International Journal of Economics, Commerce and Management
United Kingdom ISSN 2348 0386 Vol. 13, Issue 11, Nov 2025

https://ijecm.co.uk/

DOES FIRM SIZE MATTER? EXAMINING THE MODERATING EFFECT OF FIRM SIZE ON CREDIT RISK MANAGEMENT AND FINANCIAL PERFORMANCE OF SACCOS IN KENYA

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Abstract

This study examined the moderating role of firm size on the relationship between credit risk management and financial performance of deposit-taking Savings and Credit Cooperative Societies in Kenya. Guided by the Modern Portfolio Theory and Merton's Default Risk Theory, the study adopted a descriptive correlational research design and utilized both primary and

secondary data drawn from all 176 licensed deposit-taking SACCOs in Kenya for the period 2017–2022. Credit risk management was measured using three indicators—risk identification, risk analysis, and risk control—while firm size was captured through the logarithm of total assets. Financial performance was proxied by return on assets. The moderating effect was tested using the three-step hierarchical regression procedure proposed by Baron and Kenny (1986). The findings indicated that credit risk management practices had a strong positive and statistically significant effect on financial performance ($R^2 = 0.910$; $F = 577.674$; $p < 0.05$), with all components—risk identification ($\beta = 0.294$, $p < 0.001$), risk analysis ($\beta = 0.283$, $p < 0.001$), and risk control ($\beta = 0.692$, $p < 0.001$)—exerting significant influence. However, the inclusion of firm size and the interaction terms in subsequent models did not yield significant moderating effects ($p > 0.05$ for all interaction terms), implying that firm size does not alter the strength or direction of the relationship between credit risk management and financial performance among deposit-taking SACCOs in Kenya. The study concludes that while credit risk management practices significantly enhance financial performance, firm size does not moderate this relationship. These findings underscore the importance of robust risk identification, analysis, and control frameworks across SACCOs regardless of their asset base. The study recommends that managers prioritize the institutionalization of sound credit risk management systems rather than relying on size-related advantages to achieve superior financial outcomes. Further research could explore other potential moderating factors such as corporate governance, capital adequacy, or technological capability to deepen understanding of the drivers of SACCO financial performance.

Keywords: Credit Risk Management; Firm Size; Financial Performance; Moderation; Deposit-Taking SACCOs; Kenya; Return on Assets

INTRODUCTION

Background of the Study

Credit risk management has increasingly become a central concern in financial institutions as it directly influences their profitability and sustainability. Effective management of credit risk is vital for maintaining portfolio quality, safeguarding assets, and ensuring financial stability (Adusei, 2023; Kimotho & Gekara, 2022). For Savings and Credit Cooperative Societies (SACCOs), which play a pivotal role in promoting financial inclusion and mobilizing domestic savings in Kenya, credit risk remains one of the most significant threats to financial performance (Waweru & Kalani, 2021). Poorly managed credit exposures often manifest through high levels of non-performing loans, liquidity shortfalls, and reduced returns on assets (Mutua & Kimeu,

2020). Consequently, the ability of SACCOs to identify, assess, and control credit risk has emerged as a determinant of institutional performance and long-term sustainability.

The financial performance of SACCOs is typically measured by return on assets (ROA), which reflects their efficiency in utilizing assets to generate income. Strong financial performance enables these member-owned institutions to offer competitive returns and enhance economic empowerment within communities (Aduda & Obondy, 2022; Fatihudin & Mochklas, 2018). However, despite the importance of credit risk management practices such as risk identification, analysis, and control, variations persist in the performance levels of SACCOs operating under similar regulatory and macroeconomic conditions. This variation suggests that internal organizational factors—collectively referred to as firm characteristics—may influence how effectively credit risk management practices translate into financial outcomes (Gadzo et al., 2019; Mwangi & Muturi, 2020).

Firm size, one of the most prominent firm-specific characteristics, has been theorized to affect financial performance through economies of scale, access to capital, and management capacity (Rasika et al., 2016; Liargovas & Skandalis, 2008). Larger SACCOs may possess stronger governance systems, diversified portfolios, and better technological infrastructure, enhancing their resilience to credit risk. Conversely, smaller SACCOs may be more agile and customer-centric, potentially offsetting their size disadvantage through efficiency and proximity to members (Kinyua & Mutuku, 2018). While previous research on banks and microfinance institutions has documented varying results regarding the role of firm size, evidence from SACCOs in developing economies remains limited and inconclusive (Rifqah & Hafinaz, 2019; Adebayo, 2017). This inconsistency highlights the need to empirically test whether firm size moderates the relationship between credit risk management and financial performance within Kenya's deposit-taking SACCOs.

In response to this gap, the present study investigates the moderating role of firm size in the relationship between credit risk management and financial performance among deposit-taking SACCOs in Kenya. The study draws on the Modern Portfolio Theory and Merton's Default Risk Theory to explain how diversification and default probabilities underpin the effectiveness of credit risk management practices. By applying hierarchical regression analysis based on the Baron and Kenny (1986) moderation framework, the study provides empirical evidence on whether firm size strengthens or weakens the influence of credit risk management on SACCO performance. The findings contribute to the literature on cooperative finance by extending the discourse on firm characteristics and performance, offering practical insights for policymakers, regulators, and SACCO managers seeking to enhance financial resilience through robust credit risk management frameworks.

Research Problem

Despite the critical role of deposit-taking Savings and Credit Cooperative Societies (SACCOs) in promoting financial inclusion and economic empowerment in Kenya, their financial performance has remained inconsistent, largely due to weaknesses in credit risk management. Reports by the SACCO Societies Regulatory Authority (SASRA, 2023) reveal that several SACCOs continue to record rising non-performing loan ratios, with some exceeding the 5% prudential threshold, resulting in declining returns on assets and profitability. These performance disparities persist even among SACCOs operating within similar economic environments and under uniform regulatory frameworks. While previous studies have established a significant link between credit risk management practices—such as risk identification, analysis, and control—and financial performance (Gitau, 2021; Mutua & Kimeu, 2020), they have not adequately explained why institutions with comparable credit risk frameworks exhibit markedly different financial outcomes.

Firm characteristics, particularly firm size, have been theorized to influence how effectively credit risk management translates into financial performance, yet empirical evidence in the SACCO context remains limited and inconclusive. Larger SACCOs are often presumed to possess superior managerial capacity, advanced risk assessment systems, and diversified portfolios, which may enhance their ability to absorb credit shocks. However, smaller SACCOs may benefit from closer member relationships and faster decision-making processes, potentially offsetting their resource constraints (Mwangi & Muturi, 2020; Gadzo et al., 2019). The absence of conclusive evidence on whether firm size moderates the relationship between credit risk management and financial performance has created a conceptual gap in the cooperative finance literature. This study, therefore, sought to investigate whether firm size significantly alters the strength or direction of the relationship between credit risk management and financial performance of deposit-taking SACCOs in Kenya, addressing a key gap in both theory and practice.

Research Objective

To establish the moderating effect of firm size on the relationship between credit risk management and financial performance of deposit-taking SACCOs in Kenya.

LITERATURE REVIEW

Theoretical Foundation

This study is anchored on the Modern Portfolio Theory (MPT) developed by Markowitz (1952), which posits that investors can maximize returns for a given level of risk through diversification and optimal allocation of assets. Within the context of SACCOs, MPT

underscores the importance of credit risk management practices such as risk identification, risk analysis, and risk control in achieving a balanced and efficient loan portfolio. By effectively identifying and managing risk exposures, SACCOs can minimize the likelihood of default and enhance portfolio quality, thereby improving overall financial performance (Essendi, 2013; Gakure et al., 2012). The theory provides a foundation for understanding how credit risk management contributes to financial stability and profitability, emphasizing that diversification of lending portfolios and efficient risk control mechanisms are central to sustaining returns amid uncertainty.

The study is further supported by Merton's Default Risk Theory (1970**)**, which explains that a firm's probability of default increases when the market value of its assets falls below its debt obligations. The theory emphasizes the role of credit risk assessment in predicting and mitigating potential default, aligning with the study's focus on the relationship between credit risk management and financial performance. In this framework, firm size can influence a SACCO's capacity to absorb losses and manage default risk—larger institutions may have broader capital buffers and stronger monitoring systems, while smaller ones may face higher vulnerability (Jorion, 2014; Afik et al., 2016). Together, these theories provide a robust basis for examining how credit risk management affects performance and whether firm size moderates this relationship among deposit-taking SACCOs in Kenya.

Empirical Review

Empirical evidence on the relationship between credit risk management, firm characteristics, and financial performance has yielded diverse outcomes across institutional and geographical contexts. In Kenya, Mwangi and Muturi (2020) found that effective CRM practices—particularly risk assessment and monitoring—significantly enhanced the financial performance of microfinance institutions. Their study further revealed that firm characteristics such as size, capital adequacy, and liquidity positively moderated this relationship, underscoring the importance of aligning CRM frameworks with institutional attributes to achieve optimal outcomes. Similarly, Kinyua and Mutuku (2018) observed that risk identification, assessment, and monitoring substantially improved the performance of SACCOs in Nairobi County. They further demonstrated that firm characteristics meaningfully strengthened the link between CRM and financial outcomes, suggesting that the effectiveness of risk management depends on the organization's structural and resource profile.

In contrast, findings from other contexts paint a more complex picture. Gadzo et al. (2019), examining Ghanaian banks, established that both credit and operational risk negatively affected financial performance, consistent with the information asymmetry argument of the

Lemon Theory. Nonetheless, firm characteristics such as capital adequacy and liquidity were found to relate positively to credit risk, operational risk, and performance—though firm size was not included as a moderating factor. Similarly, Rifqah and Hafinaz (2019) analyzed Indonesian banks and reported a substantial negative relationship between profitability indicators (NIM and ROA) and measures of credit risk (NPLR, LDR, and CAR). However, their study conceptualized CRM purely as credit risk exposure, neglecting the management dimension, and also omitted size as a firm characteristic, leaving the moderating role of size empirically untested.

Further insights from Rasika, Hewage, and Thennakoon (2016) in Sri Lanka revealed that firm size and liquidity exhibited a positive relationship with bank performance, while credit risk and capital adequacy ratio were negatively associated with return on equity. Despite these findings, their study did not consider liquidity or other firm characteristics as moderating factors, and the context differed considerably from Kenya, limiting generalization. Collectively, the reviewed studies affirm that effective CRM generally improves financial performance and that firm characteristics can condition this relationship. However, gaps persist regarding the specific moderating effect of firm size within SACCOs, as most studies either examined banks or MFIs, applied dissimilar CRM measures, or omitted moderation testing altogether. This underscores the need for focused empirical inquiry on how firm size interacts with CRM practices to influence financial performance among deposit-taking SACCOs in Kenya

RESEARCH METHODOLOGY

The study adopted a descriptive correlational research design to examine the moderating role of firm size in the relationship between credit risk management and financial performance of deposit-taking Savings and Credit Cooperative Societies (SACCOs) in Kenya. This design was appropriate because it enabled the assessment of both the direct and moderating relationships among study variables without manipulating them (Kothari, 2022). The population comprised all 176 licensed deposit-taking SACCOs regulated by the SACCO Societies Regulatory Authority (SASRA) as of December 2023, making the study comprehensive and representative. Given the manageable population size, a census approach was applied, allowing data to be collected from every SACCO and minimizing sampling error. The unit of analysis was the SACCO, while the unit of observation included senior management staff directly involved in credit risk management and financial decision-making, such as credit managers, finance officers, and internal auditors.

Both primary and secondary data were utilized. Primary data were obtained using a structured questionnaire that captured perceptions of credit risk management practices—specifically risk identification, risk analysis, and risk control—on a five-point Likert scale. The

instrument was validated through expert review and pre-testing, and its internal consistency was confirmed using Cronbach's alpha coefficients, all of which exceeded the acceptable threshold of 0.70, indicating high reliability. Secondary data were extracted from audited financial statements and regulatory filings to compute financial performance, measured by return on assets (ROA), and firm size, measured by the natural logarithm of total assets. Combining both data sources ensured triangulation and enhanced the validity of the results.

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 27, applying descriptive and inferential statistics. Descriptive statistics summarized the key characteristics of the data, while correlation and regression analyses tested the relationships among variables. The moderating effect of firm size was assessed using the three-step hierarchical regression procedure proposed by Baron and Kenny (1986), involving sequential estimation of (i) the direct effect of credit risk management on financial performance, (ii) the joint effect of credit risk management and firm size, and (iii) the interaction effect of credit risk management and firm size. Statistical significance was evaluated at the 5% level ($p < 0.05$). The diagnostic tests for multicollinearity, normality, and heteroscedasticity confirmed the robustness of the regression models, thereby ensuring reliability and validity of the empirical findings.

FINDINGS AND DISCUSSION

The objective of this study was to analyze the moderating effect of firm size on the relationship between credit risk management and the financial performance of the deposit-taking SACCOs in Kenya. The study utilized Baron and Kenny's (1986) technique to explore the moderating effect. Multiple regression analyses were carried out in three phases, with the significance of the coefficients assessed at each stage. The following are Baron and Kenny's (1986) steps for testing the moderating influence:

Step 1 (Model 1) estimates the relationship among the dependent and independent variables. The model should be statistically significant.

Step 2 (Model 2): Using regression analysis, the association among the criterion, the moderator, and the predictor variables is estimated. The model should be statistically significant.

Step 3 (Model 3) multiply the centered predictor and the centered moderator to calculate the interaction term. Estimate the association between the dependent variable, the independent variable, the moderator, and the interaction term to see if the moderator variable modifies the strength of the correlation between the independent variable and dependent variable. The interaction term should be statistically significant if there is a moderating effect. The testing

approach of Baron and Kenny (1986) assumes a statistical significance in the association among the predictor variable and the criterion variable.

In step 1 (Model 1), regression analysis estimated the relationship between financial performance and each of the credit risk management indicators (risk identification, risk analysis and risk control). The results are as shown in Table 1. The R square value, a measure of the proportion of variance in the dependent variable (financial performance) explained by the independent variables (risk identification, risk analysis, and risk control), is notably high at 0.910. This suggests that approximately 91% of the variability in financial performance can be accounted for by the combined effects of the credit risk management indicators included in the model. This high R square indicates a robust relationship between the predictors and the dependent variable, strengthening the model's explanatory power.

The ANOVA results further support the significance of the overall regression model. The F-statistic of 577.674 is highly significant at the 5% level, suggesting that the model is statistically significant in explaining the variation in financial performance. This result aligns with the rejection of the null hypothesis that posited no significant relationship between credit risk management and financial performance. Risk identification, risk analysis, and risk control—shows significant positive standardized coefficients (Beta). Specifically, risk identification has a Beta value of 0.294, risk analysis has a Beta of 0.283, and risk control exhibits the highest Beta at 0.692. These coefficients imply that an increase in each of these credit risk management components is associated with a positive impact on financial performance. The high t-values and low p-values for each predictor further support the statistical significance of these relationships.

Table 1: Credit Risk Management Indicators 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

In Step 2 (Model 2), the association among the criterion, moderator, and predictor variable (risk identification) was assessed. A statistically significant regression model is required. To determine whether firm size moderates the relationship between financial performance and risk identification, financial performance was regressed on risk identification and firm size (Table 2).

Table 2: Risk Identification, Firm Size and Financial Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.715[a]	.511	.505	.592987

a. Predictors: (Constant), Firm size, Risk identification

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	63.496	2	31.748	90.287	.000[b]
	Residual	60.833	173	.352		
	Total	124.328	175			

a. Dependent Variable: Financial performance

b. Predictors: (Constant), Firm size, Risk identification

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.742	1.093		.679	.498
	Risk identification	.541	.040	.718	13.436	.000
	Firm size	.131	.118	.059	1.111	.268

a. Dependent Variable: Financial performance

In Model 2, the association between financial performance and risk identification, moderated by firm size, is explored. The model has an R square of 0.511, indicating that approximately 51% of the variability in financial performance is explained by risk identification and firm size. The ANOVA results are highly significant ($p < 0.001$), supporting the overall significance of the model. However, the interaction term (Size*risk identification) is not statistically significant ($p > 0.05$), suggesting that firm size does not significantly moderate the relationship between risk identification and financial performance.

In step 3, Model 3, financial performance was regressed on firm size, credit risk management indicator, and interaction term created by multiplying the centered credit risk management indicator (independent variable) and centered moderator (firm size). The interaction term should be statistically significant if there is a moderating influence.

Table 3: Interaction Term for Risk Identification and Firm size

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.715[a]	.511	.502	.594650

a. Predictors: (Constant), Risk identification*size, Firm size, Risk identification

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	63.507	3	21.169	59.866	.000[b]
	Residual	60.821	172	.354		
	Total	124.328	175			

a. Dependent Variable: Financial performance

b. Predictors: (Constant), Risk identification*size, Firm size, Risk identification

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	T	Sig.
1	(Constant)	.100	3.658		.027	.978
	Risk identification	.722	.985	.958	.733	.465
	Firm size	.202	.402	.091	.503	.616
	Risk identification*size	-.020	.108	-.240	-.184	.854

a. Dependent Variable: Financial performance

The relationship between risk identification (independent variable), firm size (moderator), the interaction term, and financial performance (dependent variable) was estimated using

regression. The results in Table 3 reveal the results. The results of Model 3 indicate that the interaction term (Risk identification*size) is not statistically significant ($p > 0.05$). This finding suggests that firm size does not have a significant moderating effect on the relationship between risk identification and financial performance. Despite the overall significance of the model ($p < 0.001$), the interaction term's lack of significance indicates that firm characteristics do not alter the strength of the correlation between risk identification and financial performance.

To determine whether firm size moderates the relationship between financial performance and risk analysis, financial performance was regressed on risk analysis and firm size. The results are as shown in Table 4. Model 2 explores the relationship between financial performance and risk analysis, moderated by firm size. The model has a high R square of 0.838, indicating that approximately 84% of the variability in financial performance is explained by risk analysis and firm size. The ANOVA results are highly significant ($p < 0.001$), supporting the overall significance of the model. However, similar to Model 2, the interaction term (Size*risk analysis) is not statistically significant ($p > 0.05$), suggesting that firm size does not significantly moderate the relationship between risk analysis and financial performance.

Table 4: Risk Analysis, Firm size and Financial Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.915[a]	.838	.836	.341446

a. Predictors: (Constant), Firm size, Risk Analysis

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	104.159	2	52.079	446.705	.000[b]
	Residual	20.169	173	.117		
	Total	124.328	175			

a. Dependent Variable: Financial performance

b. Predictors: (Constant), Firm size, Risk Analysis

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.165	.629		-.262	.794
	Risk Analysis	.884	.030	.916	29.888	.000
	Firm size	.067	.068	.030	.991	.323

a. Dependent Variable: Financial performance

The relationship between risk analysis (independent variable), firm size (moderator), the interaction term (Size*risk analysis), and financial performance (dependent variable) was estimated using regression. The results are as shown in Table 5. The results of Model 3 indicate that the interaction term (Risk analysis*size) is not statistically significant ($p > 0.05$). Despite the overall significance of the model ($p < 0.001$), the lack of significance in the interaction term suggests that firm size does not moderate the relationship between risk analysis and financial performance in deposit-taking SACCOs in Kenya.

Table 5: Interaction Term for Risk Analysis and Firm size

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.915[a]	.838	.835	.342436

a. Predictors: (Constant), Risk analysis*size, Firm size, Risk Analysis

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	104.159	3	34.720	296.086	.000[b]
	Residual	20.169	172	.117		
	Total	124.328	175			

a. Dependent Variable: Financial performance

b. Predictors: (Constant), Risk analysis*size, Firm size, Risk Analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.018	3.242		-.005	.996
	Risk Analysis	.846	.813	.877	1.041	.300
	Firm size	.051	.357	.023	.143	.887
	Risk analysis*size	.004	.090	.039	.046	.963

a. Dependent Variable: Financial performance

To determine whether firm size moderates the relationship between financial performance and risk control, financial performance was regressed on risk control and firm size. The results are as shown in Table 6. In Model 2, the relationship between financial performance and risk control, moderated by firm size, is explored. The model has a high R square of 0.898, indicating that approximately 90% of the variability in financial performance

is explained by risk control and firm size. The ANOVA results are highly significant ($p < 0.001$), supporting the overall significance of the model. However, similar to Models 2 and 3, the interaction term (Size*risk control) is not statistically significant ($p > 0.05$), suggesting that firm size does not significantly moderate the relationship between risk control and financial performance.

Table 6: Risk Control, Firm Size and Financial Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.947[a]	.898	.896	.271276

a. Predictors: (Constant), Firm size, Risk control

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	111.597	2	55.798	758.225	.000[b]
	Residual	12.731	173	.074		
	Total	124.328	175			

a. Dependent Variable: Financial performance

b. Predictors: (Constant), Firm size, Risk control

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.244	.497		.492	.623
	Risk control	.909	.023	.947	38.939	.000
	Firm size	-.002	.054	-.001	-.033	.974

a. Dependent Variable: Financial performance

The relationship between risk control (independent variable), firm size (moderator), the interaction term (Size*risk control), and financial performance (dependent variable) was estimated using regression. The results are as shown in Table 7. The results of Model 3 indicate that, the interaction term (Risk control*size) is not statistically significant ($p > 0.05$). Despite the overall significance of the model ($p < 0.001$), the lack of significance in the interaction term suggests that, firm size does not moderate the relationship between risk control and financial performance in deposit-taking SACCOs in Kenya.

Table 7: Interaction Term for Risk Control and Firm Size

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.947[a]	.898	.896	.272031

a. Predictors: (Constant), Risk control*size, Firm size, Risk control

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	111.600	3	37.200	502.698	.000[b]
	Residual	12.728	172	.074		
	Total	124.328	175			

a. Dependent Variable: Financial performance

b. Predictors: (Constant), Risk control*size, Firm size, Risk control

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.795	2.735		.291	.772
	Risk control	.772	.672	.804	1.149	.252
	Firm size	-.063	.301	-.028	-.207	.836
	Risk control*size	.015	.074	.146	.205	.838

a. Dependent Variable: Financial performance

H_{1a} investigated whether firm size has a moderation effect on the link between credit risk management and financial performance by suggesting that, firm size does not significantly moderate the association between credit risk management and financial performance of deposit-taking SACCOs in Kenya. Each of the credit risk management indicators was analyzed separately. This study indicates that, firm size has no moderation influence on the link among credit risk management indicators and the financial performance of deposit-taking SACCOs in Kenya since none of the credit risk management indicators fulfilled all of the above Baron and Kenny's (1986) steps for testing the moderating influence as indicated in Tables 1 to 7. So the research failed to reject H_{1a}.

CONCLUSIONS

The study concludes that credit risk management remains a pivotal determinant of the financial performance of deposit-taking SACCOs in Kenya. Empirical analysis revealed that the three key components—risk identification, risk analysis, and risk control—have significant and

positive effects on financial performance, as measured by return on assets. This confirms that SACCOs with robust risk management frameworks achieve higher efficiency and profitability through effective mitigation of credit-related losses. The findings reinforce the theoretical argument advanced by the Modern Portfolio Theory and Merton's Default Risk Theory that diversified and well-assessed portfolios enhance institutional stability and returns. Consequently, the study underscores the centrality of implementing sound risk management practices as part of strategic and operational priorities to strengthen the financial sustainability of SACCOs.

Although firm characteristics collectively exhibited a moderating role, the specific attributes—firm size, capital adequacy, and liquidity—did not significantly alter the relationship between credit risk management and financial performance. This suggests that while institutional features shape operational capacity, they do not independently shift the risk–performance nexus. The results highlight the need for SACCOs to design credit risk management strategies that fit their individual profiles rather than rely solely on scale or liquidity strength. Furthermore, the significant joint effect of credit risk management, firm characteristics, and efficiency on performance emphasizes the importance of a holistic, integrated approach to financial management. In a broader sense, these conclusions contribute to the growing body of knowledge on cooperative financial institutions by illuminating how contextual and structural factors interact with risk management to drive sustainable financial outcomes.

RECOMMENDATIONS FOR POLICY AND PRACTICE

The study recommends that SACCO management teams institutionalize comprehensive credit risk management frameworks that emphasize systematic risk identification, rigorous risk analysis, and proactive risk control mechanisms. Given the strong direct relationship between these components and financial performance, SACCOs should continuously enhance their internal credit evaluation processes, strengthen portfolio diversification, and invest in staff training on modern risk assessment techniques. Embedding these practices in daily operations will improve credit quality, reduce default rates, and enhance profitability. Regulators such as the SACCO Societies Regulatory Authority (SASRA) should also provide periodic training and standardized risk management templates to promote consistency and compliance across the sector.

From a policy standpoint, the findings indicate that firm size does not significantly moderate the relationship between credit risk management and financial performance. This suggests that both small and large SACCOs can achieve strong financial outcomes through sound risk practices regardless of their asset base. Policymakers should therefore prioritize

capacity-building initiatives and tailored supervisory frameworks that focus on risk governance rather than institutional size. Moreover, credit risk policies should encourage technology adoption in credit appraisal, data-driven decision-making, and early warning systems to strengthen predictive capability and resilience. Overall, enhancing institutional risk culture, regulatory support, and governance oversight will collectively contribute to the financial sustainability and stability of the SACCO sector in Kenya.

AREAS FOR FURTHER RESEARCH

Although the study provides valuable insights into the relationship between credit risk management and financial performance of deposit-taking SACCOs in Kenya, it opens several directions for further inquiry. First, future researchers could examine additional moderating variables such as corporate governance, capital adequacy, technological innovation, or management efficiency to determine whether these factors better explain variations in the credit risk–performance relationship. These institutional dimensions may capture strategic and operational elements that firm size alone could not sufficiently account for.

Secondly, subsequent studies could extend the analysis to non-deposit-taking SACCOs, microfinance institutions, or cooperative banks to test the generalizability of the findings across different financial sub-sectors. Comparative analyses between rural and urban SACCOs or across East African countries would also provide regional perspectives on how contextual and regulatory environments influence credit risk management outcomes. Lastly, researchers could employ longitudinal designs, structural equation modeling, or panel data analysis to capture dynamic relationships over time and enhance causal inference. Such approaches would deepen understanding of how credit risk management practices evolve and contribute to long-term financial sustainability within cooperative financial institutions.

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