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Effect of Enterprise Risk Management Strategies on Competitiveness of Matatu Saccos in Kajiado North Sub-County

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ABSTRACT

Purpose: The general objective of the study was to examine the effect of enterprise risk management strategies on competitiveness of matatu Sacco's in Kajiado North Sub-County. The study specifically focused on establishing the effects of operational risk management strategies, strategic risk management strategies and compliance risk management strategies on competitiveness Savings and Credit Cooperative Societies in Kajiado North Sub-County.

Methodology: The target population entailed 275 senior staff including CEOs, Marketing, Financial, Risk Managers, and Operations Managers drawn from Matatu SACCOs from Kajiado North. The Yamane formula was employed in deriving a sample size of 163 participants. Primary data was collected using structured questionnaire. Descriptive statistics was computed to establish baseline insights. Pearson correlation coefficient was used to examine variable relationships and simple linear regressions was employed to establish significance levels. SPSS version 26 was used for analysis, with results presented in tables and figures.

Findings: Key findings revealed that operational risk management strategies had the highest influence on competitiveness, with a strong positive correlation ($r = 0.740$, $p = 0.000$) and a significant regression coefficient ($\beta = 0.740$), indicating that a unit improvement in operational risk management increases competitiveness by 0.643 units. Similarly, strategic risk management strategies demonstrated a strong positive relationship with competitiveness ($r = 0.706$, $p = 0.000$), with a regression coefficient of $\beta = 0.706$. This means a unit change in strategic risk management enhances competitiveness by 0.696 units. Compliance risk management strategies also showed a positive and significant impact ($r = 0.590$, $p = 0.000$), with a regression coefficient ($\beta = 0.590$), suggesting that a unit improvement in compliance risk management results in a 0.589 unit increase in competitiveness. The study concluded that managing operational, strategic, and compliance risks through robust internal controls, process efficiency, technology adoption, and regulatory compliance significantly enhances the competitiveness of Matatu SACCOs.

Unique Contribution to Theory, Practice and Policy: It recommends strategic mapping of core processes, alignment of risk appetite with strategic goals, and establishment of dedicated compliance functions. Future research should explore the role of organizational culture and leadership in enhancing risk management within the Matatu SACCO sector.

Key Words: *Strategy, Operational Risk Management, Strategic Risk Management, Compliance Risk Management, Competitiveness*

Background of the Study

Competition in the financial sector, as in other sectors, matters for allocative, productive, and dynamic efficiency. Competition in the financial sector matters for a number of reasons (Matianyi & Ndirangu, 2019). The degree of competition in the financial sector can affect the efficiency of the production of financial services (Begimkulov, 2023). Also, again as in other industries, it can affect the quality of financial products and the degree of innovation in the sector. According to Idah and Egesa (2023), dynamics of change in the business environments catalysed by globalization, changing consumer preferences and whirlwind development of technology have exerted immense pressure on financial institutions to introduce new approaches to enter new markets and exploit existing ones. Competitiveness in micro-finance institutions takes various forms. Market expansion enhances Savings and Credit Cooperative Organisation or Society visibility, attracting diverse members and funds (Waithaka & Odollo, 2024). The strategies such as diversification mitigate risks by broadening income sources which fosters resilience of the sector (Njoka, 2021). The boost leadership strategies help reduce operational costs. This enables affordable services which boosts member loyalty (Chesigor et al., 2024). Besides, focusing on these areas ensures SACCOs remain competitive, addressing challenges like governance and competition.

Innovation supports SACCOs in overcoming market competition and achieving growth. According to Njoka (2021), product innovation attracts members through unique offerings, enhancing loyalty. Similarly, technological innovation improves service delivery, ensuring efficiency and member satisfaction (Wallace & Kilika, 2021). Furthermore, process innovation optimizes operations, minimizing costs and maximizing competitiveness. The innovative approaches help SACCOs sustain relevance, fostering growth and financial stability in competitive markets. Enterprise Risk Management helps financial institutions and businesses assess, identify, and report risks proactively and holistically. It also helps bring focus on key risks and reporting for accurate and timely decisions crucial for the organizations to achieve strategic objectives (Erwin & Safitri, 2024). The organizations are exposed to various forms of enterprise risk; strategic risk, credit risk, liquidity risk, market risk, operational risk, information and communication technology risk, reputational risk, compliance risk and country and transfer risk. Risk management also allows organizations to capitalize on opportunities that arise from calculated risk-taking, thus fostering growth while protecting assets (Mbatha & Muhoho, 2020).

The organizations that prioritize financial risk management can better navigate uncertainties and secure a strong market position, ultimately reinforcing their competitive advantage (Wamukota & Otuya, 2021). Similarly, Pashchenko and Pashchenko (2017) underscore it as a structured approach aimed at proactively safeguarding organizational goals by managing unpredictable events in financial markets. Consequently, Houwayji (2024) notes that without proper risk management, businesses may face severe losses or instability, emphasizing its criticality to sustainable growth and operational efficiency in a volatile environment. The International Standards Organization (ISO) defines risk management as coordinating activities to direct and

control an organization regarding risk (McShane, 2018). While the term Enterprise Risk Management can be viewed as a natural evolution of the process of risk management (Bromiley et al., 2016), The Committee of Sponsoring Organizations of the Treadway Commission (COSO) defines it as "a process, effected by an entity's board of directors, management, and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives" (COSO, 2004).

Statement of the Problem

Enterprise risk management (ERM) strategies are critical for enhancing the competitiveness of Matatu Savings and Credit Cooperative Societies. These strategies mitigate operational, strategic, and compliance risks, fostering financial stability and operational efficiency (Kibera & Muga, 2021). Studies in developed economies, such as the United States and the United Kingdom, demonstrate that robust ERM frameworks improve profitability and market share (Choi et al., 2021; McKinsey, 2022). Similarly, in developing countries such as Nigeria and South Africa, strategic competitiveness has been linked to enhanced performance outcomes (Asika et al., 2020). For matatu SACCOs, adopting effective ERM strategies can improve service delivery, customer satisfaction, and long-term sustainability (Ombati, 2019). The matatu sector, a cornerstone of Kenya's public transport system, faces significant risks. The threats range from fuel price volatility, regulatory changes, to operational inefficiencies (Mbugua, 2023; Too, 2023). Additionally, the inability to manage safety risks can result in severe accidents, increasing liability costs and damaging the industry's reputation (Graeff, 2024). These challenges threaten the sector's competitiveness and financial stability. Empirical studies indicate that organizations with strong ERM practices experience reduced financial volatility and improved resilience (Kingangi & Ngahu, 2019; Githinji & Iraki, 2023). For matatu SACCOs, implementing ERM strategies can mitigate risks, ensure regulatory compliance, and enhance resource allocation (Kibet et al., 2019; Nekesa & Olweny, 2023). This approach enables them to adapt to market demands and maintain operational viability.

Despite the sector's importance, limited research exists on the specific impact of ERM strategies on matatu SACCOs outside Nairobi (Mugisha & Mukhwana, 2021). Most studies focus on broader sectors, neglecting the unique dynamics of the matatu industry (Mwende & Njogu, 2023). This study aims to address this gap by examining the effect of operational, strategic, and compliance risk management strategies on the competitiveness of matatu SACCOs in Kajiado North Sub-County. The identification of tailored ERM techniques helps this study in enhancing the sector's resilience and operational success. The findings of this study provide actionable insights for matatu SACCOs, policymakers, and industry stakeholders. Effective ERM strategies can safeguard against financial losses, improve service quality, and support local economies (Muiruri, 2023; Muriuki et al., 2023). Furthermore, addressing risks such as fuel price fluctuations and regulatory challenges can enhance the sector's competitiveness and sustainability (Ngigi, 2023). This research contributes to the broader discourse on risk management by offering a localized

perspective on ERM's role in the matatu industry. It aimed to provide evidence-based recommendations for improving competitiveness and resilience in the sector.

Objectives of the Study

i To assess the effect of operational risk management strategies on competitiveness of Matatu Savings and Credit Cooperative Societies in Kajiado North Sub- County.
ii To determine the effect of strategic risk management strategies on competitiveness Savings and Credit Cooperative Societies in Kajiado North Sub-County.
iii To establish the effect of compliance risk management strategies on competitiveness Savings and Credit Cooperative Societies in Kajiado North Sub-County.

Literature Review

Operational Risk Management Strategies and Competitiveness of Savings and Credit Cooperative Societies

Competitiveness of Matatu SACCOs

Competitive strategies in Matatu SACCOs aim to enhance operational efficiency and service quality. Cost leadership strategies, such as affordable pricing and fuel efficiency, are pivotal in retaining cost-sensitive passengers (Busienei et al., 2019). However, the high cost of vehicle maintenance and fuel presents challenges. Differentiation strategies, including premium services such as Wi-Fi and comfortable seats, attract a niche market segment willing to pay extra (Obondi & Bett, 2018). Focus strategies target specific routes or customer groups, ensuring tailored services for efficiency and higher satisfaction (Busienei et al., 2019).

The adoption of technological innovations such as digital payment systems and customer engagement platforms drives competitive advantage (Busienei et al., 2019). These innovations reduce transaction times and enhance transparency, appealing to urban passengers. However, high initial investment costs deter many SACCOs from embracing such technologies (Nkui & Njuguna, 2024). Additionally, integrating mobile apps for route updates could further improve service accessibility and customer satisfaction. Despite notable progress, gaps persist in SACCOs' strategies, including weak regulatory compliance and fragmented governance structures. According to Wasinda, Kiplang'at, and Chebon (2019), enhancing government support through clear policy guidelines and enforcement mechanisms is crucial.

Operational Risk Management Strategies and Competitiveness of SACCOs

Internal control refers to processes, mechanisms, and procedures implemented by an organization's management to ensure operational efficiency, reliability of financial reporting, and compliance with laws and regulations (Arens et al., 2020). According to Sanders, Smith and Brown (2019), the major aspects of internal control include the control environment, risk assessment, control activities, information and communication, and monitoring. These components collectively aim to safeguard assets, prevent fraud, and ensure the accuracy and completeness of records.

Wanjala and Riitho (2020) analyzed how internal control components affect fraud mitigation among SACCOS in Kenya. It used a structured questionnaire and the Ordinary Least Squares Regression approach. Significant findings showed that control environment, activities, monitoring, information, and communication positively impacted fraud mitigation. However, the study did not explore external influences like regulatory frameworks, which could affect fraud outcomes. Munene (2019) evaluated internal controls' influence on financial distress in SASRA-regulated SACCOS in Nairobi, Kenya. Using a descriptive design, the study sampled 46 SACCOS through purposive sampling, targeting CEOs, accountants, and auditors. Results showed mutual effects between internal controls and financial distress. The study failed to incorporate industry-specific economic factors, which could also contribute to financial distress.

Process efficiency refers to the effective utilization of resources to enhance operational performance, service delivery, and cost-effectiveness in transport operations (Maina, Kiai & Kyalo, 2020). It encompasses areas such as route optimization, fleet management, passenger handling, and financial management (Kiprotich & Onsomu, 2021). According to Odhiambo (2018), efficient processes contribute to reducing operational costs, improving customer satisfaction, and ensuring regulatory compliance. Umurzakov (2017) examined the management of business process in both the financial and non-financial institutions. The process examined was the payment processes in the management of the financial flows. A survey research design was employed. From the findings it was established that payment processes such as billing, stock pricing and analysis was most efficient when done using the Information Technology (IT) software. The major gap from this study is that while it endeavored to examine the processes particularly the payment related processes, it does not link the process to performance. It doesn't show how the performance of businesses changes as a result of the business processes that are put in place. The current study examines processes like loan application processes, loan appraisal processes, customer service processes and operational risk management processes of SACCOS and how they affect performance as measured using market share, sales revenue and loan defaults.

Risk management is the act of evaluating and forecasting financial risks. The process also entails the identification of procedures to minimize the impacts. Information technology, on the other hand, is the study and use of systems (Mohammad, 2020). The increased rate and sophistication of technological advances over the last century has generally brought positive changes to society; however, new risks and challenges have emerged concurrently to these advances, necessitating the creation and adoption of processes for identifying and addressing such risks (Makhanya, 2024).

Research has shown that business risks related to information technology risk management can be considered and adopted within an organization or enterprise (Tensmeyer et al, 2023). According to Mwangi (2018), SACCOs that have adopted process digitalization have experienced cost saving, improved operational efficiency, faster processes, and enhanced customer experience. The study, further alluded that digitalization has enabled SACCOs to register high income levels attributed to increased demand for loans and rise in membership due to the increased outreach.

Mohammad (2020) analyzed risk management in IT within enterprises, focusing on integrating risk management through the system development life cycle. The study adopted a literature review methodology and used a generic framework for risk assessment. ENISA's guidelines were referenced for parameterizing the risk management process. Results highlighted gaps in risk identification, especially regarding threats, vulnerabilities, and business processes. The study fails to address how emerging technologies like blockchain may redefine the framework.

Strategic Risk Management Strategies and Competitiveness of Savings and Credit Cooperative Societies

A company's reputation is critical if it is to succeed and survive in the marketplace. So much market value is derived from hard-to-assess intangible assets such as reputation. At the same time, companies with strong positive reputation are perceived as providing more value, since the market believes that such companies will deliver sustained earnings and future growth (Bushman & Wittenberg-Moerman, 2018). Reputation is an important factor for long-term stability, competitiveness, and success of all contemporary organizations (Eckert & Gatzert, 2019). It is even more important for microfinance because of their systemic role in a modern economy.

Management of reputational risk is crucial for financial institutions to establish a solid foundation for strategic decisions, gain customer trust, and enhance resilience against environmental adversities, as they largely operate on digital platforms (Zaby & Pohl, 2023). A review of 2023 challenged firms to deal with an array of reputational risks and issues - many of which were controllable (i.e. internally-led – think service outages, governance failures and greenwashing allegations), whilst others were less controllable (i.e. externally-led - think inflation, cost of living and geopolitics) (Hutcheon & Clark, 2024).

Adeabah et al. (2022) examined reputational risk in banks using a systematic literature review and network analysis (SLRNA) of 35 articles published between 2010 and 2020. The study focused on five themes, including operational losses and reputational effects of media tone. The research highlighted gaps, particularly the lack of global attention and underdeveloped frameworks for reputational risk management. The study fails to address reputational risks in emerging economies or SACCOs, limiting its practical application in developing regions.

The focus of liquid asset management is maintaining easily accessible assets. SACCOs in public transport maintain cash reserves or short-term investments (Popescu & Xu, 2023). The liquid assets, such as savings accounts or marketable securities, provide financial flexibility (Bello et al., 2020). The transport SACCOs prioritize maintaining sufficient reserves to manage urgent repair costs (Khan & Ali, 2020). The ability to liquidate assets quickly ensures stability during financial uncertainty (Cheng & Li, 2021). The investments in liquid assets allow SACCOs to capitalize on sudden opportunities (Mwakalobo et al., 2020). Hence, effective management helps SACCOs address short-term needs without disrupting operations.

The aim of liability management is to control debt and financial obligations. The matatu SACCOs often manage loans for vehicle purchases and infrastructure investments. For instance, refinancing options allow SACCOs to adjust repayment terms for better cash flow (Kaakandikar & Poman, 2022). The use of debt-equity ratio analysis ensures a balanced financial structure (Adesina & Eniola, 2019). SACCOs minimize high-interest debts by consolidating loans or negotiating lower rates. The strategies also include keeping debt levels manageable to avoid financial strain (Khan & Ali, 2020). In response, a sound liability management strategy enables SACCOs to stay solvent and financially secure (Cheng & Li, 2021).

Van der Meer and Smink (2019) explored asset-liability management (ALM) strategies in insurance industries, emphasizing three strategy types: static, value-driven, and return-driven. The study classified strategies based on dynamic principles and evaluated their effectiveness through theoretical frameworks. Findings showed value-driven strategies provide better long-term stability than static approaches. Yet, the analysis ignored sector-specific risks like fare price regulation impacting public transport SACCOs. These gaps suggest that SACCOs must adopt hybrid liability strategies to balance financial sustainability and service delivery obligations.

Business enterprises operating in the 21st Century are not exempt from unpredictable changes caused by change in political, economic, social, technological, ecological and legal policies (Muchiri, Ngala & Anyika, 2023). With increased competition, changes in consumer needs, influence of globalization and labor market dynamics, both profit and non-profit oriented firms have to develop frameworks of minimizing risks associated with business ventures (Danisman, 2018). Organizations operating in developed and developing countries are continuously reviewing their risk management strategies to enhance their competitiveness (Chesigor, Wanyama & Otiso, 2019).

Klapper, Ariss and Berger (2009) analyzed the role of bank competition on bank failures in Russian banks (2001-2007). Using the Lerner Index, findings indicated tighter competition enhances bank failures. The study employed robust empirical methods but did not consider external shocks like economic crises, which could distort competition-stability dynamics. Antwi, Kong and Gyimah (2024) explored competition, financial inclusion, and stability in 60 developing countries (2002-2019). Using system GMM estimators, findings showed financial inclusion weakens stability, while competition enhances it. Despite insightful findings, the study neglects cultural and socio-political factors affecting financial inclusion's impact on stability.

Hope, Gwatidzo and Ntuli (2013) studied bank competition and financial stability in 10 African countries using 2005-2010 data. The study employed a Generalized Method of Moments approach, focusing on indices like Z-score and Lerner Index. Results showed a robust positive relationship between market power and financial stability, supporting the competition-fragility view. However, the study overlooks the potential moderating effect of regulatory frameworks in individual countries, which could influence results. Chesigor, Wanyama and Otiso (2019) analyzed competitive strategies and SACCO growth in Bungoma County, Kenya. A census of 112 top

management staff revealed a significant positive relationship between differentiation strategy and growth. While thorough, the study does not consider the role of external competition from banks and fintech firms.

Compliance Risk Management Strategies and Competitiveness of Savings Credit Cooperative Societies

Today the segregation of duties is commonly used to ensure regulatory compliance in various industries. Regulators expect cooperatives to comply with set standards and expect high level of accountability (Alukwe, 2015). Corporate governance is installed to monitor the ethical conduct of the SACCOs and considering the development of ethical standards and requirements, including effectiveness of procedures for handling and reporting complaints (Akiotu, 2022). Fines and penalties assessed against a bank for failure to comply with regulatory sanctions result in loss of revenues and reputation. SACCO managers who fail to implement effective strategies to prevent sanctions compliance could experience reduced bank profitability, reputational loss, and possible bank failure.

Abhulimen and Osafiele (2024) examined strategic risk management's role in regulatory compliance within financial institutions globally. A qualitative design was adopted, targeting financial institutions. Data were collected through secondary sources and analyzed thematically. Results highlighted the importance of integrating compliance efforts with business strategy, with technology as a key enabler. The study, however, fails to explore the specific challenges faced by smaller financial institutions in implementing such strategies, such as resource constraints.

Xi (2024) analyzed regulatory frameworks and compliance challenges in the global financial sector. A descriptive design was employed, with the sample comprising regulatory policies across regions. Data were sourced from historical and contemporary records, analyzed comparatively. Results emphasized balancing regulatory rigor with flexibility, projecting AI and globalization as future trends. The study overlooks the socio-economic impacts of stringent regulations on underdeveloped financial systems, limiting its applicability in low-income countries.

According to the International Accounting Standards Board (IASB), relevance has the potential to have an impact on choices made by users in their capacity as capital suppliers. Predictive and confirmatory value are common concepts used to describe relevance. Internal auditing is essential to examining and upholding the accuracy of financial accounting in businesses (Ouko & Atheru, 2022). Internal audit reports offer helpful analysis and suggestions for general process enhancements in risk management, internal controls, and financial reporting (Kamau, Oyoti, & Muzungu, 2023). However, in addition to their existence, these reports' quality is assessed according to how well they relate to the financial statements (Njagi, 2023).

The function of internal auditing is of utmost importance in a variety of domains, including but not limited to the safeguarding of financial reporting integrity, the reinforcement of investor confidence, and the guarantee of adherence to regulatory frameworks (Njagi, 2023). Albawwat,

Hajaia, and Frijat (2022) contended that internal audit contributes to the identification of illicit activities and inaccuracies, the advancement of corporate governance, the maximization of business efficacy, the evaluation of creditworthiness, the advocacy of regulatory compliance and accountability, the cultivation of trust and transparency, and the protection of stakeholders' interests.

Khanam (2024) investigated the effectiveness of internal auditing in the banking sector of Bangladesh. The study employed a cross-sectional design, targeting internal audit professionals across various banks. A sample of 152 participants was selected, and data were collected via surveys. The analysis utilized structural equation modeling (SEM). The results indicated that the independence and quality of internal auditors significantly impact audit effectiveness, while auditor competence and management support were less influential. However, the study fails to address the impact of organizational culture on internal audit efficiency.

Ethics or rather its lack in finances it is a very popular topic nowadays. Financial institutions have an important role in the economy and must have a certain behaviour towards the society, therefore must follow the moral norms (Ionaşcu, Barbu, & Popa, 2023). Thakor (2021) examined ethics, culture, and higher purpose in banking in the U.S. and Europe post-financial crisis. The study reviewed theoretical and empirical research, employing a diagnostic framework for assessing bank culture. Results showed that ethical culture positively influenced governance and stability. However, the study does not explore how these factors directly affect competitiveness in SACCO-like structures in developing economies, limiting its applicability.

Muriuki and Mathenge (2019) studied the effect of business ethics on the market share of tier-one deposit-taking SACCOs in Nairobi County, Kenya. Using a descriptive research design, the study targeted 294 management staff and employed a sample size of 147 derived through stratified random sampling. Data was collected using questionnaires and analyzed via descriptive and regression analysis. Results showed ethical policies had the largest statistically significant influence on market share. The study, however, did not explore other external factors such as market competition that could affect market share.

Odero (2021) analysed the influence of ethical practices on the performance of deposit-taking SACCOs in Nairobi County, Kenya. The study adopted a positivism paradigm and descriptive correlational design, with a sample size of 126 senior managers. Data was collected using structured questionnaires and analyzed using descriptive and inferential statistics. Results indicated a positive and significant influence of ethical practices on organizational performance. However, the study did not address the role of cultural diversity in shaping ethical behaviors within SACCOs. Kule et al. (2023) investigated the relationship between integrity, ethical values, and financial performance of SACCOs in Mid-Western Uganda. Using a cross-sectional design and regression analysis, the study sampled responses through closed-ended questionnaires. Findings revealed a strong positive relationship between integrity and financial performance. The study

failed to incorporate the impact of regulatory compliance on financial performance, which could be a confounding factor.

Research Methodology

This study used descriptive correlational research design. The target population involved 275 senior SACCO professionals engaged in strategic enterprise management, including CEOs, Marketing Managers, Financial Managers, Enterprise Risk Managers, and Operations Managers. The Yamane formula was employed in deriving a sample size of 163 participants. Primary data was collected using structured questionnaire. The questionnaire involved close ended questions and rated on a five-point Likert scale. Descriptive statistics, including means and frequency distributions, was computed to establish baseline insights. Pearson correlation coefficient was used to examine variable relationships and simple linear regressions was employed to establish significance levels. SPSS version 26 was used for analysis, with results presented in tables and figures. The model for the study was:

$$\boldsymbol{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon}$$

Where: Y is SACCO competitiveness,, β_0 is the intercept, β_1, β_2, $\beta_3$are the coefficients for the independent variables, X_1 is operational risk management, X_2 is strategic risk management, X_3 is compliance risk management, and $\boldsymbol{\varepsilon}$ is the error term.

Results

The study issued 163 questionnaires to participants for collection data on the enterprise risk management strategies and competitiveness of matatu SACCOs in Kajiado North Sub-County and 135 participants responded to the questionnaires. This translated into 83% response rate, which was deemed adequate to allow for further data analysis.

Descriptive Findings

The overall mean of 3.59 and standard deviation of 1.09 implied that that respondents generally agreed with the statements on operational risk management strategies, but there was moderate variability in their agreement across different SACCOs. Second, the overall mean for strategic risk management strategies was 3.53 with a standard deviation of 1.06, implying that respondents generally agree with the strategies employed by the Matatu SACCOs, indicating a moderate level of adoption. Besides, the overall mean for compliance risk management strategies was 3.58, with a standard deviation of 1.04, indicating that respondents generally agreed with the statements regarding risk management strategies. The moderate standard deviation indicates that there is some variability in how different SACCOs apply compliance risk management strategies, with some being more proactive than others in enforcing regulations. Lastly, the respondents agreed on statements regarding competitiveness, therefore implying that Matatu SACCOs practiced competitiveness through flexible loan terms, operational efficiency, and a diverse product portfolio.

Pearson Correlation between Operational Risk Management Strategies and Competitiveness of Matatu SACCOs

In order to establish the relationship between operational risk management strategies and competitiveness of Matatu SACCOs a correlation matrix was used. Table 2 shows the correlation matrix. The Pearson correlation coefficient was generated at a significant level of one percent (2-tailed). The output indicates a strong positive relationship between operational risk management strategies and competitiveness of Matatu SACCOs. Operational risk management strategies had positive coefficient which indicated that operational risk had greater effect on competitiveness of Matatu SACCOs. The results as indicated in table 1 show there was some positive significance association between operational risk management strategies and competitiveness (Pearson Correlation r= 0.740, ρ = 0.000). Therefore, the operational risk management strategies is very important factor in determining SACCO competitiveness.

Table 1: Pearson Correlation between Operational Risk Management Strategies and Competitiveness of Matatu SACCOs

		Operational_Risk_Management Strategy	Competitive Advantage
Operational_Risk_Management Strategy	Pearson Correlation	1	.740**
	Sig. (2-tailed)		.000
Competitive_Advantage	Pearson Correlation	.740**	1
	Sig. (2-tailed)	.000	
	N	135	135

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

Simple Linear Regression between Operational Risk Management Strategies and Competitiveness of Matatu SACCOs

The first hypothesis of the study was that there is no significant effect of operational risk management strategy on competitiveness of Matatu SACCOs in Kajiado North. This hypothesis was tested through regression analysis between operational risk management strategies and competitiveness. The results of simple regression analysis for operational risk management strategies and competitiveness of Matatu SACCOs in Kajiado North were done and the model summary was presented in Table 2. The results in Table 2 reveals that operational risk management strategies had explanatory power on performance of the transport firms as it accounted for 54.70% of its variability (R Square = 0.547) on Model 1.

Table 2: Model Summary between Operational Risk Management Strategies and Competitiveness of Matatu SACCOs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.740[a]	.547	.544	.43660	1.733

a. Predictors: (Constant), Operational_Risk_Management_Strategy
b. Dependent Variable: Competitive_Advantage

F statistic of 160.568 indicated that the overall model was significant. The findings imply that operational risk management strategies were statistically significant in explaining operational risk strategy effects on competitiveness of Matatu SACCOs. The results show that F (30.608, 0.191) = 160.568, p = 0.000. The large F-value implies better significant effect and a reflection of a consistent pattern that is unlikely due to chance. The results are shown in Table 3.

Table 3: ANOVA between Operational Risk Management Strategies and Competitiveness of Matatu SACCOs

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	30.608	1	30.608	160.568	.000[b]
	Residual	25.353	133	.191		
	Total	55.960	134			

a. Dependent Variable: Competitive_Advantage
b. Predictors: (Constant), Operational_Risk_Management_Strategy

The regression analysis was carried out to determine beta coefficients of operational risk management strategies versus competitiveness of Matatu SACCOs. The results indicate that there is significant relationship between operational risk management strategies and competitiveness of Matatu SACCOs. Since the coefficient of credit risk is 0.643 which is statistically greater than zero. The t statistic is 12.672 which is greater than zero. This demonstrates that operational risk management strategy has a positive influence on competitiveness of Matatu SACCOs as shown in Table 4. Table 4 shows the regression results of the operational risk management strategies. Operational risk management strategies (supported by β=0.740, p-value = 0.000) is statistically significant in explaining competitiveness of Matatu SACCOs. The results indicate that one positive unit change in competitiveness is as a result of 0.643 changes in operational risk management strategy. This confirms there is positive effect of operational risk management strategy on competitiveness of Matatus SACCOs in Kajiado North as indicated in Table 5 and equation 4.2.

Competitiveness of Matatu SACCOs (Y) =1.403 + 0.643*Operational Risk Management Strategy

Statistically, it can be concluded that there is significant correlation between operational risk management strategy and competitiveness of Matatu SACCOs. This implied that the study rejected null hypothesis and failed to reject the alternative hypothesis.

Table 4: Regression Coefficients between Operational Risk Management Strategies and Competitiveness of Matatu SACCOs

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.403	.182		7.708	.000
	Operational_Risk_Management_Strategy	.643	.051	.740	12.672	.000

a. Dependent Variable: Competitive_Advantage

Pearson Correlation between Strategic Risk Management Strategies and Competitiveness of Matatu SACCOs

In order to establish the relationship between strategic risk management strategies and competitiveness of Matatu SACCOs a correlation matrix was used. Table 5 shows the correlation matrix. The Pearson correlation coefficient was generated at a significant level of one percent (2-tailed). The output indicates a strong positive relationship between strategic risk management strategies and competitiveness of Matatu SACCOs. Strategic risk management strategies had positive coefficient which indicated that strategic risk had greater effect on competitiveness of Matatu SACCOs. The results as indicated in Table 5 show there was some positive significance association between strategic risk management strategies and competitiveness (Pearson Correlation r= 0.706, ρ = 0.000). Therefore, the strategic risk management strategies is very important factor in determining SACCO competitiveness.

Table 5: Pearson Correlation between Strategic Risk Management Strategies and Competitiveness of Matatu SACCOs

		Strategic_Risk_Management Strategy	Competitive Advantage
Strategic_Risk Management Strategy	Pearson Correlation	1	.706**
	Sig. (2-tailed)		.000
Competitive_Advantage	Pearson Correlation	.706**	1
	Sig. (2-tailed)	.000	
	N	135	135

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

Simple Linear Regression between Strategic Risk Management Strategies and Competitiveness of Matatu SACCOs

The second hypothesis of the study was that there is no significant effect of strategic risk management strategy on competitiveness of Matatu SACCOs in Kajiado North. This hypothesis was tested through regression analysis between strategic risk management strategies and competitiveness. The results of simple regression analysis for strategic risk management strategies and competitiveness of Matatu SACCOs in Kajiado North were done and the model summary was presented in Table 6. The results in Table 6 reveals that strategic risk management strategies had explanatory power on performance of the transport firms as it accounted for 49.80% of its variability (R Square = .498) on Model 1.

Table 6: Simple Linear Regression between Strategic Risk Management Strategies and Competitiveness of Matatu SACCOs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.706[a]	.498	.494	.45958	1.851

a. Predictors: (Constant), Strategic_Risk_Management_Strategy
b. Dependent Variable: Competitive_Advantage

F statistic of 131.947 indicated that the overall model was significant. The findings imply that strategic risk management strategies were statistically significant in explaining strategic risk strategy effects on competitiveness of Matatu SACCOs. The results show that F (27.869, 0.211) = 131.947, p = 0.000. The large F-value implies better significant effect and a reflection of a consistent pattern that is unlikely due to chance. The results are shown in Table 7.

Table 7: Model Summary between Strategic Risk Management Strategies and Competitiveness of Matatu SACCOs

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.869	1	27.869	131.947	.000[b]
	Residual	28.091	133	.211		
	Total	55.960	134			

a. Dependent Variable: Competitive_Advantage
b. Predictors: (Constant), Strategic_Risk_Management_Strategy

The regression analysis was carried out to determine beta coefficients of strategic risk management strategies versus competitiveness of Matatu SACCOs. The results indicate that there is significant relationship between strategic risk management strategies and competitiveness of Matatu SACCOs. Since the coefficient of credit risk is 0.696 which is statistically greater than zero. The t statistic is 11.487 which is greater than zero. This demonstrates that strategic risk management strategy has a positive influence on competitiveness of Matatu SACCOs as shown in Table 8 Table 8 shows the regression results of the strategic risk management strategies. Strategic risk management strategies (supported by β=0.706, p-value = 0.000) is statistically significant in explaining competitiveness of Matatu SACCOs. The results indicate that one positive unit change in competitiveness is as a result of 0.696 changes in strategic risk management strategy. This confirms there is positive effect of strategic risk management strategy on competitiveness of Matatu SACCOs in Kajiado North as indicated in Table 8 and equation 4.2.

Competitiveness of Matatu SACCOs (Y) =1.109 + 0.696 *Strategic Risk Management

Statistically, it can be concluded that there is significant correlation between strategic risk management strategy and competitiveness of Matatu SACCOs. This implied that the study rejected null hypothesis and failed to reject the alternative hypothesis.

Table 1: Regression Coefficients between Strategic Risk Management Strategies and Competitiveness of Matatu SACCOs

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.109	.226		4.918	.000
	Strategic_Risk_Management_Strategy	.696	.061	.706	11.487	.000

a. Dependent Variable: Competitive_Advantage

Pearson Correlation between Compliance Risk Management Strategies and Competitiveness of Matatu SACCOs

In order to establish the relationship between compliance risk management strategies and competitiveness of Matatu SACCOs a correlation matrix was used. Table 9 shows the correlation matrix. The Pearson correlation coefficient was generated at a significant level of one percent (2-tailed). The output indicates a strong positive relationship between compliance risk management strategies and competitiveness of Matatu SACCOs. Compliance risk management strategies had positive coefficient which indicated that credit risk had greater effect on competitiveness of Matatu SACCOs. The results as indicated in Table 9 show there was some positive significance association between compliance risk management strategies and competitiveness (Pearson Correlation r= 0.590, ρ = 0.000). Therefore, the compliance risk management strategies is very important factor in determining SACCO competitiveness.

Table 9: Pearson Correlation between Compliance Risk Management Strategies and Competitiveness of Matatu SACCOs

		Reputational Risk Management Strategy	Competitive Advantage
Reputational Risk Management Strategy	Pearson Correlation	1	.590**
	Sig. (2-tailed)		.000
Competitive Advantage	Pearson Correlation	.590**	1
	Sig. (2-tailed)	.000	
	N	135	135

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

Simple Linear Regression between Compliance Risk Management Strategies and Competitiveness of Matatu SACCOs

The third hypothesis of the study was that there is no significant effect of compliance risk management strategy on competitiveness of Matatu SACCOs in Kajiado North. This hypothesis was tested through regression analysis between compliance risk management strategies and

competitiveness. The results of simple regression analysis for compliance risk management strategies and competitiveness of Matatu SACCOs in Kajiado North were done and the model summary was presented in Table 10. The results in Table 10 reveals that compliance risk management strategies had explanatory power on performance of the Matatu SACCOs as it accounted for 34.8% of its variability (R Square = .348) on Model 1.

Table 10: Simple Linear Regression between Compliance Risk Management Strategies and Competitiveness of Matatu SACCOs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.590[a]	.348	.343	.52369	1.550

a. Predictors: (Constant), Reputational_Risk_Management_Strategy
b. Dependent Variable: Competitive_Advantage

F statistic of 71.047 indicated that the overall model was significant. The findings imply that compliance risk management strategies were statistically significant in explaining compliance risk strategy effects on competitiveness of Matatu SACCOs. The results show that F (19.485, 0.274) = 71.047, p = 0.000. The large F-value implies better significant effect and a reflection of a consistent pattern that is unlikely due to chance. The findings are shown in Table 11.

Table 11: ANOVA between Compliance Risk Management Strategies and Competitiveness of Matatu SACCOs

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.485	1	19.485	71.047	.000[b]
	Residual	36.475	133	.274		
	Total	55.960	134			

a. Dependent Variable: Competitive_Advantage
b. Predictors: (Constant), Reputational_Risk_Management_Strategy

The regression analysis was carried out to determine beta coefficients of compliance risk management strategies versus competitiveness of Matatu SACCOs. The results indicate that there is significant relationship between compliance risk management strategies and competitiveness of Matatu SACCOs. Since the coefficient of credit risk is 0.589 which is statistically greater than zero. The t statistic is 8.429 which is greater than zero. This demonstrates that compliance risk management strategy has a positive influence on competitiveness of Matatu SACCOs as shown in Table 12. Table 12 shows the regression results of the compliance risk management strategies. Strategic risk management strategies (supported by β=0.590, p-value = 0.000) is statistically significant in explaining competitiveness of Matatu SACCOs. The results indicate that one positive unit change in competitiveness is as a result of 0.589 changes in compliance risk management strategy. This confirms there is positive effect of compliance risk management strategy on competitiveness of Matatu SACCOs in Kajiado North as indicated in table 12 and equation 4.3.

Competitiveness of Matatu SACCOs (Y) = 1.503 + 0.589*Compliance Risk Management Strategies

Statistically, it can be concluded that there is significant correlation between strategic risk management strategy and competitiveness of Matatu SACCOs. This implied that the study rejected null hypothesis and failed to reject the alternative hypothesis.

Table 12: Regression Coefficients between Compliance Risk Management Strategies and Competitiveness of Matatu SACCOs

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.503	.260		5.784	.000
	Reputational_Risk_Management_Strategy	.589	.070	.590	8.429	.000

a. Dependent Variable: Competitive_Advantage

Conclusions

The study sought to establish the influence of enterprise management strategies on the competitiveness of Matatu SACCOs. On operational risk management, the study concluded that internal controls, process efficiency and technology strategies are significant in mitigating operational risks and boosting Matatus Sacco's competitiveness. Strategic risk management strategies including reputational risk management, financial risk management and competitive risk management have positive and significant effect on competitiveness of matatu saccos. On compliance risk management, the study concluded that regulatory, audit and ethical management strategies were central to the success and competitiveness of SACCOs in matatu sector.

Recommendations

The study recommends strategic mapping of core operations and processes including member mobilization, fare collection, vehicle scheduling and dispatch, loan disbursement and repayment as well as staff conduct and discipline. Additionally, set risk appetite and tolerance level aligned with the strategic objectives in functional areas. There is also need to employ data analytics in monitoring strategic performance through partnerships with fintechs as implementing partners. Finally, the study recommends the need to establish a dedicated compliance unit with clear reporting linkages to senior management.

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