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RISK ASSESSMENT STRATEGIES AND THE SUSTAINABILITY OF MICROFINANCE BANKS IN KENYA

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[1] Esther Wambui Gitee [2] Dr. Joseph Macheru, [3] Dr. Henry Kimani Mburu

Email:estherwgt2020@gmail.com

Abstract
The sustainability of microfinance banks is paramount for their functionality and long-term survival, with risk assessment strategies playing a crucial role. In Kenya, the sector has recently experienced financial instability, with total assets declining by 4.8 percent to KShs. 70.4 billion in 2022, largely due to a 3.1 percent reduction in gross loans and advances. This instability, coupled with collective pre-tax losses of Kshs. 980 million underscores the urgency of examining risk assessment strategies as determinants of sustainability. This study investigated the influence of risk assessment strategies on the sustainability of 14 Central Bank of Kenya-regulated MFBs between 2016 and 2023. Adopting a positivist research philosophy and longitudinal panel design, secondary data were extracted from audited financial statements and regulatory reports. Risk assessment was operationalized using excess/deficiency capital adequacy ratios and insider loans, while sustainability was measured through financial self-sufficiency. Panel least squares regression was applied in E-Views, with Hausman specification tests ensuring robust model selection. Findings showed that risk assessment strategies had a marginal influence on sustainability, with current-period effects ($\beta=0.09$, $p=0.09$) and lagged effects ($\beta=-0.01$, $p=0.80$) being non-significant. The Hausman test ($\chi^2=9.229$, $p=0.5106$) confirmed random-effects estimation. The study extends Risk Management Theory by demonstrating that static, compliance-oriented capital adequacy and insider loan controls inadequately capture the unique risk dynamics of microfinance, recommending the adoption of dynamic, outcome-based frameworks.

Keywords: Risk assessment strategies, sustainability, microfinance, Kenya

INTRODUCTION

INTRODUCTION

The sustainability of microfinance banks (MFBs) is a central concern in advancing global financial inclusion, as these institutions must balance their developmental mission with financial self-sufficiency (Ahamad et al., 2024; Tadele, 2021). Sustainability reflects the ability of MFBs to generate sufficient revenues to cover operational and financial costs without reliance on subsidies, while continuing to serve marginalized populations. Achieving this balance is particularly challenging, as lending to low-income clients is inherently risky and often unprofitable, leaving many institutions struggling to maintain long-term viability (García-Pérez et al., 2023; Yayehyirad, 2023).

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Risk assessment strategies are designed to mitigate these vulnerabilities by identifying, evaluating, and controlling risks that threaten institutional stability. In regulated MFBs, risk assessment is operationalized primarily through capital adequacy and insider lending controls. Capital adequacy management requires institutions to maintain buffers above the statutory thresholds of 10 percent core capital and 12 percent total capital. However, CBK (2025) reports show that five Kenyan MFBs fell below these requirements in 2024, with some recording critically low ratios of 6–7 percent. Insider lending, another crucial dimension of risk assessment, continues to pose challenges, as several MFBs disclosed elevated related-party exposures that concentrated risk and undermined portfolio quality (CBK, 2024). These weaknesses illustrate the fragility of risk management frameworks that rely heavily on compliance rather than dynamic risk mitigation.

Despite regulatory emphasis on capital adequacy and insider lending, the sector has continued to post losses of KSh 2.4 billion in 2023 and KSh 3.5 billion in 2024, while return on equity fell sharply to 78 percent in 2024 from 35 percent in 2023 (CBK, 2025). Such outcomes suggest that conventional risk assessment strategies may function more as procedural requirements than as effective safeguards, particularly in microfinance contexts where risks are relational, behavioral, and community-based rather than fully captured by financial ratios (Kosasia & Njeru, 2023).
Against this backdrop, the present study examined the effect of risk assessment strategies on the sustainability of Kenyan microfinance banks. Specifically, it tested the null hypothesis: *Risk assessment strategies have no significant effect on the sustainability of microfinance banks in Kenya*

2. LITERATURE REVIEW

The section is about prior literature reviews and is divided into sections.

2.1 Review of Theory

The research was based on risk management theory, a theory that has its origin in early works of Peter Drucker (1954) and was subsequently explained in works by Markowitz (1991) such as portfolio theory and Lam (2003) such as enterprise risk management framework. It stresses the fact that companies should proactively and methodically recognize, evaluate, and reduce risks to be sustainable. It emphasizes the fact that risks are various, financial, operational, strategic, and compliance-based, and need to be addressed in a holistic manner. The theory highlights the idea that proper risk management is not only about minimizing losses but it also leads to confidence among the stakeholders.

According to the theory, risks may be identified, measured, and prioritized in terms of their probability and effects (Fraser and Simkins, 2010). It also presupposes that organizations are able to formulate strategies of avoidance, transfer, acceptance or mitigation to deal with risks. The other assumption is that the risks are dynamic in nature and the risks need to be monitored and adjusted continuously. It is also a set of assumptions that risk management is incorporated in all the organizational functions, such that the decisions made at every level take into account risk. Lastly, it presupposes that the effective implementation requires

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communication and coordination (Tsohou et al., 2006).
The opponents of the theory claim that it usually places too much emphasis on quantitative analysis and financial risks and cultural and reputation in the qualitative measure (Merna and Al-Thani, 2008). Others observe that it may also fail to discern systemic and connected risks especially in unstable environments (Hillson and Murray-Webster, 2007).
Also, the risk management frameworks are not always effective due to the failure of their integration into the organizational culture. Irrespective of these shortcomings, the theory is still vital in explaining the manner in which companies respond to and anticipate uncertainty.

This theory was deemed as of relevance to guide the goal on the risk assessment strategies in the MFBs, including insider lending and capital adequacy. Through the systematic discovery and management of risks, MFBs will be in a position to defend their financial self-sufficiency and sustainability. The risk assessment processes will also assist the institutions in prioritization of threats, effective allocation of resources and long-term sustainability. This view demonstrates that risk management is not merely a defensive measure, but an offensive mechanism that builds confidence, lessens volatility, and protects the continuation of institutions. By so doing Risk Management Theory directly contributes towards the sustainability of MFBs.

2.2 Empirical Review

Durango-Gutierrez, Lara-Rubio and Navarro-Galera (2023) measured the default risk of the microfinance institutions with the Basel III regulatory framework. Two microcredit portfolios of MFIs in Bolivia and Colombia in 2012-2015 were taken into account in the study. The study used an empirical approach that used a combination of logistic regression and neural networks. According to the research, number of late payments, loan size, presence of guarantees, gender of borrower and macroeconomic variables such as developments of stock indices were found to be significant predictors of default. Decrease in the number of non-performing loans and enhancement of the sustainability of the institutions can only be realized through the application of borrower level default risk evaluations, which encompasses financial and behavioral profiles. The Latin American setting of the study rendered the study meaningless to the Kenyan setting due to the substantial disparities in microfinance institutions, borrower profiles, and regulatory standards.

A study conducted by Mutamimah and Cokrohadisumarto (2022) in Baitut Tamwil Muhammadiyah (BTM) in the Central Java Province of Indonesia evaluated the contribution of risk management to the creation of resilience and stability in Islamic microfinance institutions (IMFIs) during financial crisis periods. This qualitative study aims to find out the risk management process of BTMs and its effect on the financial performance and survival of the business organizations under investigation. The surveys and in-depth interviews were used to ask questions and the questions were checked by the key informants. Although there was some difference, the outcomes showed that BTMs rank some risks based on the manage risk guidelines provided by different organizations. Operational and financial risk were secondary to Sharia compliance risk because they have a direct effect on stability and performance. This type of

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findings can assist the financial stability and resilience of IMFIs by cast light on their risk management procedures and, hopefully, by indicating areas of improvement.

Tadele (2021) conducted a study on microfinance institutions in sub-Saharan Africa in order to determine the impact of board structure on the default risk. The study utilized 214 panel data of 26 countries based on 2005-2016 on 266 MFIs and employed Pooled Ordinary Least Squares (OLS) and system Generalized Method of Moments (GMM) estimations. Default risk was calculated using loans that were over 30 or 90 days late and also the written off loans. According to the results, large boards, more independent directors, and female board members were related to reduced borrower default risk in unregulated MFIs. This implied that the quality of governance and board membership were critical in enhancing risk assessment procedures in a bid to minimize loan default. The paper has highlighted risk factors associated with governance, in which bigger and more diverse boards lower borrower default, but did not consider capital adequacy and insider lending as direct sustainability drivers; an aspect that was evaluated in the present research.

Ilangakoon et al. (2022) conducted a study to establish whether there is any relationship between risk management and the viability of microfinance business in Sri Lanka in the long term. This research aimed at establishing risk management measures that had the most impact on the long-term survival of commercial microfinance institutions (MFIs). The study was based on the data obtained about 376 microfinance borrowers in Sri Lanka who are females. Data collection was done by use of cluster sampling which was further augmented with secondary data on microfinance institutions annual reports, Central Bank of Sri Lanka and microfinance information exchanger (MIX) among others. The research further indicated that risk management contributed significantly towards enhancing the sustainability of the microfinance sector in Sri Lanka. The findings of the study indicate that MFIs cannot remain an issue of concern till they embrace just-in-time risk management. It also contained useful information that can be valuable to policy makers and players in the field of micro finance. The research developed a gap in context that restricted the generalizability of its results since it was conducted in Sri Lanka, a country that has diverse economic and regulatory policies.

Deyganto (2020) examined how a credit risk management approach would impact the repossession of loans made by microfinance institutions (MFIs) in the Sidama regional state of Ethiopia. It has used a quantitative method, which is based on the explanatory research theory; the research relied on regression analysis to investigate the effects. Purposive sampling was used in the selection of 115 participants who were sampled out of the five MFIs in the study area. Structured questionnaire was employed as the basic tool of collecting data and it was further analyzed using SPSS version 21.0. The five explanatory variables that were subsumed to influence the collection of loans positively and significantly in the multiple regression analysis were credit analysis, monitoring, policy, collateral and credit risk identification. The study found that there were various variables that have a strong impact on the efficacy of the loan collection

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operations and some of these variables included the use of other collateral in the operation. The results of the study revealed that these variables had an enormous influence on the collection of loans and, in the broadest sense, the capacity of MFIs in offering financial services, even those so aimed at low-income people. Consequently, MFIs within the study area were encouraged to put much emphasis on these variables.

Ewool and Quartey (2021), the Ghanaian scholars, examined the effect of risk management methods on MFIs in the Kumasi Metropolis. The study subjects were provided by ten microfinance institutions (MFIs) and the researchers employed the quantitative descriptive approach in order to assemble their data. Results showed that critical procedures were adhered to, which were identification of risk, risk assessment, risk management and risk monitoring. The research results have been attributed to risk management techniques, which have led to improved financial performance with an average ROA of 3 percent and ROE of 35 percent. This indicated the necessity of specialized risk solutions to safeguard the economic welfare of institutions. Nevertheless, the two research studies had a methodological difference in that the former was based on quantitative research design, whereas the latter was a panel research study.

Lilian, Mpora, Sunday & Turyahebwa (2023) evaluated the correlation between MFI performance and internal financial control systems in the Kabale Municipality of the southern part of Uganda. The primary focus of the study was on examining the control environment, monitoring the work, risk evaluation, and communication of MFIs in the area. To collect the data on the various parties involved in the specific MFIs, cross-sectional survey was employed. A sample of 100 respondents was achieved as a result of a mix of deliberate selection and simple random sampling in the study. The primary data collection methods were in-depth interviews and structured questionnaires. A study undertaken in Kabale Municipality established that three aspects such as communication, regulatory framework, monitoring activities, and risk assessment played a significant role in influencing MFI efficiency. The assessment of risk is the factor that positively affected the overall level of MFI performance, but the analysis revealed that all attributes of internal control system are meaningful. The report suggests an improvement of risk assessment methodologies in order to ensure that the Microfinance Institutions (MFIs) of Kabale Municipality is continuously improving its performance. This research did not take into account secondary sources, as was taken into consideration in the current research.

The authors based their analysis on the data obtained in microfinance institutions in Nigeria during 2011-2020 to assess the impact of credit risk management on their bottom lines. The research used a panel least squares regression model using secondary data obtained on the publicly available financial reports of six MFIs, arbitrarily selected. The credit risk indicators were Non-Performing Loan Ratio (NPLR) which is a direct measure of BDR, and Capital Adequacy Ratio whereas Return on Assets (ROA) was used to examine financial performance. Findings revealed that both NPLR and CAR significantly influenced the financial performance and this goes to prove that, enough capital buffer and effective

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management of the risk of default among borrowers is the key to long term success of the institutions. The study was conducted in Nigeria, where microfinance business lacks the same legislative, financial, and operational practices, compared with Kenya, hence there was no contextual information.

The article by Joshua and Oloko (2021) examined the role of regulatory CAR on the financial performance of Kenyan deposit-taking microfinance banks (DT-MFBs). The duration was seven years (2011-2017), and secondary data of nine DT-MFBs using panel data regression with the Ordinary Least Squares (OLS) method of regression. Return on equity was used as one of the measures of financial success and the capital adequacy ratio was used as the main independent variable. It was found that capital sufficiency was positively and statistically significantly correlated with financial performance. It means that credit shocks, compliance with the requirements of the regulations, and sustainability of microfinance organizations can be overcome in case they have a strong capital base. Lack of the study left a gap because the research did not focus on defaults of borrowers as a crucial component of any risk management plan, but capital adequacy was given. Based on this, the current study examined how effectively the capital adequacy and total insider loans, two metrics of risk measurement, influenced the sustainability of the Kenyan microfinance banks.

Nderitu (2022), in his study, investigated how the deposit-taking SACCOs in Kenya managed to operate financially following the application of different risk management measures. It was a quantitative research design, and the control variables were business size and capital adequacy ratio (CAR), and the data were gathered using the publicly available annual financial reports. Based on the findings, capital adequacy had significant impacts on the financial stability and performance of SACCOs. This implies that institutions that have adequate capital can manage risks exposures and continue running without any problem. It is due to this that the capital adequacy ratio is a critical component of the good risk assessment practices. The fact that the study focuses on SACCOs and not MFBs is contextually deficient because the institutions do not undergo the same rules and different regulatory frameworks that ensure the care of varied clientele.

2.3 Conceptual Framework

Figure 1 in this study demonstrates a diagrammatic representation that summarizes the key prior research relationships key to our study.

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Figure 1: Conceptual framework

3. METHODOLOGY

The study has taken a positivist philosophy, which was based on the secondary quantitative data that included audited financial statements and regulatory reports of microfinance banks. Positivism was deemed suitable, as the research was aimed at testing the hypothesis objectively with the help of verifiable data in accordance with the rules of evidence-based scientific inquiry (Maksimovic and Eytimoy, 2023). Such philosophical orientation reduced subjectivity and allowed using statistical methods to determine the relationship between risk assessment strategies and institutional sustainability.

A longitudinal panel research design was employed to capture variations both across institutions and over time. The study focused on all fourteen microfinance banks licensed and regulated by the Central Bank of Kenya, covering the period 2016–2023. The census approach ensured complete coverage of the population, eliminating sampling bias while maximizing the generalizability of findings within the regulated sector. The design produced 112 bank-year observations, which allowed for the examination of dynamic linkages and temporal causality between risk assessment strategies and sustainability outcomes. The longitudinal approach was particularly valuable for testing both current and lagged effects, since risk assessment practices may yield either immediate or delayed impacts on institutional performance.

Data collection followed a systematic process of extracting financial and regulatory indicators from audited annual reports, supervision reports, and CBK disclosures. A standardized template was developed to ensure consistency and comparability across banks and over time. The extraction template captured data from income statements, balance sheets, and regulatory notes, which were then compiled in a panel dataset suitable for econometric analysis using E-Views software. The reliance on audited and regulated sources enhanced the validity and reliability of the data, as these are subject to independent verification and supervisory oversight.

Operationalization of variables was carefully designed to reflect both the conceptual and practical dimensions of risk assessment strategies. Two indicators were selected: capital adequacy ratios and insider lending levels. Capital adequacy was measured by calculating the excess or deficiency between actual core capital and the statutory minimum required by the CBK. This indicator captured the extent to which MFBs maintained buffers to absorb unexpected shocks and comply with prudential regulations. Insider lending was

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measured as the total value of loans and advances granted to directors, managers, or related parties, as disclosed in audited statements and regulatory filings. Elevated levels of insider lending were considered proxies for weak governance and heightened risk exposure, given the potential for conflicts of interest and portfolio concentration. Together, these indicators captured the prudential and governance-related aspects of risk assessment strategies.

The dependent variable, sustainability, was measured using the financial self-sufficiency (FSS) ratio. This metric, calculated as operating income divided by total expenses, assessed whether MFBs could cover operational and financial costs without reliance on subsidies or donor support. The FSS ratio is widely recognized in microfinance performance research and was consistently available for all sampled banks over the study period, enabling valid comparisons across institutions and years.

Panel least squares regression models were used to analyze the relationship between risk assessment strategies and sustainability. The choice of panel regression was appropriate because it accounts for both cross-sectional (between banks) and temporal (over years) variations, producing more efficient estimates than cross-sectional or time-series models alone. The models included both current-period and one-year lagged specifications of the independent variables. The inclusion of lagged terms was critical in testing whether risk assessment effects persisted over time or were confined to the immediate reporting year.

To ensure robustness, extensive diagnostic testing was conducted. Descriptive statistics were generated to examine dispersions, while correlation analysis was applied to test for potential multicollinearity between explanatory variables. Tests of stationarity were conducted to address time-series properties of the panel data, ensuring that non-stationary trends did not bias regression results. The Hausman specification test was used to determine the appropriate model between fixed and random effects. The results indicated that the random effects estimator was more efficient, as the explanatory variables were not significantly correlated with individual bank effects ($\chi^2 = 9.229$, $p = 0.5106$). This justified the use of random effects regression for hypothesis testing. Additional diagnostic checks for heteroskedasticity and serial correlation were also performed, with corrective measures applied where necessary to produce reliable standard errors.

The integration of both current and lagged specifications added depth to the methodology, enabling the study to test for temporal causality in risk assessment effects. While current-period coefficients provided insights into immediate impacts, the lagged variables revealed whether practices such as maintaining capital buffers or limiting insider lending created cumulative advantages for sustainability. The insignificance of lagged results underscored the methodological value of this design, as it demonstrated that traditional prudential measures did not deliver enduring benefits within the sector.

The procedures used in methodology ensured that the ethical integrity of the research was maintained. Only publicly available audited reports and regulatory disclosures have served as the source of the data, so academic principles of integrity in the field of data usage are observed. Substantiation of all sources was done in an appropriate manner and results

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presented openly without any manipulations. This method upheld the confidentiality of individual borrowers without having to abandon the responsibility of utilizing institution-level data gathered with the guidance of the Central Bank of Kenya.
This research design combined a number of strengths. At the start, the positivist orientation was the source of objectivity and rigor in the test of hypotheses. Second, the longitudinal census design enabled a large-scale coverage of the sector and dynamic effect analysis. Third, operationalisation of variables was used to make sure that there was a fit between the conceptual definitions of risk assessment and measurable financial variables. Fourth, the statistical inferences were better because of using strong econometric methods backed up by diagnostic tests. The combination of these characteristics resulted in the credible and repeatable findings about the limited role of risk assessment strategies to increase sustainability.

However, the methodological decisions were also limited and this has to be recognized. Capital adequacy and insider lending was a partial measure of the overall construct as a measure of risk assessment. The indicators mainly embrace the prudential and governance aspect but might not involve behavioral and relational risks associated with microfinance lending. Further, the use of secondary data restricted the research to those variables reported on audited and regulatory reports, and not those that might be valuable qualitative indicators of certain variables, including borrower trust, community reputation, or staff risk culture. Although the census method has guaranteed that all regulated MFBs were covered, the unregulated or community-based institutions were not covered and therefore could have had different practices and results.
In spite of these restrictions, the methodology used was strong and suited to the objectives of the study. Through a positivist philosophy, longitudinal census design, systematic data collection, precise operationalization of variables and rigorous econometric tests, the study was in a position to give a plausible and subtle explanation of the relationship between risk assessment strategies and sustainability in Kenyan microfinance banks. The methodology reiterated that although capital adequacy and insider lending controls may have fringe-related compliance advantages, they are not powerful predictors of protracted sustainability consequences.

4. RESULTS

4.1 Descriptive Statistics

Table 1: Descriptive Statistics Results

	SMFB	RISKASSESSMENT
Mean	0.702333	-0.003491
Median	0.730427	0.058591
Maximum	1.668449	1.486721
Minimum	0.000000	-3.320000
Std. Dev.	0.442581	0.577226
Skewness	0.117141	-2.829540
Kurtosis	2.162792	16.15189

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Jarque-Bera	3.527087	956.6548
Probability	0.171436	0.000000
Sum	78.66132	-0.390957
Sum Sq. Dev.	21.74246	36.98408
Observations	112	112

Risk assessment strategies **(RA)** was proxied by Excess/(Deficiency) capital adequacy ratio, measured by core capital ratio -minimum statutory ratio and total insider loans, Advances and other facilities measured by TIL/Gross loan portfolio. The dependent variable was the sustainability of microfinance banks (SFMBs) proxied by Financial Self-Sufficiency **(FSS) ratio,** which was determined by operating income/total expenses costs.

The descriptive statistics indicate that there are high levels of operational differences and distributional issues among the study variables. Sustainability of microfinance banks (SMFBs) showed a mean of 0.702, which means that on average, the institutions were financially self-sufficient to the tune of 70 percent, which is below the 1.0 mark of full sustainability without external assistance. The standard deviation of 0.443 indicates that there is a significant difference in the sustainability performance of the institutions, with some of them being fully self-sufficient (maximum 1.668) and others producing no sustainable income (minimum 0.000). The fact that the sustainability outcomes are relatively normally distributed (Jarque-Bera = 3.527, p = 0.171) confirms the validity of the parametric statistical analysis, but the large range of performance suggests polarized institutional capabilities in the sector.

The distributional properties of risk assessment strategies were especially worrying, as the mean was negative (-0.003), which implies that microfinance banks were generally operating below the optimal capital adequacy levels as compared to the regulatory requirements. The extreme standard deviation of 0.577 and the range of -3.320 to 1.487 indicates that there are institutions that had capital deficiencies of over 330 percent below minimum requirements and those that had surpluses of almost 150 percent above minimum requirements, which posed systemic risks and competitive imbalances. The extreme negative skewness (-2.830) and excessive kurtosis (16.152) indicate highly skewed distributions with extreme outliers, which is supported by the significant Jarque-Bra test (956.655, $p < 0.001$), which shows that risk management practices are fundamentally heterogeneous and do not imply that all participants in the sector are equally compliant with the regulations. These distributional properties imply that the conventional banking risk assessment models might not be well adapted to microfinance settings, where the dynamics of operations are significantly different than those of a typical commercial banking setting.

4.3 Correlation Analysis

Table 2: Correlation Analysis Results

Correlation Probability	**SMFB**	**RISKASSESSMENT**
SMFB	1.000	

RISKASSESSMENT	0.272	1.000
	0.004	-----

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The correlation analysis revealed a statistically significant positive relationship between risk assessment strategies and sustainability of microfinance banks ($r = 0.272$, $p = 0.004$), indicating that institutions with stronger capital adequacy management and insider lending controls tend to achieve higher financial self-sufficiency ratios. This moderate correlation suggests that effective risk assessment practices contribute meaningfully to sustainability outcomes, though the relationship strength indicates that risk assessment alone explains only approximately 7.4% of the variance in sustainability performance ($r^2 = 0.074$). The positive association aligns with risk management theory's proposition that systematic identification and mitigation of financial risks enhance institutional resilience, supporting the theoretical expectation that adequate capital buffers and controlled insider lending exposure provide foundations for sustainable operations. However, the moderate correlation magnitude indicates that risk assessment strategies, while beneficial, operate alongside other institutional factors in determining sustainability outcomes, suggesting that comprehensive approaches incorporating multiple control mechanisms may be necessary for optimal performance in the microfinance sector.

Unit Root Tests at Intercept and Level I (0)

Table 3: Unit Root Test Results

Variable	**Method**	**Statistic**	**Prob.****
SMFB	Levin, Lin & Chu t*	-4.3536	0.0000
RISK ASSESSMENT	Levin, Lin & Chu t*	-7.70554	0.0000

Sustainability of microfinance banks and risk assessment were stationary at level I(0) meaning that the null hypothesis that they had a unit root was rejected.

4.4 Regression Analysis

The summary of the regression analysis is presented in Table 3

Table 4: Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	9.228640	10	0.5106

The P-value of the Chi-square statistic was 0.5106, which was not significant at 5 percent level of significance; hence, the random effects model was chosen as suitable for the study.

Table 5: Regression Results

Random Effects Regression Equation

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Variable	Coefficient	Std. Error	t-Statistic	Prob.
Risk Assessment	0.091135	0.052492	1.736186	0.0861
Risk Assessment (-1)	-0.012582	0.049492	-0.254229	0.7999

Risk assessment strategies demonstrated marginal statistical significance in the current period (β = 0.09, p = 0.09) but failed to achieve conventional significance thresholds, while lagged effects remained entirely non-significant (β = -0.01, p = 0.80), failing to reject H_{02} that risk assessment strategies have no statistically significant influence on sustainability.

5. DISCUSSION OF THE RESULTS

The study established that current-year risk assessment practices demonstrated a modest positive effect on the sustainability of Kenyan microfinance banks, attaining marginal statistical significance at the 10 percent level (β = 0.09, p = 0.09). However, the lagged period effects were entirely insignificant (β = -0.01, p = 0.80), failing to reject the null hypothesis that risk assessment strategies have no significant effect on sustainability outcomes. These results imply that while risk assessment practices such as capital adequacy monitoring and insider lending controls may provide immediate compliance benefits and short-term stability, they do not generate lasting improvements to institutional sustainability. The evidence suggests that risk assessment strategies, as presently designed and implemented, may operate more as routine compliance mechanisms than as effective strategic tools of risk management within the microfinance sector.

The positive current-period coefficient suggests that improved capital adequacy management and insider lending controls may contribute modestly to sustainability outcomes, though the effect remains statistically weak and economically small. The disappearance of significance in lagged specifications indicates that risk assessment benefits, if they exist, operate primarily in the immediate term rather than building cumulative advantages over time. This pattern suggests that traditional banking risk management approaches, focused on capital ratios and insider lending limits, may be poorly suited to microfinance contexts where risks are predominantly behavioral, relational, and community-based rather than captured through conventional financial metrics. The marginal significance level (p = 0.09) represents a borderline finding that requires careful interpretation, as it approaches but does not meet strict statistical criteria while potentially indicating meaningful relationships that larger sample sizes might detect.

The short-term relevance of capital adequacy management indicates that maintaining regulatory capital thresholds helps microfinance banks cushion themselves temporarily against liquidity shocks and unanticipated loan defaults. Likewise, insider lending controls may reduce immediate exposure to conflicts of interest, concentration risks, and governance weaknesses. However, the fact that lagged effects were consistently insignificant suggests that these benefits are not sustained beyond the reporting period.

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By the time the assessments are translated into corrective action, their value may already be eroded by rapidly changing borrower behavior, market volatility, and evolving economic conditions. This supports the observations of Masavu (2022), who found a negative correlation between various financial risk types and MFB operations, though focusing more on risk exposure than the effectiveness of risk management systems.

The results also echo the findings of Tadele (2021) who noted that the governance indicators like increased board size, increased number of independent directors, and increased women representation have lower borrower default risks in unregulated MFIs. This implies that risk assessment mechanisms that are associated with governance, as opposed to being anchored on capital adequacy and insider lending ratios, can make more contributions to institutional sustainability. In a similar way, Kosasia and Njeru (2023) discovered that the high positive correlation between risk management and profitability measures, including ROA and ROE, was observed despite the fact that the level of profitability was negative in general. This supports the conclusion of the current study that risk management structures can have some marginal benefits, but cannot enable the fundamental security of sustainability in the microfinance institutions.

In terms of the risk management theory, the results indicate that there is discrepancy between theory and practice. According to the risk management theory, risk assessment must be dynamic and adaptive and context-specific, so that the institutions can anticipate risks and mitigate them when they happen. However as the present research shows, risk assessment strategies in Kenyan MFBs are stagnant, compliance based and very specific and limited to regulatory ratios. The inability of lagged effects to reach significance highlights the low value of such strategies because they do not offer the prospective flexibility required to protect institutional sustainability in environments that are highly dynamic.

Therefore, the research demonstrates that risk assessment policies can work at the periphery of improvement of the sustainability level but not as the main factors of financial self-sufficiency. Failure to reject H 0 2 shows that present solutions though with slight promise in the short term, do not present the statistical power necessary to affirm their effort in reinforcement of sustainability performance. The results indicate that the capital adequacy and insider lending controls though effective in compliance terms, should be significantly modified and supplemented with context-driven frameworks, which involve behavioral and relational risk indicators. In this way, the microfinance banks would be in a better position to standardize risk assessment practice to their own operating environment and sustainability goals in the long run.

6. CONCLUSIONS

This research confirmed that the risk assessment techniques as practiced today by the use of insider lending monitoring and capital adequacy ratios did not show any significant changes to the sustainability of microfinance banks in Kenya (MFBs). These results provide critical questions concerning the efficiency of the traditional, regulatory-based risk management strategies in the microfinance sector. There are no major and enduring effects implying that existing strategies can bring about

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bureaucratic requirements without the proportional sustainability gains. These measures seem to be rather compliance mechanisms instead of the development of resilience, which makes it questionable whether they are appropriate when dealing with the specific risks that MFBs are exposed to.

In the risk management theory that stresses the identification, assessment and mitigation of risks in order to protect the continuity of the institutions, the findings suggest that there is a lack of alignment between the regulatory design and the realities of operations. Although the risk management theory is based on proactive and adaptive processes that are context-specific to organizations, the Kenyan microfinance industry has been overly dependent on generic banking models that fail to fully reflect the behavioral and relational risk associated with microfinance lending. This is the reason why insider lending controls and capital adequacy ratios do not have strong and enduring impacts on sustainability outcomes as described by this theoretical gap. As a matter of fact, they do not leverage the real risks like borrower defaults associated with social and community forces that pose long-term risk. These results have some implication to regulators. The Central Bank of Kenya and other institutions that control various financial institutions are to re-consider the applicability of the traditional models of risk assessment in the background of the evidence that they place a limited role in microfinance institutions. The regulatory frameworks should be changed to be more than the quantitative measures, and instead, should have a combination of financial performance measures with the other indicators, which are qualitative, including social capital, borrower trust, and community engagement. Institutional sustainability would be tackled not in a limited manner but holistically by the underlying policy of integrating risk assessment that is context-sensitive and the consequent regulators would be more aligned with the risk management theory.

To practitioners, the study highlights the importance of redesigning the risk assessment processes in line with the sustainability goals. The fact that lagged effects are insignificant underscores the weaknesses of periodic, compliance-based monitoring. Managers ought to embrace flexible real time systems that can react to changing borrowing habits, domestic economic shocks and sectoral weaknesses. Following the risk management theory that promotes responsive and proactive strategies, the MFBs are to combine the traditional financial measures with the qualitative ones (the intensity of relationships with clients, the community trust mechanisms, and the social collateral). These types of integrated models would generate a more precise image of institutional risk and raise long-term sustainability opportunities.
Finally, the paper suggests that risk management in microfinance banks ought to be relocated as an obligation to comply towards an aspect of strategic capability. With the dual purpose of financial self-sufficiency and social impact in streamlining risk assessment processes, MFBs can turn risk management to value adding functions that reinforce institutional resilience and developmental results. Such theoretical and practical re-orientation would enable Kenyan microfinance banks not only to comply with regulatory needs but also to remain operational in fulfilling their mandate of serving marginalized

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populations thus the bigger promise of financial inclusion.

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