



**SASRA CAPITAL ADEQUACY REQUIREMENT AND FINANCIAL PERFORMANCE OF DEPOSIT TAKING SACCOS
IN KENYA**

Duncan Bett & Dr. Nyatete Kanyanya, PhD

SASRA CAPITAL ADEQUACY REQUIREMENT AND FINANCIAL PERFORMANCE OF DEPOSIT TAKING SACCOs IN KENYA

Duncan Bett¹ & Dr. Nyatete Kanyanya, PhD²

¹ Master Student, Jomo Kenyatta University of Agriculture and Technology, Kenya

² Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

Accepted: October 1, 2024

DOI: <http://dx.doi.org/10.61426/sjbcn.v11i4.3084>

ABSTRACT

Despite the fact that SASRA regulations have been in operation for almost ten years, the impact of DT-SACCOs' compliance with these regulations on their performance has not been fully agreed upon as shown by inconsistent empirical findings. Some SACCOs that were approved have had their certificates revoked due to poor performance, while others have been placed under statutory management. This research aims to investigate this issue. The study's objective is to examine the impact of capital adequacy requirements on financial performance of deposit taking SACCOs in Kenya. The study was anchored on the theory of economic regulation, the agency theory, stakeholders' theory and theory of credit management to explain the effect of SASRA regulatory framework on SACCOs' performance. Correlational research design was used. The population of the study was 169 DT-SACCOs registered in Kenya from which 118 was chosen as a sample. Secondary data for the years 2019 to 2021 was obtained from SASRA supervision reports and audited SACCO financial statements. Construct validity and instrument reliability was tested in the study. Cronbach's Coefficient Alpha was used to calculate instrument reliability for both even and uneven items. Diagnostic tests including normality tests, multicollinearity tests, and auto-correlational tests, was conducted to evaluate the relevance of the regression model. The data was analysed using STATA version 16. Results show that capital adequacy requirement has a negative significant effect on financial performance of DT-SACCOs in Kenya ($\beta = -0.146, p=0.015 < .05$). The study recommends the SACCOs' management to embrace the right level of capital for the proper functioning of the organizations.

Key words: SASRA Capital Adequacy, SASRA Regulatory Framework, Financial Performance

CITATION: Bett, D., & Nyatete, K. (2024). SASRA capital adequacy requirement and financial performance of deposit taking SACCOs in Kenya. *The Strategic Journal of Business & Change Management*, 11 (4), 321 – 331. <http://dx.doi.org/10.61426/sjbcn.v11i4.3084>

INTRODUCTION

The International Cooperative Alliance (ICA) has given a definition of a co-operative enterprise as a self-governing group of individuals who have voluntarily united to fulfill their mutual economic, social, and cultural requirements and ambitions through a jointly owned and democratically managed enterprise (Mutinda, 2016). This definition is widely recognized and serves as a defining characteristic of co-operatives, setting them apart from conventional business ventures and other legal entities. Co-operatives differ from profit-focused entities in that they prioritize service over financial gain, operating as member-centered organizations that are owned and operated by their members for the achievement of their collective goals (SASRA, 2020).

The Savings and Credit cooperatives sector in Kenya lacked a unified legal framework until the enactment of the Sacco Societies Act no. 14 of 2008 which established the Sacco Societies Regulatory Authority (SASRA) to regulate the sector (Mwangi, Nyachwaya & Cheruyoit, 2018). To further enhance the protection of savings in the SACCO sector, the Minister of co-operative development and marketing exercised the powers conferred by section 68 of the act and gazetted the Sacco societies (deposit taking SACCO business) regulations in 2010. Over the past 40 years, the Sacco movement in Kenya has grown into a strong force for the social and economic development of the country.

According to Barus *et al.* (2017), financial performance is a measure of how effectively and efficiently an organization utilizes its available resources to generate maximum revenue. It is crucial for management boards or directors to make sound financial decisions to ensure the institution's performance is not compromised. The study shows that SACCO members are attracted to low-cost and reliable credit facilities such as loans. Additionally, members want assurance that their savings and deposits are safe and that SACCOs invest in profitable ventures. Efficient SACCOs can reduce

their operating expenses and utilize cheaper sources of capital and interest-free options while maintaining maximum returns on investments.

A study by Ngui and Jagongo (2017) comparing the performance of SACCOs in pre- and post-implementation of SASRA requirements also established that capital adequacy affects the performance of DT-SACCOs in Kenya. They particularly observed that capital adequacy affected institutional capital where the majority of DT-SACCOs failed to achieve the minimum 8% requirement. Therefore, the authors concluded that the core capital and capital adequacy ratios should be reviewed to strengthen the DT-SACCOs in Kenya and improve their performance.

A study conducted by Barus, Muturi, Kibati, and Koima (2017) investigated the relationship between regulation and the performance of DT-SACCOs, and found that there was a positive correlation between the two. The study also indicated that the extent of the impact depended on the quality of the assets. Another study conducted by Lydia (2018) revealed that institutional regulation, specifically in relation to loan, fixed assets, financial investments, and accounts receivable, was critical for the stability and profitability of DT-SACCOs. The study found that effective loan regulation management had a significant positive impact on the profitability of DT-SACCOs, while fixed assets, financial investments, and accounts receivable management had a moderate positive effect. These studies indicate that asset quality and management are important factors that can impact the performance of DT-SACCOs.

Mutinda (2016) stated that financial intermediaries' performance is influenced by different liquidity requirements because their income is derived from the interests of loaned-out funds. Ngaira (2011) noted that implementing the SASRA prudential regulations has had a positive impact on DT-SACCOs in terms of their performance, sustainability, and outreach, but there are some operational and financial challenges associated with the regulatory framework, such as meeting liquidity requirements.

SASRA (2015) also stated that despite the impressive increase in liquidity levels of DT-SACCOs, many of them still struggle to meet their current obligations to members, particularly when it comes to loan disbursement, due to heightened liquidity pressures caused by loan demand, which members are entitled to as a right once they qualify, unlike in the banking sector.

A study by Kioko (2010) aimed to establish the impact of SASRA regulations on the financial performance of Sacco's in Kenya. The study targeted the 98 SACCOs registered by SASRA. The study found that there was an insignificant relationship between SASRA regulations on the financial performance of Sacco's in Kenya and specifically the capital requirements. The researcher limited himself to investigating the capital requirements and management efficiency but did not investigate the credit management regulation and investment regulation.

Another study by Odera (2012) aimed to establish Corporate Governance Problems of Savings, Credit and Cooperative Societies. The researcher examined both the corporate governance theories and conflicts of governance associated with SACCOs. The problems that frequently occur in SACCOs due to some reasons like lack of clear and proper rules separating management from decision making, strict regulations and inadequate managerial competitiveness, failure of membership and boards to exercise fiduciary responsibility and the one member one vote system were investigated. The researcher limited himself to corporate governance and did not investigate staff competence and quality of board of directors which is the subject of the object of this study.

The relationship between credit risk regulation and firm financial performance in Kenya has also been studied. Nyamwange (2010) sought to establish the relationship between credit risk management practices and financial performance of SACCOs in Kenya. The sample size of the study was 41 SACCOs from where questionnaires were used to collect data. The findings of the study concluded that

SACCOs adopted credit risk management practices to counter credit risks they are exposed to. The study further concluded that there was a positive relationship between credit risk management practices and the financial performance of SACCOs measured by ROA.

Gwenyi *et al.* (2018) sought to establish the influence of liquidity risk on financial performance of deposit taking savings and credit co-operatives (DT-SACCOs) in Kenya. The study adopted a descriptive research design and census sampling technique. The target population for this study was 164 deposit taking Sacco societies licensed to undertake deposit-taking Sacco business in Kenya for the financial year ending 31st December 2016. The result indicated liquidity risk has a negative and significant influence on financial performance and the study recommended that DT-SACCOs should manage liquidity risk so as to improve performance.

Statement of the Problem

Globally, the financial performance of Savings and Credit Cooperative Societies (SACCOs) has been improving steadily as shown by the increase in membership which is approximated at one billion, with the turnover from the world's 300 top SACCOs amounting to \$2.5 trillion as at December 2020. In Africa, SACCOs have had a significant role in transforming the continent through financial support of businesses. Savings and Credit Cooperative Societies (SACCOs) play a fundamental role in Kenya's financial sector through assisting members save money and advance credit to interested members.

In recent years, Deposit Taking SACCOs have experienced significant growth in their branch networks, membership, and even expanded their services to include banking services such as FOSA. However, due to intense competition in the industry, there have been instances of violating capital requirements, liquidity concerns, and poor credit management, leading to reduced member confidence. These challenges, combined with existing issues in SACCOs, have prompted the Kenyan government to develop legislation to

supervise, monitor, regulate, and control SACCO operations. Consequently, the SACCO Societies Act 2008 was formulated to address these concerns.

According to previous SASRA reports, Deposit Taking SACCOs (DT-SACCOs) in Kenya have experienced remarkable growth in crucial performance indicators such as deposits, assets, loans, and savings (SASRA, 2015; SASRA, 2016; SASRA, 2017). This growth has been attributed to a regulatory framework that promotes the creation of financially stable and resilient DT-SACCOs with adequate capital to withstand external shocks during crises. However, some people believe that strict regulations place legal and operational restrictions on DT-SACCOs, limiting their activities and hindering their growth and performance. As Temple et al. (2005) point out, strict regulation could impact SACCO operations in various areas, such as the adoption of new technologies that negatively affect productivity and performance.

SASRA (2017) also notes that DT-SACCOs lack access to the open market for shares, a national payment system grid, mechanisms for raising capital for other activities, and a central liquidity facility like commercial banks have to turn to in times of liquidity challenges, among other limitations. These limitations have prompted some DT-SACCOs to convert to micro-finance or commercial banking entities, while others acquire controlling stakes in banking bodies to achieve what they cannot do in their legal capacities.

The growing number of DT-SACCOs having their licenses revoked or restricted by SASRA is a cause for concern. SASRA reports show that in the years 2015 to 2017, a total of eight licenses were revoked due to poor performance, with five SACCOs working on restricted permits in 2017 having also functioned on conditionally constrained authorizations in 2016. While SASRA argues that this highlights the perennial failure of these SACCOs to comply with regulatory requirements, it could also indicate the challenges faced by DT-SACCOs in Kenya in meeting these standards. Therefore, the purpose of this research is to examine the impact of the SASRA

Capital Adequacy requirement on the financial performance of DT-SACCOs in Kenya.

Empirical evidence demonstrates credible but inconsistent relationships between SASRA regulations and financial performance. Previous studies testing the effect of SASRA regulations on financial performance have focused on limited data. Therefore, this study sought to analyze the effect of SASRA Capital Adequacy requirement on financial performance of DT-SACCOs in Kenya.

Study objective

Evaluate the effect of SASRA capital adequacy requirement on financial performance of DT-SACCOs in Kenya.

Hypothesis

H₀₃: The SASRA investment requirement has no significant effect on financial performance of DT-SACCOs in Kenya.

LITERATURE REVIEW

Theoretical Literature Review;

Theory of Economic Regulation

The theory was proposed by Posner (1994). This theory posits that regulation is a response to the demands of interest groups who are competing to maximize the incomes of their members. Posner suggests that there are two assumptions that have shaped economic policy: one is that economic markets are generally fragile and require regulation, while the other is that government regulation is virtually costless. However, if this theory were true, we would expect to see regulation imposed mainly on highly concentrated industries (where the danger of monopolies is greatest) and in industries that produce significant external costs or benefits. However, this is not the case. The economic theory of regulation, which was proposed by George Stigler, argues that regulation is often driven by the interests of the regulated industry itself, rather than the public interest.

In 1971, Stigler proposed that the government, with its power to control and allocate resources, had the potential to benefit or harm different industries.

The theory of economic regulation integrates the analysis of political behavior with economic analysis, according to Peltzman (1976). Interest groups have the ability to influence the outcome of the regulatory process by providing support to politicians or regulators. Stigler argued that the theory of economic regulation must explain who will benefit or bear the costs of regulation, what form regulation will take, and how it will impact the allocation of resources.

Agency Theory

Jensen and Meckling (1976) introduced agency theory, which argues that in modern corporations with widely held share ownership, managerial actions may deviate from those that would maximize shareholder returns. They contend that managers may not act in the best interest of shareholders unless appropriate governance structures are put in place to protect their interests. According to agency theory, shareholders are the principals and managers are the agents, and there is an agency loss when returns to the residual claimants and owners fall below what they would be if the owners exercised direct control of the corporation.

Eisenhardt (1989) supported the agency theory and proposed mechanisms to minimize the agency loss. One of the ways to do so is to create incentive schemes for managers that align their financial interests with those of shareholders. These schemes may include plans where senior executives receive shares at a discounted price. Other ways to reduce agency loss involve direct involvement of principals such as incurring extra costs to monitor the actions of agents, including appointment of audit committees. Sometimes principals may also take adverse actions like threatening to fire the agent to ensure that they meet expectations.

Stakeholder Theory

Freeman (1984) developed the stakeholder theory, which differs from agency theory, in that it maintains that firms have relationships with numerous stakeholders. According to stakeholder

theory, a company's objective is to generate the highest possible value for its stakeholders. To be successful and sustainable, executives must ensure that the interests of customers, suppliers, employees, communities, and shareholders are aligned and moving in the same direction. Donaldson and Preston (1995) argue that stakeholder theory is focused on managerial decision-making, and it gives intrinsic value to the interests of all stakeholders, with no set of interests assumed to be dominant over the others.

SACCOs have to deal with the demands of multiple stakeholders, and sometimes it may be difficult to satisfy all of them. To ensure better performance, stakeholder management should aim to mitigate conflicts of interest among stakeholders. This theory is relevant to the study, as SACCOs need to maintain good relationships with their primary stakeholders to achieve higher returns. SACCOs often engage in social responsibility activities to build moral capital and protect their reputation during difficult times. Therefore, stakeholder management is an integral part of SACCO strategy, and it affects financial performance. SACCO managers should be careful in their decision-making process, taking into account the interests of all stakeholders. The theory suggests that all stakeholder interests are important and that no one set of interests should dominate others within the organization. This approach helps ensure that all stakeholders play their roles effectively in SACCO affairs.

Theory of Credit Management

This theory is premised on the notion that SACCO societies rely on lending and deposits for their operations, and therefore a sound Sacco society can be measured by the volume of its lending. Portfolio quality reflects the risk of loan delinquency and determines future revenues and institution's ability to increase outreach and serve existing clients. The value of a loan portfolio depends not only on the interest rates earned but, on the quality, and likelihood that the principal and interest was fully paid.

Conceptual Framework

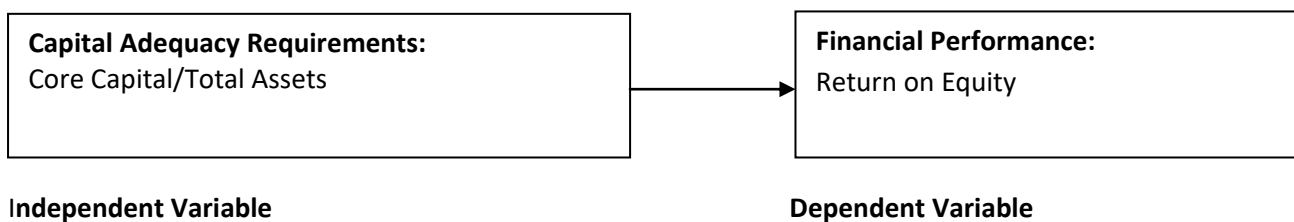


Figure 1: Conceptual Framework

METHODOLOGY

Research Design: There are numerous research designs available for a researcher to choose from when conducting a study. According to Gathii *et al.* (2019), a research design provides a way to combine different aspects of research into a cohesive and rational approach to achieving research objectives. Ader, Mellenbergh, and Hang (2018) define research design as a logical and meaningful method of observing the world. For this study, a correlational research design was utilized. A correlational research survey design, as defined by Kothari (2004), involves describing, recording, analyzing, and reporting existing conditions and how they relate to others

Target Population: According to Dawson (2019), a population is a group of people who bear the characteristics that can assist a researcher in making conclusion. Therefore, the study's target population comprised employees from two hospitals in Kiambu County, as detailed in Table 3.1. Specifically, the target population includes 113 employees from Gatundu level five hospital, and 137 employees from Thika level five hospital, making a total of 250 employees (Kiambu County Government, Ministry of Health, 2024).

Sample and Sampling Technique: A sample refers to a portion of the population that is considered sufficient to make generalizations about the population. Sampling is a method used to choose a sample from the entire population that accurately represents the entire population. Sampling methods are necessary to prevent bias during the selection process, and effective sampling can reduce the cost of obtaining samples (Creswell,

2013). Sampling design is a research plan that shows how cases are to be selected for either observation or as respondents. The Krejcie and Morgan Table (1970) was used to determine the sample size. According to the Table, for a population of 169, the sample size should be 118. Therefore, the sample of the study was 118 randomly selected DT-SACCOs.

Research Instrument: Cooper and Schindler (2011) define data collection instruments as the tools and procedures used in the measurement of variables in research. This study employed questionnaires as an instrument for capturing data that was used to analyze the study objectives. The questionnaire was developed based on research objectives and hypotheses. The researcher employed closed-ended questions using 1-5 Likert-type statements to collect data. The closed-ended questions would have a high response rate and uniformity of responses with ease in coding. It was used for capturing primary data. Questionnaires form an appropriate tool considering the target population, the nature of the data to be collected, and the research questions used in the study. According to Hair *et al.*, (2019), questionnaires provide space for private and less prejudiced responses.

Pilot Test: For this study, secondary data was gathered using content analysis of published financial statements of the DT-SACCOs. This was deemed to be an appropriate tool for quick and efficient data collection. Additionally, the use of secondary data was preferred because the reported information is deemed reliable since it is prepared using laid down International Financial Reporting Standards (IFRS). Moreover, according to Saunders,

Lewis, & Thornhill (2017), secondary data sources often provide historical data spanning long periods, enabling researchers to conduct trend analyses, longitudinal studies, and historical comparisons.

Data Analysis: The data collected was edited, coded, tabulated, and analyzed using descriptive and inferential statistics through STATA version 10. Descriptive measures such as percentages and weighted means were used to analyze the quantitative data. In order to address the research questions, inferential statistics such as Analysis of Variance (ANOVA), correlation, and regression analyses were conducted. The study's results were used to fit a regression model, which included specific variables in order to identify their significance and contribution to the model;

$$Y = \theta_0 + \theta_1 X_{ij} + \epsilon \dots$$

Where;

Y = Performance of the SACCO

X_{ij} = Capital Adequacy Requirement for DT-SACCO i during time j

θ_0 is the coefficient intercept

θ_1 ,

ϵ being the random error term.

FINDINGS AND DISCUSSION

Response Rate

The study focused on a total of 118 DT-SACCOs in Kenya from the period of January 2018 to December 2022. Complete data was obtained from 48 out of the 118 that were sampled. The rest of the DT-SACCOs' data was not available for at least one year. This represented 40.6 percent of the sample. The analysis of the data is presented in the subsections below starting from the descriptive statistics

Descriptive Statistics of the Variable in the Study;

Descriptive Statistics for Job Shadowing

Capital adequacy ratio (CAD) was measured by the ratio between core capital to total assets. The capital adequacy requirement refers to the minimum amount of capital that financial institutions must hold to ensure they have an

adequate buffer to absorb potential losses and meet their financial obligations. This requirement is typically set by SASRA to maintain the stability and soundness of the financial system. As it can be inferred from the study, the DT-SACCOs had a mean liquidity ratio of 0.431 indicating that, on average, the DT-SACCOs have core capital equal to 43.1% of their total assets. A capital adequacy requirement of 0.431 indicates that DT-SACCOs, as a group, have a reasonable level of core capital relative to their total assets. This suggests a certain level of financial stability and resilience against potential losses or economic downturns. The maximum figure for capital adequacy ratio was found to be 2.17 while the minimum was found to be 0.08.

Inferential statistics

Correlation Analysis

Pearson's correlation analysis was first used to investigate the relationship between the dependent and independent variables. The correlation coefficient, which ranges from -1 to +1 on a scale of -1 to +1, was used to assess the strength and direction of this link. A significant negative correlation coefficient shows that the variables are moving in the opposite direction and have a negative regression coefficient. A significant positive correlation coefficient, on the other hand, indicates that the variables move in lockstep and have a positive regression coefficient. When the correlation coefficient is zero, there is no link between the variables.

When the correlation coefficients are highly significant and virtually perfect (approaching +1), this indicates the presence of multicollinearity, in which the variables provide duplicate information. In such cases, it is recommended that one of the variables be excluded to reduce multicollinearity. A correlation coefficient of less than 0.8 suggests a less severe multicollinearity issue, which is frequently disregarded. However, abnormally high correlation values suggest a large degree of multicollinearity among the independent variables, prompting corrective steps (Gujarati, 2007). Table 4.7 displays the specific correlation results.

The study shows that the correlation between capital adequacy requirement and financial performance is -0.1485 which is significant ($p = 0.0398$). This implies that for every unit increase in capital adequacy requirement, there is a 0.1485 significant negative change in financial performance in the DT-SACCOs. In simpler terms, as the capital adequacy requirement increases, there is a significant negative impact on financial performance.

Analysis of linear regression;

Linear influence of Capital Adequacy Requirement on Financial performance

This tested the direct influence Capital adequacy requirement on financial performance. Regression analysis was used to determine the relationship between the independent or predictor variables and a dependent variable. The study indicated that capital adequacy requirement (CAD) has a negative significant effect on financial performance of DT-SACCOs in Kenya ($\beta = -0.146$, $p=0.015<.05$). This implies that holding other factors constant, and for every unit increase in capital adequacy requirement, there is a significant decrease in financial performance of the DT-SACCOs by 14.6 percent. The regression analysis underscores a critical relationship between capital adequacy requirement and financial performance within DT-SACCOs in Kenya. Specifically, it indicates that as the capital adequacy requirement increases, there is a notable and statistically significant decrease in the financial performance of these institutions.

The beta coefficient of -0.146 quantifies this relationship, suggesting that for every unit increase in the capital adequacy requirement, there is an associated decrease in financial performance by approximately 14.6 percent, holding all other factors constant. From a practical standpoint, these findings highlight the importance of carefully balancing regulatory requirements, such as capital adequacy, with the financial health and performance objectives of DT-SACCOs. While regulatory frameworks aim to ensure stability and resilience within financial institutions, excessively

stringent capital adequacy requirements could potentially hinder the ability of DT-SACCOs to achieve optimal financial performance (Waiganjo, Wanyoike, and Koitaba, 2015).

The regression equation would be as follows; **FP = 0.293 - 0.146 CAD**

Therefore, practitioners and decision-makers in these institutions need to carefully evaluate and manage the impact of regulatory compliance on their overall performance and strategic goals. The hypothesis set for the objective (H_01) that the SASRA capital adequacy requirement has no significant effect on financial performance of DT-SACCOs in Kenya was therefore rejected. Therefore, the linear equation was as shown below;

CONCLUSIONS AND RECOMMENDATIONS

Results based on the first objective which was to evaluate the effect of SASRA capital adequacy requirement on financial performance of DT-SACCOs in Kenya show that capital adequacy requirement (CAD) has a negative significant effect on financial performance of DT-SACCOs in Kenya ($\beta = -0.146$, $p=0.015<.05$). This implies that holding other factors constant, and for every unit increase in capital adequacy requirement, there is a significant decrease in financial performance of the DT-SACCOs by 14.6 percent. The hypothesis set for the objective (H_01) that the SASRA capital adequacy requirement has no significant effect on financial performance of DT-SACCOs in Kenya was therefore rejected. The results are inconsistent with those by Waiganjo, Wanyoike, and Koitaba (2015) who conducted research to examine the impact of SASRA regulations on the financial performance of SACCOs in Nairobi County, focusing on staff competence, quality of board of directors, and corporate governance. The study found that the quality of the board of directors was a crucial factor in enhancing the financial performance of SACCOs, as per the SASRA regulations, although it was relatively weaker compared to the other variables. The research also revealed that the competence of SACCO staff, as required by the SASRA regulations,

had a significant positive impact on their financial performance. Additionally, corporate governance had a significant influence on both SASRA regulations and the financial performance of the SACCOs, highlighting the importance of strengthening the operations of the SACCOs through improved corporate governance.

Results based on the first objective show that capital adequacy requirement (CAD) has a negative significant effect on financial performance of DT-SACCOs in Kenya ($\beta = -0.146, p=0.015<.05$). This implies that holding other factors constant, and for every unit increase in capital adequacy requirement, there is a significant decrease in financial performance of the DT-SACCOs by 14.6 percent.

Results based on the first objective show that capital adequacy requirement (CAD) has a negative significant effect on financial performance of DT-

SACCOs in Kenya. The negative significant effect suggests that higher levels of capital adequacy requirement may lead to a notable decrease in financial performance among DT-SACCOs in Kenya. This finding underscores the potential challenges faced by DT-SACCOs in managing regulatory compliance while striving to achieve optimal financial outcomes.

Areas for further studies

The study focused on DT-SACCOs using a panel of seven years. It is suggested that future studies incorporate DT-SACCOs in the region and use longer panels. Moreover, future studies should conduct a longitudinal study over an extended period to assess the long-term impact of SASRA regulatory framework changes on the financial performance of DT-SACCOs. This would provide insights into how regulatory interventions influence financial outcomes over time and identify trends or patterns in performance.

REFERENCES

- Ademba, C. (2018). *Challenges facing SACCO regulations in Africa*. In 11th SACCA Congress, Swaziland.
- Barus, J. J., Muturi, W., Kibati, P., & Koima, J. (2017). Effect of asset quality on the financial performance of savings and credit societies in Kenya. *American Journal of Finance, 1*(4), 13-25.
- Bowie, N. E., & Freeman, R. E. (1992). *Ethics and agency theory: An introduction*. New York: Oxford University Press.
- Campbell, J. P. (1977). *On the nature of organizational effectiveness*. *New Perspectives on Organizational Effectiveness, 13*, 55.
- Farhi, E., Golosov, M., & Tsyvinski, A. (2009). A theory of liquidity and regulation of financial intermediation. *The Review of Economic Studies, 76*(3), 973-992.
- Fowler Jr, F. J. (2013). *Survey research methods*. Sage publications.
- Gliem, J. A., & Gliem, R. R. (2003). *Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales*. Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education.
- Gweyi, M. O., Olweny, T., & Oloko, M. (2018). Effect of financial leverage on financial performance of deposit taking savings and credit co-operative in Kenya. *International Journal of Economics, Commerce and Management, 6*(1), 259- 283.
- Cohen, M. and Uphoff, W (1980). *Monitoring and Evaluating Stakeholder Participation in Agriculture and Rural Development Projects: A literature review* (online).
- Gay, L.R. (1992). *Educational Research: Competencies for Analysis and Application*. Oxford Press, London.

- Kilonzi, B. K. (2012). *The impact of SASRA regulations on the financial performance of SACCOs in Kenya*. Unpublished MBA Project, University of Nairobi.
- Kibanga, M. (2021). *A Commentary on the Co-operative Societies Act, 1997, No. 12/1997*, Pearl Marketing Co. Ltd, Nairobi, Kenya.
- Kioko, B. (2010). *The Impact of Sasra Regulations on the Financial Performance of Sacco's in Kenya*. Unpublished MBA Project, University of Nairobi.
- Kobia, S. K. (2011). *The Cooperative Movement in Kenya: Challenges and Opportunities*. Lukiko Consulting Trust, Nairobi, Kenya.
- Kothari, C.R. (2004). *Research Methodology: Methods and Techniques*. New Age International Publishers, 2nd Ed. New Delhi, India.
- Kiragu, S. M. (2014). Assessment of challenges facing insurance companies in building competitive advantage in Kenya: A survey of insurance firms. *International Journal of Social Sciences and Entrepreneurship*, 1(11), 467-490.
- Mbui, J. K. (2017). Business opportunities for Stima SACCO Society Limited in a new regulatory environment. Unpublished MBA Project, University of Nairobi.
- Mugenda, O.M. and Mugenda, A.G. (2003). *Research methods*. Lab Graphics, Nairobi Kenya. The SACCO societies' regulatory authority (2020). *SACCO supervision Annual Report, SASRA*.
- Muriuki, K. M., & Ragui, M. (2013). *Impact of the SACCO Societies Regulatory Authority(SASRA) legislation on corporate governance in Co-operatives in Kenya*. Public Policy and Administration Research, 3(6), 65-70
- Mutinda, C. M. (2016). *Impact of prudential regulatory framework on financial performance of deposit taking SACCOs in Kenya* (Doctoral dissertation, South Eastern Kenya University).
- Mwangi, Nyachwaya, & Cheruyoit. (2018). Effect of corporate governance practices on financial performance of Saccos in Kericho Municipality. *IOSR Journal of Economics and Finance (IOSR-JEF)*, 6(3), 57-75.
- Ngaira, L. K. (2011). *The impact of SACCO regulatory authority guidelines on SACCO operations in Kenya: The case of Nairobi deposit taking SACCOs*. Unpublished MBA project, university of Nairobi.
- Ngui, A. W., & Jagongo, A. (2017). Capital adequacy and financial performance of deposit taking savings and credit co-operative societies in Kenya. *International Journal of Social Science and Humanities Research*, 5(4), 596-604.
- Njunge, P. W. (2019). *Effects of credit policy on performance of saving and Credit-society in Kenya. A-survey of metropolitan teachers Society and Githunguri dairy farmers' society in Kiambu District* (Doctoral dissertation)
- Smith, D. J., Cargill, T. F., & Meyer, R. A. (1981). Credit unions: An economic theory of a credit union. *The Journal of Finance*, 36(2), 519-528.
- Spear, R. (2004). Governance in democratic member-based organisations. *Annals of Public and Cooperative Economics*, 75(1), 33-60.
- Temple, P., Blind, K., Jungmittag, A., Spencer, C., & Witt, R. (2005). *The empirical economics of standards*. DTI Economics Paper, No. 12, June 2005.

- Wachira, W. E. (2013). *Effect of the financial regulations on the profitability of SACCOS: a case study of SACCOS in Nyeri town* (Doctoral dissertation).
- Wanyoike, S. W. (2013). *Effect of compliance to SASRA regulations on financial performance of savings and credit co-operatives in Kenya: a survey of deposit taking SACCOS in Nairobi County* (Doctoral dissertation, Kabarak University).
- Wamburu, G. A. (2011). *An investigation into the factors affecting marketing of SACCO Products: A case of Thika Town in Kenya*. Kampala: Makerere University.
- Wanyoike, S. W. (2013). *Effect of compliance to SASRA regulations on financial performance of savings and credit co-operatives in Kenya: a survey of deposit taking SACCOS in Nairobi County*. Nairobi: Kabarak University.
- Waswa, C. M. (2013). *Effect of regulatory controls on interest rates of deposit taking savings and credit co-operative societies in Nairobi County*. Nairobi: University of Nairobi.
- Zerfeshewa, B. (2010). *Determinants of Saving and Credit Cooperatives (SACCOS) Operational Performance in Gondar town, Ethiopia* (Doctoral dissertation, Mekelle University).