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Research Article

The Impact of Credit Risk Management on the Profitability of Microfinance Institutions in Mongu, Zambia

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About Article

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ABSTRACT

This study aimed to assess the effect of credit risk management (CRM) on the profitability of microfinance institutions (MFIs) in Mongu, Zambia. The objectives were to evaluate the existing CRM framework, its effect on revenue, and its impact on operational costs. Using a mixed-method approach data were collected from a sample of nine MFIs. The study addresses a critical research gap, the lack of empirical studies linking specific CRM practices to profitability outcomes within Zambian MFIs, particularly Mongu. The findings revealed that all MFIs have formal CRM frameworks and adhere strictly to credit appraisal procedures, 100% response from MFIs, regularly conduct creditworthiness assessments, and train staff on risk identification and mitigation. Regarding revenue, effective CRM practices were found to significantly enhance loan repayment rates (100%), reduce defaults, and improve interest income and revenue collection (88.9%). One-sample t-tests confirmed these observations, with significant results ($p = 0.0067$). With regard to Cost, findings showed that 88.9% of MFIs agreed that CRM increases operational expenses due to monitoring, credit assessments, and staff workload, while 69.7% recognized that investments in CRM systems and training are cost-effective in the long term. One-sample t-tests confirmed to have a significant impact on increasing costs with $p = 0.0467$. The study concluded that CRM is pivotal in enhancing MFI profitability by strengthening revenue streams and minimizing default risks despite higher operational costs. It recommends improving collateral requirements, adopting robust credit scoring systems, continuous staff training, and leveraging digital CRM technologies to improve efficiency and cost management. Thus, the results confirm a strong relationship between credit risk management and profitability, confirmed by the statistically significant tests ($p < 0.05$). This study contributes to existing literature by providing qualitative, context specific evidence from Mongu, Zambia, showing how CRM frameworks affect both revenue generation and cost structures.

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1. INTRODUCTION

1.1. Background

Risk is an inevitable phenomenon that has lived with humankind since time immemorial. In our domestic and especially in our business life, we find ourselves in situations where risk taking becomes the solution to our break through. Nevertheless, one should find a way to minimize or manage/mitigate this risk in order not to affect the expected result from a given investment. In the financial sector, risk management is seen as one of the most essential internal circuits upon which decisions are made by financial institutions (Aurelija *et al.*, 2014).

Credit risk management is a critical component of financial sustainability and operational efficiency in microfinance institutions MFIs. According to Mwansa (2020) Zambia MFIs that use rigorous borrower assessment and credit scoring techniques report lower non-performing loans and higher return on assets. CRM improves operational efficiency in that it stream lines credit processes and helps identify and resolve risky accounts early. This improves internal efficiency in reducing time and resources spent on recovery and litigation. Chikuba (2014) and Chansa (2022) observed that Zambian MFIs with standardized credit appraisal systems and internal controls spend less on debt recovery, resulting in improved cost efficient and higher profit margin.

In Zambia MFIs are vital for supporting the informal sector, especially in rural and semi-urban regions. One such area is Mongu district. Mongu is both the provincial capital and a key economic hub for the region. It lies along the Barotse floodplain, which is central to the area's agricultural and fishing activities (Kabaghe *et al.*, 2022). Despite improvements in road access and the established of financial service providers in urban Mongu, financial inclusion in rural parts remains low. Many residents depend on informal credit arrangements or microfinance services provided by MFIs and village banks. In Mongu, Western Province, MFIs are especially vulnerable due to high poverty levels, seasonal income sources, and limited financial literacy among borrowers (Simwanza, 2018). These conditions amplify credit risk and highlight the need for strong risk management frameworks tailored to local people.

1.2. Statement of the problem

While the microfinance sector in Zambia has expanded rapidly over the past two decades, many MFIs continue to face profitability challenges due to rising loan defaults and inadequate risk management practices. In Mongu, these challenges are more pronounced because of high poverty levels, seasonal income patterns, limited credit information, and weak enforcement mechanisms. Many MFIs lack comprehensive credit risk frameworks, leading to poor loan portfolio quality and reduced financial performance. Existing studies on credit risk management in Zambia have primarily focused on commercial banks, with limited attention to microfinance institutions particularly in rural contexts. This research sought to fill this gap by examining the relationship between credit risk management practices and profitability among MFIs operating in Mongu.

1.3. Research objectives

The study was guided by the following objectives:

- i. To assess the credit risk management framework being used by microfinance institutions in Mongu Zambia,
- ii. To investigate the effect of credit risk management practices on the revenue of MFIs in Mongu Zambia and
- iii. To investigate the effect of credit risk management practices on the operational cost of MFIs in Mongu Zambia.

1.4. Research questions

Specific Research Questions:

- i. What are the credit risk management frameworks employed by microfinance institutions in Mongu Zambia?
- ii. What is the effect of credit risk management practices on the revenue of MFIs Mongu Zambia?
- iii. What is the effect of credit risk management practices on the cost of MFIs in Mongu Zambia?

1.5. Theoretical framework

The study applied the Credit Management Theory proposed by Woolock and Narayan (2000) which states that the markets for credit or loans are highly shaped by lenders (MFIs) strategically, for potential borrowers screened and their opportunistic behavior addressed which is encouraged by the nature of loan contracts. Accordingly, lenders usually increase credit pricing to a level that they expect returns to be maximized. This often excludes small, risky and costly borrowers. The consumption of credit tends to be adversely related to both the interest rates and the required collateral. Commercial banks tend to apply the credit management theory taking advantage of the opportunistic behavior presented by potential borrowers. Consumption of credit is collated to the collateral requirements and a variable interest rate pricing policy might be utilized by individual banks (Tanui *et al.*, 2015)

1.6. Conceptual framework

The framework identifies the independent variables and dependent variables. In this study, the independent is the aspect of credit risk management and the dependent variable is the profitability of MFIs, the conceptual framework also shows the assumed relationships between them.

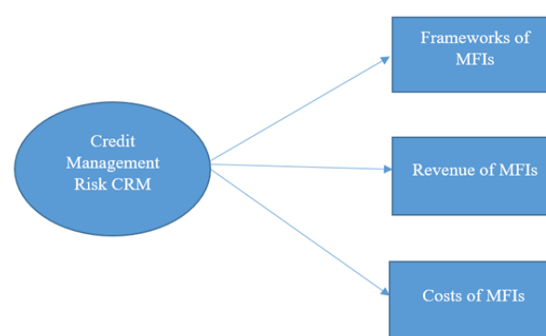


Figure 1. Conceptual framework

1.6. Significance of the study

The findings of this study are expected to provide valuable insights for policymakers, practitioners, and stakeholders in the microfinance sector. For MFI managers, the study highlights effective risk management practices that enhance financial



performance. For policymakers and regulators, it provides evidence-based recommendations to strengthen supervisory frameworks. Additionally, the study contributes to academic literature on microfinance and risk management in developing economies.

2. LITERATURE REVIEW

This chapter reviewed existing literature related to credit risk management and its impact on the profitability of microfinance institutions (MFIs). It discussed relevant thematic areas developed from objectives and included literature that agreed with the findings at global, African, sub Saharan and Zambia perspectives, personal critique of the literature review and identifies gaps in the literature to establish the basis for the current research.

2.1. Credit risk management framework used in MFIs

Credit risk management is central to the sustainability of MFIs, given their exposure to high default risks due to lending to low-income clients with limited collateral. Credit risk management (CRM) has been identified as a critical determinant of MFI profitability (Silwimba & Fadun, 2022). Gutierrez and Lyman (2021) report that MFIs with robust credit appraisal and monitoring systems were less affected by the repayment crises triggered by COVID-19. Similarly, Bédécarrats, Guérin and Roubaud (2021) found that institutions adopting digital CRM tools experienced faster recovery of profitability post-pandemic. Omowole *et al.* (2024) and other scholars argue that CRM frameworks consist of systematic appraisal, screening, monitoring, and recovery mechanisms designed to protect loan portfolios. Marimira and Gumel (2025) conducted a research on effects of credit risk on profitability and sustainability, using a mixed methods approach with a sample of 385 participants found that credit risk has a significant negative effect on the profitability and sustainability of MFIs. Additionally other studies as noted by Karanja & Simiyu (2022) studied Kenyan MFIs and found that their firms conduct client appraisal which were effective. The study also found that the firm checks at the client's credit worthiness before issuing a loan and that loan performance can be improved by calling customers frequently to remind them off their loans obligation particularly the perennial defaulters. Ngimanang (2025), used mixed method research design from a sample of 41 credit unions, the study found that MFIs can better manage its credits risks by enhancing the practice of credit scoring, limiting credit exposure, loan monitoring, and collateral requirement in that decreasing order of importance.

Globally, credit risk management (CRM) has been identified as a critical determinant of MFI profitability. Gutierrez and Lyman (2021) report that MFIs with robust credit appraisal and monitoring systems were less affected by repayment crises triggered by the COVID-19. Similarly, Bédécarrats *et al.* (2021) found that institutions adopting digital CRM tools experienced faster recovery of profitability post-pandemic.

Mutuku and Kathomi (2022) studied Kenyan MFIs and found that CRM strategies such as loan restructuring and digital repayment improved return on assets (ROA). Likewise, Tchouassi and Fonta (2021) documented that diversified lending

portfolios and stronger CRM policies reduced credit defaults and improved profitability across West African MFIs. Abubakar and Handule (2022) concluded that portfolio-at-risk (PAR) ratios remain negatively correlated with profitability, stressing the importance of formal CRM frameworks.

Hlaing & Shein (2023) conducted a research on the Impact of Credit Risk Management on Microfinance Institutions' Performance in Mandalay, The research style used in this study was descriptive research design, and the findings showed that effects of credit risk identification, credit risk quality, and credit risk control on MFI loan performance are statistically significant. As a result, they have an impact on MFI loan performance since MFIs have a business strategy in place to detect risk and monitor loan applicants' credit trustworthiness. Chansa and Mulenga (2022) highlighted that the Bank of Zambia has been encouraging MFIs to formalize their CRM systems, though adoption has been uneven across institutions. Other studies conducted have shown that effective Credit Risk Management framework, such as credit assessment, mitigation, identification, reporting and loan monitoring are crucial for MFIs to achieve financial sustainability (Kamanga, 2025; Musonda, 2018).

Mwale and Chileshe (2023) highlighted that MFIs with structured CRM policies experienced smaller declines in profitability during the pandemic than institutions with weaker frameworks. Mutinda and Khayesi (2016) examined 40 credit risk personnel from 10 MFIs using a descriptive survey. Their findings showed heavy reliance on manual systems and informal borrower assessments, concluding a need for modernization

2.2. The role of credit risk management on revenue of microfinance institutions

Credit risk management (CRM) is at the heart of operational sustainability and revenue stability for Microfinance Institutions (MFIs). Because MFIs serve high-risk, low-income clients who often lack formal credit histories, the risk of loan default is inherently high. Effective CRM practices such as borrower screening, credit scoring, loan monitoring, and recovery enforcement not only reduce default rates but also protect and enhance the institution's interest and fee income, which form the bulk of MFI revenue. In Zambia, where MFIs often operate in volatile economic environments, the ability to manage credit risk effectively is directly tied to their capacity to generate stable revenue.

Demirgüç-Kunt *et al.* (2021), in the Global Findex Database 2021, showed that MFIs adopting digital repayment and monitoring technologies maintained steadier revenue flows despite disruptions. Similarly, Mersland and Nyarko (2022) found that institutions with rigorous CRM practices safeguarded their interest income and diversified revenue sources. The literature widely agrees that CRM positively influences MFI revenue by improving repayment rates and reducing defaults.

Teneng and Kehdinga (2023) carried out a study to understand the relationship between credit management and the financial performance of Micro Finance Institutions taking a sample of 43 MFIs administrators in Cameroon using a quantitative research design found that good lending policies such as proper study of the loan documents, group liability, monitoring repayment



frequency would increase financial performance. In addition, recovery techniques such as constant customer reminder, prolonging recovery period, penalties enabled MFIs to perform financially well.

Ouma and Mugo (2021) showed that formalised CRM frameworks in Ugandan MFIs improved repayment performance and institutional resilience. Similarly, Mensah and Boateng (2022) in Ghana found that well-structured frameworks reduced default rates. Idowu *et al.* (2024) found that credit risk monitoring and credit mitigation impacts performance of microfinance. Kadima *et al.* (2023) found that prudent and effective credit risk management boosts net profit margins, return on capital invested, and cash flow.

Kiplimo (2022) demonstrated that mobile-based repayment platforms introduced after 2020 significantly enhanced revenue streams for East African MFIs. In West Africa, Kouassi and Dovi (2023) reported that CRM frameworks reduced loan losses and protected revenue bases during the pandemic. Akintoye and Oladapo (2022) confirmed that proper risk evaluation and monitoring were directly associated with improved revenue stability. Adeyemi (2020), in a study of Nigerian MFIs, revealed that those applying formal credit appraisal systems and regular monitoring practices reported higher client repayment rates and better revenue performance. The study concluded that the effectiveness of CRM directly influences the quality of the loan portfolio, which in turn affects revenue generation.

In the Zambian context, Banda and Phiri (2022) found that MFIs with updated CRM policies and regular monitoring practices recorded steadier revenues. Chikumbi (2019) found that effective credit appraisal and monitoring practices by MFIs enhanced loan repayment rates and boosted revenue. This resonates with the current study's finding that respondents strongly agreed that preventive measures like client screening and monitoring safeguarded revenue streams.

According to Bank of Zambia (BOZ) Microfinance Report (2021) a research using sectorial performance monitoring on national data from licensed MFIs was conducted. The findings showed that total income of MFIs rose slightly despite economic challenges, but 92% of income still came from interest charges. Free-based income remains underdeveloped. The conclusion on the findings revealed that revenue remains interest-driven; policy support and innovation are needed to diversify income. Banda and Phiri (2022) found that MFIs with updated CRM policies and regular monitoring practices recorded steadier revenues between 2020 and 2022. Chikuba (2014) investigated the effect of CRM on financial performance in Zambian MFIs and found that structured credit screening and client follow-ups significantly improved loan recovery, leading to increased revenue generation. Institutions with established CRM frameworks were more likely to maintain healthy cash inflows from interest income.

2.3. Credit risk management practices on operating costs in microfinance institutions

Rozas and Reichert (2020) observed that comprehensive frameworks initially increase costs but result in lower default-related expenses in the long term. World Bank (2022) data further highlights that digitisation of CRM reduces per-loan

costs. Globally, several research has been conducted on the impact of credit risk management practices on operating Costs in Microfinance Institutions (Fadun & Silwimba, 2023). CRM practices have mixed effects on operating costs.

Other evidence suggests that CRM raises administrative costs in the short term but leads to lower portfolio-at-risk (PAR) and improved efficiency in the long term (Rozas & Reichert, 2020). Panel analyses using MIX data confirm that MFIs investing in CRM systems report better loan quality and lower write-offs (Cull *et al.*, 2009). Digitalisation has recently emerged as a major cost lever; by automating credit appraisal and monitoring, MFIs can reduce per-loan CRM costs (World Bank, 2022; CGAP, 2021). Economies of scale also matter larger MFIs can spread fixed costs over a broader portfolio, thereby reducing CRM costs per client (Ledgerwood & Earne, 2020).

However, technological innovations such as mobile data collection and SMS repayment reminders are lowering monitoring costs while maintaining repayment performance (FSD Africa, 2021; Kiplimo, 2022). Akintoye and Oladapo (2022) found that prevention-oriented CRM strategies, such as client education and credit scoring, deliver greater cost savings than expensive recovery procedures.

MFIs typically face high CRM costs due to dispersed rural portfolios and limited infrastructure (Microfinance Barometer, 2022). Abubakar and Handule (2022) highlight that higher CRM expenditure does not automatically translate into efficiency gains; the impact depends on governance quality and the targeting of CRM investment.

Kimei *et al.* (2016), in Tanzania, conducted regression analysis on 30 MFIs and found that while credit risk controls increased operational overheads (due to staff travel and monitoring visits), these investments reduced default rates and protected revenue streams.

Their findings support the view that CRM costs are justified by improved financial performance. Tchouassi (2011) reported that most MFIs in East and Central Africa lacked automated systems and had to rely on field agents for risk assessment and loan follow-ups making CRM one of the largest cost components.

In the Zambian context, studies and sectorial reviews suggest that smaller MFIs still depend on manual CRM processes credit committees, field visits, and paper-based client tracking which inflate operating costs (Bank of Zambia, 2023; Nkhoma, 2023). Larger MFIs, however, are gradually integrating digital tools such as SMS reminders and management information systems, showing early evidence of cost reduction (Banda & Phiri, 2022; Mwale & Chileshe, 2023). Additionally, Nkhoma (2023) reported that rural MFIs faced high operating costs due to manual CRM processes, though gradual introduction of digital monitoring helped reduce these expenses. Institutions with weak CRM reported higher long-term costs due to loan write-offs and portfolio degradation. Mutale (2019) also found that institutions with structured CRM frameworks had higher short-term costs but benefited from better cost control over time.

The study noted that MFIs using basic technologies (e.g., Excel sheets, SMS alerts) were more efficient than those relying entirely on paper-based systems. However, limited capital remains a barrier to adopting cost-effective CRM technology in Zambia. Kaluba (2019) confirmed that although CRM



requires resources, it significantly lowers portfolio-at-risk, justifying the expense. The present study collaborates these findings, respondents acknowledged CRM as cost-intensive but emphasized its importance in reducing defaults and safeguarding long-term profitability.

The reviewed literature shows strong alignment with the findings of this study. First, most MFIs in Zambia, Africa, and globally have formal CRM frameworks, though enforcement and adoption of collateral and credit scoring vary. Second, CRM positively influences revenue by enhancing repayment rates and protecting interest income, with preventive measures proving more effective than corrective actions. Third, while CRM raises operational costs, these are offset by long-term gains through reduced defaults and improved profitability. These insights reinforce the conclusion that CRM is essential for the sustainability of MFIs in Mongu and beyond.

3. METHODOLOGY

The study adopted a mixed method design, descriptive statistics and inferential research design. Data were collected from nine MFIs in Mongu through structured questionnaires. The analysis employed descriptive statistics (means, frequencies and standard deviations percentages) and inferential tests (one-sample t-tests).

A one-sample t-tests was used to check the overall model significance. It is a statistical method in which the variation in a set of observations is divided into distinct components. Comparing a sample's mean to a hypothesized population mean determines whether there is enough statistical evidence to conclude that the population mean is different from the hypothesized value. A hypothesized mean value of 3 was used to represent the neutral point on the five-point Likert scale. This allowed the study to test whether respondents' mean ratings of CRM practices and outcomes significantly differed from neutrality. In instances where a higher standard of performance was expected, a mean value of 4 was used to evaluate whether CRM practices met desired effectiveness levels. A critical p value of 0.05 was also used to determine whether the overall model was significant or not. The data was analyzed using statistical software Megastat excel. Results were presented in the form of tables, graphs, frequency counts and statistical reports.

The findings of this study can only be directly applicable to MFIs in Zambia hence was not directly applicable to any other industry since the setting was different. It is also important to note that the relevance of this information is limited to the duration within which the study was carried out. Changes were definitely bound to occur that may significantly transform the way activities are executed in the MFIs in Mongu.

4. RESULTS AND DISCUSSION

This chapter presents the findings from the study in accordance with the objectives. The first part presents the background and/or demographic information of respondents and the second part presents results according to the objectives of the study.

4.1. Demographic characteristics

This section consists of information that describes basic

characteristics such as gender of respondents, age group, period of operation and type of MFIs.

4.1.1. Gender respondents

The study sought to determine the gender of the respondents; findings from the study as shown in figure 2 indicate that the majority 66.7% were males while females were 33.3%. This indicates that the study was not biased as it involved both genders.

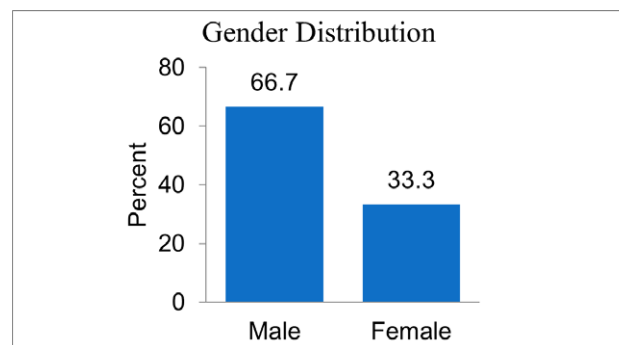


Figure 2. Gender respondents distribution

4.1.2. Age group

Apart from gender, the study requested the respondents to state their age. The study as shown in figure 3 below indicates that majority 56.6% of the respondents were aged between 36 and 45 years, 33.3% were aged between 26 and 35 years, 11.1% were aged between 18 and 25 years

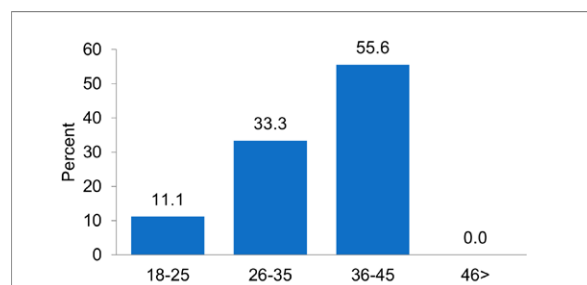


Figure 3. Distribution of respondents by age category

4.1.3. Period of operation

The study also sought to establish the period of operation of micro finance institutions and the results showed that (77.8%) MFIs have been in operation for 4-6 years and (22.2%) MFIs have been in operation for 6 years and above as shown in figure 4.

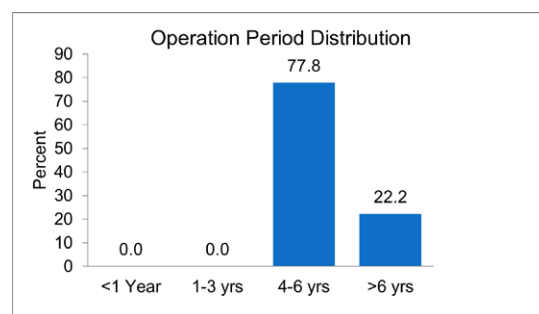


Figure 4. Duration of microfinance institutions



4.2. Credit risk management frameworks for MFIs in Mongu

The first objective of the study was to assess the credit risk management framework being used by microfinance institutions in Mongu Zambia.

4.2.1. Presence of credit risk management frameworks in MFIs

The results showed that most MFIs in Mongu have established

formal credit risk management policies with 100% response rate and strictly follow credit appraisal procedures before disbursing loans. Regular creditworthiness assessments are conducted, and loan officers are trained in credit risk identification and mitigation. However, the use of client credit scoring systems and collateral requirements were relatively weak, with mixed responses from participants, suggesting an area that requires strengthening. The results are shown in table 1 below.

Table 1. Credit risk management frameworks frequencies

Statement	Disagree	Neutral	Agree	Mean	Std Dev
Our MFI has a formal credit risk management policy.			100%	4.444	0.527
Credit appraisal procedures are strictly followed before disbursing loans.			100%	4.556	0.527
We conduct regular creditworthiness assessments for all clients			100%	4.444	0.527
Loan officers are trained on credit risk identification and mitigation.			100%	4.222	0.441
We use a credit scoring system or client rating system.		44.40%	55.6%	3.778	0.833
Collateral requirements are considered before approving a loan	44.40%	11.10%	44.4%	2.776	1.787
Credit risk reports are regularly prepared and reviewed		22.20%	77.8%	4	0.707
Average				4.0314	0.764

4.2.2. Significant tests – mean vs hypothesised value

To further assess the credit risk frameworks being used by MFIs in Mongu Zambia a one-sample t-tests were conducted comparing the sample means of various CRM-related statements against hypothesized benchmark values. The results are summarized in the table 2 below. The results of the one-sample t-tests

show that most aspects of credit risk management frameworks were statistically significant, meaning respondents rated them above the hypothesized benchmark values. This indicates that MFIs in Mongu do have structured and functioning credit risk management frameworks that are positively perceived by employees.

Table 2. shows the results from the mean vs hypothesized value test

Variable	Hypothesized Mean	Sample Mean	std Dev	df	t-value	p-value (one-tailed)	Decision ($\alpha = 0.05$)
Our MFI has a formal credit risk management policy.	4	4.444	0.527	8	2.53	0.0176	Reject H_0
Credit appraisal procedures are strictly followed before disbursing loans.	4	4.556	0.527	8	3.16	0.0067	Reject H_0
We conduct regular creditworthiness assessments for all clients	4	4.444	0.527	8	2.53	0.0176	Reject H_0
Loan officers are trained on credit risk identification and mitigation.	4	4.222	0.441	8	1.51	0.0845	Fail to Reject H_0
We use a credit scoring system or client rating system.	3	3.778	0.833	8	2.8	0.0116	Reject H_0
Collateral requirements are considered before approving a loan	3	2.778	1.787	8	-0.37	0.6406	Fail to Reject H_0
Credit risk reports are regularly prepared and reviewed	3	4	0.707	8	4.24	0.0014	Reject H_0
Overall	3.572					0.11143	Fail to Reject H_0



4.3. Effect of credit risk management on revenue

The second objective of the study was to investigate the effect of credit risk management practices on the revenue of MFIs in Mongu Zambia.

4.3.1. Effect of credit risk management on revenue

The findings presented in Table 3 reveal that 100% respondents agreed that credit risk management practices play a critical role in enhancing revenue performance in MFIs. The findings further revealed 88.8% respondents agreed that effective credit risk management leads to higher interest income due to reduced

loan defaults while most participants supported this view, 11.1% remained neutral. Similarly, 88.9% agreed and while 11/1% were neutral to the statement that revenue collection improves when proper credit monitoring.

In addition, client screening was identified as an effective way of reducing the chances of lending to defaulters with 77.7% agreeing while 22.2% were neutral. 100% agreed to the use of credit checks, which respondents believed enhances institutional revenue and 66.7% respondents agreed to the statement loan rescheduling and recovery strategies protect revenue streams, while 33.3% were neutral.

Table 3. Effect of credit risk management on revenue

Statement	Disagree	Neutral	Agree	Mean	Std. Dev
Credit risk management practices help in improving loan repayment rates.			100%	4.556	0.527
Effective CRM leads to higher interest income due to lower defaults.		11.10%	88.9%	4.333	0.707
Revenue collection improves when proper credit monitoring is in place.		11.1%	88.9%	4.222	0.667
Client screening reduces the chances of lending to defaulters		22.20%	77.7%33	4.222	0.833
The use of credit checks enhances our institution's revenue.			100%	4.222	0.441
Loan rescheduling and recovery strategies protect our revenue streams.		33.30%	66.7%	3.669	0.782
Average				4.1336	0.66

4.3.2. Statistical Significant Tests on CRM on Revenue - Mean vs Hypothesized Value

To further analyze the effect of credit risk management (CRM) practices on revenue, a one-sample t-tests were conducted

comparing the sample means of various CRM-related statements against hypothesized benchmark values. The results are summarized in the table 4 below.

Table 4. below shows the results from the Mean vs Hypothesized Value Tests

Variable	Hypothesized Mean	Sample Mean	Std Dev	Df	t-value	p-value (one-tailed)	Decision
Credit risk management practices help in improving loan repayment rates.	3	4.556	0.527	8	–	< 0.05	Reject H_0
Effective CRM leads to higher interest income due to lower defaults.	3	4.333	0.707	8	5.66	0.0002	Reject H_0
Revenue collection improves when proper credit monitoring is in place.	3	4.222	0.667	8	5.5	0.0003	Reject H_0
Client screening reduces the chances of lending to defaulters	3	4.222	0.833	8	4.4	0.0011	Reject H_0
The use of credit checks enhances our institution's revenue.	4	4.222	0.441	8	1.51	0.0845	Fail to Reject H_0
Loan rescheduling and recovery strategies protect our revenue streams.	3	3.889	0.782	8	3.41	0.0046	Reject H_0
Overall	3	–			3.16	0.0067	Reject H_0

The results indicate that for most CRM statements as shown from the table above, the mean values were significantly greater than the hypothesized benchmarks, with p-values less than 0.05. This demonstrates that respondents strongly believe

that credit risk management practices enhance loan repayment rates, improve revenue collection, strengthen client screening, and reduce default-related risks. These findings highlight that CRM is not only well adopted but also positively perceived as



beneficial to the profitability of MFIs in Mongu.

4.4. Effect of credit risk management on cost

The third objective was to investigate the effect of credit risk management practices on the cost of MFIs in Mongu Zambia. The results are presented in Table 5 below. The results presented in table 5 indicate that 78.9% largely agreed that credit risk assessment adds to operational costs while 11.1% were neutral. Similarly, monitoring and follow-up of loans were widely perceived to increase staff workload and, consequently, institutional costs, 88.90% agreed with this statement while 11.1% were neutral.

On the other hand, 55.6% respondents agreed that high CRM costs are offset by reduced default-related losses while 44.4% were neutral. Furthermore, 66.6% respondents agreed that investments in CRM systems, software, and staff training are cost-effective in the long run while 33.3% were neutral. Interestingly, fewer respondents with 22.2% agreed that MFIs experience reduced loan write-offs due to effective, CRM while 77.8% were neutral, similarly, respondents expressed mixed views on whether CRM costs significantly affect overall profitability. 55.6% agreed with the statement, 33.3% were neutral while 11.1% disagreed

Table 5. effect of credit risk management on cost

Statement	Disagree	Neutral	Agree	Mean	Std. Dev
Credit risk assessment adds to operational costs.		11.10%	88.9%	4	0.5
Monitoring and follow-up of loans increase staff workload and costs.		11.10%	88.90%	3.889	0.333
High CRM costs offset by reduced default-related loss		44.40%	55.6%	3.889	0.928
Investments in CRM systems software training are cost-effective in the long run.		33.30%	66.7%	3.889	0.782
Our MFI experiences fewer write-offs due to effective CRM.		77.80%	22.2%	3.333	0.707
Costs related to credit risk management affect our overall profitability.	11.1%	33.30%	55.60%	3.333	1
Average				3.722	0.708

To further assess the effect of credit risk management (CRM) practices on cost, a one-sample t-tests were conducted comparing the sample means of various CRM related statements against

hypothesized benchmark values. The results are summarized in the table 6 below

Table 6. Mean vs Hypothesized mean value

Tested Indicators	Hypothesized Mean	Sample Mean	Std Dev	Df	t-value	p-value	Decision
Credit risk assessment adds to operational costs	3	4	0.500	8	6	0.0002	Reject H_0
Monitoring and follow-up of loans increase staff workload and costs	3	3.889	0.333	8	8	2.18e-05	Reject H_0
High CRM costs are offset by reduced default-related losses.	3	3.889	0.928	8	2.87	0.0104	Reject H_0
Investments in CRM systems software training are cost-effective in the long run.	3	3.889	0.782	8	3.41	0.0046	Reject H_0
Our MFI experiences fewer write-offs due to effective CRM.	3	3.333	0.707	8	1.41	0.0975	Fail to Reject H_0
Costs related to credit risk management affect our overall profitability.	3	3.333	1.000	8	1	0.1733	Fail to Reject H_0
Overall	3				3.7817	0.0477	Reject H_0

The findings indicate that four of the six CRM practices have statistically significant impact on increasing the cost when compared to the hypothesized baseline value. This suggests that these particular practices are cost intensive, potentially due to the implementation of robust control mechanisms, credit evaluation models or compliance processes. On the other hand the write-offs due to effective CRM and Costs related to credit

risk management affect overall profitability statements did not show a statistically significant increase in cost, implying they may be cost neutral or cost efficient compared to others. Based on the statistical analysis we can conclude that credit risk management practices have a significant effect on cost. Although credit risk management increases operational expenses, the evidence suggests that it has a net positive



effect on profitability. The benefits of improved repayment, reduced defaults, and sustainable revenue streams outweigh the additional costs incurred. The one-sample t-results across different dimensions of CRM (framework, revenue, and costs) generally showed statistically significant differences in some areas, implying that the impact of CRM practices is relatively consistent across MFIs in Mongu.

4.5.2. Credit risk management framework

The results showed that most MFIs in Mongu have established formal credit risk management policies and strictly follow credit appraisal procedures before disbursing loans. Regular creditworthiness assessments are conducted, and loan officers are trained in credit risk identification and mitigation. The one-sample t-tests showed that most MFIs in Mongu have formal credit risk policies, conduct credit appraisals, and regularly assess client creditworthiness. Importantly, credit risk reports are consistently prepared and reviewed ($p = 0.0014$). These findings demonstrate that CRM frameworks are statistically significant in shaping MFI operations, though certain tools collateral and training require strengthening.

Other studies reinforce this observation, such as Mensah and Boateng (2022), focusing on Ghana, established that formalized frameworks are strongly associated with reduced default rates and improved financial health of MFIs. Likewise, Mutuku and Kathomi (2022) in Kenya reported that systematic credit risk strategies introduced after COVID-19 helped MFIs stabilize performance despite economic shocks. These findings resonate with the positive significance in this study, highlighting that structured frameworks indeed have a measurable impact on operational efficiency and profitability.

4.5.3. Effect of CRM on Revenue

The results on the effect of CRM on revenue indicated a strong positive relationship. Respondents overwhelmingly agreed that effective credit risk practices improve loan repayment rates, enhance interest income, and boost overall revenue collection. These findings underscore the importance of rigorous credit monitoring, client screening, and recovery strategies in enhancing profitability. Using a one-sample t-test, strong evidence emerged that CRM practices positively influence revenue generation. The study found that CRM significantly improves loan repayment $p < 0.05$. Overall, the one-sample t-test results confirm that credit risk management practices are significantly effective in enhancing the revenue performance and sustainability of MFIs in Mongu, Zambia.

These findings are consistent with Noel Marimira, Babandi Ibrahim Gumel (2025) found that credit risk has a significant negative effect on the profitability and sustainability of MFIs Effects of Credit Risk on Profitability and Sustainability. Similarly, Moti *et al.* (2012) found that effective client screening and monitoring mechanisms reduce credit default and strengthen portfolio quality.

4.5.4. Effect of CRM on Costs

The results indicated that respondents widely agreed that CRM activities, such as credit risk assessments, monitoring, and follow-ups, significantly increase operational costs. For

example, 77.8% of respondents agreed that risk assessment adds to costs, while 88.9% agreed that loan monitoring and follow-ups increase staff workload and expenses. The one-sample t-test results confirmed that credit risk management practices have statistically significant effect on the operational costs of MFIs in Mongu Zambia with a an overall p value = 0.0477.

Previous studies have reported findings consistent with the present study. Chilufya and Mumba (2018) noted that MFIs in Lusaka face high operational costs due to CRM activities such as client screening, loan monitoring, and staff training. However, these practices were linked to reduced loan write-offs and improved loan repayment rates, ensuring institutional sustainability. Mwape (2019) similarly argued that although CRM is costly, especially for rural MFIs, its role in reducing portfolio-at-risk and boosting financial performance cannot be overlooked. These results confirm that the costs reported in Mongu are not unique but reflect broader Zambian realities. Finally, the one-sample t-tests across the three constructs revealed statistically significant differences in respondents' perceptions of CRM's impact on revenue and costs. This suggests a broad consensus among staff that CRM is indispensable, with costs viewed as an acceptable trade-off for long-term financial benefits.

In conclusion, the findings indicate that credit risk management has a statistically significant effect on the profitability of MFIs in Mongu, Zambia. Strong CRM frameworks directly improve revenue through better loan recovery and default reduction. Although implementation costs are initially high, they are outweighed by the long-term benefits of reduced losses and enhanced efficiency. Weaknesses were observed in the areas of loan officer training, collateral enforcement, and credit checks, highlighting opportunities for policy and operational strengthening. The findings highlight the need for continuous investment in CRM policies, staff training, and monitoring systems to balance cost efficiency with sustainable profitability. Strengthening weak areas such as collateral management and client rating will further improve outcomes and ensure that MFIs remain financially resilient. Thus, the study concluded that CRM is an essential driver of profitability for MFIs, provided that gaps in implementation are addressed.

5. CONCLUSION

The study was generally aimed at assessing the effect of credit risk management on the profitability of microfinance institutions in Zambia with the target of MFIs in Mongu. The findings indicate that credit risk management has a statistically significant effect on the profitability of MFIs in Mongu, Zambia. Strong CRM frameworks directly improve revenue through better loan recovery and default reduction. Although implementation costs are initially high, they are outweighed by the long-term benefits of reduced losses and enhanced efficiency. Weaknesses were observed in the areas of loan officer training, collateral enforcement, and credit checks, highlighting opportunities for policy and operational strengthening. The findings highlight the need for continuous investment in CRM policies, staff training, and monitoring systems to balance cost efficiency with sustainable profitability. Strengthening weak areas such as collateral management and client rating will further improve



outcomes and ensure that MFIs remain financially resilient. Thus, the study concluded that CRM is an essential driver of profitability for MFIs, provided that gaps in implementation are addressed.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations were proposed to enhance the effectiveness of credit risk management and improve the profitability of microfinance institutions in Mongu, Zambia. The study recommended that MFI strengthen collateral and client rating systems, MFIs should enhance their collateral requirements and adopt more robust client credit scoring/rating systems to minimize the risk of lending to potential defaulters. This will improve credit quality and protect revenue streams. It also recommended that MFIs should invest in credit risk management training, continuous training of loan officers and staff on risk identification, monitoring, and mitigation strategies should be prioritized. Skilled personnel are more likely to implement credit policies effectively, thereby reducing defaults.

The study also recommended regulators such as the Bank of Zambia should encourage MFIs to adopt standardized credit risk management practices, including mandatory reporting and use of credit bureaus.

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