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Abstract

Purpose: To investigate the effect of asset quality on the financial performance of Deposit Taking Savings and Credit Co-operatives in Kenya.

Materials and Methods: The study considered a target population of 176 DT SACCOs operating in Kenya between 2018 and 2022. The study adopted the inclusion-exclusion criteria to come up with a sample that consisted of 159 DT SACCOs. Secondary quantitative data were collected from the financial reports using data extraction tools. The study inclined towards positivism philosophy and adopted explanatory research design. Data were analyzed using Stata, where both descriptive statistics and inferential analysis were conducted. Diagnostic tests carried out included the test of normality, heteroskedasticity, multicollinearity, autocorrelation, stationarity and the Hausman test. Analyses were conducted at 95% confidence interval.

Findings: Descriptive statistics showed a high negative correlation coefficient (-89.21%) between asset quality and financial performance of DT SACCOs in Kenya. Inferential analysis showed that asset quality had a negative significant effect on the financial performance of DT SACCOs in Kenya. This implied that an increase in asset quality would result in a decrease in financial performance, holding all other predictors at constant.

Implication to Theory, Practice and Policy: The study supported the asymmetric information theory because inadequate credit information from borrowers results in higher non-performing loans (NPLs). DT SACCOs should maintain an updated database of their member's credit information. Subsequently, members credit score history from credit reference bureau (CRBs) should be availed and analyzed when giving loans to borrowers. This will ensure that there is adequate information at hand to assess members credit history and avoid asymmetric information. On the other hand, DT SACCOs should develop effective credit administration strategies in order to reduce the non-performing loans (NPLs). These include effective credit policies that aim at improving on their asset quality. Besides, the regulator should regularize on credit information sharing amongst the DT SACCOs and other financial institutions. DT SACCOs should be compelled to share both positive and credit negative credit information of their members to the Credit Reference Bureaus. Besides, the government should legislate on mechanisms to enforce employers who we reluctant to remit SACCO deductions in time.

Keywords: *Asset Quality (G210), Financial Performance (M410), DT Savings, Credit Cooperative Societies (G210), Return Assets (M410), Non-Performing Loans (G210)*

1.0 INTRODUCTION

DT SACCOs play a significant role in the economic development of Kenya through financial inclusion by serving household economies in the lower echelons of the economic pyramid. In 2022, the DT-SACCOs segment's total asset to the national GDP was 5.71%, which indicates the significance of the DT-SACCOs segment in the stimulation of the country's economic growth. Thus, the DT-SACCOs' intermediation role to the less financially empowered people who may not qualify for loans from commercial banks make their contribution to the country economic development indispensable (Marwa & Aziakpono, 2015).

Financial Stability

Financial institutions achieve financial stability by observing the required prudential requirements set by regulators. Central banks and national governments departments formulate prudential regulations and policies that regulate the financial stability of financial institutions (Ciha'ki, Mare, & Malecky, 2016; White, 2014). Regulators ensure that the financial institutions' intermediation processes are efficient and that the operations are smoothened by a multitude of financial infrastructure (Hagendorff & Nieto, 2013). Financially stability in financial institutions is also attained by allocating capital functions from savings to investment activities that enable them to sustain payments in the long run (Gulaliyev, Ashurbayli-Huseynova *et al*., 2019). Thus, financially stable financial institutions are capable of offering more financial products and services which significantly contribute to the advancement of financial inclusion (Musau, Muathe, & Mwangi, 2018). As a result, stable financial institutions build and maintain confidence in the financial system by withstanding the threats of financial shocks and contagions (Raouf & Ahmed, 2020).

Asset Quality

The loan component forms the largest proportion of the total assets in DT SACCOs, making loans the largest source of their revenue (Tsuma & Gichinga, 2016). In DT SACCOs, asset quality is reflected by the level of NPLs. Subsequently, the NPLs form the riskiest category of items in the DT SACCOs' balance sheets. This makes the NPLs to be classified as unwanted by-product because they cause "financial pollution" in the performing loans. NPLs negatively affect the SACCO profitability, expose them to liquidity risk and subsequently trigger financial instability and fragility (Koskei, 2020). Gitonga (2014) asserts that increase of NPLs creates a negative effect on both asset quality and profitability due to increasement in loan loss provisions and related loans recovery costs. Mande *et al*., (2020) found that NPLs results in financial instability that limits the income growth, while Abata (2014) asserted that the deterioration in asset quality in financial institutions adversely affects their financial performance. On the other hand, Zeng (2012) claimed that NPLs result in the adverse effect on asset quality. Additionally, Kimutai *et al*., (2019) found that the increase in NPLs reduces efficiency of DT SACCOs. Financial performance should therefore be monitored consistently in order to timely identify the existing problems in time and to solve them effectively (Gasbarro, Lewis & Dhar (2013).

Financial Performance

Financial performance is a financial measurement tool and a reference for every stakeholder (Umukoro *et al*., 2020). It reflects the achievements made by an organization in an operational period, comparing it to the predetermined targets, standards and criteria (Afrizal, 2018). Financial performance indicates the effectiveness in the exploitation of organizational functional business

assets in the production of returns (Rozarri & Rahman, 2013). Makkar and Singh (2013) state that financial performance is an indicator of whether a firm is achieving its ultimate goal of maximizing its shareholders' wealth or not. Organizations should therefore engage in ethical activities that generate sufficient revenue to support its longevity (Umukoro, *et al*., 2020). ROA and ROE are the best measures of financial performance in relation to financial institutions. However, ROE exhibits several shortcomings, being manipulatable by the management through financing decisions, thereby concealing problems related to financial performance (Huang, Teoh, & Zhang, 2014. This conceals the deteriorating performance of business principles (Aliabadi, Dorestani, & Balsara, 2013).

Hagel *et al*., (2013) stated the that ROA's prolonged path is the best financial performance yardstick. According to Hagel *et al*., (2013), ROA is a perfect financial performance measure that is most effective and broadly available and apprehends the foundations of business performance in a comprehensive way. ROA is a seasoned measure and a central metric for evaluating financial performance (Hilal & Hilal, 2017). ROA analyses the income that is generated by the assets that are involved in the running an organization (Hertina *et al*., 2021). Hassan and Bashir, (2003) state that ROA is a reflection of management's ability in the utilization of resources to produce higher profits. ROA therefore reflects the management's efficiency in terms resource transformation in the generation of income (Khrawish, 2011). While Wen (2010) stated that high ROA is an indication of more effectiveness in the utilization of resources, Hermuningsih *et al*., (2020) supported claim by stating that a relatively high ROA indicates how well available assets are being utilized at a faster rate in the generation of profits. Thus, understanding the ROA trajectory provides a foundation of the long-term perspective that helps an entity shape its winning strategies. Almehdawe *et al*., (2020) indicates that most financial literature have in general adopted ROA in the measurement of financial performance. These include Rozzari & Rahman (2013); Olusegun, Akingunola, & Oluseyi (2013); Pokharel *et al*., (2019) and Teimet *et al*., (2021). The current study therefore adopted ROA as the measure of financial performance.

Problem Statement

Despite the prudential regulations guiding the DT SACCOs, several SACCOs had their licenses revoked, while others had their licenses renewed conditionally. In 2022, Metropolitan SACCO underwent liquidity problems after experiencing huge losses. In 2018, Moi University SACCO license was revoked and it was placed under liquidation in 2019 for failing to meet the statutory financial and liquidity ratios as set out by the regulator. Between 2015 and 2021, Mwalimu SACCO, Stima Investment SACCO, and Ekeza SACCO were mentioned by SASRA and department of Co-operatives as among the SACCOs whose members had lost in excess of Kshs3.6 billion (SASRA Report, 2020). Besides, the DT SACCO segment has experienced an increase in the NPLs to gross loans ratio. The ratios were 6.14 percent in 2017, 6.3 percent in 2018, 6.15 percent in 2019, 8.39 percent in 2020 and 8.86 percent in 2021 (SASRA Report, 2022). Table 1 below shows that financial performance (ROA) had an erratic and inconsistent trend, implying that the DT SACCO segment is not continuously and maximally utilizing its resources in the generation of revenue or, they are not minimizing their costs. Unstable ROA trajectory is an indicator of poor utilization of assets, over-investment in assets that have failed to produce revenue matching the growth of assets or inefficiency in controlling costs.

Table 1: Financial Performance of DT SACCOs

Year	2017	2018	2019	2020	2021	2022
Total Income (Billion)	63.04	64.64	79.88	86.04	95.90	106.50
Net Income after tax (Kshs.Billions)	11.23	11.27	13.68	15.68	10.51	18.12
Total assets (Kshs. Billions)	442.28	495.25	556.71	627.69	691.09	763.50
NPLs to Gross Loans %	6.14	6.30	6.15	8.39	8.86	8.40
ROA (%)	2.69	2.40	2.60	2.65	1.59	2.61
NPLs (Kshs. Billions)	21.00	23.57	25.79	39.86	46.27	49.24

Source: SASRA Reports (2017 – 2022)

The total expenditure that comprises of interest expense paid on members' deposits took the largest portion from the total income. The interest expense paid on members' deposits accounted for 38.15 percent in 2021 and 38.70 percent in 2022 of the total income. On the other hand, the operating expenses represented 33.58 percent of the total income in 2021 and 34.53 in 2022 of the total income, making it the second highest expense from the total expenditure. The provision for loan loss DT SACCO segment increased from Ksh25.79billion in 2019 to Ksh28.97 billion in 2020, Ksh33.65 billion in 2021 and Ksh36.73 billion in 2022. On the other hand, NPLs has been on the increase, moving from Ksh25.79billion in 2019 to Ksh39.86 billion in 2020 to Ksh46.27 billion in 2021 and to Ksh49.24 billion in 2022. This shows that both interests on deposits as well as NPLs have been on the increase implying that, the same members who have continuously defaulted in loans payment are ultimately rewarded with high interest payment on their deposits.

SASRA reports showed that several DT SACCOs licenses were revoked or renewed conditionally. Four licenses were revoked in 2021, three in 2019 and two in 2018. These revocations and conditional renewal emanated from non-compliance to the prudential regulations Again, many studies have been restricted to specific geographical areas and in particular, to specific counties, rather than the entire country. These include Onyango (2018); Opala (2014); Mutunga and Gatauwa (2021); Lekaaso, Cherono and Rintari, (2020); Kariuki (2016); Achieng (2017). The findings from previous studies have also shown inconsistency, some showing positive and significant effect of asset quality on financial performance while other studies showing positive and insignificant effect, some no significance effect while others indicated no direction in the relationship. Barus *et al*., (2017) found the existence of a positive and significant relationship between asset quality and financial performance of DT SACCOs in Kenya. On the other hand, Esokomi and Mutua (2018) found that asset quality has a negative and significant affect the financial performance of SACCOs. Besides, Onyango (2018) showed that the level of capital adequacy maintained by DT SACCOs affected their financial performance in a negative way. Besides, there exists limited empirical literature explaining the relationship between asset quality and financial performance.

These problems have had an impact on the stakeholders namely the SACCO members and the financial sector because they affect the financial performance of the SACCOs. The problems also expose members to poor liquidity that emanate from the return of their investment, which may create the notion that DT SACCOs are not a better option for investment. This may have a negative impact on the growth of the SACCO sector and the development of the co-operative movement in the long run. Subsequently, it may affect the broader financial sector with contraction of money

supply and may not only cause decline in spending and investing, but also the country's GDP. The Kenya Vision 2030 that recognizes SACCOs as key players and major participants in the financial deepening of the household economy in the realization of the global millennium goals and focuses on converting the country into a middle level industrialized economy may greatly be hampered.

Theoretical Framework

Information Asymmetry Theory

The theory was developed by Joseph Stiglitz (1961), George Akerlof (1970) and Michael Spence (1973). The concept of asymmetric information centers on unequal information between two parties in a transaction. Information asymmetry results in poor credit performance by the borrower due to inefficiencies caused by the lender's poor decision made on the basis of the uninformed decision. Information asymmetry results in either adverse selection or moral hazard problem. Adverse selection arises when a financial institution makes an incorrect lending decision with regard to the quality and management of a small firm which makes a loan risky (Stiglitz & Weiss, 1981). Moral hazard arises when the management of a firm fails to perform to its full capability since lender cannot effectively monitor projects undertaken by small firms, which results in a shortfall in finance provision (Bester (1987). When a lender cannot identify the borrowers with the riskier investment projects, he may decide to cut down the number of loans he makes, which subsequently causes the supply of loans to decrease rather than increase, thereby resulting in higher interest rate (Stiglitz and Weiss, 1981). Information asymmetry can also result in credit rationing where some borrowers are arbitrarily denied loans. This occurs because higher interest rates lead to even greater adverse selection. The borrowers with the riskiest investment projects will now be the likeliest to want to take out loans at the higher interest rate. This implies that good borrowers (low risk borrowers) pay high interest rates than they should pay, while bad borrowers (high risk borrowers) pay less interest rates than they should. This drives away good borrowers and the banking sector is left with bad borrowers' "lemons" (Akerlof, 1970). When members fail to disclose their correct credit information when taking loans, SACCOs end up giving the loan to risky borrowers.

In Kenya, information asymmetry may affect the DT SACCO segment due to the allocation of loans to high-risk members. This may lead to the deterioration in asset quality thereby adversely affecting the loan performance. If SACCOs do not measure their borrowers' characteristics and activities, they may give loans to borrowers of uncertain creditworthiness and riskiness. This will result in high probability of loan default and hence high NPLs and thus poor asset quality. On the other hand, SACCOs may incur additional transactional fees to screen safe loan applicants to decrease information asymmetry. However, this may consequently increase related costs and fees payable by the borrowers, with an opposite effect on the SACCOs' financial performance.

Empirical Review

Asset Quality and Financial Performance

Anyike and Nwosi, (2015) investigated on the effect of asset quality on profitability of the quoted commercial banks in Nigeria. The researchers sampled 15 quoted commercial banks between 1980-2013 using CAMEL criteria. Secondary, time series data were collected. Return on investment (ROI) was used to measure financial performance. The study found that a significant negative relationship existed between asset quality and profitability. A period gap existed since

the time covered was very wide, spreading into 33 years. This meant that the problem which the researcher intended to address could have already been addressed by other researchers or could been overtaken by time. A contextual gap existed since the research focused on the listed commercial banks which are quite distinct from the DT SACCOs in Kenya. Time series data is limited in deriving a precise and accurate model to describe the data, giving rise to generalization of the findings. Again, the multiple regressions used in the study presents a weakness of producing incorrect standard errors due to an inefficient model.

Barus *et al*., (2017) investigated on the influence of asset quality on the financial performance of DT SACCOs in Kenya between 2011 and 2015. The study collected both primary and secondary data from eighty-three DT SACCOs. The researchers exploited the explanatory research design to carry out the study and a census study was conducted. Results showed that there was a positive and significant relationship between financial performance and asset quality. Several gaps were however identified from the study. First, the study considered an incorrect target population since by 2012, there were 131 DT SACCOs registered by the regulator, while by 2015, they were 177 registered DT SACCOs. This implies that the study left out a high number of SACCOs that were licensed and operational. This implies that the study collected incorrect data hence the findings were unreliable. Second, primary data (non-financial data) were collected from customers' opinion. Such data presents a challenge in terms of accuracy and objectivity during data analysis and interpretation. The study should have been guided by positivism philosophy.

Kadioglu *et al*., (2017) undertook a study on the effect of asset quality on the profitability of the banking sector in Turkey between 2005 and 2016. A sample of 55 banks was used and panel regression method was applied in analysis. Both ROA and ROE were used in the measure of profitability, while NPLs was used to measure the asset quality. Results from analysis revealed that the two variables displayed a negative and significant relationship. However, the results were contradicting several studies. These include Barus *et al*., (2017) and Anyike and Nwosi, (2015). The study used ROE as one of the measures of profitability. However, ROE exhibit several shortcomings since it can be manipulated to reflect the availed managerial incentives (Huang *et al*., 2014b). ROE can also conceal numerous problems as management may fall back to irregular financial strategies to show a healthy ROE for in the short run, concealing the deteriorating performance of the business principles (Aliabadi *et al*., 2013; Almehdawe *et al*., 2020).

From the above analysis, several research gaps have been identified. First, irrelevant theories that did not support the studies were adopted. Apart from providing logical explanation, theories are aimed at guiding research hypotheses and assist in the interpretation and analysis of data to clarify the findings. Second, the studies collected primary data which has the disadvantage of being invasive, disruptive, and is time consuming. Besides, primary data may not be representative of the entire population, due to restriction in access to all the relevant information. Finally, there is scarcity of empirical evidence which encourages future researchers to carry out more studies on this topic for future reference. The study was guided by the following null hypotheses that asset quality has no significant effect on financial performance of deposit taking savings and credit cooperative societies in Kenya.

2.0 MATERIAL AND METHODS

The study inclined towards positivism philosophy and adopted explanatory research design. Positivism philosophy allowed for predictions to be made while dealing with observable and independent entities that exist externally in social reality (Saunders *et al*. 2009). Quantitative secondary data were collected and analyzed using statistical methods. Descriptive statistics and inferential analysis were conducted using STATA to produce factual knowledge that was then developed and generalized in a form of law (Saunders *et al*., 2009). The researcher was an objective analyst who remained quite neutral and independent and distanced himself from personal values throughout the study. Explanatory research design was adopted as the researcher aimed at comprehending the phenomena previously studied by exploring new findings. The research design allowed the researcher to replicate previous studies and give them greater depth and gain new insights into the phenomenon. It will also help in conceptualization of how the phenomenon conducted itself by recognizing the significant variables that activated a difference (Sekaran & Bougie, 2011).

3.0 FINDINGS

The correlation coefficient between asset quality and financial performance was -0.8921 (or -89.21%), with a corresponding p-value of 0.0000. This implied that asset quality had a high negative correlation with financial performance. The beta coefficient that related to asset quality was – 0.086802 with a corresponding p-value of 0.0000, which implied that asset quality has a significant effect on financial performance of DT SACCOs in Kenya. This implies that on average, a unit increase in asset quality would result in approximately 8.6802% decrease in financial performance, holding all other predictors fixed. The study therefore rejected the null hypothesis that asset quality has no significant effect on the financial performance of DT SACCOs in Kenya and concluded that, asset quality has a significant effect on the financial performance of DT SACCOs in Kenya. The result implied that, an increase in asset quality reduces financial performance.

4.0 CONCLUSION AND RECOMMENDATIONS

The study concluded that asset quality had a negative significant effect on the financial performance of DT SACCOs in Kenya. The accumulation of NPLs normally push DT SACCOs to incur extra costs in collection of loan arrears while at the same time provisioning for higher loan loss. The study contributed to theory since asset quality was found to be a significant variable that affects the financial performance of DT SACCOs in Kenya. The study contributes to theory in that asset quality is determined by the level of non-performing loans (NPLs) that is related to asymmetric information. The existence of NPLs in the DT SACCOs in Kenya reflects the existence of information asymmetry and therefore the study advances the asymmetric information theory. Thus, special attention should be paid to asymmetric information to improve on the loan performance so as to minimize the NPLs. This will subsequently improve on the level of the profitability of the SACCOs and the financial performance.

The study contributed to practice and recommended the development of vibrant credit policies to minimize the non-performing loans. DT SACCOs should also maintain updated databases of their members to avoid misleading credit information that will result in asymmetric information. Again,

all loans should be fully secured through a collateral, guarantors or member deposit. DT SACCOs should start incorporating business intelligence in their activities to create dynamic transaction monitoring, expedite verifications and provide more sophisticated evaluations. Business intelligence will make procedures to become more efficient with better lending decisions being made. Besides, there will be a turnaround in loan collection which is labor-intensive and time-consuming thereby ensuring that loan collection becomes far more effective, with real-time analytics monitoring recoveries, response times, and client feedback by examining historical data.

The study contributed to policy and suggested that the government should legislate the sharing of members' credit information amongst the DT SACCO segment and also amongst other financial institutions through the CRBs. Currently DT SACCOs are restricted from furnishing members' negative information before notifying their members of such intention to submit negative information at least 30 days before submitting the negative information, but a member can object to certain aspects of the information. This practice will contribute in the elimination of serial defaulters from accessing loans from DT SACCOs thereby reducing the NPLs. The government should also legislate policy to enforce employers to remit deductions from SACCO members of respective SACCOs in time. The study observed that several employers were holding huge amounts of deductions from their employees who were SACCO members that was meant for savings and loan repayment. In summary, the level of asset quality in DT SACCOs in Kenya will determine the financial performance of the entire SACCO sector, which will subsequently affect the financial sector and hence the economic development of the country.

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