European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol.18, No.10, 2026

The Moderating Effect of SACCO Size on the Relationship Between Adoption of International Financial Reporting Standard 9 and Financial Performance of Deposit-Taking SACCOs in Kenya

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Abstract

IFRS 9 imposes common expected-credit-loss and financial-asset measurement requirements on regulated financial institutions, yet the capacity to implement those requirements may differ materially with institutional scale. This study examines whether SACCO size moderates the relationship between adoption of IFRS 9 and the financial performance of deposit-taking SACCOs in Kenya. The analysis uses an unbalanced panel of 1,543 SACCO-year observations from 177 institutions over 2016-2024. Financial performance is measured by return on assets, IFRS 9 by a post-transition implementation-period indicator, and SACCO size by the mean-centred natural logarithm of total assets. Fixed-effects models with SACCO-clustered robust standard errors were estimated, with additional sensitivity tests for alternative outcome scaling, size measurement, time trends, financial-condition indicators and cross-sectional dependence. The IFRS 9 × size interaction was positive and statistically significant in the primary model ($\beta = 0.0033352$, SE = 0.0011702, $p = .005$). Conditional estimates moved from -0.0044709 at the 25th percentile of size to -0.0005325 at the median and 0.0035180 at the 75th percentile, indicating that the estimated association became less negative and eventually positive in point-estimate terms as SACCO size increased. The interaction remained significant across several alternative specifications, although it became non-significant under Driscoll-Kraay standard errors ($p = .205$). The findings show that the relationship between IFRS 9 implementation and financial performance varies with SACCO size. The findings suggest that SASRA and other sector stakeholders should consider differentiated implementation support, with greater technical assistance, staff capacity building, data-system strengthening and expected-credit-loss modelling support directed towards smaller DT-SACCOs.

Keywords: IFRS 9, SACCO size, financial performance, moderation, deposit-taking SACCOs, Kenya

DOI: 10.7176/EJBM/18-10-05
Publication date: October 30th 2026

1. Introduction

International Financial Reporting Standard 9 (IFRS 9) changed the accounting for financial instruments by introducing a forward-looking expected credit loss (ECL) model and revised requirements for the classification and measurement of financial assets. Compared with the incurred-loss approach under IAS 39, IFRS 9 requires earlier recognition of expected credit losses and greater use of current and forward-looking information in impairment estimates (International Accounting Standards Board [IASB], 2014). IFRS 9 became mandatory for annual periods beginning on or after 1 January 2018. The IASB's post-implementation review subsequently concluded that the impairment requirements have generally produced more timely recognition of credit losses and useful expected-credit-loss information (IFRS Foundation, 2024). At the same time, implementation requires reliable data, integrated information systems, appropriate credit-risk models and specialist judgement. Recent supervisory evidence from emerging and developing economies, including Kenya, continues to identify data limitations, fragmented information systems and modelling capacity as important implementation challenges (Awad & Riedweg, 2026).

Institutional size is one characteristic that may shape these differences. Larger financial institutions generally operate with broader resource bases, more formalized systems and greater capacity to invest in specialized accounting, risk-management and information infrastructure. Smaller institutions may face proportionately higher fixed compliance costs and more limited technical capacity. Contingency-based accounting research has long treated organisational size as an important contextual factor affecting the design and effectiveness of organisational systems (Otley, 1980; Chenhall, 2003). Evidence from Kenya also shows that size is an important determinant of financial outcomes in both banks and SACCOs. Mwangi (2018) and Kirimi, Kariuki, and Ocharo (2022) document size-related performance differences in commercial banks, while Mathuva (2016), Otwoko, Maina, and Kwasira (2021), Luvisi, Maniagi, and Muli (2024), and Njoki and Oseno (2025) show that institutional scale can shape financial relationships within the Kenyan SACCO sector.

The question is especially relevant for deposit-taking Savings and Credit Cooperative Societies (DT-SACCOs) in Kenya. These institutions mobilise member deposits and maintain loan-dominated balance sheets, making credit-risk assessment, impairment recognition and asset quality central to reported performance. The sector is also highly heterogeneous in institutional scale. SASRA's annual supervision reports show substantial differences in asset size and market concentration across regulated SACCOs, indicating that the institutions applying common prudential and reporting requirements do so from very different organisational positions (Sacco Societies Regulatory Authority [SASRA], 2024).

Existing IFRS 9 research has largely concentrated on commercial banks and has examined outcomes such as provisioning, capital, lending, reporting quality and profitability (Awuye & Taylor, 2025; Zang, Kabir, & Scott, 2026). The empirical evidence is not uniform across settings. Ongalo and Wanjare (2022) reported improving ROA and ROE trends among Kenyan commercial banks after IFRS 9 adoption, whereas Azhar (2022) found a negative association between IFRS 9 adoption and bank performance in Cambodia. Taylor (2022) documented higher impairment charges and pressure on regulatory capital in Ghana during the transition to IFRS 9. More recent African evidence also points to heterogeneous effects across institutional and country contexts (Mathuva, 2026; Taylor, Awuye, Cudjoe, & Aubert, 2025). Evidence from Spain further demonstrates that post-IFRS 9 lending and regulatory-capital responses differed between smaller and larger banks, suggesting that institutional scale can condition the consequences of expected-credit-loss accounting (López-Espinosa & Penalva, 2023). However, evidence that institutions differ in size, regulatory environment or implementation capacity does not itself establish moderation. Moderation requires an explicit test of whether the IFRS 9-performance relationship changes systematically with institutional size.

This gap is important in the Kenyan DT-SACCO sector, where comparatively little longitudinal evidence exists on whether smaller and larger cooperative financial institutions experience the IFRS 9-performance relationship differently. Contingency Theory provides a useful explanation because it proposes that organisational outcomes depend on the fit between organisational practices and contextual conditions rather than on a single universally optimal arrangement (Burns & Stalker, 1961; Lawrence & Lorsch, 1967; Otley, 1980). Accordingly, this study evaluates the moderating effect of SACCO size on the relationship between IFRS 9 adoption and financial performance. It contributes by moving beyond an average implementation-period effect to test whether that relationship varies systematically with institutional scale in an under-researched cooperative-finance setting.

2. Theoretical and Empirical Literature Review

2.1 Contingency Theory

This study is anchored primarily on Contingency Theory. The theory developed from the proposition that there is no single organisational structure, control system or management practice that is universally optimal; rather, organisational effectiveness depends on the fit between internal systems and the circumstances in which an organisation operates (Burns & Stalker, 1961; Lawrence & Lorsch, 1967). Otley (1980) extended this reasoning to management accounting by arguing that accounting and control systems should be evaluated in relation to organisational conditions rather than as universally effective mechanisms.

Organisational size is one of the contextual characteristics repeatedly identified in contingency-based accounting research. Chenhall (2003) notes that the effectiveness and design of management-control systems are commonly examined in relation to environment, technology, size, structure, strategy and culture. Larger organisations tend to require more formalized structures and more sophisticated information-processing systems as operational complexity increases.

The theory is therefore appropriate for IFRS 9. The standard establishes common financial-reporting

requirements, but the institutions implementing those requirements differ in data infrastructure, specialist expertise, financial resources and risk-management sophistication. Within the DT-SACCO sector, size may proxy part of this implementation capacity. Contingency Theory consequently supports the expectation that the IFRS 9-performance relationship may differ across institutions of different scales.

2.2 IFRS 9 Adoption and Financial Performance

IFRS 9 replaced the incurred-loss impairment approach under IAS 39 with an expected-credit-loss framework intended to accelerate the recognition of credit deterioration. Expected losses are recognised before an actual default event occurs, requiring institutions to incorporate reasonable and supportable forward-looking information into impairment estimates (IASB, 2014). The IASB's post-implementation review concluded that the impairment requirements are generally working as intended and have resulted in more timely credit-loss recognition (IFRS Foundation, 2024).

Earlier impairment recognition can nevertheless affect reported performance through higher or more timely loss allowances, especially when credit quality deteriorates. The magnitude of the effect may depend on portfolio composition, asset quality, risk-management capability and the institution's ability to adjust lending and provisioning practices. Novotny-Farkas (2016) argues that IFRS 9 interacts closely with prudential requirements and may affect capital and financial stability through earlier credit-loss recognition. Du, Allini, and Maffei (2023) further show that forward-looking ECL estimates depend on managerial judgement and the interpretation of future economic information, highlighting the operational complexity of the standard. Awuye and Taylor (2025) show that IFRS 9 research has concentrated heavily on adoption and implementation, financial-reporting effects, risk management and provisioning, with conventional banking dominating the empirical literature. A more recent review by Zang et al. (2026) similarly concludes that IFRS 9 outcomes are shaped by management incentives and institutional context, reinforcing the need to examine heterogeneous rather than purely average effects.

Evidence from emerging markets provides additional support for this contextual perspective. Taylor (2022) found that Ghanaian banks experienced higher impairment charges and pressure on regulatory capital at transition, while Ongalo and Wanjare (2022) reported improving profitability trends among Kenyan banks after IFRS 9 adoption. Azhar (2022), in contrast, found a negative impact on the financial performance of Cambodian banks. Taylor et al. (2025), using African commercial-bank data, found that IFRS 9 improved the informational relevance of earnings but that the benefits weakened in environments with lower regulatory and enforcement quality. Mathuva (2026), using a cross-country African sample, likewise reports heterogeneity in post-IFRS 9 stability outcomes. Taken together, these studies suggest that the consequences of IFRS 9 are shaped by institutional and operating conditions rather than being uniform across financial institutions.

For DT-SACCOs, the relationship is particularly relevant because member lending constitutes a central part of operations. Credit deterioration and impairment recognition can affect reported returns directly through provisioning and indirectly through lending, collections and asset-quality management. Kenyan SACCO evidence already shows that loan-loss provisioning, asset quality, capital structure and other financial characteristics are closely related to financial performance (Okeyo, Odoyo, & Omboi, 2023; Tarus & Simiyu, 2024). Whether IFRS 9-related financial consequences are uniform across SACCOs of different sizes is therefore an empirical question rather than an assumption.

2.3 SACCO Size as a Moderator

Institutional size can influence both the resources available for implementation and the capacity to respond to accounting and regulatory change. Larger institutions may benefit from economies of scale in information systems, data management, specialist staffing and model development. Smaller institutions may face proportionately higher fixed costs when implementing sophisticated reporting requirements. Awad and Riedweg (2026) report that IFRS 9 implementation challenges in emerging and developing economies frequently centre on data availability, technical expertise and IT integration, while the Kenyan banking experience has also involved continued model-updating and forward-looking-data challenges. Within the Kenyan SACCO sector, Mathuva (2016) found that size formed part of the set of characteristics associated with financial performance, and later studies show that SACCO size can significantly moderate relationships involving interest-rate drivers, internal-audit characteristics and prudential regulations (Otwoko et al., 2021; Luvisi et al., 2024; Njoki & Oseno, 2025). This implies that size can alter the strength or direction of the IFRS 9-performance relationship rather than merely exerting a separate direct effect.

Empirical evidence from conventional banking also supports this possibility. López-Espinosa and Penalva (2023) found heterogeneous responses following IFRS 9 adoption among Spanish banks, including differences in

lending and regulatory-capital outcomes by bank size. In Kenya, Kirimi et al. (2022) similarly showed that bank size moderated the relationship between financial soundness and selected performance measures. The SACCO literature points in the same general direction: Otwoko et al. (2021) found that DT-SACCO size moderated the relationship between interest-rate drivers and financial performance, Luvisi et al. (2024) found a significant moderating role of firm size in the audit committee-performance relationship, and Njoki and Oseno (2025) reported size-dependent effects of selected prudential regulations. Although these studies do not examine IFRS 9 directly, they establish institutional size as a meaningful boundary condition within Kenyan cooperative finance.

It is important to distinguish a direct size effect from moderation. Finding that larger institutions are more profitable or possess more resources does not establish moderation. Moderation exists when the estimated IFRS 9-performance relationship changes as size changes. Empirically, this requires an interaction term between IFRS 9 adoption and SACCO size.

2.4 Hypothesis Development

Contingency Theory suggests that a common reporting standard may generate different organisational outcomes when implementation capacity differs across institutions. Because larger SACCOs may possess stronger systems, specialist expertise and greater ability to absorb implementation and impairment-related costs, the relationship between IFRS 9 adoption and financial performance may vary with institutional size. The study therefore proposes the following hypothesis:

> **H1:** *SACCO size significantly moderates the relationship between IFRS 9 adoption and the financial performance of deposit-taking SACCOs in Kenya.*

2.5 Conceptual Framework

The conceptual framework specifies IFRS 9 adoption as the independent variable, financial performance measured by return on assets (ROA) as the dependent variable, and SACCO size as the moderator. The central proposition is that the IFRS 9-performance relationship changes as institutional size changes. The empirical test is therefore the IFRS 9 × SACCO size interaction.

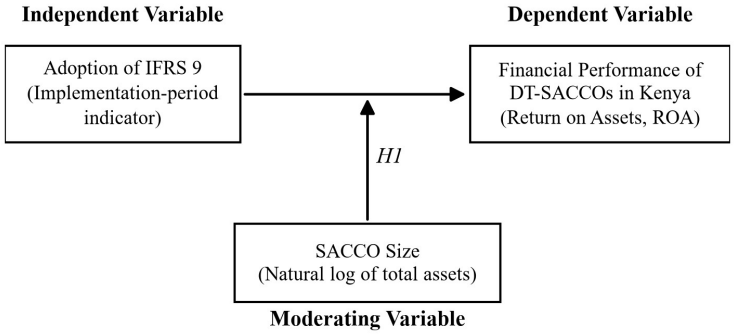


Figure 1. Conceptual Framework

Source: Researcher's conceptualization (2026)

3. Methodology

3.1 Research Design, Population and Data

The study adopted a quantitative longitudinal ex-post facto design using secondary panel data from regulated DT-SACCOs in Kenya. The period covered nine financial years from 2016 to 2024. IFRS 9 became mandatory for annual periods beginning on or after 1 January 2018 (IASB, 2014). The final analytical dataset, however, operationalized the implementation-period indicator as 0 for 2016-2018 and 1 for 2019-2024. Accordingly, the empirical dummy used in this article should be interpreted as a post-transition implementation-period indicator rather than as the legal effective date of IFRS 9. This distinction is important when interpreting the estimated coefficients.

The study followed a census approach and retained all eligible institution-year observations for which the required financial information could be verified. The final analytical panel contained 1,543 SACCO-year observations from 177 DT-SACCOs. Each institution contributed between four and nine annual observations, with an average of 8.7 observations per SACCO. Audited financial statements and SASRA supervisory records

were the principal data sources.

Because all regulated DT-SACCOs were exposed to the same broad IFRS 9 implementation environment and there was no credible untreated comparison group, the implementation-period coefficient is interpreted as an association rather than as a causal treatment effect.

3.2 Measurement of Variables

Financial performance was measured using return on assets (ROA). IFRS 9 was represented by the post-transition implementation-period indicator and interpreted alongside financial-condition and credit-risk indicators included in the empirical specification. Severe multicollinearity between CCTA and CCD (r = .949; VIF = 19.02 and 13.41) was addressed using principal component analysis; the first component explained 97.47% of their shared variation and was retained as CAPIDX. CAPIDX is treated as a composite capital/financial-condition index rather than as a direct measure of an IFRS 9 impairment stage. NPLR captures asset-quality deterioration through the ratio of non-performing loans to gross loans, while EBTA captures reliance on external borrowing relative to total assets and is used as a broader funding/distress indicator. SACCO size was measured using total assets; the natural logarithm of total assets was mean-centred before constructing the interaction term.

Table 1. Operationalization of Variables

Study Variable	Role	Indicator / Measure	Operational Measurement
IFRS 9 Adoption	Independent variable	Implementation-period indicator	0 = reference/transition period (2016–2018); 1 = post-transition implementation period (2019–2024)
	Accompanying financial-condition indicators	Capital adequacy (CAPIDX component)	Core capital / Total assets (CCTA)
		Capital adequacy (CAPIDX component)	Core capital / Total deposits (CCD)
		Asset quality (credit risk)	Non-performing loans / Gross loans (NPLR)
		Funding structure (external reliance / distress)	External borrowings / Total assets (EBTA)
SACCO Size	Moderating variable	Total assets	Natural logarithm of total assets, mean-centred for moderation analysis
Financial Performance	Dependent variable	Return on Assets (ROA)	Return on Assets (ROA)

Note. CCTA = core capital to total assets; CCD = core capital to total deposits; NPLR = non-performing loan ratio; EBTA = external borrowings to total assets; ROA = return on assets. IFRS 9 adoption is measured by the implementation-period indicator; CCTA, CCD, NPLR and EBTA are financial-condition, credit-risk and funding indicators interpreted alongside it, not direct measures of IFRS 9 impairment stages. Because CCTA and CCD exhibited severe multicollinearity, they were combined using principal component analysis to generate CAPIDX for the inferential regression models. CAPIDX is therefore an analytical composite index and not a separate study variable. The IFRS 9 × SACCO Size term is likewise a constructed interaction term for testing moderation and is presented in the model specification rather than as a study variable.

3.3 Moderation Model Specification

The moderating effect of SACCO size was tested by adding an interaction term between IFRS 9 adoption and mean-centred log total assets to the fixed-effects performance model. The model was specified as:

$$ROA_{it} = \beta_0 + \beta_1 IFRS9_{it} + \beta_2 CAPIDX_{it} + \beta_3 NPLR_{it} + \beta_4 EBTA_{it} + \beta_5 SIZE_{it} + \beta_6 (IFRS9_{it} \times SIZE_{it}) + \mu_i + \varepsilon_{it} \quad (1)$$

where μ_i denotes time-invariant SACCO fixed effects and ε_{it} is the idiosyncratic error term. The coefficient β_6 constitutes the primary moderation test. A statistically significant β_6 indicates that the relationship between IFRS 9 adoption and ROA changes with SACCO size. Because SIZE was mean-centred, β_1 represents the estimated IFRS 9 implementation-period association at approximately the sample mean of SACCO size. Where the interaction was significant, conditional IFRS 9 effects were evaluated at the 25th percentile, median and 75th percentile of the size distribution.

3.4 Estimation and Robustness Procedures

The panel models were estimated using SACCO fixed effects with SACCO-clustered robust standard errors. The Hausman test favored fixed effects over random effects (χ^2 (6) = 27.23, $p < .001$). The Breusch-Pagan test

indicated heteroscedasticity ($\chi^2 = 31.07$, $p < .001$) and the Wooldridge test indicated serial correlation within SACCOs ($F = 5.73$, $p = .018$); SACCO-clustered robust standard errors were therefore used for inference. Residuals were not normally distributed (Shapiro-Wilk $p < .001$), which reinforced the use of robust inference and motivated an outcome-transformation sensitivity test. Pesaran's CD test, applied to the strongly balanced nine-year subset of the panel, rejected cross-sectional independence ($CD = 13.20$, $p < .001$), so Driscoll-Kraay standard errors (maximum lag 1) were estimated as a further sensitivity analysis. Additional robustness checks used an inverse-hyperbolic-sine transformation of ROA, a linear time trend, centred raw total assets instead of logged assets, and separate CCTA and CCD variables instead of CAPIDX. Statistical significance was evaluated at the 5% level.

4. Results

4.1 Descriptive Context

The final analytical panel comprised 1,543 SACCO-year observations from 177 DT-SACCOs. The raw data showed substantial dispersion in institutional scale and several financial ratios. Mean total assets were KSh 3.69 billion, while the median was KSh 1.14 billion, confirming substantial size heterogeneity across the sector. Raw ROA averaged 3.76%, compared with a median of 2.59%. Several ratios contained extreme observations and were winsorised at the 1st and 99th percentiles for inferential modelling.

Table 2. Overall Descriptive Statistics (Raw Variables)

Variable	N	Mean	SD	Median	Min	Max
CCTA	1,543	0.1678	0.4454	0.1794	-11.7281	0.9139
CCD	1,543	0.2913	0.2491	0.2612	-2.2816	2.6681
NPLR	1,543	0.1238	0.1714	0.0618	0.0000	1.9652
EBTA	1,543	0.0565	0.2081	0.0185	0.0000	5.3614
Total assets (KSh bn)	1,543	3.6862	7.4507	1.1400	0.0400	68.8900
ROA	1,543	0.0376	0.1765	0.0259	-1.3821	6.2676

Note. Ratios are in decimal form. Total assets are in Kenya shillings billions. Statistics are for raw source variables before the 1st/99th percentile winsorisation used in inferential models. CAPIDX and mean-centred log size are constructed variables used only in the regression stage; Table 2 therefore reports the underlying source measures from which those variables were derived.

4.2 Primary Fixed-Effects Moderation Model

The moderation model was statistically significant overall, $F(6,176) = 11.28$, $p < .001$. The IFRS 9 × SACCO size interaction was positive and significant ($\beta = 0.0033352$, robust SE = 0.0011702, $t = 2.85$, $p = .005$). The equivalent Wald test gave $F(1,176) = 8.12$, $p = .005$. H1 was therefore supported under the primary specification.

Table 3. Fixed-Effects Moderation Results

Variable	Coefficient	Robust SE	*t*	p-value
IFRS9	-0.0004640	0.0028313	-0.16	.870
CAPIDX	0.0000218	0.0016687	0.01	.990
NPLR	-0.0077575	0.0068982	-1.12	.262
EBTA	-0.1072780	0.0185888	-5.77	<.001
SIZE	-0.0139648	0.0049622	-2.81	.005
IFRS9 × SIZE	0.0033352	0.0011702	2.85	.005

Note. SACCO fixed effects included. N = 1,543; groups = 177; within $R^2 = 0.0609$. Standard errors are robust and clustered at SACCO level.

The positive interaction indicates that the estimated IFRS 9-performance relationship became less negative as SACCO size increased and eventually positive in point-estimate terms among relatively larger institutions. Because SIZE is measured as the natural logarithm of total assets, the interaction can also be given an economic interpretation: a doubling of total assets corresponds to an increase of $\ln(2) \approx 0.693$ in log size and, based on the estimated interaction coefficient, is associated with an approximately 0.00231 increase in the IFRS 9-period ROA slope, equivalent to about 0.23 percentage points of ROA. This is an associational interpretation, not a causal effect. Because the model contains an interaction, the IFRS 9 and size main effects are conditional effects and should not be interpreted as universal stand-alone effects.

4.3 Conditional IFRS 9 Effects at Selected SACCO Sizes

Conditional effects were estimated at the 25th percentile, median and 75th percentile of the mean-centred log-size distribution to clarify the direction of moderation.

Table 4. Conditional IFRS 9 Effects by SACCO Size

Size level	Centred size	IFRS 9 effect	SE	p-value	95% CI
25th percentile	-1.201372	-0.0044709	0.0031735	.161	[-0.0107340, 0.0017922]
Median	-0.0205216	-0.0005325	0.0028316	.851	[-0.0061208, 0.0050558]
75th percentile	1.193922	0.0035180	0.0031448	.265	[-0.0026883, 0.0097243]

In point-estimate terms, the conditional estimates display a size gradient: the IFRS 9 association moved from negative at the 25th percentile, to approximately zero at the median, and to a positive point estimate at the 75th percentile. None of the three selected conditional slopes was individually significant at the 5% level. This does not contradict the significant interaction: the conditional tests ask whether the IFRS 9 effect differs from zero at a particular size, whereas the interaction tests whether the slope changes systematically across size.

4.4 Robustness of the Moderation Result

The positive interaction remained statistically significant across several alternative specifications. It survived use of centred raw assets, the inverse-hyperbolic-sine transformation of ROA, inclusion of a linear time trend, and re-estimation with CCTA and CCD entered separately. The principal qualification arose under Driscoll-Kraay standard errors, where the interaction point estimate remained positive but became statistically non-significant.

Table 5. Robustness Summary for the IFRS 9 × Size Interaction

Specification	Interaction coefficient	SE	p-value
Primary FE (SACCO-clustered SEs)	0.0033352	0.0011702	.005
Centred raw assets	0.0012046	0.0003344	<.001
IHS-transformed ROA	0.0033199	0.0011671	.005
Linear time trend	0.0031734	0.0011760	.008
CCTA and CCD separately	0.0033760	0.0011714	.004
Driscoll-Kraay SEs	0.0033352	0.0024179	.205

Overall, the evidence supports a positive size-contingent relationship under the primary fixed-effects model and most alternative specifications, while indicating that the strength of statistical inference is sensitive to the more conservative correction for cross-sectional dependence.

5. Discussion

The central finding is that the IFRS 9-performance relationship is not constant across SACCO size. Under the primary fixed-effects specification, the IFRS 9 × size interaction was positive and statistically significant. The estimated association was more negative among relatively smaller SACCOs, moved towards zero around the middle of the size distribution, and became positive in point-estimate terms among relatively larger institutions. The result therefore shifts attention away from a single average IFRS 9 coefficient and towards institutional heterogeneity.

The finding is consistent with Contingency Theory. IFRS 9 establishes common classification, measurement and impairment requirements, but the institutions implementing those requirements differ substantially in resource capacity. Larger SACCOs may be better positioned to absorb fixed implementation costs, maintain stronger data systems, employ specialist risk and accounting personnel, and spread compliance expenditure across a larger asset base. Smaller SACCOs may face proportionately greater implementation pressure. The implication is not that size is automatically beneficial, but that the organisational capabilities associated with scale can change how a complex reporting standard is absorbed.

The result also aligns with a growing literature showing that IFRS 9 outcomes depend on institutional context. López-Espinosa and Penalva (2023) found that IFRS 9 responses differed between smaller and larger Spanish banks, while Kirimi et al. (2022) showed that bank size can moderate financial relationships in Kenya. Taylor et al. (2025) further found that the informational benefits of IFRS 9 in African banks depended on regulatory and enforcement quality, and Zang et al. (2026) conclude from the wider literature that institutional conditions influence IFRS 9 outcomes. The present study extends this contextual argument to cooperative financial institutions by demonstrating an explicit IFRS 9 × size interaction within the Kenyan DT-SACCO sector.

The conditional estimates require careful interpretation. At the 25th percentile of size, the estimated IFRS 9 association was negative; at the median it was close to zero; and at the 75th percentile it was positive. However, none of these individual conditional effects was statistically significant. The defensible conclusion is therefore not that IFRS 9 significantly harmed small SACCOs or significantly benefited large SACCOs. Rather, the evidence shows that the IFRS 9-ROA slope changed significantly as SACCO size increased.

The robustness tests reinforce this interpretation but also impose an important qualification. The interaction survived alternative size measurement, outcome scaling, a linear time trend and the restoration of CCTA and CCD as separate regressors. Yet the interaction became non-significant under Driscoll-Kraay standard errors. Because Kenyan DT-SACCOs are exposed to common macroeconomic, regulatory and sectoral shocks, the moderation finding should be described as consistent under the primary clustered fixed-effects framework and several alternatives, but not completely invariant to covariance assumptions.

The practical implication is that uniform accounting requirements do not necessarily imply uniform implementation capacity. Regulatory support can remain common in principle while being differentiated in practice. Smaller SACCOs may benefit more from shared technical resources, targeted training, standardised data frameworks and practical support for expected-credit-loss modelling. For management, the more important message is that size itself is unlikely to be the mechanism. The relevant capabilities are the systems, expertise, governance and risk-management infrastructure that often accompany institutional scale.

6. Conclusion, Implications, Limitations and Future Research

6.1 Conclusion

This study examined whether SACCO size changes the relationship between IFRS 9 adoption and the financial performance of deposit-taking SACCOs in Kenya. The primary fixed-effects model indicates that institutional size matters: the IFRS 9 × size interaction was positive and statistically significant, and the estimated IFRS 9-performance relationship became progressively less negative as SACCO size increased, eventually becoming positive in point-estimate terms among relatively larger institutions.

The result challenges the assumption that the financial consequences associated with IFRS 9 are uniform across institutions. DT-SACCOs operate under common reporting requirements but do not implement those requirements from an equal organisational position. They differ in systems, expertise, financial resources and risk-management capacity. A common standard can therefore produce different financial associations across institutions of different scales.

The conditional effects sharpen this conclusion. The estimated IFRS 9 association moved from negative among relatively smaller SACCOs to approximately zero around the median and a positive point estimate among relatively larger SACCOs. Because the individual conditional effects were not statistically significant, the central conclusion is not that IFRS 9 harmed small SACCOs and benefited large ones. It is that the relationship itself changed significantly with size.

The moderation result remained positive and significant across several alternative specifications, although it became statistically non-significant under Driscoll-Kraay standard errors. The evidence should therefore be treated as consistent under the primary framework and multiple sensitivity checks, but not as estimator-invariant. The broader contribution is that evaluating only the average effect of IFRS 9 may conceal meaningful institutional heterogeneity. The more useful question is not simply whether IFRS 9 affects performance, but under what organisational conditions its financial consequences become more or less pronounced.

6.2 Theoretical Implications

The findings extend Contingency Theory into the IFRS 9 and cooperative-finance setting by demonstrating that accounting-standard outcomes can depend on organisational context. They also encourage IFRS 9 research to move beyond universal average effects and consider institutional characteristics such as size, technological readiness, governance and risk-management capability as possible boundary conditions.

6.3 Practical and Policy Implications

For SASRA and other sector stakeholders, the findings suggest that supervision should consider implementation capacity alongside formal compliance. Smaller SACCOs may benefit from targeted technical training, shared modelling resources, stronger data infrastructure and practical guidance on credit-risk assessment and expected-credit-loss estimation.

For SACCO management, institutional growth should not be treated as a substitute for capability. The apparent advantage associated with size is more plausibly linked to the systems and resources that scale can support. Smaller SACCOs can therefore reduce some scale disadvantages by strengthening data quality, staff competence, internal controls and credit-risk infrastructure.

6.4 Limitations

First, IFRS 9 was represented by a common post-transition implementation-period indicator. IFRS 9 became mandatory from 1 January 2018, whereas the final analytical dataset coded 2016-2018 as the reference period and 2019-2024 as the implementation period. The estimated coefficient should therefore not be interpreted as the legal adoption effect. The classification of 2018 is a material design limitation, and inference may be sensitive to alternative treatment of the transition year. In addition, because all regulated DT-SACCOs were exposed to the same broad implementation environment, the study could not construct a conventional untreated comparison group. The estimates should therefore be interpreted as implementation-period associations rather than causal treatment effects.

Second, SACCO size was measured using total assets. Asset size may proxy several underlying organisational characteristics, including technological sophistication, staffing, governance and market reach. The interaction therefore does not prove that asset size itself is the causal mechanism.

Third, the analysis relied on annual secondary financial data, which may conceal shorter-term changes in provisioning, liquidity, collections and lending behaviour. Finally, the interaction became non-significant under Driscoll-Kraay standard errors, indicating sensitivity of inference to the treatment of cross-sectional dependence.

6.5 Future Research

Future studies could move beyond total assets and test the specific capabilities through which size may matter, including technological readiness, staff expertise, governance quality, data infrastructure and credit-risk modelling capacity. More direct measures of IFRS 9 implementation intensity, such as ECL allowances, stage migration, provisioning quality or disclosure scores, would also sharpen inference. Research using alternative transition-year coding, including specifications that treat 2018 as the first mandatory IFRS 9 year or estimate explicit transition effects, would be particularly valuable. Further work could investigate nonlinear size thresholds, year fixed effects, dynamic panel effects, higher-frequency data and comparative evidence across SACCOs, banks, microfinance institutions and cooperative financial systems in other emerging economies.

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