in Tanzania. The study found that credit risk supervision and monitoring have a positive influence on banks' financial performance. The study concentrated on finding the impact of general financial performance without specific consideration of how the same variables influence loan performance. Again, this study did not consider microfinance institutions, which are the most vulnerable institutions when it comes to managing credit risks.

In another study, Islam et al. (2018) examined the method of forced loan recovery employed by the microfinance sector in Bangladesh and its impact on loan repayment rates. The results reveal that many borrowers encounter various difficulties in meeting their repayment obligations. In cases of default, loan officers and their associates often employ aggressive tactics towards borrowers. Furthermore, the findings suggest borrower reluctance, misuse of funds, ethical decline, and lack of diligent loan repayment. According to the authors, the utilization of forced loan repayment has been identified as the most effective risk management technique for reducing non-performing loans and improving loan performance. However, the implementation of such measures highlights deficiencies in credit risk supervision and appraisal practices. In another study, Ahmed & Malik (2015) provide a controversial perspective by elaborating that credit policy and credit risk control measures had an insignificant influence on the overall loan performance, which is quite contrary to the available theoretical explanations. Similarly, the study portrayed that credit terms and client appraisal had a significant and positive influence on loan performance.

Also, Paul & Musiega (2020) carried out an analysis of how credit risk management strategies impact the financial performance of microfinance institutions in Kenya. The research primarily assessed profitability ratios as key indicators of financial performance. The investigation concentrated on practices related to credit risk grading, identification, control, and follow-up procedures for loan repayment. The findings suggest that effective credit risk grading, viability assessment, risk control, and follow-up mechanisms are pivotal aspects of microfinance operations. Consequently, the study recommends that organizations prioritize enhancements in credit risk management processes to enhance competitiveness and adaptability in dynamic environments. Moreover, the report emphasizes the importance of aligning risk management practices with all stakeholders to augment overall performance.

Million et al. (2015) explored the impact of credit risk on the profitability of commercial banks in Ethiopia. Specifically, it examined how various credit risk indicators, such as non-performing loans, loan loss provisions, and capital adequacy, affect commercial bank profitability in the country. The results of the investigation indicated that these credit risk metrics significantly influenced the profitability of commercial banks operating in Ethiopia. Appiah et al. (2016) carried out a study evaluating the credit risk management practices of microfinance institutions in Ghana. The results suggest that credit risk stands out as the primary risk jeopardizing the survival and profitability of these institutions. Moreover, the study uncovered that the major source of credit risk stems from inadequate vetting and verification of client information during the loan application process. However, the study did not establish the impact of credit supervision, monitoring, and appraisal as effective measures for mitigating non-performing loans.

Mwangi & Muturi (2016) highlight that credit standards, terms of credit, credit and collection policy affect loan performance in microfinance institutions. As per the authors, an effective implementation of the credit policy will enhance an ideal repayment of the loans. The study also insists on the presence of proper credit standards as the key to the effective issuing of credits and curbing probable credit risks. However, this study does not consider the actual effect of credit supervision, credit appraisal, and credit monitoring on alleviating bad loans and enhancing loan performance. As opposed to that, Ngonyani & Mapesa (2019) provide insight into the portfolio performance of the microfinance sector as related to some socioeconomic characteristics of clients. Also, credit appraisal and verification variables such as the income of borrowers, membership duration of borrowers, social capital, and capital of borrowers are significantly influencing loan portfolio performance. Additionally, the study revealed the

loan's grace period and the loan size have an inverse relation to the overall loan performance. However, the study does not consider the concept of credit portfolio monitoring since the monitoring process has proven to be the most efficient way to improve loan performance.

Furthermore, a study by Lagat et al. (2013) examined the effect of risk identification, analysis, evaluations, monitoring systems as well as mitigation of risks on loan performance. The study found that all risk management procedures have a substantial impact on the loan portfolio, with the exception of risk evaluation, which has no impact on the lending portfolio. The study also found that the majority of credit institutions largely implement risk management strategies as a method of loan portfolio management. However, the study failed to distinguish risk evaluation and risk analysis since the financial sector treats these concepts similarly. From another perspective, Njanike et al. (2009) examined the influence of proficient credit risk management on bank viability in Zimbabwe. The research concentrated on the inefficiencies prevalent within the banking sector during the 2004 Zimbabwe banking crisis. Additionally, it delved into various factors contributing to the crisis and identified essential components for effective credit risk management practices. The findings indicated that inadequate credit risk management significantly contributed to the financial crisis. Consequently, the study suggested that financial institutions should develop and implement credit scoring and evaluation protocols.

Another study Fiaklou et al. (2014) investigated the association between credit risk management methods and loan performance in Ghana. The study revealed a strong positive relationship between credit terms and policies, credit analysis and assessment, and loan performance. However, the study was unable to determine if credit risk management strategies had a substantial impact on loan portfolio performance in commercial banks since the loan portfolio tends to include a bunch of loans fitted together by specific institutions. Moreover, Garba & Kurawa (2014) Explored the influence of credit risk management practices on the profitability trend of Nigerian banks, aiming to assess the impact of default rates, asset per loan costs, and capital adequacy ratios on return on assets as indicators of profitability. The results demonstrated that credit risk management practices significantly affect the profitability of commercial banks. However, it's essential to note that this study focused solely on evaluating the impact of credit risk management approaches on profitability rather than on mitigating bad loans.

Thus, building on the reviewed literature, this study aimed to assess the influence of various credit risk management approaches (i.e., credit supervision, credit appraisal, and credit monitoring) on loan performance among microfinance institutions in Tanzania. This study is guided by the following conceptual framework, as per Figure 1. It has three independent variables: credit supervision, credit appraisal, and credit monitoring. The dependent variable is loan performance. However, this study included the average credit processing time as a control variable.

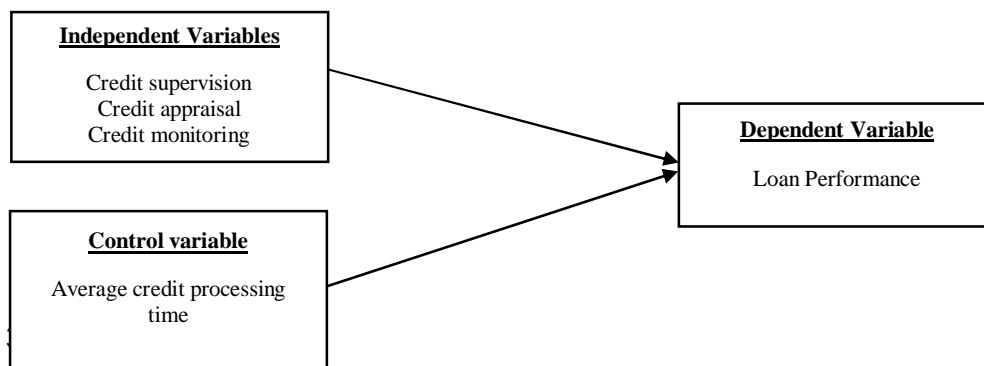


Figure 1 : Conceptual Framework

5. MATERIALS AND METHODS

This study utilizes a quantitative research approach, focusing primarily on causal research techniques. Data were gathered from five microfinance institutions in Tanzania, employing both probability (simple random) sampling and non-probability (purposive) sampling methods to select 140 respondents from these institutions. Primary data were collected through interviews and questionnaires administered to the selected respondents. The study also collected secondary data on a loan performance variable from financial reports. Data analysis utilized multiple regression analysis techniques. In analyzing the effect of credit risk management practices (the independent variable of interest in this study) on loan performance, the study utilized a multiple regression model following the Ordinary Least Square (OLS) assumptions. The linear regression model specification is indicated below.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where: Y = predicted variable (loan performance)

β_0 = constant

$\beta_1 - \beta_4$ = regression coefficients

$X_1 - X_4$ = value of predictor variables (credit supervision, credit appraisal, credit monitoring, and average credit processing time).

ε = error term.

Before embarking on data analysis, the study conducted a data test through variance inflation factor (VIF) to establish if there is no multicollinearity (no correlation among independent variables). Also, the study conducted a heteroskedasticity test (Breusch Pagan test) to determine whether the error terms have equal variances. In addition, a model specification test (Ramsey test) was conducted to assess if the investigated independent variables are optimal for deciding the response variable.

4. Results and Discussion

The following section presents the interpretation and discussion of the findings from the multiple regression analysis as per Table 1.

Table 1 : Multiple Regression Analysis

Variables	Coefficient	Std. Err.	t	P>t	[95% Conf.]	(Interval]
	6.763761***	1.403401	4.82	0.000	3.988265	9.539258
Credit Appraisal	0.1963263	1.625408	0.12	0.904	-3.018231	3.410883
Credit Monitoring	4.164968***	1.382031	3.01	0.003	1.431737	6.898199
Average Processing Time (days)	-0.8413328***	0.1735064	-4.85	0.000	-1.184475	-0.4981905
Constant	43.90659***	2.852985	15.39	0.000	38.26426	49.54892
Number of Observations	140					
F (4, 135)	19.64					
R-square	0.3679					
Adjusted R-square	0.3492					

Root MSE	8.0179
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Source: Data Analyzed (2024)

Note: *, **, *** denote significance level at $p < 0.1$, $p < 0.05$, and $p < 0.01$ respectively.

Based on the outputs of the multiple linear regression model outlined in Table 1, the analysis shows that almost all variables, i.e., credit supervision, credit monitoring, and average credit processing time, are found to be significant in influencing the loan performance among the microfinance institutions in the country. However, credit appraisal is insignificant in influencing loan performance.

Credit supervision and loan performance

The findings also reveal a positive and significant impact of credit supervision on loan performance. When holding other variables such as credit monitoring, appraisal, and average credit processing time constant, the presence of credit supervision during the loan provision process leads to a 6.76% increase in loan performance compared to unsupervised loans. Consequently, the average loan performance rate for unsupervised credits is 43.9%, significantly lower than the projected 50.66% for supervised and controlled credits. These findings support the results of the study (Nikolaidou & Vogiazas, 2014). The impact of credit supervision on loan performance underscores its importance in mitigating bad loans within the microfinance sector. Effective supervision of the credit provision process enhances the likelihood of achieving higher loan performance compared to unsupervised loans. This underscores the significance of implementing thorough credit supervision practices to ensure better loan performance outcomes within organizations.

Credit monitoring and loan performance

Credit monitoring has emerged as a significant factor impacting loan performance. According to the findings, when all other variables are held constant (including credit supervision, appraisal, and average credit processing time), effective credit monitoring after issuance results in a 4.16% increase in loan performance within microfinance institutions compared to scenarios where credit monitoring is absent. This indicates that the average loan performance for monitored credits stands at 48.06%, contrasting with 43.9% for unmonitored credits. These findings align with previous studies (Chikalipah, 2018; Essendi, 2013; Maseke & Swartz, 2021).

Credit appraisal and loan performance

The findings reveal that the variable credit appraisal is insignificant in influencing loan performance within microfinance institutions. Whenever other factors, i.e., credit monitoring, supervision and average credit processing time, are held constant, the presence of credit appraisal during a loan application process does not yield expected loan performance. Therefore, the average loan performance rate for the credits that had no effective credit appraisal was regarded as 43.9%. The results imply that there is no evidence that credit appraisal can influence loan performance. However, these results contradict those of Hesborn et al. (2016), who argue for the positive and significant influence of credit appraisal and overall loan performance, particularly in reducing bad loans in microfinance institutions.

Average credit processing time and loan performance

The control variable, average credit processing time, was found to significantly affect overall loan performance. The findings revealed that holding other factors constant, an increase in the average credit processing time resulted in a fall in the average loan performance by 0.84%. Hence, the results imply that microfinance institutions should use less credit processing time

to increase loan performance. In other words, the results suggest that the better-performing loans are the ones that took less processing time.

5. Conclusion and Recommendations

As per the findings, this study supports that there is an influence of credit supervision, monitoring, and average credit processing time on the overall loan performance in microfinance institutions. However, there is no evidence to support that credit appraisal has a significant effect on loan performance. These results are in line with the theoretical explanations that credit risk management approaches have a substantial effect on loan performance and the mitigation of bad loans. The study recommends that microfinance institutions effectively utilize various credit risk management approaches to enhance their loan performance and remain profitable.

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