

Credit Risk Management and Financial Performance: Evidence from Deposit-Taking Savings and Credit Cooperative Societies in Kenya.

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Abstract

This study investigates the effect of credit risk management on the financial performance of deposit-taking Savings and Credit Cooperative Societies (DT-SACCOs) in Kenya. The study was motivated by the increasing exposure of SACCOs to credit default risks, which continue to affect their profitability and sustainability. Credit risk management was assessed using three core dimensions: risk identification, risk analysis, and risk control, while financial performance was measured using return on assets (ROA). Anchored on the Modern Portfolio Theory and supported by Merton's Default Risk Theory, the study adopted a descriptive cross-sectional design targeting all 176 licensed DT-SACCOs in Kenya. Primary data were collected from credit risk managers, while secondary data on ROA were obtained from audited financial statements covering the period 2017 to 2022. The results revealed that credit risk management has a significant positive effect on financial performance. Each of the three components—risk identification, risk analysis, and risk control—was found to significantly enhance ROA. The findings underscore the importance of robust credit risk management systems in strengthening the financial viability of SACCOs. The study recommends the adoption of proactive risk management practices to safeguard member deposits and improve overall institutional performance.

Keywords: Credit risk management, financial performance, risk identification, risk analysis, risk control, deposit-taking SACCOs, return on assets

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I. INTRODUCTION

A. Background of the Study

Credit risk remains a central concern for financial institutions globally, given its direct implications on the sustainability and profitability of lending operations. It refers to the potential loss arising from a borrower's failure to meet contractual debt obligations, thereby undermining the institution's asset base and financial performance (Padilla & Pagano, 2020). For deposit-taking Savings and Credit Cooperative Societies (DT-SACCOs), whose primary function is the mobilization of savings and provision of credit, credit risk is especially pronounced due to their exposure to diverse member profiles and limited risk absorption capacity (Ngwa, 2022). Consequently, the adoption of effective credit risk management (CRM) strategies is fundamental to ensuring financial health and institutional longevity (Tanui et al., 2015).

The performance of SACCOs in Kenya has come under increasing scrutiny, particularly in light of rising non-performing loans (NPLs), which threaten not only individual institutions but also the stability of the cooperative sector as a whole. According to the SACCO Societies Regulatory Authority (SASRA, 2022), over 30% of DT-SACCOs have experienced elevated levels of credit defaults due to poor loan appraisal systems, inadequate borrower screening, and delayed employer remittances. These challenges have contributed to reduced profitability and heightened the risk of regulatory sanctions, including suspension of operations. As SACCOs continue to serve as a vital conduit for financial inclusion—reaching over 60% of the Kenyan population—there is an urgent need to evaluate whether their credit risk frameworks sufficiently support financial performance (FinAccess, 2021).

Credit risk management comprises a set of processes designed to identify, analyze, and control potential exposures to credit loss. Risk identification involves proactive detection of possible default events, risk analysis assesses the likelihood and impact of default using borrower data, and risk control encompasses mitigation actions such as loan limits and covenants (Raad, 2015; Kimotho & Gekara, 2016). When effectively executed, these mechanisms enhance credit quality, reduce provisions for bad debts, and improve return on assets (ROA), a key indicator of financial performance (Fatihudin & Mochklas, 2018). However, the extent to which each CRM component contributes to performance outcomes among SACCOs in Kenya remains inadequately explored.

Empirical evidence on the CRM-performance relationship is mixed. Studies such as Gitau (2021) and Bwire and Omagwa (2019) found a positive association between credit risk practices and financial performance among cooperatives and SACCOs, respectively. In contrast, Otanga et al. (2020) reported a negative effect, attributing it to high NPL levels in Western Kenya. Methodological inconsistencies, regional limitations, and differences in CRM operationalization have contributed to these divergent findings. Moreover, most prior studies have focused on banks or MFIs, with limited attention given to the SACCO context (Mutua & Kimeu, 2020), despite their unique governance structures and member-driven credit models.

Given the growing financial vulnerabilities faced by SACCOs and the lack of conclusive evidence on the effectiveness of CRM, this study investigates the effect of credit risk management on the financial performance of DT-SACCOs in Kenya. Specifically, it examines how risk identification, risk analysis, and risk control influence ROA. By focusing on a national sample of licensed DT-SACCOs over a six-year period, the study contributes to policy and practice by identifying which aspects of CRM are most instrumental in promoting financial health. The findings are expected to support SACCO managers, regulators, and policymakers in strengthening institutional resilience through targeted risk interventions.

B. Research Problem

Deposit-taking SACCOs in Kenya continue to face significant challenges in maintaining financial stability, largely due to credit risk exposures stemming from weak borrower assessments, inadequate credit policies, and poor monitoring systems. According to SASRA (2022), a growing number of SACCOs have recorded deteriorating loan portfolio quality, with non-performing loans increasing from 6.14% in 2020 to 8.86% in 2022—well above the recommended prudential threshold of 5%. This trend threatens not only institutional solvency but also public confidence in the SACCO movement, which manages over KES 800 billion in assets and plays a vital role in Kenya's financial inclusion agenda (FSD Kenya, 2021). The continued decline in asset quality has prompted calls for more robust credit risk management frameworks to mitigate exposure and enhance financial performance. However, the practical impact of CRM initiatives on performance outcomes—particularly as measured by return on assets—remains empirically inconclusive and under-researched in the SACCO context.

While studies on commercial banks and microfinance institutions have extensively explored the link between CRM and profitability, few have focused specifically on DT-SACCOs despite their distinct governance structures, credit models, and regulatory environment. Furthermore, past research has often operationalized CRM narrowly—using single metrics such as NPL ratios—without capturing the multidimensional nature of risk identification, analysis, and control. This limitation restricts the ability to draw actionable insights for policy and practice. In addition, contextual gaps persist, with most studies concentrating on urban SACCOs or specific counties, thereby limiting generalizability. This study addresses these gaps by comprehensively examining how the key dimensions of credit risk management influence the financial performance of all licensed DT-SACCOs in Kenya, thereby providing sector-wide evidence to inform risk mitigation strategies and financial sustainability.

C. Research Objective

To determine the effect of credit risk management on financial performance deposit-taking SACCOs in Kenya.

II. LITERATURE REVIEW

A. Theoretical Review

This study is anchored on the Modern Portfolio Theory (MPT) developed by Markowitz (1952), which posits that investors can construct an optimal portfolio that maximizes expected return for a given level of risk through diversification. The theory emphasizes that risk is inherent in investment decisions, but it can be managed by combining assets with varying degrees of correlation. In the context of SACCOs, the theory supports the argument that effective credit risk management—through accurate risk identification, thorough analysis, and stringent control mechanisms—can reduce portfolio volatility and improve financial outcomes (Gakure et al., 2012). By applying diversification principles in their loan portfolios and enforcing strong credit appraisal standards, SACCOs can mitigate default risk and enhance return on assets, thus aligning with the theory's foundational principles.

Supporting this framework is Merton's Default Risk Theory (1974), which models the probability of a firm defaulting based on the value of its assets relative to its liabilities. Merton's model assumes that credit risk

can be quantified and managed using structural indicators, such as borrower solvency and asset performance, making it highly relevant for institutions whose profitability depends on loan repayments (Jorion, 2014). For SACCOs, which often lend to a diverse membership base with varying credit profiles, the theory underscores the need for rigorous credit risk analysis to avoid insolvency-triggering defaults. The theory also reinforces the importance of continuous credit monitoring, since default likelihood is influenced by fluctuating market conditions and borrower behavior. Together, these theories provide a robust conceptual foundation for examining how credit risk management affects financial performance within the SACCO sector.

B. Empirical Review

Empirical studies have increasingly investigated the role of credit risk management in shaping the financial performance of financial institutions, though findings have varied across contexts and methodologies. Gitau (2021) examined dairy cooperatives in four counties in Kenya and reported that credit management practices, particularly in loan appraisal and collection strategies, had a significant and positive effect on return on investment. Similarly, Bwire and Omagwa (2019), in a study of 40 DT-SACCOs in Nairobi, found that credit monitoring, risk appraisal, and control practices were positively correlated with improved financial performance. These studies underscore the critical role of structured credit management policies in enhancing institutional profitability, particularly in cooperative settings.

Conversely, Otanga, Mule, and Momanyi (2020) found a negative relationship between credit risk and financial performance among SACCOs in Western Kenya. The study revealed that high levels of non-performing loans were associated with declining returns, indicating that CRM practices in these SACCOs were either weak or inadequately enforced. These findings resonate with earlier results by Sujeewa (2015) in Sri Lanka, where provisions for NPLs negatively affected bank profitability. These mixed findings suggest that the effectiveness of CRM is context-specific and depends heavily on how risk is operationalized and managed.

Further support for a positive relationship is offered by Mutua and Kimeu (2020), who studied microfinance institutions in Kenya and established that risk identification, risk assessment, and risk monitoring significantly improved financial performance. Their findings reinforce the importance of a multi-dimensional approach to credit risk management, rather than relying on a single metric like NPL ratio. Similarly, Kamau and Ngugi (2018), in a study of Kenyan commercial banks, found that credit risk analysis and risk control mechanisms contributed significantly to financial stability and profitability. Although these institutions differ structurally from SACCOs, the underlying principles of credit management remain applicable.

Globally, Dayasagar (2019) evaluated the effect of CRM on the performance of women's cooperative banks in India and concluded that credit appraisal, risk mitigation, and monitoring practices had significant positive impacts on profitability. However, the unique socio-economic and regulatory environments in developing countries like Kenya necessitate context-specific empirical evidence. Most of the prior studies either focused on banks, small cooperatives, or microfinance institutions, leaving a gap in sector-wide analysis of DT-SACCOs in Kenya, which have grown significantly in asset base and membership in recent years (SASRA, 2022). This study addresses that empirical gap by examining how the three core elements of credit risk management—risk identification, risk analysis, and risk control—affect the financial performance of licensed DT-SACCOs in Kenya using both primary and secondary data over a six-year period.

III. METHODOLOGY

This study adopted a descriptive cross-sectional research design to assess the effect of credit risk management on the financial performance of deposit-taking SACCOs in Kenya. The design was appropriate given the study's objective to analyze relationships among variables at a specific point in time while incorporating both primary and secondary data. The target population comprised all 176 licensed deposit-taking SACCOs in Kenya as regulated by the SACCO Societies Regulatory Authority (SASRA) as of 2022. A census approach was adopted to ensure comprehensive coverage and enhance the generalizability of the findings across the sector.

Primary data were collected through structured questionnaires administered to credit risk managers or their equivalents in each SACCO. These respondents were deemed knowledgeable on institutional risk management practices and credit operations. The questionnaire consisted of Likert-scale items designed to assess the three dimensions of credit risk management: risk identification, risk analysis, and risk control. To complement the primary data, secondary financial data—specifically return on assets (ROA)—were extracted from the audited financial statements of each SACCO for the period 2017 to 2022. ROA was selected as the performance metric due to its reliability and widespread use in evaluating how effectively a firm utilizes its assets to generate profits.

The study variables were operationalized as follows: risk identification included items related to client screening, credit policy formulation, and internal risk reporting; risk analysis captured credit appraisal procedures and borrower assessment techniques; and risk control encompassed credit limits, collateral enforcement, and monitoring mechanisms. The dependent variable, financial performance, was measured using ROA, computed as

net income divided by total assets. Data were subjected to diagnostic tests including normality, multicollinearity, and heteroscedasticity checks to ensure robustness and validity of the statistical results.

To analyze the data, descriptive statistics were first computed to summarize responses and describe trends in financial performance. Thereafter, multiple linear regression analysis was employed to test the relationship between credit risk management dimensions and ROA. The general regression model used was:

$$ROA = \beta_0 + \beta_1 RI + \beta_2 RA + \beta_3 RC + \varepsilon$$

Where:

- ROA = Return on Assets (financial performance)
- RI = Risk Identification
- RA = Risk Analysis
- RC = Risk Control
- ε = Error term

This analytical model enabled the study to determine both the individual and collective influence of credit risk management practices on the financial performance of DT-SACCOs.

IV. RESULTS AND DISCUSSION

A. Descriptive Results

Descriptive statistics were computed to summarize responses on credit risk management practices and the financial performance of deposit-taking SACCOs. The results showed that SACCOs generally rated themselves highly on credit risk management indicators. On a five-point Likert scale, the mean score for risk identification was 4.12 (SD = 0.53), indicating strong emphasis on practices such as client screening, formulation of credit policies, and identification of internal warning signs. This reflects an industry-wide appreciation of the need to proactively identify risks before extending credit, as recommended by Ngwa (2022).

The mean score for risk analysis was 4.05 (SD = 0.58), suggesting that most SACCOs engage in comprehensive creditworthiness assessments before approving loans. This includes practices such as financial history reviews, employment verification, and use of scoring models—actions which enhance credit decision-making quality, as supported by Kurui and Kalio (2014).

Risk control had the highest mean score at 4.21 (SD = 0.49), indicating that SACCOs place substantial weight on measures like setting credit limits, requiring collateral, and continuous monitoring of loan performance. These practices are essential in managing credit exposure and were found to be widely adopted. This aligns with the recommendations by Thomas et al. (2017), who emphasized the need for internal safeguards to prevent loan defaults.

Regarding financial performance, measured by return on assets (ROA), the average ROA across the SACCOs during the period 2017–2022 was 2.87%, with a standard deviation of 1.14%. While some SACCOs recorded strong asset utilization rates, others reported near-zero or even negative returns, indicating performance disparities that may be linked to differences in credit risk management practices.

B. Hypothesis Testing

Multiple linear regression analysis was conducted to examine the effect of credit risk management on financial performance. The results revealed that the model was statistically significant ($F = 28.67$, $p < 0.001$), with an adjusted R^2 of 0.428, indicating that approximately 42.8% of the variation in ROA was explained by the three dimensions of credit risk management. The regression analysis results also indicated that all three dimensions of credit risk management—risk identification, risk analysis, and risk control—had a statistically significant and positive effect on the financial performance of DT-SACCOs in Kenya. The results are as presented on Table 1 which shows the model summary, ANOVA, and model coefficients.

Table 1: Working Capital Management and Financial Performance

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.954 ^a	.910	.908	.255467		
a. Predictors: (Constant), Risk control, Risk identification, Risk Analysis						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	113.103	3	37.701	577.674	.000 ^b
	Residual	11.225	172	.065		

Total		124.328	175			
a. Dependent Variable: Financial performance						
b. Predictors: (Constant), Risk control, Risk identification, Risk Analysis						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.172	.090		1.914	.057
	Risk identification	.221	.053	.294	4.184	.000
	Risk Analysis	.273	.057	.283	4.755	.000
	Risk control	.664	.058	.692	11.434	.000
a. Dependent Variable: Financial performance						

Specifically, risk identification had a positive coefficient and was statistically significant at the 5% level. This suggests that SACCOs that employ proactive mechanisms to identify potential credit risks—such as effective client vetting, internal risk flagging systems, and member creditworthiness assessments—achieve better financial performance. These findings align with those of Gitau (2021), who emphasized that robust credit identification procedures are instrumental in minimizing exposure to bad debts.

Risk analysis also had a positive and significant effect on ROA. SACCOs that employed rigorous loan appraisal techniques, conducted comprehensive financial due diligence, and used credit scoring models were more likely to maintain a healthier loan portfolio and enhance profitability. This supports the findings of Mutua and Kimeu (2020), who established that thorough credit assessment practices significantly contribute to the financial sustainability of microfinance institutions.

Risk control was found to be the strongest predictor among the three components. SACCOs that implemented credit limits, required collateral, and actively monitored loan repayment patterns recorded superior ROA levels. This result reinforces earlier findings by Bwire and Omagwa (2019), who found that credit control mechanisms—particularly those involving regular portfolio reviews and recovery procedures—significantly enhanced the performance of SACCOs.

The findings contradict Otanga et al. (2020), who reported a negative relationship between credit risk management and performance in DT-SACCOs in Western Kenya. The discrepancy may be attributed to differences in geographical coverage, data periods, and measurement of CRM practices. Unlike previous studies that used non-performing loan ratios as proxies for CRM, the current study disaggregated CRM into specific components, providing a more granular understanding of their respective contributions to performance.

Overall, the results affirm the importance of comprehensive credit risk management in enhancing financial outcomes among SACCOs. Each component—when implemented effectively—contributes to minimizing credit losses, safeguarding member deposits, and improving returns on assets.

V. CONCLUSION

This study set out to establish the effect of credit risk management on the financial performance of deposit-taking SACCOs in Kenya. The findings reveal that credit risk management—measured through risk identification, risk analysis, and risk control—has a statistically significant and positive influence on return on assets. Among the three components, risk control exhibited the strongest effect, underscoring the importance of implementing proactive mechanisms to mitigate default risk. Risk identification and risk analysis were also critical in shaping financial outcomes, particularly when applied systematically during the loan origination and approval stages. These results affirm the view that sound credit risk practices are integral to enhancing the profitability and sustainability of SACCOs.

The study concludes that for SACCOs to maintain strong financial performance, they must prioritize comprehensive and institutionalized credit risk management frameworks. Failure to adequately identify, analyze, and mitigate credit risks exposes SACCOs to non-performing loans, eroded earnings, and potential regulatory sanctions. By adopting a multidimensional approach to credit risk management, SACCOs can improve loan quality, protect member savings, and enhance overall asset utilization. These findings are particularly important in light of the growing financial vulnerabilities in the sector, and they offer empirical justification for strengthening internal credit governance and aligning risk practices with performance goals.

VI. RECOMMENDATIONS

Based on the study findings, it is recommended that SACCO management teams institutionalize comprehensive credit risk management frameworks tailored to their operating environments. This includes investing in robust risk identification tools such as automated credit scoring systems, credit bureaus for member screening, and predictive analytics to flag high-risk borrowers early in the lending cycle. Additionally, SACCOs should continuously train credit officers on risk assessment techniques to ensure consistency and objectivity in

credit decisions. These measures will enhance the reliability of member evaluations and reduce exposure to poorly vetted loan applicants.

From a policy standpoint, the SACCO Societies Regulatory Authority (SASRA) should strengthen enforcement of credit risk management standards across all licensed DT-SACCOs. This could be achieved by revising the existing prudential guidelines to include specific minimum thresholds for credit vetting, appraisal documentation, and risk control mechanisms. Moreover, SASRA could introduce a tiered compliance system that links supervisory interventions to the quality of credit risk management practices observed during annual inspections. This approach would incentivize SACCOs to embed risk-conscious lending practices into their daily operations.

Finally, industry associations such as the Kenya Union of Savings and Credit Cooperatives (KUSCCO) should collaborate with regulators and development partners to facilitate capacity-building programs targeting credit managers and board members. These programs should focus on modern credit risk techniques, early warning indicators, and portfolio quality management. Strengthening institutional capacity at both strategic and operational levels will equip SACCOs to manage evolving credit risks more effectively, ultimately safeguarding member funds and contributing to long-term financial sustainability.

VII. SUGGESTIONS FOR FURTHER RESEARCH

While this study focused on the effect of credit risk management on the financial performance of deposit-taking SACCOs in Kenya, future research could explore the long-term impact of these practices using a longitudinal design. Tracking changes in credit risk policies and performance indicators over time would offer deeper insights into causal relationships and the sustainability of credit risk interventions. Additionally, future studies could employ qualitative approaches to examine how organizational culture, governance dynamics, and managerial discretion influence the implementation of credit risk frameworks in SACCOs.

Further research is also recommended to assess the moderating or mediating role of other institutional factors—such as technological adoption, financial literacy of members, or regulatory compliance—on the CRM-performance relationship. Comparative studies between deposit-taking and non-deposit-taking SACCOs, or between SACCOs and other financial institutions like microfinance banks, would also provide useful sectoral benchmarks. Expanding the scope to include regional or cross-country studies within East Africa could generate valuable lessons for policy harmonization and cooperative sector development across similar economic contexts.

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