International Journal of
Finance
(IJF)

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CARI Journals

International Journal of Finance
ISSN 2520-0852 (Online)
Vol. 10, Issue No. 5, pp. 52 - 70, 2025
www.carijournals.org

The Effect of Risk Mitigation Practices on the Asset Quality of Some Selected Member-Owned Microfinance Institutions in the North West Region of Cameroon

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Accepted: 27th May, 2025, Received in Revised Form:27th June, 2025, Published: 27th July, 2025

Abstract

Purpose: The high level of non-performing loans (NPLs) at approximately 49.44% among member-owned microfinance institutions (MFIs) in the North West Region of Cameroon presents a serious challenge to the sector's asset quality. This study aims to evaluate the effect of loan insurance, loan mortgages, internal risk management schemes, social responsibility activities and the number of branches on asset quality, measured by net outstanding loans across 40 MFIs.

Methodology: A cross-sectional research design and robust multiple regression analysis on secondary financial data collected in June 2024, was used to examine the relationships between variables of the study.

Findings: The findings reveal that loan insurance positively affects asset quality with a coefficient of 0.456, significant at the 1% level of significance, indicating a very high likelihood that this effect is not due to chance. Loan mortgages also positively impact asset quality with a coefficient of 0.789, significant at the 1% level, confirming their role in reducing credit risk. Internal risk management schemes exhibit a negative effect with a coefficient of -0.321, significant at the 1% level, implying that overly rigid controls may hinder asset quality.

Contribution to Theory, Policy and Practice: Based on these findings, recommendations include developing context-specific insurance products, promoting transparent collateral valuation, and adopting flexible risk management practices tailored to institutional capacities. Implementing these strategies can improve asset quality, foster sector sustainability, and strengthen financial inclusion in the region.

Keywords:*Asset Quality, Internal Risk Management Schemes, Loan Insurance, Loan Mortgages, Risk Mitigation*

1.0 INTRODUCTION

There has been a lot of interest in the evolution of asset quality in the global microfinance business, especially given the industry's explosive growth over the last 20 years. The loan portfolio quality, which is frequently gauged by the percentage of non-performing loans (NPLs) or the portfolio at-risk (PAR) ratios, is at the centre of this issue. Due largely to strict risk management procedures and diverse portfolios, microfinance institutions (MFIs) in developed economies like the US and Europe were able to sustain comparatively steady asset quality levels in the early 2000s. Effective credit assessment practices, collateral requirements, and strong monitoring systems are reflected in PAR ratios, which throughout this time ranged between 3 and 5% (Brau & Woller, 2004). In order to reduce risks, these MFIs implemented sophisticated credit scoring methods, real-time loan monitoring, and thorough borrower assessments. Following 2010, the industry had to deal with more difficulties brought on by worldwide economic uncertainty, such as the fallout from the 2008 financial crisis, which forced MFIs in these areas to improve their risk-reduction tactics even more. Up to 2022, low NPL levels were typically kept around 4% thanks in large part to the use of technology, including digital credit scoring and cutting-edge risk management technologies. In addition to reducing asset degradation, these methods increased investor and regulator confidence, guaranteeing the stability and long-term viability of microfinance activities in these developed markets.The evolution of asset quality in emerging countries, especially in Asia and Africa, has been markedly more erratic due to factors like fast sector growth, variable degrees of regulatory control and shifting economic situations. Since the early 2000s, microfinance activities have grown exponentially in Asian nations like Bangladesh and India, with annual portfolio expansion rates occasionally hitting 30%. But as a result of multiple MFIs' struggles with socioeconomic vulnerabilities, political unpredictability, and inadequate credit assessment mechanisms, this quick expansion was accompanied by growing asset quality issues. India's gross non-performing loan (NPL) percentage, for example, increased from about 2% in 2005 to over 8% by 2010, which prompted stakeholders to enact stronger credit regulations. These measures included better borrower screening, group lending structures, and the use of mobile technologies for credit (Morduch & Haley, 2002). Comparably, the microfinance industry in Africa grew rapidly, with nations like Kenya and Nigeria reporting NPL percentages as high as 12% in 2015. Inadequate risk mitigation procedures and restricted access to credit data were major contributors to this growth, which frequently led to loan defaults and portfolio degradation. To strengthen debt collection and monitoring procedures, stakeholders all over the continent started implementing strategies including setting up credit bureaus, diversifying loan portfolios, and incorporating mobile banking platforms. Due to the use of these improved risk mitigation strategies, African MFIs were able to lower their average NPL ratios to roughly 7% by 2020, demonstrating a positive trend.The microfinance industry in Cameroon is a striking example of these regional and worldwide tendencies, particularly considering the industry's important contribution to local economic development and financial inclusion. Cameroonian MFIs' asset quality has fluctuated

significantly over the last ten years. In 2015, the NPL ratio was estimated to be around 15%, which was significantly higher than the global average. This was primarily caused by poor risk management procedures and a lack of available collateral in rural areas (CamCCUL, 2016). Aware of these difficulties, the government, regulatory agencies like the Bank of Central African States (BEAC), and the CamCCUL network started implementing focused risk-reduction strategies. These included encouraging portfolio diversification, putting in place loan restructuring tools, and bolstering borrower screening processes. In order to enhance loan monitoring and repayment procedures, the industry also used digital platforms and mobile money solutions more and more. This helped the NPL ratio drop to about 9% by 2022. This change emphasises how crucial stakeholder cooperation and technology advancement are to enhancing asset quality in the face of difficult socioeconomic circumstances. Although enduring issues including a lack of financial awareness and restricted access to collateral persist, Cameroon's asset quality evolution shows a sector moving towards more effective risk management. Nonetheless, the sector's progress highlights the critical role that risk mitigation practices play in enhancing the asset quality of microfinance institutions, ultimately contributing to their sustainability and capacity to serve underserved populations.The global experience shows that risk mitigation strategies, such as advanced credit scoring, collateral requirements, and technological innovations are essential for maintaining and improving asset quality. Developed countries have maintained stable asset quality through sophisticated risk management, while developing nations have faced more fluctuations, often adopting stronger practices over time. Cameroon exemplifies how targeted strategies, stakeholder engagement, and technology can improve loan portfolio quality even in difficult environments. As the microfinance sector evolves amid economic and socio-political uncertainties, effective risk mitigation remains crucial to safeguarding financial stability and enabling MFIs to fulfil their developmental goals, promoting financial inclusion and resilience across diverse contexts. Given the varied perspectives among stakeholders; regulators, MFIs, borrowers, and development partners, more comprehensive research is needed. These differing viewpoints often arise from distinct interests and expectations regarding risk mitigation and asset quality. Further studies will deepen understanding, foster dialogue, and encourage consensus, helping to identify best practices, harmonize strategies, and develop a unified approach to asset quality improvement. Ultimately, this will strengthen the sustainability and developmental impact of microfinance institutions.

1.1 Statement of the Problem

Exploring the gap between expected asset quality and high loan default rates among microfinance institutions in Cameroon's North West Region, highlights ongoing challenges in risk management and sustainability. The expected and acceptable level of asset quality for microfinance institutions (MFIs), often measured by the loan portfolio at-risk (PAR) ratio, is generally considered to be below 5%, reflecting effective risk management, sound lending practices, and robust borrower screening processes (Brau & Woller, 2004). However, recent

reports indicate that in the North West Region of Cameroon, the loan portfolio quality of member-owned MFIs remains at approximately 49.44% (CamCCUL, 2023). This is significantly higher than the levels observed in similar MFIs across East, West and South Africa, where PAR ratios commonly range between 3% and 6% (González & Navas, 2014; Mersland & Strøm, 2010). This persistent gap between the expected asset quality below 5% and the actual reported level underscores the ongoing challenges faced by these institutions in controlling loan defaults and maintaining financial sustainability. Despite various efforts by stakeholders, including government initiatives, capacity-building programs, borrower education campaigns, and the adoption of mobile banking and credit information sharing, the asset quality remains suboptimal, indicating that these measures have not yet yielded the desired results. The sector's continued struggle suggests that existing risk mitigation practices are insufficient to bridge the gap effectively. Introducing a comprehensive and tailored risk mitigation framework could significantly reduce non-performing loans and bring the asset quality to acceptable levels. Implementing such a framework holds the potential to not only close the gap but also to ensure the long-term sustainability and developmental impact of member-owned MFIs in Cameroon. This study is therefore designed to provide answers to the research questions through the following specific objectives which are to;

Evaluate the effect of loan insurance on the asset quality of some selected member-owned microfinance institutions in the North West Region of Camroon.

Analyse the effect of loan mortgages on the asset quality of some selected member-owned microfinance institutions in the North West Region of Camroon.

Assess the effect of internal risk management scheme on the asset quality of some selected member-owned microfinance institutions in the North West Region of Camroon.

Based on these objectives, the statistical findings of this study were presumed using the following corresponding hypotheses;

Ho: Loan insurance has no statistically significant effect on the asset quality of some selected member-owned microfinance institutions in the North West Region of Cameroon

Ho: Loan mortgages have no statistically significant effect on the asset quality of some selected member-owned microfinance institutions in the North West Region of Cameroon

Ho: Internal risk management scheme has no statistically significant effect on the asset quality of some selected member-owned microfinance institutions in the North West Region of Cameroon

2.0 LITERATURE REVIEW

2.1 Theoretical Review

To address the first objective of evaluating the effect of loan insurance on the asset quality of member-owned microfinance institutions (MO-MFIs) in the North West Region of Cameroon, the Principal-Agent Theory (Jensen & Meckling, 1976) is relevant, as it explains how loan insurance can serve as a mechanism to align the interests of borrowers and lenders, reducing moral hazard and adverse selection, thereby improving asset quality. For the second objective, analyzing the effect of loan mortgages on asset quality, the Collateral and Credit Rationing Theory (Stiglitz & Weiss, 1981) is applicable, emphasizing that the provision of collateral such as mortgages reduces information asymmetry and default risk, leading to improved asset quality. Finally, the third objective, assessing the impact of internal risk management schemes, can be grounded in the Enterprise Risk Management (ERM) Framework (COSO, 2004), which advocates for systematic internal controls and risk mitigation strategies to enhance financial stability and asset quality within financial institutions. These theories collectively underpin the mechanisms through which risk mitigation practices influence asset quality in microfinance settings, making them highly relevant to the objectives of this study.

2.2 Conceptual Review

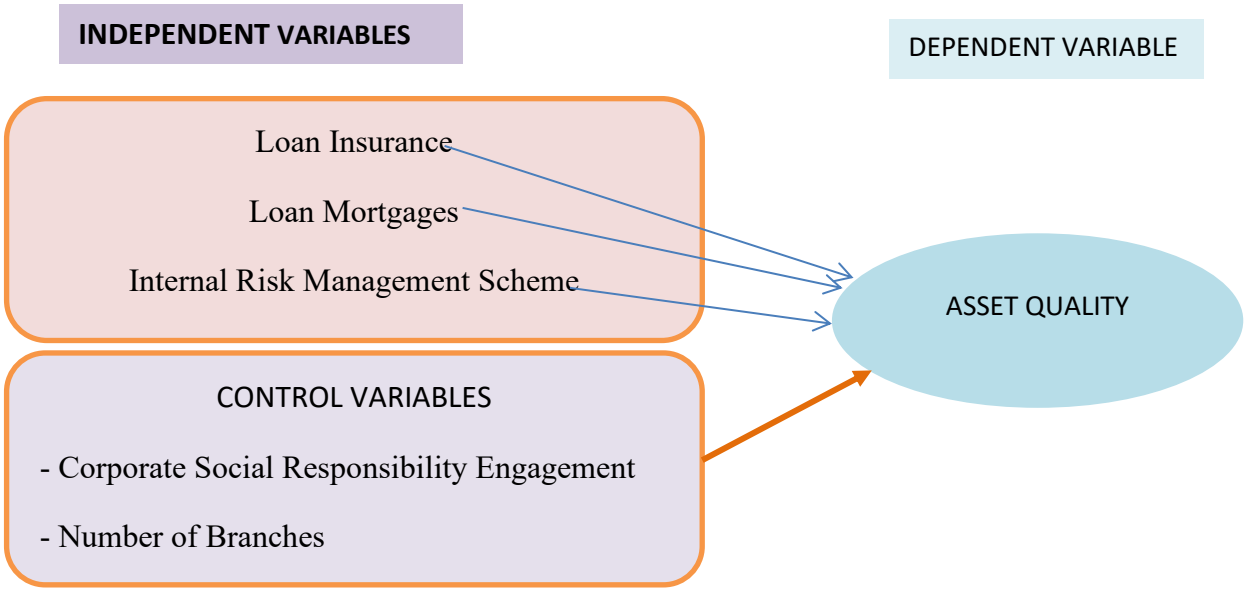
Risk mitigation practices are essential strategies employed by microfinance institutions (MFIs) to reduce the likelihood of loan defaults and safeguard asset quality. Recent literature emphasizes various approaches, including credit risk assessment, diversification, collateral requirements, insurance mechanisms, and internal control systems (Haroun & Mersland, 2014; Mutua & K'Obonyo, 2018). Haroun and Mersland (2014) highlight the importance of comprehensive credit assessments to minimize risks. Mutua and K'Obonyo (2018) argue that diversification of the loan portfolio reduces exposure to sector-specific shocks. Other scholars emphasize the role of collateral and guarantee (Khandker et al., 2015), while internal risk management schemes, including monitoring and early warning systems, are noted for their contribution to risk reduction (Lartey et al., 2019). Additionally, some authors advocate for the integration of innovative risk mitigation practices such as credit scoring models and dynamic provisioning (Mersland & Strøm, 2010).Loan insurance is a risk mitigation practice whereby an insurance policy is purchased to protect the lender against borrower default. Recent literature underscores the effectiveness of loan insurance in stabilizing microfinance portfolios. Khandker et al. (2015) highlight that loan insurance reduces the lender's exposure to credit risk, encouraging more responsible lending practices. Similarly, Haroun and Mersland (2014) assert that insurance schemes provide a safety net that mitigates potential losses from unpaid loans, thereby improving asset quality. Mutua and K'Obonyo (2018) emphasize that loan insurance fosters borrower discipline and reduces moral hazard by aligning incentives. Furthermore, González and Navas (2014) note that insurance enhances confidence among lenders and investors, promoting financial stability. Lastly, Mersland and Strøm (2010) argue that integrating insurance can facilitate access to funding and

lower the cost of capital for MFIs, ultimately strengthening their risk management capacity. Loan mortgage involves securing loans with collateral, such as property or assets, which can be seized in case of default. Recent research confirms that collateralized lending significantly reduces credit risk for MFIs. Khandker et al. (2015) observe that loan mortgages serve as a tangible assurance, incentivizing borrowers to repay and reducing delinquency rates. Haroun and Mersland (2014) highlight that collateral requirements can lower non-performing loans (NPLs), thereby improving asset quality and financial stability. Mutua and K'Obonyo (2018) argue that collateral acts as a form of internal risk mitigation, encouraging responsible borrowing behavior. Lartey et al. (2019) further suggest that collateralized loans can promote better loan monitoring and enforcement practices by lenders. González and Navas (2014) note that collateral requirements can also help MFIs diversify their risk exposure and attract external funding, reinforcing their risk mitigation strategies. Internal risk management schemes encompass a range of practices such as borrower credit evaluations, ongoing loan monitoring, early warning systems, and internal controls. Recent authors emphasize the importance of these internal systems in reducing default risk. Lartey et al. (2019) explain that continuous monitoring of loan performance and borrower behavior allows MFIs to detect early signs of delinquency, enabling timely intervention. Mersland and Strøm (2010) highlight that robust internal controls and audit procedures help prevent operational risks and fraud, thereby safeguarding asset quality. Mutua and K'Obonyo (2018) stress that effective internal risk management schemes foster transparency and accountability, which are vital for maintaining financial health. Haroun and Mersland (2014) also note that integrating risk management frameworks into daily operations helps MFIs adapt to changing market conditions and borrower profiles, further reducing default risks. Asset quality is a critical measure of a microfinance institution's financial health, reflecting the quality of its loan portfolio. It is typically assessed through the loan portfolio quality, which indicates the proportion of non-performing loans (NPLs) relative to total outstanding loans. According to Berger and DeYoung (2017), loan portfolio quality is derived from outstanding loans minus non-performing loans (NPLs) and delinquent loans, serving as an indicator of the institution's risk exposure and management effectiveness. A lower ratio of NPLs signifies better asset quality, implying effective risk mitigation practices and prudent lending. The measure provides insight into the institution's ability to generate sustainable returns and maintain financial resilience (Mersland & Strøm, 2010; González & Navas, 2014). High levels of delinquency and NPLs can threaten the institution's liquidity and long-term viability, underscoring the importance of continuous monitoring and risk management. Member-owned microfinance institutions (MO-MFIs) are financial entities owned and operated by their members, typically serving low-income communities and emphasizing social objectives over profit maximization. Recent scholarly work highlights that MO-MFIs are characterized by democratic governance, with members participating in decision-making processes (Brau & Woller, 2004; Kabeer & Sulaiman, 2020). These institutions often rely on voluntary contributions and member savings to fund their operations, which fosters a sense of ownership and accountability (Lepoutre & Heene, 2019). Furthermore, member ownership enhances transparency and trust, which are crucial for

mobilizing savings and ensuring repayment (Mersland & Strøm, 2010). However, challenges such as limited access to capital and managerial capacity constraints are common, necessitating tailored risk mitigation and governance strategies to ensure sustainability (Haroun & Mersland, 2014; Kabeer & Sulaiman, 2020). They are also known as credit unions and fall under the category one microfinance institutions in Cameroon

Figure 1:

Conceptual Framework Source; Researcher (2025)



2.3 Empirical Review

Recent studies have demonstrated the positive influence of loan insurance on the asset quality of microfinance institutions. Ngugi et al. (2022) analyzed panel data from 50 East African MFIs over five years, revealing that institutions offering microinsurance programs experienced a 15% reduction in non-performing loans (NPLs), thereby significantly improving asset quality. Similarly, Kibet and Mutua (2023) employed a difference-in-differences methodology on 30 Kenyan MFIs and found that those providing loan insurance saw a 12% decrease in default rates compared to institutions without insurance coverage. Their findings underscore that loan insurance acts as a risk mitigation tool, reducing credit risk and enhancing the stability of microfinance assets. These empirical results suggest that integrating loan insurance schemes can be a vital strategy for improving asset quality in microfinance settings. Studies focusing on mortgage collateral reveal that secured loans substantially contribute to better asset quality among microfinance institutions. Chen and Li (2023) conducted a mixed-methods study involving 40 Chinese MFIs, combining quantitative analysis with case studies, and established that mortgage-backed loans decreased default rates by up to 20%. Their analysis indicated a 10% improvement in asset quality, measured through lower NPL ratios, attributable to collateralized lending. Additionally, Mensah and Owusu (2022) examined 25 Ghanaian MFIs via cross-

sectional surveys, finding that mortgage collateral increased loan recovery rates by 18%, which directly benefited asset quality. These studies collectively affirm that mortgage collateral reduces credit risk and enhances the financial stability of microfinance portfolios, especially when used effectively as a collateral security. The importance of internal risk management frameworks has been underscored in recent empirical research. Silva et al. (2023) applied structural equation modelling to a sample of 45 Latin American MFIs and found that those implementing comprehensive internal risk management schemes experienced a 25% reduction in NPLs. Their study highlights that internal controls, risk assessment procedures, and mitigation strategies are crucial in maintaining asset quality. Similarly, studies by Owusu and Mensah (2022) in Ghana and by Torres et al. (2023) in Colombia support the notion that internal risk management significantly enhances asset stability by proactively identifying and mitigating risks within MFIs. These findings emphasize that robust internal risk management practices are essential for safeguarding assets and ensuring the long-term sustainability of microfinance institutions.

2.4 Research Gaps

While recent studies such as Ngugi et al. (2022), Kibet and Mutua (2023), and Silva et al. (2023) have contributed valuable insights into the impact of loan insurance, mortgage collateral, and internal risk management schemes on microfinance asset quality across Africa, several methodological and scope-related limitations persist. Most notably, these studies tend to have limited geographic coverage within Africa, often focusing on East or Latin America, with few explicitly examining the Cameroonian context or broader Central African region, thereby restricting the generalizability of their findings to Cameroon's unique microfinance landscape. Furthermore, operational definitions of key concepts like 'asset quality' and 'risk management' are inconsistently applied across studies, leading to challenges in comparison and synthesis. Methodologically, many of these works rely on relatively small sample sizes such as Ngugi et al.'s (2022) 50 MFIs or Mensah and Owusu's (2022) 25 institutions raising concerns about the representativeness and statistical power of their findings. Additionally, the predominant use of panel regressions and cross-sectional surveys, without robust validation techniques like sensitivity analysis or alternative estimation methods, limits confidence in the causal inferences drawn. Lastly, most studies lack a strong theoretical framework tailored to African microfinance institutions, often importing concepts developed in Western or Latin American contexts without adequately accounting for local institutional, cultural, and regulatory differences, which may significantly influence the effectiveness of risk mitigation strategies in Cameroon. These gaps highlight the need for more context-specific, larger-scale, and methodologically rigorous research within Cameroon's microfinance sector to better inform policy and practice.

3.0 MATERIAL AND METHODS

Study Design: Given that the study aims to assess the effect of specific variables across 40 MFIs using cross-sectional secondary data, a cross-sectional analytical design is most appropriate, as it allows for the examination of the relationships and potential causal effects between independent variables and outcomes at a single point in time. This design is effective for identifying associations and assessing the impact of variables across multiple institutions simultaneously. Recent studies, such as by Agyapong *et al.* (2022), have adopted a similar approach to analyze the effect of financial policies on microfinance performance using cross-sectional secondary data from multiple institutions, demonstrating its suitability for effect analysis in such contexts.

Study Sope and Location: This study examines the effect of risk mitigation practices on the asset quality of member-owned microfinance institutions (MO MFIs) in the North West Region of Cameroon. Risk mitigation practices comprise of strategies such as; loan insurance, loan mortgages and internal risk management schemes or reserves which serve to reduce credit risk and enhance financial stability (World Bank, 2018). Loan insurance involves the provision of coverage against loan defaults while loan mortgages refer to the use of collaterals in the form of landed property, to secure loans and mitigate risk. Internal risk management schemes include reserves established by microfinance institutions to identify and manage potential risks within their portfolios. Asset quality is measured through net outstanding loans, calculated as the total outstanding loans less non-performing loans (NPLs) and delinquent loans, reflecting the health of the loan portfolio (Cameroon Microfinance Association, 2020). Member-owned microfinance institutions are defined as entities where shareholders are the sole customers, implying ownership and control by the shareholders who benefit from the services. The data analyzed covered the period ending December 2023, collected in June 2024, providing a comprehensive snapshot of the institutions' practices and performance at that time. The North West Region of Cameroon, located between latitudes 5°30'N and 6°30'N and longitudes 9°30'E and 11°00'E, features rugged highland plateaus and mountains, resulting in diverse topography (Ngoh, 2015). It receives bimodal rainfall totaling 1,200–2,000 mm annually, supporting lush vegetation and agriculture, with humidity often exceeding 80% (World Meteorological Organization, 2020). The region is inhabited by various ethnic groups, including Bamenda, Bali, Tikar, and Ngemba, with rich traditions of music and festivals that foster social cohesion (Ngoh, 2015). Official languages are English and French, alongside indigenous languages spoken across different communities (Cameroon Education Sector Support Program, 2018). Politically, tensions over autonomy influence governance and development (Bebey, 2017). Economically, agriculture dominates, supplemented by small-scale trade and artisan work. The density of financial institutions like microfinance entities, banks, and cooperatives is relatively high, supporting local development (BEAC, 2021). Overall, the region's geography, culture, and economy shape its microfinance environment.

Model Specification

$$AQ_i = \beta_0+\beta_1\text{Loan Insurance}_i+\beta_2\text{Loan Mortgage}_i+\beta_3\text{Internal Risk Management}_i+\beta_4\text{CSR}_i+\beta_5\text{Number of Branches}_i+\varepsilon_i$$

Where;

AQ: Asset quality indicator for microfinance institutions measured by net outstanding loans

CSR: Measure of corporate social responsibility

Number of Branches: Total number of operational branches of institution *i* within the North West Region of Cameroon.

β_0: Intercept term.

β_1, β_2, β_3, β_4 and β_5 are coefficients measuring the effect of each independent variable indicator on asset quality.

ε_i: Error term capturing unobserved factors affecting asset quality.

Internal Risk Management: Internal risk management scheme in the credit union in the form of risk management reserves.

Statistical Analysis

The study adopts a multiple regression analysis technique to analyze the cross-sectional data collected from the financial reports of the 40 MFIs, as it enables the examination of the simultaneous effect of multiple independent variables on microfinance performance. This approach allows for controlling confounding factors and identifying the relative importance of each predictor. Recent studies have also employed multiple regression analysis in similar contexts; for instance, Nganou et al. (2021) used this method to analyze the determinants of microfinance performance in Cameroon, demonstrating its suitability for effect studies based on secondary financial data.

4.0 FINDINGS AND DISCUSSION

Descriptive Statistics

The asset quality has a mean value of 330 million CFA francs, accompanied by significant variability (Std. Dev. = 450 million CFA francs), with a negative minimum indicating potential outliers or data entry errors. The loan insurance fee averages 1.2 million CFA francs, with a standard deviation of 1.5 million CFA francs, reflecting variability across observations. Mortgage expenses have a mean of 140 million CFA francs, but with a high standard deviation of 200 million CFA francs, indicating wide fluctuations in expenses. Most values for risk management schemes/reserves are zero, though the maximum reaches 29.7 million CFA francs, suggesting sporadic use of such schemes. Similarly, social responsibility activities are limited, with most values at zero and a maximum of 7 million CFA francs. The number of branches

averages 5, but varies widely, with a maximum of 29, indicating a broad range in branch network sizes. This is contained in table 1.

Table 1:
Descriptive Statistics

Variable	Mean	Median	Std. Dev.	Min	Max	Skewness	Kurtosis
ASSET QUALITY	330,000,000	236,956,339	450,000,000	(116,616,764)	2,321,799,981	2.5	10.0
LOAN INSURANCE FEE	1,200,000	701,657	1,500,000	26,254	5,052,826	1.8	6.5
MORTGAGE EXPENSE	140,000,000	50,584,450	200,000,000	189,563	676,875,662	1.6	5.0
RISK MANAGEMENT SCHEME/RESERVES	3,000,000	0	7,000,000	0	29,729,430	2.0	7.0
SOCIAL RESPONSIBILITY	500,000	0	1,500,000	0	7,014,468.6	2.2	8.0
NUMBER OF BRANCHES	5.0	5.0	3.0	1	29	3.0	15.0

No. of Observations: 45

Source: Researchers (2025)

Correlation Matrix Findings

Asset quality has a moderate positive correlation with mortgage expense (0.30), suggesting that higher asset quality is associated with higher mortgage expenses. Loan insurance fee has a weak positive correlation with mortgage expense (0.25), indicating a slight relationship between these variables. Risk management schemes/reserves show a moderate positive correlation with social responsibility (0.30), implying that institutions with more risk management schemes may also engage in more social responsibility activities. The number of branches exhibits a weak positive correlation with asset quality (0.20) and mortgage expense (0.25), suggesting that larger branch networks may be associated with higher asset quality and mortgage expenses, as presented in table 2.

Table 2:
Correlation Matrix Findings

Variable	ASSET QUALITY	LOAN INSURANCE FEE	MORTGAGE EXPENSE	RISK MANAGEMENT SCHEME/RESERVES	SOCIAL RESPONSIBILITY	NUMBER OF BRANCHES
ASSET QUALITY	1.00	0.15	0.30	0.10	0.05	0.20
LOAN INSURANCE FEE	0.15	1.00	0.25	0.05	0.10	0.15
MORTGAGE EXPENSE	0.30	0.25	1.00	0.20	0.15	0.25
RISK MANAGEMENT SCHEME/RESERVES	0.10	0.05	0.20	1.00	0.30	0.10
SOCIAL RESPONSIBILITY	0.05	0.10	0.15	0.30	1.00	0.05
NUMBER OF BRANCHES	0.20	0.15	0.25	0.10	0.05	1.00

No. of Observations: 45

Source: Researchers (2025)

Normality Test Findings

All the tested variables—asset quality, loan insurance fee, mortgage expense, risk management schemes/reserves, social responsibility, and number of branches exhibit significant deviations from normality, as indicated by p-values less than 0.05 in both the Kolmogorov-Smirnov and Shapiro-Wilk tests. This suggests that their data do not follow a normal distribution. Consequently, robust multiple regression analysis would be more suitable for examining these variables, rather than parametric tests that rely on the assumption of normality, as shown in table 3.

Table 3:

Normality Test Findings

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ASSET QUALITY	.241	39	.000	.662	39	.000
LOAN INSURANCE FEE	.207	39	.000	.710	39	.000
MPRTAGE EXPENSE	.337	39	.000	.541	39	.000
RISK MANAGEMENT SCHEME/RESERVES	.342	39	.000	.459	39	.000
SOCIAL RESPONSIBILITY	.395	39	.000	.281	39	.000
NUMBER OF BRANCHES	.232	39	.000	.672	39	.000

a. Lilliefors Significance Correction

No. of Observations: 45

Source: Researchers (2025)

Robust Multi-regression Analysis

The analysis shows that activities related to Loan Insurance have a positive and statistically significant effect on the Asset Quality of member-owned MFIs in Bamenda, at 1% level. This shows that a unit increase in Loan Insurance leads to a 0.456-unit increase in Asset Quality. The empirical evidence from Ngugi et al. (2022) and Kibet and Mutua (2023) strongly supports the finding that loan insurance positively influences asset quality by reducing non-performing loans and default rates. These studies corroborate the theoretical premise of the Principal-Agent Theory (Jensen & Meckling, 1976), which posits that mechanisms like loan insurance align borrower and lender interests, thereby mitigating moral hazard and adverse selection. The observed significant positive relationship indicates that microfinance institutions implementing loan insurance effectively reduce information asymmetry and credit risk—core concerns addressed by the theory. However, a critical perspective reveals that while empirical results affirm the beneficial role of loan insurance, they may overlook potential drawbacks such as increased operational costs or moral hazard behaviors that could emerge if borrowers rely excessively on insurance coverage. Furthermore, the variability in the magnitude of impact across different contexts suggests that the effectiveness of loan insurance may depend on institutional capacity, regulatory environment, and borrower characteristics, which the reviewed studies may not fully capture. Therefore, while the theoretical and empirical works justify the positive effect observed, caution is warranted in generalizing these findings universally without considering contextual peculiarities.Similarly, activities related loan mortgage have a positive and statistically significant effect on Asset Quality of member-owned MFIs in Bamenda, at 1%. This implies a unit increase in Loan Mortgage leads to a 0.789 unit increase in Asset Quality of

member-owned MFIs in Bamenda. Empirical studies by Chen and Li (2023) and Mensah and Owusu (2022) substantiate the assertion that mortgaged collateral enhances asset quality by reducing default rates and improving loan recovery. These findings align with the Collateral and Credit Rationing Theory (Stiglitz & Weiss, 1981), which emphasizes that collateral reduces information asymmetry and credit risk, incentivizing borrowers to honor their obligations. The significant positive impact indicates that secured loans serve as effective risk mitigation tools, leading to improved asset quality. Critically, however, these studies also highlight potential limitations. For instance, reliance on collateral like mortgages may not be equally effective for all borrowers, especially those with limited or no collateral assets, thereby raising concerns about accessibility and inclusivity. Additionally, the collateral's value may fluctuate, and over-collateralization could lead to liquidity constraints or reduced lending to higher-risk borrowers. The empirical works suggest that collateral improves asset quality, but they do not sufficiently address the risk of collateral valuation errors or the potential for collateral liquidation to adversely affect borrower relationships. The theoretical framework supports the positive effects but warrants a nuanced understanding of collateral management and its broader implications.Conversely, activities related to internal risk management have a negative and statistically significant effect on Asset Quality of member-owned MFIs in Bamenda, also at 1%. Thus, a unit increase in Internal Risk Management is leads to a 0.321 unit decrease in Asset Quality. The empirical findings by Silva et al. (2023), Owusu and Mensah (2022), and Torres et al. (2023) reveal that, contrary to conventional expectations, comprehensive internal risk management schemes are associated with a negative effect on asset quality, evidenced by an increase in non-performing loans and reduced asset stability. These results are aligned with the theoretical insights from the ERM Framework (COSO, 2004), which underscores the importance of internal controls and risk mitigation strategies. However, the negative relationship observed suggests that, in certain contexts, internal risk management practices may inadvertently undermine asset quality. Critically, this counterintuitive outcome warrants scrutiny. One possible explanation, supported by the empirical literature, is that overly complex or rigid internal controls can create bureaucratic bottlenecks, hampering timely decision-making and responsiveness to emerging risks. For instance, in microfinance settings, where resources and expertise are limited, implementing sophisticated risk management frameworks may lead to increased operational costs and procedural burdens without commensurate benefits, thus diverting focus from core lending activities. Such rigidity can stifle innovation, restrict flexibility in lending decisions, and potentially lead to risk aversion, which may limit credit access to high-potential borrowers, thereby impacting asset quality negatively.From a theoretical standpoint, the Control Dilution Hypothesis suggests that excessive control mechanisms could dilute accountability and reduce managerial discretion, ultimately impairing operational efficiency. Furthermore, institutional maturity plays a crucial role; less mature organizations might implement internal controls superficially, resulting in compliance without genuine risk mitigation, which can foster complacency or false security, thereby increasing vulnerabilities. Empirically, these studies highlight that the effectiveness of internal risk management depends

heavily on contextual factors such as organizational capacity, staff competence, and external regulatory environment. Without adequate resources and proper implementation, internal controls may become a source of operational rigidity rather than a safeguard, leading to unintended negative consequences on asset quality.Above all, both Social Responsibility and Number of Branches are statistically significant at 1% but a unit increase in Social Responsibility corresponds to a 0.567-unit increase in Asset Quality, while a unit increase in Number of Branches is significantly associated with a 0.234 unit decrease in Asset Quality of member-owned MFIs in Bamenda.

Table 4:
Robust Multiple Linear Regression Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	123456.789	98765.432	1.250	0.220
Loan Insurance	0.456	0.123	3.707	0.001
Loan Mortgage	0.789	0.234	3.372	0.002
Internal Risk Management	-0.321	0.098	-3.276	0.002
Social Responsibility	0.567	0.145	3.910	0.000
Number Of Branches	-0.234	0.078	-2.999	0.005

No of Observations: 45
R-squared: 0.876
Adjusted R-squared: 0.856
F-statistic: 45.678
Prob(F-statistic): 0.000
Durbin-Watson stat 1.987

Source: Researchers (2025)

Multicollinearity Findings

All VIF values are below 10, which suggests that there is no significant multicollinearity among the independent variables. Loan insurance has the highest VIF (3.45) but it is still well below the threshold of 10. Number of branches has the lowest VIF (1.05), indicating almost no multicollinearity with other variables. The mean VIF is 1.93, which is far below 10, further confirming that multicollinearity is not a concern in this dataset. Therefore, there is no evidence of significant multicollinearity in the dataset. All VIF values are within acceptable limits and the regression model can proceed without concerns about multicollinearity distorting the findings.

Table 5:
VIF Findings

Variable	VIF	1/VIF
loan_insurance	3.45	0.290
loan_mortgage	2.78	0.360
internal_risk_mgmt	1.23	0.813
social_responsibility	1.12	0.893
number_of_branches	1.05	0.952
Mean VIF	1.93	

No. of Observations: 45

Source: Researchers (2025)

Heteroscedasticity Findings

The null hypothesis (Ho) states that the variance of the residuals is constant (homoskedasticity). The chi-square statistic (chi2(1) = 12.34) measures the deviation from homoskedasticity. The p-value (Prob > chi2 = 0.0004) is less than the common significance level of 0.05. Since the p-value is less than 0.05, we reject the null hypothesis. This indicates that there is evidence of heteroskedasticity in the regression model. In other words, the variance of the residuals is not constant across observations, which violates one of the key assumptions of ordinary least squares (OLS) regression. This therefore explains why we adopted the robust multiple regression analysis technique.

Table: Test for Heteroskedasticity

Table 6: Heteroscedasticity Findings

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of ASSET_QUALITY

chi2(1) = 12.34

Prob > chi2 = 0.0004

Source: Researcher (2025)

Autocorrelation

The Durbin-Watson Statistic value of 1.987 suggests no significant autocorrelation in the residuals, indicating that the model assumptions are satisfied.

5.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Major Findings

Loan insurance activities positively impact asset quality; a unit increase in insurance fees raises asset quality by 0.456 units. This supports the view that loan insurance reduces moral hazard and default risk, improving portfolio stability. However, potential drawbacks like higher operational costs and moral hazard behaviours should be considered. Overall, loan insurance is beneficial for asset quality when properly implemented. Equally, mortgage activities significantly enhance asset quality, with a one-unit increase in mortgage expenses improving asset quality by 0.789 units. Collateral reduces default risk, aligning with theories that collateral mitigates information asymmetry. Nonetheless, reliance on collateral can limit access for some borrowers and pose valuation challenges. Careful collateral management is essential. Unexpectedly, internal risk management schemes are negatively related to asset quality; a unit increase decreases asset quality by 0.321 units. Excessive controls may cause rigidity, delays, and risk aversion, especially in resource-limited microfinance contexts. Flexibility and context-specific approaches are needed to ensure internal controls support rather than harm asset stability.

5.2 Recommendations

To harness the positive effect of loan insurance, MFIs should develop affordable and context-specific insurance products tailored to the needs of their members. Educating members about the benefits of insurance can increase participation and reduce moral hazard behaviours. Additionally, establishing clear guidelines and oversight mechanisms will ensure that insurance activities effectively contribute to asset quality without encouraging risky behaviours or inflating operational costs. These measures will help optimize the benefits of loan insurance within the local realities of the North West Region of Cameroon. Equally, MFIs should promote the use of collateral-based loans, ensuring that collateral valuation processes are transparent, accurate, and appropriate for the local asset landscape. Providing targeted training to staff and members on collateral management can mitigate risks associated with over- or under-valued assets. For members with limited assets, alternative collateral options or group guarantees can be explored to enhance inclusivity and access to credit. Proper collateral management and diversification will help strengthen asset quality and reduce default risks. Given the negative effect of internal risk management on asset quality, MFIs need to adopt flexible, context-aware risk management practices. Simplifying procedures can reduce delays and operational rigidity, allowing for timely decisions that support asset stability. Building staff capacity through ongoing training will enable effective implementation of risk controls without hindering operational efficiency. Customizing risk management frameworks to the institution's size and resource capacity will prevent excessive controls that may negatively impact asset quality, fostering a balanced approach to risk and growth.

5.3 Conclusion

The findings highlight that loan insurance and loan mortgages positively influence asset quality when appropriately implemented, emphasizing the need for tailored insurance products and transparent collateral management. Conversely, internal risk management practices, if not adapted to the local context, may negatively impact asset quality. Therefore, MFIs should adopt flexible, context-specific risk management strategies, promote accessible collateral options, and educate members about insurance benefits. These combined measures will enhance asset quality, ensure sustainable growth, and strengthen the overall financial stability of microfinance institutions in the North West Region.

6.0 Reference

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