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Collateral Requirements and Quality of Loan Portfolio of Microfinance Banks in Kenya

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Abstract

The microfinance sector in Kenya has been grappling with a significant challenge, as evidenced by the 5.55 percent of net non-performing loans to the net loan portfolio for microfinance banks over the four-year period between 2019 and 2022. The International Monetary Fund and World Bank consider a non-performing loans ratio of 5 percent or higher as a sign of vulnerability and potential financial instability. The study was grounded by lender-based theory, utilized a positivism research philosophy and a descriptive research design. The target population comprised 14 regulated microfinance banks in Kenya, overseen by the Central Bank of Kenya (CBK). Secondary data, spanning from 2019 to 2023, was extracted using a data collection sheet and analyses with descriptive and inferential statistics via STATA. The findings indicated that collateral requirements had a positive impact on quality of loan portfolio of microfinance banks in Kenya. The findings underscore the importance of collateral requirements in enhancing loan portfolio quality. The study recommends that microfinance banks in Kenya should enhance their collateral requirement frameworks to improve loan portfolio quality, recognizing that collateral serves as both a security mechanism against default risk and an efficient screening tool for identifying creditworthy clients. Additionally, the Central Bank of Kenya should implement stricter oversight mechanisms on collateral valuation processes and establish standardized guidelines that ensure consistency across the sector while accommodating alternative collateral forms accessible to underserved populations. These evidence-based recommendations offer important guidance for policymakers and industry professionals in the microfinance sector, enriching the current knowledge base and driving improvements in risk management practices that balance institutional sustainability with financial inclusion objectives.

Keywords: *Quality Loan Portfolio, Collateral Requirement, Microfinance Banks, Kenya*

1.1 Introduction

Collateral requirements significantly influence portfolio quality and risk mitigation in microfinance institutions (Abusharbeh, 2023; Sifrain, 2022). In microfinance contexts, these requirements encompass various practices employed by Microfinance Banks (MFBs) to mitigate lending risks within underserved communities (Muindi & Mutwiri, 2021). Operationalized as the ratio of collateral value to loan amount, these requirements represent the assets or guarantees borrowers provide to secure credit facilities (Abusharbeh, 2023; Sifrain, 2022). As institutions designed to extend financial services to individuals and businesses traditionally excluded by mainstream banking, MFBs face unique challenges in balancing risk management with their core

mission of financial inclusion. The effectiveness of collateral as a risk mitigation tool therefore requires careful examination within the specific operational contexts of developing economies.

Loan Portfolio Quality (LPQ) serves as the primary indicator of an MFB's institutional health and service delivery capacity (Bachas, Kim & Yannelis, 2021). This metric reflects the ratio of loans that are fully and timely repaid against those overdue or at risk of default (Agasha, Monametsi & Feela, 2020). A robust loan portfolio mirrors efficient lending practices, prudent borrower selection, and effective repayment procedures—factors that collectively determine the sustainability and growth trajectory of MFBs (Sifrain, 2022). Maintaining sound portfolio quality remains critical for these institutions, as it constitutes their primary revenue source through interest and fees, enhances institutional stability, and enables continued credit extension to unbanked populations (Quartey & Kotey, 2019). The deterioration of portfolio quality not only threatens individual institutional viability but also undermines confidence in the entire microfinance sector.

International evidence demonstrates the varied impact of collateral requirements across different contexts. Abusharbeh (2023) established that localized credit risk measures reduce exposure and enhance stability among Palestinian microfinance institutions, while Kadima (2023) emphasized the complementary role of credit insurance in reducing loan defaults. European microfinance banks have encountered significant portfolio quality challenges, with the average Portfolio at Risk beyond 30 days (PAR30) reaching 9.91% in 2021 (Pytkowska, 2022). Conversely, research from the United States indicates that effective organizational management practices drive MFB achievement and expansion (Quartey & Kotey, 2019). Notably, Sifrain's (2022) study in Haiti revealed that rigorous collateral requirements positively influenced portfolio quality, with accurate collateral assessment serving dual purposes: preventing credit risk while facilitating financial inclusion. These cross-national findings suggest that the effectiveness of collateral requirements may be contingent upon specific institutional and environmental factors.

Regional studies across Africa consistently underscore risk management as a critical determinant of loan portfolio quality sustainability. In Rwanda, Ndikubwimana, Abel, Mukamanzi, Twesige, and Byukusenge (2023) found that credit risk measures including collection policies and client evaluations accounted for 34.8% of loan portfolio quality variation. Similarly, Agasha, Monametsi, and Feela (2020) demonstrated that credit risk management initiatives, particularly collateral requirements, significantly improved asset quality and reduced default rates among Ugandan MFBs. Tanzanian research by Ngonyani (2020) identified customer business revenue and social collateral as major determinants of portfolio risk, suggesting that enhanced appraisal techniques effectively reduce portfolio vulnerability. Furthermore, Nigerian evidence from Enoch, Digil, and Arabo (2021) revealed that rigorous repayment monitoring and consistent follow-up, particularly through intensified collection activities, substantially improve portfolio quality and sustain microfinance bank financial health. The consistency of these findings across diverse African contexts suggests that collateral requirements function as a universal mechanism for portfolio quality enhancement in the region.

The accumulated international and regional evidence establishes a compelling case for the relationship between collateral requirements and loan portfolio performance. However, the specific dynamics within Kenya's microfinance sector, characterized by unique regulatory frameworks and market conditions, warrant dedicated investigation. Understanding how collateral requirements function within this context becomes essential for developing targeted strategies that

enhance portfolio quality while maintaining the sector's commitment to financial inclusion for underserved populations. The Central Bank of Kenya's regulatory oversight creates a distinct operational environment that may influence how collateral requirements affect portfolio outcomes.

Despite the growing body of literature on collateral requirements and portfolio quality across various contexts, significant gaps remain in understanding the Kenyan microfinance sector's specific challenges and opportunities. While studies from neighboring countries like Rwanda, Uganda, and Tanzania provide valuable regional insights, Kenya's position as East Africa's financial hub, its distinct regulatory environment, and its unique market dynamics necessitate context-specific investigation. The interplay between collateral requirements and loan portfolio quality in Kenya may be influenced by factors such as the country's relatively developed financial infrastructure, diverse borrower profiles ranging from urban entrepreneurs to rural smallholder farmers, and the competitive landscape that includes both traditional MFBs and innovative digital lending platforms. Moreover, the existing literature predominantly focuses on individual risk management practices in isolation, with limited exploration of how collateral requirements interact synergistically with other portfolio management strategies within integrated risk frameworks.

Kenya's microfinance sector faces a critical challenge that justifies urgent empirical investigation: the net non-performing loans (NNPL) to net loan portfolio ratio for MFBs stood at 5.56% over the period from 2019 to 2022, surpassing the International Monetary Fund and World Bank's 5% threshold that signals banking sector vulnerability and potential financial instability (CBK, 2019-2022). This deteriorating portfolio quality, evidenced by the increase in NNPL from KSh 4.198 billion in 2019 to KSh 5.718 billion in 2022, raises serious concerns about the sustainability of microfinance operations and their capacity to continue serving financially excluded populations. Against this backdrop of declining portfolio performance, understanding whether strengthening collateral requirements can effectively reverse this trend becomes not merely an academic question but a practical imperative for sector stakeholders. This study therefore seeks to establish empirically the effect of collateral requirements on loan portfolio quality among Kenya's regulated microfinance banks, providing evidence-based insights that can inform policy formulation by the Central Bank of Kenya, guide strategic decision-making by MFB management, and ultimately contribute to the stabilization and strengthening of a sector that plays a vital role in Kenya's financial inclusion agenda and economic development objectives.

1.2 Problem Statement

Collateral requirements strongly shape portfolio quality and risk control (Abusharbeh, 2023; Sifrain, 2022). In microfinance, they involve measures used by banks to reduce lending risks among unbanked groups (Muindi & Mutwiri, 2021). Essentially, borrowers provide assets or guarantees as security, valued against the loan amount. A common measure is the collateral-to-loan ratio (Abusharbeh, 2023; Sifrain, 2022). However, even with these interventions, the microfinance sector in Kenya has been struggling with a massive problem as reflected by the net nonperforming loans (NNPL) to the net loan portfolio for Microfinance Banks (MFBs) that stood at 5.56% over the four years from 2019 to 2022 (CBK, 2019, 2020, 2021, 2022). The IMF and World Bank set the threshold for NPLs at 5%, above which are considered a sign of banking sector vulnerabilities and a source of potential financial instability. The rise in NNPL from KSh 4.198 billion in 2019 to 5.718 billion in 2022 signals declining loan portfolio quality. This concern has driven research into how risk management practices affect portfolio performance in Kenyan microfinance banks.

Moreover, a knowledge gap is still there which forms a basis for this study. Scholars differ on how effective risk management is in improving loan portfolio quality in MFBs. Evidence shows that credit information sharing helps cut non-performing loans and boosts financial performance (Ndikubwimana et al., 2023; Adusei & Adeleye, 2022; Bazisanga, 2022). This study therefore examined the effect of collateral requirements on quality of loan portfolio of microfinances banks in Kenya.

1.3 Research Objective

To establish the effect of collateral requirements on quality of loan portfolio of microfinances banks in Kenya.

1.4 Significance of the Study

Active Kenyan microfinance banks (MFBs) can take these revelations as a challenge to significantly raise their turnover as well as their customer base across the country. Understanding how collateral requirements shapes loan portfolio quality can drive bank leaders to strengthen strategies, reduce exposure, and boost performance. Once microfinance banks know how portfolio quality can be influenced by collateral requirements they will have adjusted the practice accordingly to not only further their financial sustainability but also extend more facilities to their clients. It is also a source of relevant information to the local Central Bank such as the CBK through the provision of innovative data and detailed analysis, making it easier to draft policies that promote stability and integrity within the sector. With a better understanding of how collateral Requirements link to the quality of the loan portfolio, regulators can develop rules that foster prudent lending and protect borrowers' rights.

2.0 Literature Review

2.1 Theoretical Review

The study was anchored on Lender-Based theory was developed by Holmstrom and Tirole in 1997. It posits that lenders play a crucial role in monitoring borrowers and ensuring the efficient allocation of capital (Diamond, 1984; Rajan & Winton, 1995). It assumes that lenders have superior ability to assess and monitor borrowers compared to other market participants (Chemmanur & Fulghieri, 1994). It suggests that lenders' monitoring efforts can reduce moral hazard and improve project outcomes, thereby enhancing overall economic efficiency (Holmstrom & Tirole, 1997). Furthermore, it proposes that collateral requirements serve not just as a form of security, but also as a screening mechanism and an incentive for borrowers to exert effort and make sound financial decisions (Berger et al., 2011). The Lender-Based Theory has been influential in shaping the understanding of financial intermediation and the role of banks and other lending institutions in the economy (Repullo & Suarez, 2000). The theory was relevant to the study, in informing the collateral requirements in microfinance banks. In the context of microfinance lending, where borrowers often lack traditional forms of collateral, this theory provides insights into how lenders can use alternative mechanisms to assess creditworthiness and mitigate risk. The theory helps explain how microfinance institutions might structure their lending practices, including collateral requirements, to balance risk mitigation with the goal of financial inclusion. It provides a framework for understanding how collateral, even in non-traditional forms, can serve as both a screening device and an incentive mechanism in microfinance lending.

2.2 Conceptual Framework

Figure 1 presents Conceptual Framework

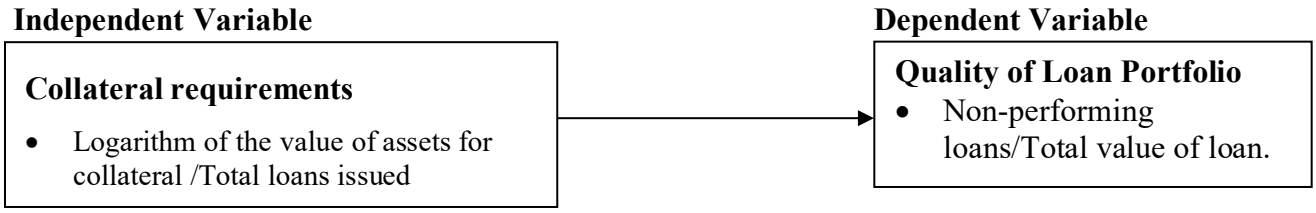


Figure 1: Conceptual Framework.

3.1 Research Methodology

The study applied a descriptive design which was well suited to track result trends and link the effects of collateral with loan portfolio quality in Kenyan MFBs from 2019–2023. Positivism approach was employed because the goals of the study necessitated the application of quantitative strategies in evaluating the collateral requirement and the quality of loan portfolios of microfinance banks operating in Kenya. A total of 14 microfinance banks regulated by CBK in Kenya were considered in this research, considering all regulated MFBs in Kenya through conducting research allowed for generalization on microfinance in Kenya in particular. By considering all 14 institutions together, there was no bias in sampling. Secondary data from MFBs for the years 2019 to 2023 were considered for analysis. Secondary data came from institutional websites, financial statements, AMFI reports and central bank publications. Loan portfolio quality was gauged by the share of non-performing loans in total lending and collateral values from borrowers were used to assess their effect on loan portfolio quality. The data was organized, coded, and analyzed using Stata, a widely used tool for quantitative research (Cleff, 2019). Descriptive statistics summarized the findings, while inferential methods tested relationships and hypotheses. This comprehensive approach to data analysis enabled the researcher to derive meaningful insights and generate a quantitative report for the study where tables and graphs were used to present the data. The study observed moral principles in obtaining all necessary permits and approvals from appropriate authorities, such as NACOSTI, as well as the microfinance banks involved in conducting the research.

4.0 Findings and Discussions

This chapter presents the findings derived from the analysis of secondary data collected from 14 regulated microfinance banks in Kenya over the five-year period from 2019 to 2023, focusing on establishing the effect of collateral requirements on loan portfolio quality. The findings are presented through descriptive statistics, trend analysis, correlation analysis, and regression analysis, followed by detailed discussions that interpret the results in light of the study's objectives, theoretical framework, and existing literature.

4.1 Descriptive Analysis

The data was collected from secondary sources covering a period of five years. This variable examined the proportion of the value of assets used as collateral with respect to the value of the loans provided by the microfinance banks.

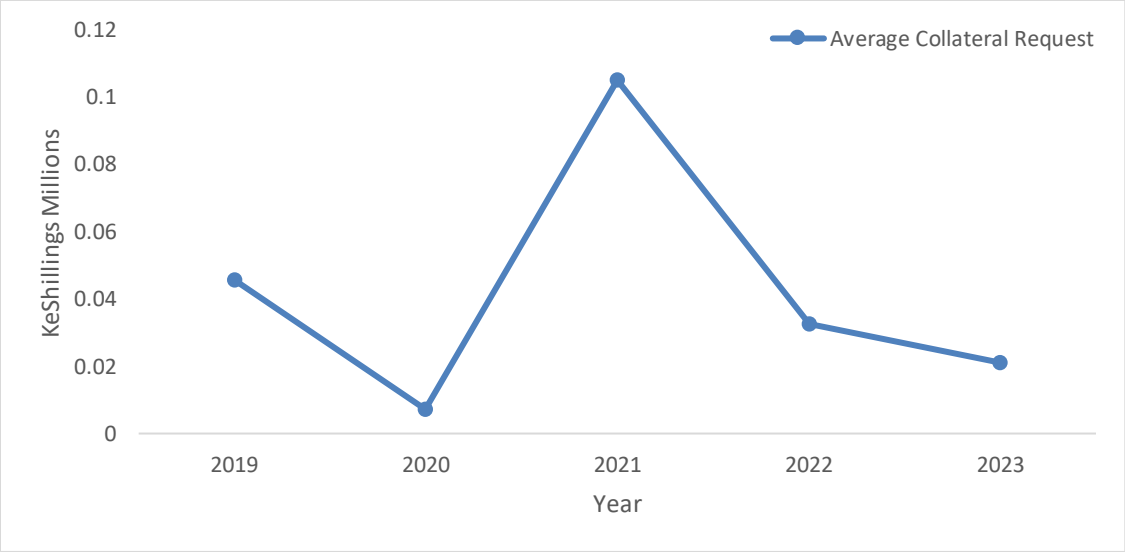
Table 1: Collateral Requirements

Financial Year	Average Collateral (Kes Millions)
2019	0.9013
2020	6.277
2021	-66.1
2022	-63.19
2023	-40.97

(Source; Survey data, 2025)

This varies in the average collateral requests over the years. However, the negative signs on the mean values showed abnormal or unusual occurrences of the variable, while positive indicated improvement with low variability.

Figure 2: Trend Analysis for Average Collateral Request



(Source; Survey data, 2025)

The trend analysis showed that there was a great reduction in the application of collateral between the years 2019 and 2020 but an increase in 2021 that seems to point out the imposition of more rigid collateral requirements due to higher management of collateral risks. The trend appears to point out the dynamics of the collateral requirements with phases of very controlled measures followed by other phases of loosely managed measures that are likely driven by the conditions of the markets at that point in time. The descriptive statistics of loan portfolio quality summarized in Table 2 below.

Table 2: Loan Portfolio

Year	Mean	Std Dev
2019	0.396	0.685
2020	0.545	0.98
2021	-0.483	3.395
2022	-0.149	2.71
2023	0.164	1.954

(Source; Survey data, 2025)

Loan portfolio quality of the 14 microfinance banks was significantly diverse in every year range. The average values changed from year to year, dropping quite sharply in 2021 and 2022, and then returning to 2023 levels. The information in general pointed to a fluctuating loan portfolio quality situation which was a consequence of the institutions' differing performance.

Figure 3: Average Loan Portfolio

(Source; Survey data, 2025)

The trend at issue revealed the change in loan portfolio quality and its gradual increase in microfinance institutions over time.

Table 3: Correlation Results

	Portfolio Quality	Collateral Requirements
Portfolio Quality	1.000	
Collateral Requirements	.574**	1.000

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

Source: Survey Data (2025)

Results in table 3 indicates that the quality of portfolio was positively correlated with collateral requirements (r=.574, P=0.01). This showed a positive relationship that exist between the quality of loan portfolio such that if there are more collaterals for loans that are borrowed then the quality of loan portfolio it's high.

Table 4: Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	2.8460	0.6225		4.571	.0000
Collateral requirement	0.0010	0.000225	.329	4.449	.0000

Source: Survey Data (2025)

Loan portfolio quality =2.8460, Collateral requirement 0.0010.

As shown in Table 4, the constant had a coefficient of 2.8460. This means that if all the factors were held constant, the loan portfolio quality would be at risk with 2.8460 units, of non-repayments of loans with or without collateral requirements. The constant is significant at 0.05 (.0000<0.05). At the same time the observation of Collateral requirement's coefficient was 0.0010 suggesting a positive unit change of collateral requirement all other factors held constant would result in 0.0010 increases in the loan portfolio quality of the microfinance banks. The relationship was significant at 0.05 Significant level (0.0010<0.05) indicating that collateral requirement was significant in explaining the variations in loan portfolio quality. It is apparent from the results that collateral constraints played an imperative role in ensuring loan portfolio quality among microfinance banks in Kenya. Based on the Lender-Based Theory, which was initially proposed by Holmstrom and Tirole in 1997, the research postulated that loan portfolio quality improved due to the critical involvement of lenders in managing borrowers, thereby ensuring proper allocation of capital. Collateral constraints act as incentives to encourage borrowers to make correct financial choices. This was evidence that collateral, as a risk management tool, improved the loan portfolio quality by providing safety and functioning as a screening mechanism for borrowers. Charles & Mori (2016) determined that movable collateral, or relationship-based lending, enhanced loan repayments for less-credit-worthy borrowers in Tanzania. Additionally, Prihantoro and Nuryakin (2020) found that stricter collateral provisions aided in reducing loan defaults, thereby indicating loan security measures to be helpful in increasing MSME loan access.

5.1 Conclusion

The study concludes that collateral requirements play a significant and positive role in enhancing loan portfolio quality among microfinance banks in Kenya, thereby advancing the understanding of financial management practices within the sector. The findings provide substantial evidence on the impact of risk management strategies, particularly collateralization, on loan portfolio performance, confirming that collateral security serves as both a protective mechanism against default risk and an effective screening tool for borrower creditworthiness. The study underscores the critical need for regulatory bodies, particularly the Central Bank of Kenya, to institute

comprehensive sector-wide guidelines for risk management that ensure consistent adherence to best practices among all microfinance banks operating in the country. By implementing such standardized guidelines that balance rigorous collateral requirements with financial inclusion objectives, microfinance banks in Kenya can optimize their loan portfolio quality, strengthen their financial performance, maintain institutional sustainability, and continue fulfilling their social mission of providing accessible credit to underserved populations while safeguarding the stability and integrity of the entire microfinance sector.

6.1 Recommendations

The study recommends that microfinance banks in Kenya should strengthen their collateral requirement frameworks with the aim of improving loan portfolio quality, given that collateral serves dual critical functions as both security against default risk and an efficient screening mechanism for identifying creditworthy clients. Microfinance bank management should develop comprehensive collateral assessment policies that incorporate both traditional and alternative forms of collateral, ensuring standardization across all branches while remaining flexible enough to accommodate the diverse asset bases of borrowers from different socio-economic backgrounds. The Central Bank of Kenya should establish clear regulatory guidelines on minimum collateral standards, valuation procedures, and acceptable collateral types to ensure consistency and transparency across the sector while protecting both institutional interests and borrower rights. However, the study acknowledges that the research concentrated exclusively on microfinance banks in Kenya, which reduces the generalizability of findings to other financial institutions such as insurance companies, commercial banks, savings and credit cooperatives (SACCOs), and informal savings groups that operate within similar environments but under different regulatory frameworks and organizational structures. Future studies should therefore be carried out to investigate the relationship between collateral requirements and portfolio quality across these diverse institutional categories, enabling comparative analysis that identifies sector-specific dynamics and universal principles applicable across the broader financial services industry in Kenya and the East African region.

6.2 Contribution to the Body of Knowledge.

The contribution to the body of knowledge from this research has enhanced the understanding of how collateral requirements influence loan portfolio quality in microfinance banks. The study provided empirical evidence establishing a statistically significant positive relationship between collateral requirements and loan portfolio quality among Kenya's regulated microfinance banks. It validated the Lender-Based Theory by demonstrating that collateral serves dual functions as both a security mechanism and an effective borrower screening tool within the microfinance context. The research filled critical gaps in existing literature by providing context-specific quantitative evidence from Kenya's microfinance sector, addressing the limited empirical research on collateral-portfolio quality dynamics in East African markets. It explained how collateral requirements form the foundation for strategic risk management decision-making in microfinance institutions. The study contributed actionable, evidence-based insights that microfinance practitioners, regulators, and policymakers can utilize to optimize collateral frameworks, thereby improving loan portfolio quality while maintaining financial inclusion objectives.

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