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Abstract

The study sought to examine the effect of capital adequacy, asset quality, management efficiency, earnings ability, liquidity and financial performance of Deposit Taking Savings and Credit Cooperative Societies in Kenya. The study originates from the Doctoral dissertation of the first author in which the co-authors served as supervisors. Descriptive and panel regression analysis were applied based on secondary data obtained for the period 2013 to 2022. The study established that capital adequacy has insignificant effect on financial performance of deposit taking SACCOs in Kenya. It was established that asset quality has significant effect on financial performance of deposit taking SACCOs in Kenya. It was established that management efficiency has insignificant effect on financial performance of deposit taking SACCOs in Kenya. It was established that earnings ability has significant effect on financial performance of deposit taking SACCOs in Kenya. The study established that liquidity has insignificant effect on financial performance of deposit taking SACCOs in Kenya. Effective credit risk system should be put in place to ensure proper identification, assessment, monitoring as well as control of credit risks. The study recommends that the managers of SACCOs should strive towards increasing the business net worth while ensuring competitiveness in the business environment. This can be achieved through continuous product innovation alongside having leverage on emerging technology. Additional studies can be done specifically on the effect of capital adequacy, management efficiency and liquidity on financial performance of deposit taking SACCOs in Kenya. This is in view of their insignificant predictive effect on financial performance. As such, additional researches on these variables can be based on different methodological approaches.

Keywords: *Capital Adequacy, Asset Quality, Management Efficiency, Earnings Ability, Liquidity and Financial Performance*

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1.0 Introduction

Globally, Canada, United States of America, Australia and Ireland have the most developed Savings and Credit Co-operatives movements (ICA, 2016). The industry has over 1 billion members and a workforce of over 250 million people employed. Turnover for the 300 largest SACCOs in the world grew by 11.6% in 2017 to reach 2.2 trillion US Dollars. Cooperatives contribute to the sustainable economic growth and stable quality employment, providing jobs or work opportunities to 280 million people across the globe; representing 10 percent of the world's employed population (World Cooperative Monitor, 2020).

The cooperative model is widespread around the world, and many countries account for companies that operate as cooperatives. However, there are regions in which the presence of cooperative companies is more embedded within the cultural and historical settings of their society. According to WOCCU (2021), international credit union membership increased by 29 percent year-on-year in 2020, to over 375 million. Moreover, a total of 375,160,065 credit union members were reported to come from 118 countries. Europe is said to account for hundreds of thousands of cooperative companies. The prominence of this type of organization in Europe is largely due to the tradition in those countries. In Italy, England, Germany, France, and Spain, a relevant part of the economy is represented by cooperatives (Quintana, 2016). In Canada, credit unions are organizations that are regulated as non-profit making institutions. However, their mandate of earning a reasonable profit is viewed only as a means to enhance their services to members to ensure stability. This similar view holds for Kenya (Hesborn, Onditi & Nyagol, 2016).

Barus, Muturi, Kibati and Koima (2017) avers that SACCO membership on continent of Africa is 16 million which are 8 percent of world SACCO membership and boasts of 62 percent of global savings and 65 percent of loans. This places the continent in third position after Asia and North America, which have a membership of 36 million and 102 million respectively. In 2018, SACCOs in Africa had a penetration rate of 13.80 percent; mobilizing $9,595,813,824 in savings and shares, $8,132,652,469 as loans, $1,059,830,173 in reserves, and $10,779,858,693 as assets. The region's savings level and loans represent 0.4 percent of the worldwide savings and loans respectively (WOCCU, 2019). As of 2019, there were around 39,600 credit unions in Africa serving 35,783,426 members in the region, with the well-established ones situated in 28 countries (WOCCU, 2020).

In Nigeria, the rate of over-all loan default rate stood at 15% while in Malawi the annual growth in loan default rate for commercial SACCOs was projected to reach 7.9 per cent in 2016 (UN/DESA, 2017). Duguma and Han (2020) averred that while some credit information system had been introduced in the financial sector in African countries as a strategy to mitigate the impact of the rate of loan default in deposit taking SACCOs, its effective administration and timely implementation needed to be emphasized. Further, Zimbabwean SACCOs have been observed not to have much in terms of collateral compared to other potential borrowers such as land developers in the private sector. This leads to heterogeneity in default probabilities and consequently in the interest rates among borrowers who have idiosyncrasies in terms of productivity and wealth (Duguma & Han, 2020).

In Tanzania, SACCOs are identified as capable of promoting expansion and availability of Micro-finance services in rural areas. According to the Bank of Tanzania (BOT, 2020) Sacco's loan portfolio went up by 11.5 per cent in 2019. The total loans issued by SACCOs in Tanzania

rose from TSh.833.89 billion in the fourth quarter of 2020 to TSh.927.66 billion in the fourth quarter of 2021 thus, indicating a rise in credit to finance various economic activities. Nonetheless, Hesborn, Onditi and Nyagol (2016) observed that many SACCOs do not have the necessary skilled staff to maintain good records in bookkeeping, accounting, cash management and credit operations. For this reason, many SACCOs have poor record keeping and could not provide proper accounting records or show audited accounts.

Kule, Kamukama and Kijjambu (2020) indicated that SACCOs in Uganda need to put in place effective credit managements systems to improve their financial performances. This could be achieved by providing favorable credit conditions and terms, as well as implementing sufficient client assessment procedure. Further, the government could give support to SACCOs by providing staff training on credit terms, conditions-formulation, and competencies in client appraisal. Wanyonyi, Kamau and Sasaka (2019) noted that SACCOs in Uganda have often been lending out of savings and share capital, leading to liquidity issues because members are largely net borrowers who want to reduce the interest rate charged on their loans. This results in members' poor savings culture and low capital to run the SACCO operations. This is associated with the fact that demand for loans in SACCOs is greater than savings contribution.

Statistics from the Alliance for Financial Inclusion indicated that Rwanda's Umurenge SACCOs attracted more than 1.6 million people in just 3 years, reflecting an increase from 21% to 52% of people who were previously bankable and financially included. This change was stimulated by the government, which launched the National Savings and Mobilization Strategy aimed at creating SACCOs to service previously unbanked people at low transaction costs. Six main keys were identified under the national strategy, including low minimum balance, security, public education and capacity building, tailored products which would satisfy the needs of clients, liquidity, and government support. These efforts were complemented by the support of the National Bank of Rwanda (NBR) under the Alliance for Financial Inclusion (AFI) Maya Declaration. The bank adopted a model which started with subsidies and SACCOs that broke-even, which would then be excluded from the program. As of December 2013, 85% representing 355 of Sacco's break-even compared to 73% (or 304 institutions) in December 2012 (National Bank of Rwanda: NBR, 2013).

SACCO membership in Kenya may be individuals, or primary, secondary, or tertiary cooperative societies; some of which are DT-SACCOs, non-DT-SACCOs, land/housing cooperatives and investment cooperatives (SASRA, 2019). Ademba (2013) pointed out that by the end of 2012 the assets of Kenyan SACCOs was approximately 3 million strong and valued at Kshs 293 billion. At the time, total deposits were Kshs 213 billion, while member loans totaled Kshs 221 billion. This works out to loans to total assets ratio of 0.75 or 75 percent of total assets, which implies that loanable funds could be increased by enhancing the total assets.

1.1 Statement of the Problem

In Kenya deposit taking SACCOs constitutes a critical part of the Savings and Credit Cooperatives (SACCOs). In SACCO sector, deposit taking societies (FOSAs) hold over 78% of all deposits and assets. (Kenya Deposit Insurance Corporation, CBK, 2012 – Joint annual report, pp. 41). Deposit taking (DT) SACCOs are therefore central actors in the industry, having deeper and wide-ranging outreach than any other type of financial society in the country. They play important roles in financial intermediation and wealth creation (Kinyua, 2013) and in economic

development. They are visualized to achieve a 10 percent annual economic expansion target in the Vision 2030 blueprint (GOK, Vision 2030).

However, the sector faces a number of challenges including financial distress which has threatened sustainability of SACCOs such that they have not been able to absorb their operational losses (Kivuvo & Olweny, 2014). Consequently, the losses get absorbed by members' savings and share capital, which leads to their impairment. If the myriad challenges are left unchecked it can lead to failure of the sector, with crippling consequences on the economy. In view of this, it is important that the sector is kept under watch to ensure such occurrence is detected early and dealt with immediately.

Kiaritha (2015) reported high rates of failure, at 51 percent of SACCOs in Kenya. Some of the DT-SACCOs are unable to comply with strict adherence to the prescribed standards in order to maintain minimum licensing requests. It is reported that five (5) licensed deposit taking SACCOs in 2015 had their operating licenses revoked and five (5) others received instructions to continue operating conditionally (SASRA, 2015). Additionally, 12 deposit taking SACCOs in 2017, 13 in 2018, 12 in 2019, and 13 in 2020 (SASRA, 2021) received instructions to continue operating conditionally while four (4) licenses were revoked in 2021 (SASRA, 2022) for failure to maintain the minimum required standards. Probably, this stems from their ongoing disregard for non-conformity issues that jeopardize members' interest earned on deposits and viability of deposit taking businesses financially.

Since SASRA has embraced CAEL model to monitor and report on stability, soundness, safety and general performances of SACCO's in Kenya (SASRA, SACCO Supervision Report, 2018), it is prudent to consider using these specific parameters to establish their effects on financial performances of SACCOs. The current study investigated the roles and extent played by CAMEL variables on the financial performances of DT-SACCOs in Kenya over a period 2013 to 2022. Their influence and contribution to financial performance of DT-SACCOs may be used by management and regulator to provide an early warning for corrective measures to avoid collapse of SACCOs.

1.2 Objectives of the Study

The specific objectives of the study were to:

i. Examine the influence of capital adequacy on the financial performance of deposit taking SACCOs in Kenya.
ii. Determine the influence of asset's quality on the financial performance of deposit taking SACCOs in Kenya.
iii. Investigate the influence of management efficiency on the financial performance of deposit taking SACCOs in Kenya.
iv. Assess the influence of earnings ability on the financial performance of deposit taking SACCOs in Kenya.
v. Determine the influence of liquidity on the financial performance of deposit taking SACCOs in Kenya.

2.1 Theoretical Literature Review

Capital buffer theory was propounded by Calem and Rob (1996). The theory asserts that financial institutions with a regulated minimum capital have the potential of reducing risks and increasing capital. The theory further postulates that financial institutions should hold extra capital above the recommended amount. The principle behind the creation of extra capital above the recommended amount is usually designed to lessen the possibility of the financial institutions falling less than authorized capital requirements, especially if capital adequacy ratio fluctuates a lot. When the financial institutions have more capital, they are also likely to absorb adverse economic shocks, hence lessening the probability of challenges in the financial institutions. Under the capital buffer theory banks aim at holding more capital than recommended by the regulators to enable the banks to expand their lending activities during economic growth periods and contracting their lending activities when the economy slows down. The banks would either raise more capital or cut back on lending when they get into trouble thus making the likelihood of obtaining finances more expensive or unavailable.

Efficiency structure theory was developed by Demesetz in 1973. The efficiency structure hypothesis holds the view that when a bank operates efficiently it gains competitive advantage due to the cost reduction in operations and effectively influencing the pricing of its services (Barus, 2018). This implies that the differences in the operational costs between competitors can end up creating different market shares for different competitors. As a result, one firm may exert market dominance over others. Scale and X-efficiency are two pillars of efficiency structure theory (Mutunga & Gatauwa, 2021). X-efficiency is predicated on idea that banks (and other financial institutions, such as SACCOs) with superior management and practices can achieve cost containment and revenue growth, leading to optimal practices and a lower bound on cost curve (Ang & Longstaff, 2013). The idea behind scale efficiency is that certain banking institutions can operate at a sound scale, which results in lower costs. Decreased expenses result in increased profitability, which in turn accelerates growth rate of large, effective banks.

Agency theory was brought forth by Jensen and Meckling (1976). The theory explains and helps in resolving issues between an institution's management and the owners or shareholders. Agents represent the principals' particular business transactions and constitute the contracted management team in an organization. The performance of the agents, who are always expected to represent their bosses and required to work in the interests of the owners without self-interest, is suggested to benefit both the agents and the principals. Rose and Hudgins (2013) defined agency theory as an explanation of the risk-taking behavior of individuals and institutions that focuses on the parties to a principal-agent contract in which any agent may seek to optimize his or her position at the expense of the principal (s) involved. Comparable to shareholders' theory which holds that company, in this instance SACCO, exists in order to maximize wealth of its shareholders (Olando, Jagongo & Mbewa, 2013). The theory characterizes an agency relationship as a legal agreement that develops when one or more principals hire an agent to carry out a specific task on their behalf, possibly including transfer of some degree of decision-making authority. Consequently, partnership between principal and agent originates when a principal hires an agent to perform a service or to act on his behalf. Managers in a firm are agents of shareholders. The shareholders assume that the managers are guided by the principle geared towards maximization of shareholders' wealth. This presumption is relevant to this study because it explains how managers carry out their duties of cost minimization and profit maximization

affects firm's performances. It is predicated on the idea that executives tend to prioritize their interests over those of owners, or shareholders.

2.2 Empirical Literature Review

2.2.1 Capital Adequacy and Financial Performance

Ademba (2019) researched on determinants of financial performances of DT-SACCOs in Nairobi County using panel research design using secondary data. The study established positive but insignificant relationships with financial performances of deposit taking SACCOs. The study used panel research design to conduct census of all 39 SACCOs in Nairobi County. Using certified accounting records and periodic updates from SACCOs that accept deposits, secondary quantitative data from SASRA registry was employed. The research found that capital adequacy and financial performance of deposit-taking SACCOs were positively, but not significantly correlated. Finally, it was determined that in order to improve financial results and reduce likelihood of financial mishaps, capital adequacy levels must be maintained as per regulatory requirements. In order to guarantee SACCO performances and boost investor confidence, the study suggested adopting capital adequacy ratios, as this will guarantee continued viability of SACCOs. All SACCOs were advised to consistently create personalized loan offerings in order to increase variety of their revenue streams and reduce their running expenses. The study focused on determinants of financial performances of deposit taking SACCOs in Nairobi County, Kenya. Rather than focusing on determinants of financial performances, this study was specific to CAMEL Rating Model.

Gathara (2019) examined relationships between financial performances of selected firms listed at NSE, Kenya and specifically among others influences of equity on financial performances of firms listed on NSE. Aim of the study was also to evaluate moderating effect of size of firms on firm structure and financial performances nexus of selected firms. Theories guiding the study included Stakeholder Theory, Trade-off, Pecking Order, and Modigliani and Miller Capital Structure theories. All thirty (30) firms listed on NSE during period 2007 to 2015 were included. Secondary panel data from annual financial statements and reports of selected companies was employed. Descriptive statistics and linear multiple regression were employed in analyzing data. It was found that use of various components of financial structure (Leverage, Liquidity and Owners Equity) jointly enhanced financial structure’s power to explain the variations in financial performances and therefore they all contribute positively to financial performances. The study established that leverage was the most preferred mode of financing followed by equity and lastly liquidity.

Saidi (2016) sought to establish influences of core capital on performances of DT-SACCOs in Nairobi County. The study was anchored on Capital Adequacy Theory and Loanable Funds Theory. Findings disclosed various challenges faced by SACCOs in complying with capital adequacy regulations and recommended close adherence to operating regulations. It was concluded that core capital significantly influenced financial performances of DT-SACCOs in Nairobi County in many ways including safeguarding member deposits, improved public confidence, growing operating capital, and increased lending capacity. Review of lending rate via cost pricing methods was recommended. The study also examined efforts undertaken by SACCOs in adhering to capital adequacy regulations as enforced by respective regulatory bodies (SASRA and Central Bank of Kenya) employing descriptive research design. The study population was Front Office Savings Activity (FOSA) SACCOs operating within Nairobi

County. Sample of 40 SACCOs were randomly selected and secondary data covering period of five years (2011 – 2015) employed. Analysis was made using SPSS software to assess correlations and frequencies within data. While the previous study focused on effects of core capital on performances of deposit taking SACCOs in Nairobi County during period 2011 – 2015, the current study focused on influences of CAMEL model on financial performances of deposit taking savings and credit cooperative societies in Kenya over period of ten years between 2013 and 2022.

2.2.2 Asset Quality and Financial Performance

Ademba (2019) investigated loan impairment charges to total assets of deposit taking SACCOs in Nairobi, Kenya. The study is supported by theories of agency, liquidity preference, and capital asset pricing model. 39 SACCOs in Nairobi were surveyed using a panel research design through secondary quantitative data from SASRA registry, which included examined financial records and monthly statements from deposit-taking SACCOs. The study applied dynamic panel data regression model and formal statistical hypothesis test. Using descriptive statistics, findings showed positive and statistically significant correlations between asset quality and firm performances. It was determined that there were significant relationships between financial results of deposit-taking SACCOs and variables (capital adequacy, asset quality, management efficiency, and liquidity). Consequently, it was suggested that SACCOs collaborate with credit reference bureaus to bolster their credit assessment procedure and enhance asset quality, ultimately aiming to enhance performances. Study's main goal was to ascertain how asset quality affected deposit-taking SACCOs' performances in Nairobi County, Kenya. However, one of the specific objectives of the current study examine how asset quality which is determined by ratio of non-performing loans to total loans affects financial performance of deposit taking savings and credit cooperatives in Kenya.

Okumu and Oyugi (2016) examined influences of internal factors on performance of deposit taking SACCOs in Kisumu County from 2009 – 2013. The study was anchored on CAMELS model. Survey research design was followed and data collected from 62 Managers at 31 registered SACCOs that were operational. Sample size of 53 respondents was derived using Yamane model. Primary data was obtained from 31 Managing Directors and from 22 Finance Managers by use of semi-structured questionnaires administered to SACCOs. Secondary data was obtained from authoritative documentations from target units. All quantitative data was analyzed using descriptive and inferential statistical techniques while content analysis was adopted for non-quantitative data. Results were then presented in tabular and chart formats. Positive and significant relationships between asset quality and SACCO performances were revealed. The study concluded that to foster firm performances, asset base of SACCOs should be enhanced. The study recommended that management should take good care of assets. The study focused on factors influencing performances of SACCOs in Kisumu County of Kenya. The current study focused on influences of asset quality and other CAMEL variables on financial performances of deposit taking savings and credit cooperative societies in Kenya over period of eleven years.

Nzoka (2015) examined effects of asset quality on financial performance of commercial banks in Kenya, targeting 43 commercial banks and covering five years from 2010 to 2014. The study was anchored on modern portfolio theory, capital asset pricing model, and Tobin theory of investment upon which they have introduced some useful variables in financial performances function of commercial banks to shed light on key factors that make a difference in bank

financial performances. The study finds a general agreement that bank financial performances is a function of internal and external factors. It concentrated on only one among five of bank-specific factors based on CAMEL framework, which is a widely used framework for evaluating bank performances in relation to Asset Liability Management (ALM) and is recommended by Basle Committee on Bank Supervision and IMF. The study utilized descriptive research design. It was used to determine statistical association between relationships between assets quality and financial performances of commercial banks in Kenya. Secondary data from Central bank of Kenya, Banks supervision reports, published annual financial statements of banks, and banking survey from 2010 to 2014 was utilized. Data was analyzed using SPSS version 20.0, descriptive, correlation and regression analyses applied. The study used two tailed t-test with 5% level of significance and calculated correlation coefficient (r), coefficient of determination and ANOVA. Analysis revealed that ratio of gross non-performing assets to gross loans and advances had significant effect on financial performance. Conversely, gross non-performing assets to total assets had insignificant effect on financial performance of commercial banks in Kenya. The study recommended increased research on factors influencing the asset quality of commercial bank in Kenya so as to add value to performances of local banks and to academic literature. The study focused on effects of asset quality on financial performances of commercial banks in Kenya over period of five years.

2.2.3 Management Efficiency and Financial Performance

Munene *et al.* (2020) sought to establish role of board characteristics in financial distress suffered by deposit taking SACCOs in Nairobi County. Anchored on Agency theory, study adopted descriptive longitudinal research design and entailed collecting and analyzing secondary panel data on 43 out of population of 174 deposit taking SACCOs in Nairobi County for period 2012 - 2018 using STATA software. Findings were presented using tables and concluded that SACCOs need to have lean boards, and improve board composition in terms of number of more women to forestall financial distress, include more independent members, and have deliberate inclusion of members with high and relevant education credentials, and term limits for their board members should be reviewed regularly to allow fresh members periodically. Moreover, an analysis based on Altman's Z score models was recommended for SACCOs.

Omete *et al.* (2019) evaluated financial management efficiency and financial performances of commercial banks listed on NSE during 2006 - 2017. Descriptive research design was utilized. Primary and secondary data was adopted. Content analysis was used to extract information from financial statements to facilitate analysis. The study further employed multivariate regression for analysis to test relationships between response variables and predictor variables. Multiple regression analysis was used to determine linear statistical relationships between independent and dependent variables; null hypotheses as stated were tested using regression model. Positive significant relationships between financial management efficiency and financial performances of commercial banks in Kenya were established. According to recommendations, Kenyan commercial banks ought to adopt efficient financial management mechanisms to improve their performances through proper and structured policy framework. This will ensure adequate capitalization of banks and guarantee financial stability of economy. Banks in Kenya should specifically comply with capital requirements, maintain adequate and optimal liquidity, and leverage on existing opportunities offered by technology to ensure efficiency.

Ademba (2019) examined determinants of financial performances of DT-SACCOs in Nairobi, Kenya. Research was grounded in capital asset pricing model, liquidity preference, and agency

theories. Census of all 39 SACCOs in Nairobi County was conducted as part of study using panel research design. Researcher employed secondary quantitative data from SASRA registry, which included verified accounting documents and periodic reports from SACCOs that accepted deposits. Dynamic panel data regression model was implemented in conjunction with formal statistical hypothesis test. Descriptive and inferential statistics were applied, such as multiple linear regression models, Pearson correlation, and diagnostic tests. Researcher measured relationships between independent and dependent variables with multiple linear regression models. It was discovered that financial performances of deposit-taking SACCOs were strongly correlated with capital adequacy, asset quality, operational efficiency, and liquidity. According to findings, all SACCOs must constantly assess management practices they currently employ in order to reduce likelihood of resource underuse and theft. According to research, there would be opportunities to minimize operational costs through these processes, leading to improved financial performances.

Ochieng (2018) assessed determinants of financial performances of SACCOs in Nakuru town, Kenya. The study was grounded on Organizational and Trade-off Theories and sample of 32 SACCO managers examined. It was found that membership size affects financial performances of SACCOs and correlations between membership sizes and financial performances in terms of dividends paid was positive and statistically significant. The relationship between frequency of supervision and financial performances was statistically insignificant. The study concluded that financial performances of SACCOs among other things was affected by employment and management practices while frequency of supervision had little effects on financial performances of SACCOs. Therefore, emphasis on increasing membership size was identified as important for success of a SACCO. It also concluded that hiring managers and officials with right skills can spur desirable financial performance of SACCO. More so, supervision was observed to be important to ensuring adherence to SACCO prudential financial practices.

Mwangi and Ombui (2018) carried out a study to investigate factors influencing financial performances among deposit taking SACCOs in Nairobi County, Kenya. The study was anchored on Agency and Modern Portfolio Theories. Stratified random sampling design was adopted to select sample population involving 87 management employees of targeted 654 management employees working in registered SACCOs in Nairobi County. Descriptive research design was adopted where opinions of employees in SACCOs were sought. Primary data was collected from sample population through questionnaires and used. In respect of investment decisions the study established that financial performances of DT-SACCOs in Nairobi County was influenced by existence of well-established investment committees and that to a great extent investment decisions made by SACCOs are based on risk management of funds. Stakeholders are also involved in all investment projects undertaken by SACCOs and that investment projects are undertaken with integrity and accountability. It was further established that most of SACCOs are not undertaking product innovation as part of investment portfolio and that management in SACCOs is insightful in creating short term and long term investments. Regarding misappropriation of funds, the study established that management in SACCOs involve all stakeholders, that there was mechanism that was used to detect misappropriation of funds in most SACCOs and to great existent an independent internal audit function existed to ensure compliance and proper use of funds in SACOs. On loan defaults, the study established that to a great extent SACCOs have access to credit information of borrowers and that most SACCOs didn't have committees to manage credit portfolio. The current study examined CAMEL Model

and financial performances nexus of deposit taking savings and credit cooperatives in Kenya over period 2013 to 2022.

Barus *et al.* (2017) conducted a study to evaluate effects of management efficiency on financial performances of savings and credit societies in Kenya employing exploratory research design. The study was guided by Efficient Structure, Expense-Preference Behavior, and Economic Efficiency Theories. 83 registered deposit-taking SACCOs that had been in operation in Kenya for five years, from 2011 to 2015, provided primary and secondary data for census. Data analysis was done using multiple linear regression, SPSS, and STATA. Tables and graphs were utilized to display results of descriptive and inferential analysis that was done. Conclusion was that Kenyan savings and credit societies' financial performance was not significantly impacted by management efficiency. The study suggested that in order to reduce credit risk, management should improve capital adequacy, asset quality, management effectiveness, earnings, and liquidity. In order to boost productivity, the study also suggested that SACCOs train their staff. Previous research assessed how efficiency of management affected financial performance of Kenyan savings and credit societies.

Fujo and Ali (2016) researched on the factors influencing financial performances of SACCOs' in Kilifi County of Kenya. Specific objective was to establish relationships between credit management, financial innovation and liquidity management and their effects on SACCO's financial performances. The study was grounded on three theories which relate to concept of financial performances: Administrative, Systems, and Agency theories. The study adopted descriptive and quantitative research design targeting 53,503 members of Imarika SACCO based in its head office at Kilifi and branches in Malindi, Mariakani and Mtwapa. Population of interest was 397 members selected through stratified sampling method based on branch where members belong. Stratified random sampling technique was used to proportionally draw participants from branches, hereby referred to as strata. Slovin formula was used to determine study sample of 397 study participants. Positive and significant effects between management efficiency and performances of SACCOs. The study recommended further studies on other factors that affect financial performances of SACCOs other than the ones in the study. Whereas the study evaluated effects of management efficiency on financial performance of savings and credit societies in Kilifi County of Kenya, current study examined the effect of management efficiency among other CAMEL variables on financial performances of deposit taking savings and credit cooperative societies in Kenya.

2.2.4 Earnings Quality and Financial Performance

Utami, Nuzula and Damayantic (2019) sought to analyze earnings quality and its effects on financial outcome of banks in Indonesia. It also sought to find out bank-type in which independent variable has more influences on dependent variable, whether state-owned or private banking. Agency and Earnings management theories were the basis of the study. The study consisted of a comparison of eight conventional banks, four government banks and four private banks. Purposive sampling technique was used in selecting a sample of eight (8) banks, four (4) state-owned banks and four (4) private banks selected based on amount of capital ownership. Sample of eight banks was therefore selected based on core capital of over 5billion rupiah. Sample selection was conducted in such a way that gap or difference between state-owned and private banks did not differ greatly, ensuring that sample was relevant and suitable for examining differences between banks of this type. Partial Least Square Multi-group Technique was applied on research data from 2006 – 2018 periods. Test results indicate that earnings quality is

important and therefore reported earnings must be quality earnings. The study recommends importance of improving earnings quality in banks, especially in state-owned banks.

Barus (2018) investigated the effect of internal factors on financial performance of deposit taking savings and credit societies in Kenya. Specific goal of the study was to determine effects of a number of variables on financial performances, including capital adequacy, asset quality, management efficiency, earnings capacity, and liquidity. The study was informed by an array of extant theories, including those on market power, monetarism, efficient structure, liquidity, portfolio selection, expense-preference behavior, and economic preference theories. The study employed quasi-experimental design to investigate relationships between internal factors and SACCO performances in Kenya. All 83 of registered DT-SACCOs as of January 2012 to 2016 and in functioning for five years made up study's target and reachable population. The study utilized primary and secondary data from verified financial statements of DT-SACCOs that were registered. STATA and SPSS were applied for assessing data using model of multiple linear regression. Descriptive and inferential analyses were employed to examine data. There were tables, figures, and graphs used to display data. The study discovered substantial and beneficial connections between SACCO financial performances and earnings ability. The study found positive and significant relationships between financial performances of deposit-taking SACCOs in Kenya and all internal factors, with exception of management efficiency. According to report, deposit-taking SACCOs should implement effective systems to raise their levels of capital, asset quality, management efficiency, earnings ability, and liquidity.

Mengistu (2015) evaluated the financial performance of the Ethiopian banking sectors with a particular focus on Zemen Bank S.C. The study depended entirely on secondary sources of data where audited financial statements of the sample bank that is, Zemen Bank S.C. were the major sources of data. After collecting the data from the bank's website, the data were analyzed using descriptive statistical methods to summarize and give a condensed picture of the quantitative data and methods of the appropriate financial ratio analysis to measure, describe and analyze the performance of the bank. The results were then presented into tables and graphs. The study established that Zemen bank was at the point where their assets managed to generate revenues. The overall result of the study showed that except in 2009, in the remaining years of the study, the financial performance of the bank had kept on improving, if not fluctuating over time. There was also a remarkable growth of the bank's interest incomes over interest expenses, the earning of large sums of profits, the augmentation of total assets over total liabilities and an all-together advancement of the deposits and loans and advances from year to year. Further, the degree of financial risk associated to the bank showed an initial tremendous increments and a drastic fall in the succeeding periods. This indicated that the bank had taken a little debt and thus had low risk. The bank could however potentially generate more earnings than it would have without this outside financing if the bank had used much debt to finance the growing operations. The results revealed that the bank had a high degree of leverage and thus a lower degree of financial flexibility, implying that a higher proportion of the Bank's total assets had been financed by debt. The study highly recommended that Zemen bank should endeavor to decrease its much dependence on outside financing. It also advised that the bank should reduce the size of doubtful loans in its portfolio.

Kongiri (2012) undertook a panel analysis of commercial banks in Kenya to investigate how well the banks in Kenya performed. This was achieved by use of efficiency ratios and other ratios drawn from various CAMEL-variables on operational results of commercial banks in Kenya.

Market Power Theories (SCP hypothesis and Relative Power hypothesis), Efficient Structure Theories (Scale efficiency hypothesis and Frontier efficiency hypothesis), and Expense-Preference Behavior Theory guided the study. Panel data design and descriptive approach were adopted. CBK and CMA websites provided secondary data from reviewed yearly financial reports of 37 out of 185 commercial banks operating in Kenya from 2007 to 2011. Multiple linear regression and SPSS were implemented in analysis process to determine impacts of CAMEL variables on operations of banks. Study's conclusions showed that while management quality and asset quality have advantageous connections with efficiency ratio, earnings, capital adequacy, and liquidity ratio have negative relationships with efficiency ratio. It was found that banks' ability to grow financing, take in losses, pay dividends to shareholders, and develop sufficient capital was reflected in their earnings ability. Despite the focus of the study being on CAMEL rating model the context was commercial banks in Kenya, therefore the existence of a contextual gap. In response to this, the current study examined the influence of CAMEL Model on financial performance of deposit taking savings and credit cooperative societies in Kenya.

2.2.5 Liquidity and Financial Performance

Wanjiru and Jagongo (2022) investigated effects of liquidity risk on financial results of deposit taking savings and credit cooperative societies in Kenya. This was anchored on Bank Liquidity Creation and Financial Fragility, and Cash Inventory Management (Baumol), and Shareholder Theories. Descriptive research design was employed. Panel secondary longitudinal data from audited financial statements of 175 DT-SACCOs for period 2016 to 2020 together with reports submitted to SASRA by SACCOs was collected and utilized. Census sampling was adopted where all the 175 DT-SACCOs was considered in the analysis. The study noted that inability to service members' loan applications as at when they fall due and failure to take advantage of good investment opportunities exposed DT-SACCOs to liquidity risk.

Otwoko and Maina (2021) studied how liquidity risk was connected to financial outcome of deposit-taking SACCOs in Kenya, guided by Baumol model. The study observed liquidity to be a key phenomenon on the optimal functioning of deposit taking SACCOs. Descriptive design was adopted and regression methods employed in analysis. The findings revealed liquidity risk was statistically significant. Additionally, research showed that liquidity risk had statistically significant impacts on financial performances of deposit-taking SACCOs at 5 percent significance level. It was recommended that SACCOs should be encouraged to focus on enhancing mobilization of deposits to ensure an asset portfolio that minimizes liquidity risk is maintained. The study came to conclusion that SACCOs need to keep their liquidity at its best for operations and member loan demand. It was noted that while majority of DT-SACCOs exhibit impressive liquidity measurements, they frequently failed to fulfill their members' short-term obligations, particularly loan disbursements. Non-repayment of loans from employers as at December 2020 amounted to Ksh. 4.31 Billion, denying liquidity to SACCOs in equal measure (SASRA Report, 2020).

Riro, Gatheru and Mutiso (2020) studied the effect of liquidity management on financial sustainability of deposit taking SACCOs in Mount Kenya region. Four objectives anchoring the study included management of cash, risk, asset liability and competency in sustainability of finance within SACCO sector. Census of all 52 SACCOs in region was undertaken. Primary and secondary data were collected and utilized. Primary data was gathered using structured survey, and secondary data came from yearly statements of accounts of SACCO's in areas that were sampled. To analyze data, SPSS was utilized. A positive but insignificant relationship was found

to exist between cash management, risk management and asset liability management on one hand and financial sustainability of DTS on the other. Further, member's contributions were considered crucial to the successful implementation of effective cash management. It would also be hard for SACCOs to obtain optimal balance in asset liability and financial sustainability without a guiding policy on asset-liability.

Gathara (2019) investigated relationships between outputs of firm activities of selected firms listed at NSE, Kenya and specifically influences of leverage, liquidity and equity on financial performances of firms listed on NSE. In addition, aim of the study was to evaluate moderating effect of size of firm on firm structure and financial performances of selected firms. Theories guiding the study included Stakeholder Theory, Trade-off, Pecking Order, and Modigliani & Miller Capital Structure theories. All thirty (30) firms listed on NSE during period 2007 to 2015 were included in study. Secondary panel data from annual financial statements and reports of selected companies was utilized. Descriptive statistics and Linear Multiple Regression were used to analyze data. Leverage, Liquidity and Owners Equity were found to have positive and significant effects on financial results of selected companies while firm size had positive and significant moderating effect on relationships between financial structure and financial results. It was concluded that leverage, liquidity and owners' equity had significant influences on financial results, that various components of financial structure jointly enhanced power to explain variations in output. Results showed that leverage was most preferred mode of financing followed by equity, and lastly liquidity. The study recommended that managers of selected companies listed at NSE, Kenya could utilize various sources of finance. Thus leverage could be increased in financing companies due to its high contribution to performance.

Shibutse, Kalunda and Achoki (2019) studied management liquidity and its effects on financial results of deposit taking SACCOs. Pecking Order, Free Cash Flow, and Capital Structure theories served as study's guiding theories. Primary and secondary data from 2013 to 2017 were employed to study 174 DT-SACCOs and credit cooperative societies. Performances of SACCOs was found to be significantly impacted by liquidity and dividend payout. To ensure proper liquidity and cash flow management, the study suggested forming a committee to supervise Assets and Liabilities functions.

Esokomi and Mutua (2018) evaluated the measures of financial performances among savings and credit cooperatives based in Kakamega County, Kenya established existence of positive and significant relationships between liquidity and return on equity, and so was relationships between capital structure and return on equity. It was further found that assets quality was negatively and significantly related to return on equity, while income diversification was positively and significantly related to return on equity. Descriptive survey approach was adopted in research on 44 SACCOs in Kakamega County that were selected to participate in examination using census sampling technique. Secondary data obtained from annual audited financial statements of selected SACCOs was analyzed using statistical methods including SPSS, descriptive statistics (trends), inferential statistics, and Correlation Coefficients. Data was then presented in frequency tables and graphs. Training of SACCO managers on use of systems that reduce liquidity risk was recommended. This was recommended to go hand-in-hand with utilization of methods of improving and increasing member savings.

Kahuthu (2016) found liquidity an important component of prudential standard in financial accomplishments of deposit taking savings and credit cooperatives in Kenya. This required maintenance of an optimal liquidity level thus avoiding holding of too much cash, which should

otherwise earn income from members in form of interest on loans, and avoiding zero cash levels. The study was grounded on SACCO Theories (Shareholders and Agency), and Pecking Order and Loanable Funds, Liquidity Management, and Signaling Theories. Specific objectives were to examine effects of core capital, liquidity level, allowance for loan losses, and retention of members on financial incomes of deposit taking SACCOs. Comparative design was adopted and secondary data from SASRA data base analyzed using SPSS. Linear regression model was applied to find out impacts of SASRA prudential requirements on financial achievements of SACCOs. Findings revealed that prudential regulations have positive impacts on financial accomplishments of SACCOs. The study recommends that SACCOs should abide by prudential regulations to enable them enjoy benefits of increased volume of business.

3.0 Research Methodology

The population of interest in this study comprise of all 176 deposit taking SACCOs in SASRA's directory as at 31 December 2022. This study adopted multistage sampling technique to select suitable sample. The first stage was selecting active DT-SACCOs in the directory and leave out the inactive ones. The second stage was subjecting the active SACCOs to a sampling formula to determine the representative sample size. The third stage was the random selection of the specific active SACCOs within the sample size considered in the study.

Out of the DT-SACCOs enlisted in the directory maintained by SASRA as of 31 December 2021, 81 DT-SACCOs were found to be active. The study applied Yamane sampling formula with an error of 0.1 as shown below.

Yamane Sampling Formula $n = \frac{N}{1+Ne^2}$ where n= sample size, N= Population of the active SACCOs, and e=error term. In this equation N= 81 and e= 0.1. Therefore, the sample size was be

$n = \frac{81}{1+81(0.1)^2}$ = 45

This study therefore had a sample size of 45 active DT-SACCOs. Before processing the data, the completed templates were edited for completeness and consistency. Both descriptive and statistical methods were used to analyze the data and presented to transform the study into usable conclusions, formulate policy recommendations, and make suggestions for further study in order to meet study objectives. The data analysis was based on panel regression model with financial performance expressed as a function of capital adequacy, asset quality, management efficiency, earnings ability and liquidity as indicated below:

$FP= \alpha+\beta_1 CA+\beta_2 AS+\beta_3 ME+\beta_4 EA+\beta_5 LI+e_{it}$

Where:

FP= Financial Performance

CA= Capital Adequacy

AS= Asset Quality

ME= Management Efficiency

EA= Earnings Ability

LI= Liquidity

4.0 Data Analysis and Discussions

4.1 Descriptive Analysis

The findings from the descriptive analysis of the study were reported in the form of observations, mean, standard deviation, minimum and maximum values as contained in Table 1.

Table 1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Financial Performance	448	.5137677	6.46085	-.1038458	131.4056
Capital Adequacy	448	.1779958	.1105836	-.2867552	1.109451
Asset Quality	448	.0571651	.1075813	0	1.552457
Management Efficiency	448	.4602272	2.725797	-2.431837	50.06095
Earnings Ability	445	26.7237	292.8841	-.582707	5453.146
Liquidity	443	1.336255	5.902457	-8.308055	93.30392

Source: Study Data (2023)

Drawing from the descriptive summary of the variables features to ascertain the data centrality and the disperse manner, financial performance was said to have a mean value of 0.51376 while having a standard deviation of 0.64085. The values of financial performance fall within the range of -0.10384 and 131.4056. The mean value of the outcome implies that the firms' financial performance within the study period has an average of 0.51376 while the variation in the financial performance of the companies varies from each other by 6.46085.

Capital adequacy further exhibited a mean value of 0.17799 which has a deviation from the standard mean of 0.11058. The value of capital adequacy has a minimum of -0.28675 and maximum of 1.10945. The outcome demonstrated that capital adequacy of the firms averaged 0.17799% which varies across the different firms at the rate of 0.11058%. Asset quality of the firms was analyzed descriptively indicating a mean average of 0.05716. The variation in the asset quality of the firm based on the deviation from the standard value is 0.10758, a value with falls within the lowest value of 0 and highest value of 1.55245. With such output, asset quality is said to vary from each of the firm at 0.10758 but however, standing on the average of 0.05716.

Management efficiency as uncovered by the descriptive assessment demonstrated a mean score of 0.46022 and a value that deviate on a standard of 2.72579. The outcome further unraveled a minimum score value of -2.43183 which is extremely highest at 50.06095. Notably, it is explained that management efficiency of the studied firms varies relatively high from each other as the rate of standard variation is put at 2.72579 given a standard average score of 0.46022. Earnings ability of the firms deployed in the study showcased an average score of 26.7237 with deviation from the standard value of 292.8841. The values of the mean and the standard deviation lie within the -0.58270 and 5453.146 as lowest and highest values respectively. Inferring from this, earning ability of the firms has a very high variability from one another putting such rate at 292.8841 with the ability of the earnings averaging 26.7237.

The values attributed to liquidity of the firms recorded a mean value of 1.33625 and a standard deviation from the mean of 5.90245. With this value, it is suggested that both losses and gains are recorded with the minimum value of -8.30805 and the highest value of liquidity as 93.30392. The negative values associated with liquidity of the firms imply that some of the firms were low on liquidity over the study period even though the average score was still positive at 1.33625.

4.2 Panel Regression Analysis

The panel regression analysis was based on specific objectives of the study as contained in the succeeding sub-sections. The outcome from the panel regression analysis is presented in Table 2.

Table 2: Panel Regression Results

Financial Performance	Coef.	Robust Std. Err.	T	P>t	[95% Conf.	Interval]
Capital Adequacy	.1812604	.4381601	0.41	0.681	-.7017933	1.064314
Asset Quality	-.8773593	.4480283	-1.96	0.057	-1.780301	.0255824
Management Efficiency	.3220766	.2116947	1.52	0.135	-.104566	.7487193
Earnings Ability	.0214204	.0005728	37.40	0.000	.020266	.0225748
Liquidity	-.0103978	.0111609	-0.93	0.357	-.0328912	.0120955
_cons	-.1724782	.1237371	-1.39	0.170	-.4218538	.0768974
F(5,44)	401.60					
Prob > F	0.0000					
R-Square	0.8677					

Source: Study Data (2023)

The results in Table 2 indicated that the model is significant in explaining financial performance as demonstrated by an F-value of 401.60 and p-value of 0.0000. The R-square shows goodness of fit of the model as revealed by 86.77%. This implies that all the explanatory factors explain about 86.77% changes in the financial performance of the firms. By extension, only 13.23% changes in financial performance is explained by others factors not included in the model. The outcome from the panel regression model indicated an intercept that is negative owing to the value of -0.17247 which is insignificant at 0.05 significance level.

4.3 Hypotheses Testing

The output from the panel regression analysis for direct effect, mediation effect and moderation effect models guided the hypotheses testing which were based on a threshold of 0.1 significance level. The succeeding sub-sections below documents the discussions of the testing of the various null hypotheses of the study.

H_{O1}: Capital adequacy has no significant effect on financial performance of Deposit Taking SACCOs in Kenya.

In view of the first objective which aimed at examining capital adequacy effect on financial performance of deposit taking SACCOs in Kenya, a null hypothesis was formulated and tested. The null hypothesis stated that capital adequacy has no significant effect on financial performance of deposit taking SACCOs in Kenya. Based on the output from Table 2, a p-value of 0.681 was recorded with respect to capital adequacy and financial performance, hence indicating insignificant relationship between the two variables. As a result of this outcome, the study failed to reject the null hypothesis stating that capital adequacy has no significant effect on financial performance of deposit taking SACCOs in Kenya. The coefficient established for this relationship was 0.1812604, hence indicating positive effect. Capital adequacy ratio serves as a measure of the ability of financial institutions in meeting underlying obligations. The ratio is utilized by regulators in determining the risk of failure of financial institutions as it remains

crucial in ensuring these institutions hold sufficient financial cushion for absorbing losses and economic shocks, hence its positive relationship with financial performance. Since capital adequacy ratio provides protection to depositors while promoting efficiency and stability, the higher the ratio, the higher the financial performance of SACCOs.

The findings concur with those of Ademba (2019) who researched on determinants of financial performances of DT-SACCOs in Nairobi County. The study established positive but insignificant relationships with financial performances of deposit taking SACCOs. On the contrary, some researchers reported varying results. Also, Saidi (2016) found that core capital significantly influenced financial performances of DT-SACCOs in Nairobi County.

H_{O2}: Asset quality has no significant effect on financial performance of Deposit Taking SACCOs in Kenya.

In line with the objective of determining the effect of asset quality on financial performance of deposit taking SACCOs in Kenya, a null hypothesis was formulated and tested. The null hypothesis stating that asset quality has no significant effect on financial performance of deposit taking SACCOs in Kenya was tested. From the output in Table 2, a p-value of 0.057 was recorded, hence indicating significant nexus between asset quality and financial performance. Due to this outcome, the study rejected the null hypothesis stating that asset quality has no significant effect on financial performance of deposit taking SACCOs in Kenya. Expectedly, the coefficient established for this relationship was -0.8773593, hence indicating negative nexus between asset quality and financial performance of deposit taking SACCOs in Kenya. A unit increase in asset quality correspondingly decreases financial performance by 0.88. The asset quality rating is a reflection of the amount as well as potential credit risk which associate with the loans while capturing managers' ability of identifying and managing credit risk. Notably, one of the most significant challenges of financial (lending) institutions is the prevalence of non-performing loans which forms a key aspect of asset quality. Increasing levels of non-performing loans result in increasing levels of bad debts which are subsequently written off in view of profitability, hence depleting the financial performance.

The findings of the study with respect to the effect of asset quality on financial performance are in line with those of previous studies. Ademba (2019) reported that asset quality had significant effect on performance of deposit taking SACCOs in Nairobi, Kenya. Additionally, Okumu and Oyugi (2016) established that asset quality had significant effect on performance of SACCOs in Kisumu County of Kenya. On the contrary, Nzoka (2015) examined effects of asset quality on financial performances of commercial banks in Kenya, targeting 43 commercial banks and covering five years from 2010 to 2014. Despite the study established that the relationship between asset quality and financial performance was negative, only gross NPA to gross loans & advances was significant whereas gross NPA to total assets was insignificant.

H_{O3}: Management efficiency has no significant effect on financial performance of Deposit Taking SACCOs in Kenya.

Regarding the objective of assess management efficiency effect on financial performance of deposit taking SACCOs in Kenya, the study formulated and tested a corresponding null hypothesis. The null hypothesis stated that capital adequacy has no significant effect on financial performance of deposit taking SACCOs in Kenya. As obtained from Table 2, a p-value of 0.135 was found for the nexus between management efficiency and financial performance, hence implying insignificant relationship existing between the two variables based on the study data. In

response to this result, the null hypothesis stating that management has no significant effect on financial performance of deposit taking SACCOs in Kenya was not rejected. A positive coefficient as indicated by 0.3220766 was found for management efficiency and financial performance relationship. A unit increase in management efficiency results in 0.32 increases in financial performance of SACCOs. Despite the significant nexus between management efficiency and financial performance, the positive relationship can be due to the fact that efficiency entails the creation and changing of operational capabilities. Managers' capabilities in deploying efficiently deploying resources, maximizing income and decreasing the cost of operations will result in increasing levels of financial performance.

The results of the study with respect to the effect of management efficiency on financial performance are supported by existing empirical literature. Ochieng (2018) assessed determinants of financial performances of SACCOs in Nakuru town, Kenya. The study reported that the relationships between frequency of supervision and financial performances were statistically insignificant. Similarly, Barus *et al.* (2017) conducted a study to evaluate effects of management efficiency on financial performances of savings and credit societies in Kenya. It was reported that management efficiency had insignificant effect on financial performance of deposit-taking SACCOs in Kenya. Contrary to the findings of this study are those of Omete *et al.* (2019) who found that management efficiency had significant effect on financial performances of commercial banks listed at the Nairobi Securities Exchange, Kenya. The variation in finding can be attributed to the context of the previous study which was commercial banks in Kenya.

H_{O4}: Earnings ability has no significant effect on financial performance of Deposit Taking SACCOs in Kenya.

In reference to the objective of assessing earnings ability effect on financial performance of deposit taking SACCOs in Kenya, a null hypothesis was formulated and tested. The null hypothesis stating that earnings ability has no significant effect on financial performance of deposit taking SACCOs in Kenya was tested. A p-value of 0.000 was recorded in Table 2, hence indicating significant relationship between earnings ability and financial performance. The null hypothesis stating that earnings ability has no significant effect on financial performance of deposit taking SACCOs in Kenya was therefore rejected. The coefficient established for this relationship was 0.0214204 which implies that the nexus between earnings ability and financial performance of deposit taking SACCOs in Kenya was positive. A unit increase in earnings of SACCOs translates to 0.02 increases in their financial performance. Earnings ability which entails the potential of financial institutions in generating profitability and funding expansion while raising capital and staying competitive in the business environment is significant in determining the financial performance of deposit taking SACCOs in Kenya.

The findings of the study on the effect of earnings ability on financial performance of deposit taking SACCOs in Kenya are supported by the results of some existing empirical studies. Utami *et al*. (2019) sought to analyze earnings quality and its effects on financial performance of banks in Indonesia. The findings indicate that earnings quality is important and therefore reported earnings must be quality earnings. It was further reported that earnings quality of private banks has greater effect than that of state-owned banks. Similarly, Barus (2018) studied the effect on earnings ability on financial performance deposit taking savings and credit societies in Kenya. The study documented that earnings ability had significant effect on financial performance of deposit-taking SACCOs in Kenya.

H_{O5}: Liquidity has no significant effect on financial performance of Deposit Taking SACCOs in Kenya.

Regarding the objective of determining liquidity effect on financial performance of deposit taking SACCOs in Kenya, the study formulated and tested a corresponding null hypothesis. The null hypothesis stated that liquidity has no significant effect on financial performance of deposit taking SACCOs in Kenya. Results obtained from Table 2 documents a p-value of 0.357, hence indicating insignificant relationship between liquidity and financial performance. As a result of this outcome, the study failed to reject the null hypothesis stating that liquidity has no significant effect on financial performance of deposit taking SACCOs in Kenya. The coefficient established for this relationship was -.0103978, hence indicating negative effect. A unit increase in liquidity of SACCOs translates to a corresponding decrease in their financial performance. The decrease can be attributed to the notion that despite holding of sufficient liquidity levels is recommended, holding too much of it can be detrimental to financial performance. Excess liquidity may be a signal of a situation of inefficient utilization of available funds, hence not fully maximizing other business opportunities.

The study findings with regards to liquidity and financial performance nexus for deposit taking SACCOs in Kenya largely differs from those of reviewed empirical literature. Otwoko and Maina (2021) reported that liquidity risk had statistically significant impact on financial performances of deposit-taking SACCOs. Shibutse *et al*. (2019) studied management liquidity and its effects on financial performance of deposit taking SACCOs. The study established that liquidity significantly impacted the financial performance of SACCOs.

5.0 Conclusion

The study established that capital adequacy has insignificant effect on financial performance of deposit taking SACCOs in Kenya. It was therefore concluded that the relationship between capital adequacy and financial performance is insignificant in the context of financial performance of deposit taking SACCOs in Kenya. Notably, growing capital adequacy ratio translates to higher financial performance of deposit taking SACCOs in Kenya, despite the significant nexus between the two variables. It was established that asset quality has significant effect on financial performance of deposit taking SACCOs in Kenya. The study therefore concluded that asset quality stands as a significant determinant of financial performance. The extent by which credit risks are identified and control as reflected by asset quality significantly affects the financial performance of deposit taking SACCOs in Kenya.

It was established that management efficiency has insignificant effect on financial performance of deposit taking SACCOs in Kenya. In response to this, the study concluded that management efficiency is not a significant determinant of financial performance of deposit taking SACCOs in Kenya. However, it was further concluded that effective utilization of resources by managers improves financial performance. It was established that earnings ability has significant effect on financial performance of deposit taking SACCOs in Kenya. The study consequently concluded that earnings ability is important in predicting the financial performance of deposit taking SACCOs in Kenya. Growing productivity and profitability significantly predict the financial performance of deposit taking SACCOs in Kenya in a positive manner.

The study established that liquidity has insignificant effect on financial performance of deposit taking SACCOs in Kenya. It was therefore concluded that higher levels of liquidity is detrimental to financial performance as evidenced by the negative relationship. Since liquidity

reflects the ability of SACCOs in addressing short terms obligations, excessive level of liquid assets limits the exploration of other profit generating activities.

6.0 Recommendations

The study concluded that asset quality stands as a significant predictor of financial performance. The extent by which credit risks are identified and control as reflected by asset quality significantly affects the financial performance of deposit taking SACCOs in Kenya. Higher financial performance of SACCOs can be attained through the improvement of asset quality decreasing the levels of non-performing loans. Effective credit risk system should be put in place to ensure proper identification, assessment, monitoring as well as control of credit risks.

It was concluded that earnings ability is important in predicting the financial performance of deposit taking SACCOs in Kenya. Earnings ability provides SACCOs with higher capacity of absorbing losses and generating income. The study recommends that the managers of SACCOs should strive towards increasing the business net worth while ensuring competitiveness in the business environment. This can be achieved through continuous product innovation alongside having leverage on emerging technology.

The study established the effect of CAMEL rating model on financial performance of deposit taking SACCOs in Kenya. Additional studies can be done specifically on the effect of capital adequacy, management efficiency and liquidity on financial performance of deposit taking SACCOs in Kenya. This is in view of their insignificant predictive effect on financial performance. As such, additional researches on these variables can be based on different methodological approaches.

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