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Factors influencing the financial performance of SACCOs in Kenya: a comparative analysis of regulated Deposit Taking SACCOs versus Non-Deposit Taking SACCOs.

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FACTORS INFLUENCING THE FINANCIAL PERFORMANCE OF SACCOS IN KENYA: A COMPARATIVE ANALYSIS OF REGULATED DEPOSIT TAKING SACCOS VERSUS NON-DEPOSIT TAKING SACCOS

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DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

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DEDICATION

To my daughter, Nduku Iman thank you for your patience and love, especially during those moments you had stories to tell and I was glued to my laptop. Your understanding and presence gave me strength I didn't know I needed.

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ABSTRACT

Savings and Credit Cooperatives (SACCOs) are a vital component of Kenya's financial system, fostering financial inclusion by extending credit and savings services to underserved populations. However, performance disparities between Deposit-Taking (DT) and Non-Deposit-Taking (NDT) SACCOs remain underexplored. While previous studies have predominantly focused on regulated DT SACCOs, limited comparative analysis exists on how selected financial ratios and operational strategies influenced financial performance across both categories. Anchored in Agency Theory and Asymmetric Information Theory, this study sought to fill that gap by examining key determinants of performance and strategic differences between DT and NDT SACCOs in Kenya. The study adopted a mixed-methods approach, combining quantitative analysis of panel data from 357 regulated SACCOs between 2020 and 2023 using a fixed effects model, with qualitative insights from thematic analysis of primary data collected from 43 SACCOs. Financial performance represented by return on assets (ROA) was assessed using ratios from financial indicators, capital adequacy, liquidity, efficiency, and asset quality. The study also incorporated management perspectives on operational strategies to contextualize quantitative findings. The findings revealed that DT SACCOs exhibited superior financial performance in terms of capital adequacy, liquidity, and profitability, largely due to stronger regulatory oversight and access to deposits. However, they also experienced operational inefficiencies attributed to high compliance and administrative costs. In contrast, NDT SACCOs, though limited in capital mobilization and external funding, benefited from leaner structures, greater cost-efficiency, and closer member engagement, particularly in managing credit risk and asset quality. These results affirm the relevance of Agency Theory, highlighting how regulatory governance enhances financial stability in DT SACCOs but can also introduce inefficiencies. At the same time, Asymmetric Information Theory explained how NDT SACCOs leverage trust-based lending and informal governance mechanisms to maintain stable operations despite resource constraints. The study contributes to literature in cooperative finance by offering empirical insights into the differential performance drivers of DT and NDT SACCOs and underscores the need for targeted policy reforms to enhance operational efficiency, financial sustainability, and regulatory responsiveness in Kenya's SACCO sector.

Key Words: Deposit-Taking SACCOs, Non-Deposit-Taking SACCOs, Financial Performance, Capital Adequacy, Asset Quality, Efficiency, Liquidity, Operational Strategies

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LIST OF ABBREVIATIONS

BOSA	Back Office Services Activity.
CAMEL	Capital adequacy, Asset quality, Management competency, Earning quality, and Liquidity framework
CBK	Central Bank of Kenya
CIR	Cost to Income Ratio
CMA	Capital Markets Authority
DT	Deposit Taking
EBIT	Earnings Before Interest and Taxes
FOSA	Front Office Service Activity
ICA	International Cooperative Alliance
IRA	Insurance Regulatory Authority
KUSCCO	Kenya Union of Savings and Credit Cooperatives
MSME	Micro, Small, and Medium Enterprises
NDT	Non-Deposit Taking
NPL	Non-Performing Loan Ratio
NSE	Nairobi Stock Exchange
NWDT	Non-Withdrawable Deposit Taking
OLS	Ordinary Least Squares
OPM	Operating Profit Margin
RBA	Retirement Benefits Authority
ROA	Return on Assets
ROE	Return on Equity
SACCO	Savings and Credit Co-operative Society
SASRA	Sacco Societies Regulatory Authority
SDG	Sustainable Development Goals
SSA	Sacco Societies Act
VIF	Variance Inflation Factor
WOCCU	World Council of Credit Unions

DEFINITION OF TERMS

DT SACCOs : These are SACCOs licensed by SASRA to undertake deposit-taking business. They operate Front Office Service Activities (FOSA), which allow members to make deposits and withdraw cash (SASRA, 2022).

NDT SACCOs : These are SACCOs that primarily focus on providing loans and other financial services funded by member contributions, fees, and external borrowings rather than direct member deposits, they operate without engaging in deposit-taking services. These SACCOs focus on Back Office Service Activities (BOSA) (SASRA,2022).

Financial Performance : Measures an organization's ability to make money, keep costs down, and make a profit, and it does this by using different financial metrics and ratios (Juma and Maseko, 2022).

Capital Adequacy : Capital adequacy refers to the extent to which a financial institution possesses sufficient capital to absorb potential losses while continuing to operate efficiently (Barus , 2017)

Asset Quality : Reflects the soundness of a SACCO's loan portfolio and its ability to recover the money it lends out (SASRA, 2023).

Efficiency : Measures how effectively resources are utilized to generate income. It is typically assessed using the cost-to-income ratio (Hughes and Mester, 2008)

Liquidity : Refers to a SACCO's ability to meet its short-term financial obligations without experiencing significant losses (SASRA, 2022)

Operational Strategies : Described as the deliberate use of a firm's internal capabilities and resources to align with its strategic goals and respond effectively to market demands (Porter, 1996).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In the Statement on the Cooperative Identity, a cooperative is defined as "an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise" (ICA, 2023). Cooperatives come in diverse forms, often oriented around a specific economic domain or the characteristics of their membership, Nair and Kloeppinger-Todd (2007) listed the major varieties as agricultural, financial, housing, health and social care, consumer, and workers cooperatives. Savings and Credit Cooperatives (SACCO)s, are financial cooperatives, also commonly known as cooperative banks, credit unions, mutual savings banks, caisé populaire, shinkin bank, caja popular, cajas rurales, mutuelles, cooperativa de ahorro y crédito, friendly societies and corporative financial institutions in various countries around the globe, reflecting local traditions, regulations, and languages.

SACCOs, are creative social companies that originated from the grassroots level, and are focused on member-centered and welfare-driven objectives, their primary business is to mobilise funds and lend to their members (Anakpo et al., 2024 ; Moturi and Mbiwa, 2015). Co-operative banks and credit unions are founded on co-operative principles, which guarantee transparency, democracy, and accountability. Their focus is on serving their members rather than being a globalised corporate organisation (Kleanthous et al. 2019). Members pool their resources, which are then lent to other members, with the aim of promoting economic and financial well-being within the community. The impact of SACCOs on the economic and social well-being of their members, as well as on economic growth, is shown through the amount of savings they gather and their asset base (Mathuva et al., 2016). The World Council of Credit Unions (WOCCU), report in 2022, reported that there are over 82,000 SACCOs globally. These SACCOs operate in 105 countries and serve over 403 million members, with a savings base of $2.994 trillion, shares base of $3.598 trillion and a penetration rate of 13.9% (WOCCU, 2022).

SACCOs play a crucial role in the financial systems of developing countries by promoting savings among members. They offer a secure place for savings, enabling members to

accumulate funds for future investments or unforeseen circumstances, while also providing loans at more affordable interest rates compared to conventional banks. SACCOs also promote financial inclusion among individuals with low incomes by extending credit to those who may not meet the eligibility criteria for loans from commercial banks. This helps to reduce disparities in financial services, enabling a larger number of individuals to participate in the economy. Furthermore, SACCOs often allocate their profits toward local development by supporting community development initiatives, offering capacity-building and training programs, and helping members make informed financial decisions and manage their resources effectively. Lastly, SACCOs foster entrepreneurship and support the growth of small businesses, which generate employment opportunities and strengthens economic resilience at both local and national levels (Barus et al., 2017 ; Keitany, 2013 ; Messabia et al., 2023; Mutai, 2016).

1.1.1 Historical Development and Evolution of SACCOs

In the mid-19th century, Germany saw the emergence of cooperative financial institutions as self-help organizations designed to help workers pool resources and save money. Hermann Schulze-Delitzsch set up the first urban credit cooperative in 1850, and Friedrich Wilhelm Raiffeisen, a mayor in the Western Rhineland, founded the initial rural credit cooperative in 1864 (Aschhoff, 1982). Cooperative financial institutions, also known as Savings and Credit Cooperative Societies (SACCO)s, have since expanded globally, and in developing nations, they have become a significant component of the financial landscape. The cooperative movement has been a driving force in the global financial landscape for over a century, with the establishment of credit unions and SACCOs playing a pivotal role in providing accessible financial services to individuals and communities often overlooked by traditional banking institutions (Mushonga et al., 2019).

The concept of savings and credit societies was initially introduced in Africa in 1955, at Jirapa, a small town located in the Upper West Corner of Ghana, which was known as the Gold Coast at the time, by Father John McNulty. The success of the Jirapa Savings and Credit Cooperative in Ghana inspired, that has since been replicated across Africa. In Kenya, the cooperative movement in began in 1908 with societies established by white settlers, initially focused on advancing European farming interests. Indigenous Kenyans became involved after the 1945 Co-operative Societies Ordinance, replacing the 1931 law. African farming cooperatives gained momentum following the 1953 Swynnerton Plan, which promoted cash crop production

and stimulated the growth of African cooperatives (Alila and Obado, 1990). Mushonga et al. (2019), conceived that the pioneers in cooperative development achieved success through a bottom-up method, which was in contrast to what colonial rulers attempted unsuccessfully in India and most African countries, particularly in the 1960s, when most African nations obtained independence.

SACCOs contribute significantly to national and international sustainable development goals (SDG)s, including SDG 1 (No Poverty) and SDG 8 (Decent Work and Economic Growth). In Kenya, the SACCO movement is recognized as the largest in Africa and among the top ten globally, mobilizes 33% of national savings, establishing itself as a key driver of the economy (World Bank, 2018). SACCOs are instrumental in Kenya's socio-economic landscape, playing a pivotal role in employment generation and social protection. Through their core functions which are providing access to credit, fostering income generation, and supporting social safety nets and community development. Their ability to drive economic empowerment and strengthen social safety nets makes them critical actors in Kenya's development agenda (Wanyama, 2009).

1.1.2 Regulatory environment governing SACCOs in Kenya

The Kenyan financial landscape consists of many essential components, each fulfilling a unique function in the broader economy. The primary financial sectors are the Banking Sector, overseen by the Central Bank of Kenya (CBK), the Capital Markets, governed by the Capital Markets Authority (CMA) and encompassing the Nairobi Securities Exchange (NSE), the Insurance Sector, regulated by the Insurance Regulatory Authority (IRA), the Pensions Sector regulated by the Retirement Benefits Authority (RBA), the Savings and Credit Cooperatives (SACCOs) sector by the Sacco Societies Regulatory Authority (SASRA), the Digital Financial Services and, Foreign Exchange Bureaus and Money Remittance Services (CBK, 2022).

The SACCO sector is nurtured and overseen by three essential organisations that have vital responsibilities in guaranteeing the sectors' efficient operation and long-term viability. Established in accordance with the provisions of the Sacco Societies Act, No. 14 of 2008, the SACCO Societies Regulatory Authority (SASRA) is the primary government agency in charge of overseeing and regulating SACCO Societies in Kenya. Its main duties include, granting licenses to SACCO Societies to conduct deposit-taking business in Kenya and supervising and regulating both Deposit-Taking and specified Non-Deposit-Taking SACCO Societies.

Regulatory oversight of policy formulation, implementation, and evaluation pertaining to cooperatives and micro, small, and medium enterprises (MSME)s is the responsibility of the Ministry of Cooperatives and MSMEs, which is responsible for the general development and promotion of cooperative societies in Kenya, including SACCOs. The Kenya Union of Savings and Credit Co-operatives (KUSCCO) is the national umbrella organization for SACCOs in Kenya and their primary mandate is to represent the interests of its member SACCOs, and provides a platform for collaboration and advocacy.

1.1.3 The Distinction Between Deposit-Taking (DT) SACCOs and Non-Deposit-Taking (NDT) SACCOs

The SACCO sector plays a pivotal role in advancing financial inclusion and contributing to Kenya's economic development. Broadly, SACCOs in Kenya fall into two distinct categories: Deposit-Taking (DT) SACCOs and Non-Deposit-Taking (NDT) SACCOs (SASRA, 2022). DT SACCOs offer both Back Office Services (BOSA) and Front Office Services (FOSA), the latter functioning similarly to conventional banking services. Through FOSA, DT SACCOs are able to accept deposits, offer savings and transactional accounts, and provide other financial services to a diverse client base. These services are regulated under the legal and supervisory framework established by the Sacco Societies Act (SSA) of 2008, which created the Sacco Societies Regulatory Authority (SASRA) to oversee the licensing and governance of DT SACCOs. This legislative development was a response to regulatory challenges under the former Cooperative Societies Act, which was inadequate in managing the rapid growth and operational complexity of DT SACCOs (SASRA, 2011).

In contrast, NDT SACCOs traditionally operate under more limited scopes, primarily offering BOSA services to members who often share a common bond, such as location, occupation, or social affiliation. These SACCOs were initially regulated by the Commissioner of Cooperatives, in accordance with the Cooperative Societies Act (Cap 490) and its subsequent amendments. However, as many NDT SACCOs began to handle increasingly large volumes of member deposits, some exceeding Kshs 100 million, concerns over risk exposure and member protection emerged. In response, the government extended regulatory oversight to qualifying NDT SACCOs through the enactment of the Sacco Societies (Non-Deposit-Taking Business) Regulations, 2020. This regulatory shift mandated all qualifying NDT SACCOs to apply for authorization, and comply with prudential and governance standards similar to those of DT SACCOs (SASRA, 2022). The move marked a significant step towards enhancing

transparency, ensuring financial discipline, and aligning SACCO operations with broader national financial stability goals.

By the end of the transition period in June 2021, SASRA had received 199 applications from NDT SACCOs seeking regulatory authorization. Of these, 185 SACCOs were successfully licensed and designated as Regulated Non-Withdrawable Deposit-Taking (NWDT) SACCOs, distinguishing them from unregulated NDT counterparts (SASRA, 2021). According to SASRA (2022), NDT SACCOs tend to focus more on social and developmental objectives, often offering tailored financial solutions for specific member segments such as women's groups, employees, and smallholder farmers. These institutions typically emphasize community development, capacity building, and empowerment over traditional commercial banking services, reinforcing their role as key drivers of grassroots economic participation.

1.2 The Financial Performance of SACCOs

Financial performance refers to the efficiency with which an organization utilizes its assets to generate income from core operations (Juma and Maseko, 2022). It provides a comprehensive measure of a company's financial health over a specific period, facilitating comparisons within and across industries (McConnell, 2007). Financial performance is not merely an accounting exercise; it is a strategic initiative aimed at enhancing the accuracy, timeliness, and compliance of financial institutions, while supporting daily operations (Keitany, 2013). However, Martins et al. (2023) argued that financial performance should extend beyond profitability to include sustainability and social impact. In the context of SACCOs, Barus et al. (2017a) emphasized their pivotal role in Kenya's economy, particularly in mobilizing savings and providing loans to members. While this suggests that profitability may not traditionally be the primary focus of SACCOs, Mathuva et al. (2016) highlighted that industry transformations have increasingly led SACCOs to prioritize economic incentives to be able to achieve sustainability and expansion.

A variety of metrics can be employed to assess financial performance, each offering unique insights into an organization's financial state. Metrics such as Return on Assets (ROA), Return on Equity (ROE), and Operating Profit Margin (OPM) are critical indicators that measure how effectively SACCOs utilize their resources to achieve financial stability and growth (Aliabadi et al., 2013 ; Laing and Dunbar, 2015 ; Mathuva, 2016). These metrics provide a comprehensive view of financial health by evaluating profitability, efficiency, and resource

utilization. Ravinder Singh et al. (2024) defined ROA as a measure of a firm's operating efficiency in generating profits from its assets. ROA evaluates the profitability of a company relative to its total assets, emphasizing the productivity of the assets in generating earnings before financing effects. The study recommended using Earnings Before Interest and Taxes (EBIT) as the numerator in ROA calculations since it reflects the income available to all stakeholders (both equity and debt holders), ensuring a more accurate measurement of asset productivity. Return on Equity (ROE), on the other hand, reflects the profitability generated from shareholders' investments, serving as a measure of how well the organization rewards its members or investors (Pennacchi and Santos, 2021). Finally, Choiriyah et al. (2021) defined Operating Profit Margin (OPM) as a ratio that measures a company's ability to generate profits to cover fixed costs or operating expenses from its core operational activities.

In the context of SACCOs, these metrics are particularly relevant given their dual mandate to maintain financial sustainability while providing affordable credit and financial services to members. For example, a high ROA in a SACCO indicates strong asset utilization, while a competitive ROE signals effective management of member contributions and equity. Similarly, OPM offers insights into the operational efficiency of SACCOs, particularly in their ability to manage administrative expenses and maintain profitability despite economic or regulatory pressures. By leveraging these metrics, SACCOs can benchmark their performance, identify inefficiencies, and implement strategies to enhance their financial outcomes, ultimately contributing to their long-term stability and growth.

Among these mentioned metrics, ROA is particularly notable as it evaluates asset efficiency and profitability. Aliabadi et al. (2013) identified ROA as a highly relevant metric under International Financial Reporting Standards (IFRS), while Laing and Dunbar (2015) emphasized ROE and Earnings Per Share (EPS) as complementary measures of profitability relative to shareholders' equity. This measure is particularly advantageous in the context of SACCOs, where asset utilization plays a pivotal role in income generation and financial sustainability. Furthermore, Hasan Dincer et al. (2011) underscored that ROA is a vital component in financial performance evaluations, particularly in the banking and SACCO sectors, as it highlights the profitability of assets without the distortion of financing effects. Unlike metrics such as ROE, which can be manipulated through leverage, ROA remains a robust indicator that offers an unbiased perspective on operational efficiency. Moreover, Mathuva (2016) pointed out that ROA serves as a reliable gauge for stakeholders to assess the

health and sustainability of SACCOs, particularly in contexts where resource allocation and asset management are critical to achieving financial stability.

This study adopted Return on Assets (ROA) as the primary indicator of financial performance. ROA is widely used in financial and economic research as a proxy for institutional efficiency and profitability (Athanasoglou et al., 2008; Ongore and Kusa, 2013). ROA is particularly suitable for SACCOs as it accounts for the full asset base, comprising of loans, investments, and cash balances thereby capturing both income generation and asset management. Unlike Return on Equity (ROE), which may be influenced by leverage and capital structure, ROA provides a more stable and consistent measure across institutions of varying sizes and structures, especially relevant in a comparative analysis between deposit-taking and non-deposit-taking SACCOs. Furthermore, ROA aligns with the CAMEL framework, which SASRA uses to monitor capital adequacy, asset quality, earnings quality, and liquidity. In this study, ROA is used as the dependent variable in the regression analysis to evaluate how factors influence financial performance across SACCO types.

1.2.1 Understanding Financial Performance Disparities between DT and NDT SACCOs in Kenya

SACCOs' financial performance is crucial for their sustainability and impact on economic and social development. In the context of SACCOs, performance reflects how well an institution mobilizes and allocates resources, manages risk, and delivers value to its members. Key performance outcomes such as asset growth, deposit mobilization, loan portfolio quality, and earnings are shaped by a combination of internal, regulatory, and external factors. Internal factors such as asset quality, operational efficiency, capitalization, governance structure, and innovation are central to SACCO performance (Ongore and Kusa, 2013; Menicucci and Paolucci, 2016). Regulatory classification, DT or NDT, determines the scope of services offered, the prudential standards followed, and the degree of member trust, which can significantly impact financial outcomes. External macroeconomic variables such as inflation, interest rates, and GDP growth further influence SACCO operations by shaping the broader financial ecosystem (Sanathanee, 2020).

Over the past decade, the SACCO sector has witnessed substantial growth. According to SASRA (2023), total assets of regulated SACCOs grew by 9.17% in 2023 to reach Kshs 971.96 billion, accounting for 6.43% of Kenya’s GDP. Gross loans expanded by 11.5% to Kshs 758.57

billion, while total deposits rose by 9.95% to Kshs 682.19 billion. These figures underscored the sector's importance as a financial intermediary. However, the distribution of performance remains uneven. The 2023 report shows that only 53 regulated SACCOs control 73.34% of total assets, and 39 SACCOs hold 65.27% of all deposits, indicating a strong concentration of resources among a few institutions. Most of these being DT SACCOs, which benefit from advanced digital platforms, regulatory backing, and diversified income streams. In contrast, NDT SACCOs, while vital for grassroots financial inclusion, face challenges such as limited capital access, smaller member bases, and slower adoption of technology.

Given these disparities, understanding the factors influencing SACCO performance, is both timely and necessary. This study applied a descriptive statistical approach in its first objective to examine and compare key financial performance indicators, ROA, capital adequacy, liquidity, efficiency, asset quality and size between DT and NDT SACCOs. Descriptive statistics are appropriate, as they provide a foundational understanding of the structure, central tendencies, and variability within each SACCO type. This approach helped identify patterns and gaps in performance, informing deeper analysis in subsequent chapters. The selection of financial performance indicators in this study was guided by both theoretical relevance and the availability of comparable data across SACCO types. In line with regulatory benchmarks and empirical best practices, emphasis was placed on factors that reflect core aspects of institutional soundness and are consistently reported by the regulator.

To ensure comparability and consistency in the analysis, this study utilized financial stability indicators that were commonly reported for both DT and NDT SACCOs in the SASRA Annual Reports 2022 and 2023. According to Ngui and Jagongo (2017), the DT SACCO system's financial health and stability can be assessed through crucial indicators such as capital adequacy, asset quality, earnings, and liquidity. Specifically, the selected ratios namely ROA, Core Capital, Cost to Income Ratio (CIR), Non-Performing Loans (NPL) ratio, and Liquidity Ratio were drawn from the financial stability sections of the reports, where they are systematically presented for both categories of SACCOs. These indicators are aligned with the CAMEL framework and are widely used in prudential analysis to assess institutional soundness, profitability, and resilience. By focusing on specific ratios that are common to both SACCO types and officially reported by SASRA, the study ensured the reliability of the data and allowed for a valid comparative analysis of financial performance.

1.2.2 Financial Indicators and Financial Performance of SACCOs

In evaluating the financial performance of SACCOs, this study adopted a focused set of financial indicators that are both theoretically grounded and empirically validated through regulatory reporting. Financial indicators serve as reliable, quantifiable measures of institutional health, offering valuable insights into how well SACCOs mobilize resources, manage credit risk, and sustain operational viability. These indicators are not only central to performance assessment in the financial sector but also serve as practical tools for comparing institutions operating under different regulatory regimes and in this case specifically DT and NDT SACCOs.

The rationale for selecting these indicators is also firmly supported by industry data. According to the SASRA Supervision Reports, SASRA (2022) and SASRA (2023), the regulated SACCO sector has demonstrated steady growth in core financial parameters. Guided by the CAMEL framework, a globally recognized model for evaluating financial institutions, this study selects five core metrics: Return on Assets (ROA), Core Capital, Cost to Income Ratio (CIR), Non-Performing Loans (NPL) Ratio, and Liquidity Ratio. Each of these represents a key dimension of financial soundness and operational efficiency. ROA reflects a SACCO's ability to generate profit from its asset base and serves as a direct proxy for overall profitability (Ongore and Kusa, 2013). The Core Capital is a primary measure of capital adequacy, indicating the buffer available to absorb losses and support risk-taking activities (Dang, 2011). The CIR, which compares operating expenses to total income, highlights the efficiency with which a SACCO manages its costs relative to its earnings (Ndung'u and Mutinda, 2022). The NPL ratio, a widely used indicator of asset quality, reflects the extent of credit risk embedded in the loan portfolio and is particularly critical for institutions whose core business is lending (SASRA, 2023). The Liquidity Ratio demonstrates a SACCO's capacity to fulfill immediate financial commitments, reflecting its preparedness to handle cash flow challenges (SASRA, 2022).

SASRA (2022) and SASRA(2023) reports underscored stark disparities in key financial stability indicators. For example, the average ROA for DT SACCOs in 2023 was approximately 2.40%, compared to 1.05% among NDT SACCOs. Capital adequacy, as measured by the Core Capital, was consistently stronger in DT SACCOs, often exceeding the regulatory threshold of 10%, whereas a substantial number of NDT SACCOs hovered near or below compliance margins. Similarly, NPL ratios were notably higher among NDT SACCOs,

pointing to weaker credit portfolio quality and more volatile income streams. Liquidity ratios also differed markedly, with DT SACCOs maintaining more robust buffers to cover short-term liabilities.

These findings indicated more than just numerical differences they reflected systemic challenges in the financial architecture of SACCOs. While DT SACCOs have leveraged regulatory oversight to scale and stabilize, many NDT SACCOs remain vulnerable to market shocks, credit risk, and operational inefficiencies. The uneven distribution of financial strength not only raises concerns about equity and resilience but also signals a potential threat to long-term sectoral sustainability, if left unaddressed. It is against this backdrop that this study compared the financial performance of DT and NDT SACCOs by examining key prudential indicators. This comparison is essential for identifying performance drivers and informing policy interventions aimed at promoting balanced growth and systemic resilience within the SACCO sub-sector.

1.2.3 Operational Strategies and Financial Performance

Operational strategies refer to the internal approaches adopted by SACCOs to optimize processes, allocate resources efficiently, and align operational capabilities with strategic goals (Ahmed et al., 1996). These strategies are instrumental in driving day-to-day effectiveness and long-term financial sustainability. In the SACCO sector, operational strategies encompass a range of practices including technology adoption, service delivery models, cost management, and member engagement. These practices significantly influence how SACCOs compete, grow, and deliver value to members (Martins et al., 2023; Wawire, 2022).

In Kenya's dynamic financial landscape, SACCOs face differing operational realities. DT SACCOs, which operate under stricter regulatory frameworks and offer front-office banking services, often implement strategies centered on digital transformation, diversified loan products, and income diversification. NDT SACCOs, on the other hand, tend to rely on leaner operations, personalized service, and closer member relations due to their smaller size and limited access to external financing (Wawire, 2022). These distinctions influence how resources are managed, how risks are mitigated, and how financial outcomes are achieved.

Operational strategies are not merely internal technical decisions they are shaped by leadership perspectives and institutional context. Management teams are responsible for translating

strategic goals into actionable plans, prioritizing initiatives, and allocating resources accordingly. The perspectives of SACCO managers on challenges such as market competition, cost structures, and service delivery directly influence strategic choices. Therefore, capturing management perspectives is critical to understanding how strategic intent is operationalized in SACCOs and how this impacts financial performance (Joshi et al., 2003; Silvestro, 2014).

This study included the analysis of management perspectives to address an important knowledge gap, while financial indicators can show what is happening in terms of performance, they do not fully explain why these outcomes differ, particularly between DT and NDT SACCOs. Through obtaining insights from SACCO managers through a structured questionnaire, the study uncovered the rationale behind different strategic approaches and how these are linked to financial performance. This focus allowed for a more nuanced understanding of performance drivers, especially those not captured through secondary financial data. The inclusion of operational strategies in this study is therefore both contextual and methodological. Contextually, it reflected the sector's evolving complexity and the need for SACCOs to adapt strategically to maintain relevance and competitiveness. Methodologically, it enhances the study's ability to triangulate findings from financial data with primary data from practitioners, ensuring a more comprehensive analysis. Ultimately, understanding the link between strategic management and financial performance will inform actionable recommendations that are sensitive to the realities of both DT and NDT SACCOs (Porter, 1996; Mugilwa et al., 2024a; Mutuku et al., 2024; Kiaritha et al., 2013; Ogum & Jagongo, 2022; Mathuva et al., 2016).

1.2.4 Size of the SACCO

A control variable is defined as an extraneous factor in a study that may influence the dependent variable but is not of primary interest to the research question. Including control variables ensures that the effects of these extraneous factors are accounted for, enhancing the validity and accuracy of the relationships being studied (Bernerth and Aguinis, 2016). In the context of SACCOs in Kenya, size serves as a critical organizational attribute that may influence financial performance by dictating access to resources, economies of scale, and competitive capabilities. Size is widely recognized in organizational studies as a fundamental factor that impacts operational capacity and strategic flexibility. Several studies, such as, Ahmed et al. (2022) ; Kiruru (2022) and Siddique et al. (2022), have used firm size as a control variable. In one study, Kioko (2010) revealed that total deposits and loans exerted a stronger influence on financial performance compared to total assets, underscoring the importance of scale in resource

mobilization and income generation in bank performance in Kenya. Larger SACCOs benefit from economies of scale, better resource utilization, and enhanced market power, enabling them to generate higher returns and sustain operations effectively. The study found that firm size alone explains 36.5% of the variation in financial performance, underscoring its critical role in shaping financial outcomes. This indicates that larger SACCOs are better positioned to achieve financial stability and efficiency compared to their smaller counterparts (Shibutse et al., 2019).

The positive correlation between firm size and financial performance highlights that as SACCOs grow in size, they achieve enhanced operational capacity, which translates into better financial outcomes. Including firm size as a control variable ensures that variations in performance attributable to other financial indicators, such as resource allocation, are analyzed more accurately and not confounded by differences in scale. This approach provided a standardized framework to isolate the effects of size on financial performance, allowing for a more precise examination of the relationships between operational factors and financial performance outcomes. Controlling for the size of SACCO ensured that financial performance differences between DT and NDT SACCOs are not merely attributed to disparities in organizational scale but are reflective of underlying organizational and strategic factors. This approach aligned with best practices in organizational research, as emphasized by Bernerth and Aguinis (2016), where controlling for size enables researchers to uncover the true drivers of performance, offering a robust basis for actionable insights into the financial dynamics of SACCOs.

1.3 Problem statement

The financial performance of SACCOs in Kenya presents a persistent and policy-relevant challenge. Despite the sector's expansion, reaching total assets of Kshs 971.96 billion by 2023, equivalent to 6.43% of Kenya's GDP there are widening disparities in performance across SACCO types (SASRA, 2023). A small group of 53 DT SACCOs control over 73% of total assets, while many NDT SACCOs struggle with liquidity, limited income diversification, and high credit risk exposure. For instance, average ROA among DT SACCOs ranged between 2.40% to 2.65% in 2023, while NDT SACCOs reported lower returns of 1.05% to 1.79%, reflecting structural inefficiencies (SASRA, 2022; SASRA, 2023). These imbalances threaten the sustainability of SACCOs, particularly those with limited capital and regulatory support.

The urgency of addressing these disparities is heightened by Kenya's recent regulatory reforms. Prior to the Sacco Societies (Non-Deposit-Taking Business) Regulations, 2020, NDT SACCOs operated without formal prudential oversight despite managing substantial member funds, some exceeding Kshs 100 million (SASRA, 2022). The post-2020 regulatory shift has exposed long-standing vulnerabilities, revealing the need for robust evidence on how financial performance varies between DT and NDT SACCOs, and what factors drive or constrain these outcomes under different operational models.

Existing research provides only partial insights. Most studies focus narrowly on DT SACCOs or apply generalized models developed for commercial banks, neglecting the unique organizational, financial, and regulatory contexts of NDT SACCOs. This presents a contextual and conceptual gap, as SACCOs are cooperative entities that operate under different incentives, governance mechanisms, and member-centric models. In addition, there is a methodological gap: few studies use comparative econometric models that control for structural differences while identifying the specific internal and strategic factors influencing performance.

This study addresses these gaps through a mixed-methods comparative approach. Quantitative analysis, including descriptive statistics and panel regression, will examine the relationship between key financial indicators and financial performance outcomes. To complement this, qualitative data from SACCO management will provide insight into operational strategies and leadership decision-making processes that shape performance. This integrated approach allows the study not only to identify what drives SACCO performance, but also to understand why those factors matter enabling the formulation of more targeted, evidence-based policy and governance recommendations.

1.4 Research Aim and Objectives

The general objective of this study is to examine the impact of factors influencing the financial performance of DT versus NDT SACCOs in Kenya. The specific objectives of the study are:

1. To establish the differences in performance between DT versus NDT SACCOs in Kenya.
2. To assess the influence of selected financial ratios on the financial performance of DT and NDT SACCOs in Kenya.
3. To compare the operational strategies and evaluate their impact of financial performance of DT versus NDT SACCOs in Kenya.

The study is guided by the following research questions:

i. What are the differences in financial performance between DT versus NDT SACCOs in Kenya?
ii. How do selected financial ratios influence the financial performance of DT SACCOs versus NDT SACCOs in Kenya?
iii. How do the operational strategies of Deposit-Taking (DT) and Non-Deposit-Taking (NDT) SACCOs in Kenya differ, and what impact do these strategies have on their financial performance?

1.5 Scope of the Study

This study examined the financial performance of SACCOs in Kenya, with a particular focus on comparing DT and NDT SACCOs, that are regulated by SASRA. The quantitative component of the study draws on data from the full population of 357 regulated SACCOs, comprising 176 DT SACCOs and 181 NDT SACCOs. Secondary data covering the period 2020 to 2023 was obtained from audited financial statements and SASRA's annual supervision reports. The selection of this timeframe was deliberate, as it coincides with the implementation of the Sacco Societies (Non-Deposit-Taking Business) Regulations, 2020, which extended regulatory oversight to large NDT SACCOs for the first time. This period therefore provided the earliest point of consistent, comparable financial data across both SACCO types under a unified regulatory framework.

The qualitative segment of the study targeted senior SACCO management given their strategic role in shaping and executing operational decisions. Primary data was collected from a purposively selected sample of 43 SACCOs, drawn from both DT and NDT SACCOs. This sample size was considered appropriate to capture a diversity of perspectives while remaining practical within the time and resource constraints of the study. It also ensured balanced representation across different SACCO models, allowing for meaningful comparison of operational strategies. The scope of the study is thus both temporal, covering a four-year period from 2020 to 2023, and categorical, focusing exclusively on SACCOs formally regulated by SASRA. Unregulated SACCOs and those lacking reliable financial disclosures were excluded to maintain consistency and data quality.

1.6 Significance of the Study

The study will be extending the current body of knowledge on the studies of SACCOs in Kenya, which will be of importance to policymakers, regulators, SACCO management, SACCO members, and academicians.

1.6.1 Policy Makers and Regulators

This research will be crucial as regulators, such as the Sacco Societies Regulatory Authority (SASRA), strive to establish and implement policies that ensure financial stability and sustainability in the SACCO sector. SACCOs are regulated under specific legal frameworks, such as the SACCO Societies Act in Kenya, which ensure they operate prudently and protect members' interests, after Regulations (2020), NDT SACCOs are now under regulation by SASRA. A comparative study will provide policymakers with the insights necessary to tailor a dual regulation and support framework to support both SACCO types.

1.6.2 Management and Boards of SACCO

The executive officers, managers, and board members of both DT and NDT SACCOs would find the comparative analysis of their organisations of interest. The study will provide significant and useful insights into key elements that influence their performance and will promote the adoption of best practices that can enhance both performance and sustainability. An analysis of the financial performance disparities between DT and NDT SACCOs enables boards and management to customise products and services to more effectively cater to the requirements of its members. Implementing this will empower organisations to make educated and data-driven decisions that will enhance the long-term sustainability of the SACCO operations. An analytical comparison could identify opportunities for a SACCO to broaden or modify its model, such as transitioning from NDT to DT or vice versa. Boards can thereafter determine if said action would enhance long-term viability.

1.6.3 Members of SACCOs

By examining the factors that affect the financial viability of these cooperatives, the study seeks to improve the decision-making process used by SACCO members when selecting financial institutions. Members may gain a deeper comprehension of how their SACCO effectively handles resources and the prospective benefits they can anticipate, whether in the form of dividends or improved credit conditions. A comprehensive understanding of the risk levels

associated with each category of SACCO enables members to assess the security of their deposits or investments and make well-informed decisions on the appropriate location for their funds. The comparison enables members to assess the value proposition of each form of SACCO, therefore facilitating their selection of the most suitable option for their financial requirements.

1.6.4 Academicians and Researchers

This study contributes significantly to the existing body of knowledge by extending literature on SACCO performance in Kenya, particularly through a comparative analysis of DT and NDT SACCOs. Through the inclusion of both types of SACCOs, the study addresses a notable conceptual gap, as existing literature has predominantly focused on DT SACCOs. Additionally, it enriches academic discussions by applying financial performance theories, agency theory and assymetric information theory by offering a theoretical foundation for future research. The study's robust methodology, through the use of descriptive statistics, regression analysis, and questionnaire to management provides a model that can guide similar studies on financial performance in cooperative financial institutions, particularly in emerging economies. These contributions will enable researchers to build on this work, explore additional variables, and advance the understanding of SACCO dynamics and their role in financial inclusion and economic development.

1.7 Chapter Summary

This chapter introduced the study by outlining the significance of SACCOs in Kenya's financial sector, highlighting the distinctions between DT and NDT SACCOs, and framing the performance disparities that exist between them. It established the context and urgency of the study, particularly in light of the 2020 regulatory reforms that brought NDT SACCOs under SASRA oversight. The chapter defined the research problem, articulated key knowledge and methodological gaps, and presented the study's objectives and research questions. It also justified the use of a mixed-methods approach and clarified the scope of the study, including the use of secondary data from 357 regulated SACCOs and primary data from a purposively selected sample of 43 SACCOs. This foundation set the stage for a comparative analysis of the financial and strategic factors influencing SACCO performance in Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

A literature review is a critical examination and synthesis of existing research related to a specific topic. It serves as the foundation for empirical studies by identifying theoretical frameworks, defining key concepts, and highlighting gaps in current knowledge. According to Nakano and Muniz Jr (2018), a well-crafted literature review plays a fundamental role in positioning a study within existing research, through establishing theoretical boundaries, and defining the key concepts to be used in empirical analysis. This chapter highlights the theoretical framework that supported the study, and empirical studies about the factors influencing the performance of SACCOs and alike institutions. The chapter begins with a highlight of the theoretical framework for the study, followed by empirical studies, a summary of knowledge gaps arising from the review, the conceptual framework and the operationalization of the study variables that are presented toward the end of the chapter.

2.2 Theoretical Review

To compare the factors influencing the financial performance of DT SACCOS versus NDT SACCOs in Kenya, it is fundamental to explore the theories that form the foundation of the differences in financial performance between the two types of SACCOs. Through the analysis of the differences between DT and NDT SACCOs, and the impact of selected financial ratios and operational strategies on financial performance, these theories provide a framework for understanding why financial outcomes may vary between the two types of SACCOs. The study is founded on two theories, Agency theory and Asymmetric Information theory, which provide valuable insights into the financial performance of DT and NDT SACCOs in Kenya.

2.2.1 Agency Theory

The agency theory, can be traced back to Adam Smith in 1776, who touched on the potential conflicts between owners and managers of companies, noting that managers might not act in the best interests of shareholders. In his book "The Wealth of Nations", Smith (1776) predicted that if an organisation is run by individuals who are not the actual owners, there is a possibility that they may not act in the best interest of the owners. Agency theory suggests that misaligned goals can lead to agency costs such as ineffective loan recovery and excessive administrative expenses, ultimately impacting financial performance. The modern framework of agency

theory was formalized in the 1970s by economists, Michael Jensen and William Meckling. Agency theory examines the relationship between principals (such as shareholders or members) and agents (such as managers or SACCO management). It focuses on conflicts of interest that may arise due to differing goals between the two parties, especially in terms of decision making and operations. Agency theory suggests that the separation of ownership and control can lead to conflicts of interest between the members and the management (Kyazze et al., 2020). Meckling and Jensen (1976) characterised the firm as a black box that functions to maximise its value and profitability. Wealth maximisation can be attained through effective coordination and collaboration among the stakeholders within the firm. Self-interested parties recognise that their interests can only be fulfilled through the existence of the firm; consequently, they strive to perform effectively to ensure the firm's survival (Panda and Leepsa, 2017). When the interests of the parties diverge, a conflict of interest emerges, which can only be mitigated through managerial ownership and control.

By illuminating issues like moral hazard and adverse selection, Agency Theory provides a framework for designing effective control mechanisms, such as performance-based compensation and oversight by boards of directors (Eisenhardt, 1989). These mechanisms mitigate agency costs, which include monitoring expenses, incentive alignment costs, and residual losses resulting from divergent interests (Zogning, 2017). Furthermore, Agency Theory's focus on risk-sharing offers valuable insights into optimal contract design, balancing the interests of risk-averse agents with those of principals (Meckling and Jensen, 1976). These contributions have made Agency Theory a cornerstone for understanding organizational behavior, strategy, and governance across diverse disciplines.

Despite its widespread use, Agency Theory faces significant criticisms that challenge its assumptions and applicability. One major critique is its reliance on a narrow view of human behavior, assuming that agents are inherently self-interested and driven by economic rationality. This perspective neglects the role of trust, collaboration, and intrinsic motivation in organizational relationships, limiting the theory's ability to account for the complexities of human interactions (Eisenhardt, 1989 ; Scott, 1973). Additionally, the theory's emphasis on contracts as the primary mechanism for aligning interests overlooks informal and social controls that play a significant role in real-world organizational settings. Another critique centers on its treatment of information asymmetry and goal conflict as universally problematic. Critics argue that Agency Theory oversimplifies these dynamics, failing to consider contexts

where goals are naturally aligned or where long-term relationships reduce information gaps and foster mutual trust (Eisenhardt, 1989 ; Scott, 1973). The theory is also criticized for its limited applicability to non-corporate settings and its inability to address ethical considerations, such as when agent actions are aligned with principal interests but conflict with broader societal values (Zogning, 2017). Finally, Agency Theory's focus on economic efficiency and control mechanisms has been criticized for stifling creativity and innovation. By prioritizing monitoring and compliance, organizations risk discouraging agents from taking risks or exploring novel solutions, which can be detrimental in dynamic and competitive environments (Eisenhardt, 1989). Furthermore, the theory has been described as overly deterministic and lacking in empirical flexibility, making it less effective in addressing the complexities of modern, globalized organizations (Zogning, 2017).

The operations of a SACCO whether DT or NDT, are significantly influenced by the degree to which management, who are acting as the agents, effectively fulfil the objectives of their members or principals. Their key objectives often include maximizing returns on member savings and the provision of credit at affordable rates. Simiyu et al (2023) alluded to agency theory to explain the correlation between managerial activities and the enduring profitability of DT SACCOs. Within DT SACCOs, the members, place their savings and investments under the control of the SACCO management, who act as the agents and are accountable for making operational choices. Excessive administrative expenses, ineffective loan recovery procedures, or inadequate utilisation of technology, can result in increased agency costs and reduced financial performance. Kyazze et al. (2020) illustrated the practical implications of agency theory, and indicated that failures in accountability within SACCOs are often caused by inadequate oversight by members and emphasized the need for mechanisms such as monitoring, contracts, and sanctions to align the interests of agents with those of the principals. The study by Kiaritha et al. (2013) alluded to agency theory in the context of SACCO operations by highlighting the dynamics between the management committees and the members of the SACCOs. Kiruru (2022) added that implementing control both external and internal mechanisms, can help mitigate the agency problem by aligning the interests of managers with those of the shareholders.

NDT SACCOs have an established principal-agent relationship between their members and management. However, the extent and scope of their operations might potentially impact the dynamics of this relationship. A more tightly interconnected membership in NDT SACCOs

may reduce agency challenges, but it will not completely eliminate them. Goddard et al. (2008) in their study of credit unions, proposed that the performance outcomes can be greatly affected by the governance structures and operational decisions made at the credit union level, which are influenced by agency relationships. This encompasses the extent to which management successfully aligns its objectives with those of the employees, consequently influencing the growth and performance of the organisation. NDT SACCOs, being smaller and more community-oriented, may have better communication and member monitoring, which in turn can help reduce agency expenses.

Agency Theory provides a robust framework for understanding the dynamics between SACCO members (principals) and management (agents), particularly in addressing the conflicts of interest and governance challenges that influence financial performance. For the first and second objective, agency theory underscored how financial performance metrics serve as indicators of the extent to which agents effectively manage the resources entrusted to them. It also underpinned the importance of aligning management decisions with member interests to mitigate agency costs and optimize financial outcomes. Finally, for the third objective, the theory explained how operational strategies can reduce inefficiencies and improve accountability, ensuring that SACCOs achieve their financial goals. Anchoring the study in Agency Theory, will explore how the alignment or misalignment of management and member interests affects operational and financial outcomes in both DT and NDT SACCOs, providing a framework to analyze governance structures and the effectiveness of control mechanisms across SACCO types.

2.2.2 Theory of Asymmetric Information

The theory of Asymmetric Information was first introduced by economist George Akerlof in his 1970 study "The Market for Lemons". The study explored the impact of knowledge imbalances between buyers and sellers on market inefficiencies. Akerlof (1978) elucidated how private information might cause market dysfunction and highlighted the prevalence of such informational asymmetries and their extensive repercussions. In particular, the theory seeks to explain situations when one party engaged in a transaction or engagement, has a higher or better level of information than the other party. This disparity in information can lead to inefficiencies and complexities within a vast economic and financial landscape. Asymmetric Information has a substantial impact on the behavior of economic actors and the operations of different institutions. Specifically in financial institutions that are in the business of lending

money, it impedes lending accessibility and affect asset quality. Lenders may exhibit hesitancy in extending credit, due to the ambiguity surrounding borrowers' risk profiles, resulting in constrained investment and economic prospects in emerging economies (Lofgren et al., 2002).

Asymmetric Information theory, while foundational in understanding the dynamics of financial markets, presents several challenges that affect its applicability. One key critique of the theory lies in its reliance on the assumption that market participants can mitigate asymmetries effectively through signaling or screening mechanisms. Chu (1999) critiques this reliance, arguing that depositor behavior and market signals often fail to mitigate information asymmetry during systemic financial crises. This has implications for SACCOs, where members rely heavily on transparency and trust to ensure equitable resource mobilization. DT SACCOs, due to stricter regulatory frameworks, may have more robust mechanisms to mitigate information asymmetry compared to NDT SACCOs, potentially leading to performance disparities. Another challenge with the asymmetric information theory is its oversimplification of financial intermediation. The theory assumes that intermediaries, such as SACCOs, can effectively bridge information gaps between members and stakeholders. However, Claus and Grimes (2003) highlighted that such intermediation can exacerbate moral hazard and adverse selection problems, particularly in environments with limited oversight or regulatory enforcement. This is particularly relevant for NDT SACCOs, which operate under less stringent regulatory frameworks than their DT counterparts, potentially leading to inefficiencies in resource allocation and financial performance. The absence of effective screening mechanisms in NDT SACCOs may result in higher rates of non-performing loans or limited asset growth, further widening the performance gap with DT SACCOs.

The theory also underestimates the cascading effects of information asymmetry during financial crises. Chu (1999) noted that even in scenarios where signaling mechanisms are present, external factors such as systemic shocks can lead to widespread financial instability, including bank runs. In the context of SACCOs, NDT SACCOs may be more vulnerable to such shocks due to their reliance on member contributions and smaller financial scales, compared to DT SACCOs, which benefit from larger asset bases and access to diverse funding sources. This vulnerability underscores the importance of understanding how information asymmetry affects the operational resilience of SACCOs. Finally, asymmetric information theory falls short in explaining the broader macroeconomic impacts of financial market imperfections. Claus and Grimes (2003) argued that the theory inadequately captures how

credit market frictions caused by information asymmetry interact with macroeconomic dynamics. This limitation is particularly relevant for SACCOs operating in Kenya, where economic volatility and inflation can amplify the challenges posed by asymmetric information. For example, NDT SACCOs, with fewer resources to hedge against economic shocks, may experience greater financial instability compared to their DT counterparts.

Assymetric Information theory has been extensively utilized in the financial sector, with a primary focus on asset quality as a critical determinant of performance, as lenders frequently lack complete information regarding the creditworthiness of borrowers, resulting in issues of adverse selection and moral hazard. Kithuka (2024) stated that this asymmetry can result in adverse selection in credit risk assessment, for example instances where members with higher risk profiles may seek loans without fully disclosing their financial situations, thereby increasing default rates. Ombati et al. (2023) added that moral hazard can also arise post-loan approvals, as SACCOs have limited control over the borrowers actions, which may lead to defaults. The provision of comprehensive information by SACCOs facilitates the establishment of transparency and confidence between lenders and borrowers, hence mitigating the presence of information asymmetry. This can result in improved loan performance and, as a result, enhanced asset quality. In their study, Talbot et al. (2015) argue that providing the lending institution with more comprehensive information should lead to a decrease in risk. The issuance of loans with a greater likelihood of default can occur in the presence of knowledge asymmetry, therefore affecting the asset quality of SACCOs. However, the extent of this influence may vary.

Insufficient information or provision of inaccurate financial details by borrowers, can lead to the SACCOs granting loans that are not repaid, as a result, diminish the asset quality of SACCOs. DT SACCOs may have an advantage over NDT SACCOs in this regard, as they can leverage the information they have about their members' savings and repayment behavior to better assess credit risk and make more informed lending decisions (Joshua et al., 2021). However, as the size of the DT SACCO becomes larger, members' control and oversight may become more difficult, leading to potential free-riding behavior and increased credit risk, resulting in challenges of assessing the creditworthiness of borrowers, due to the presence of information asymmetry. The primary objective of financial intermediation is to get information regarding the borrower's creditworthiness. The financial institution necessitates possession of information to limit credit risk (Hertzberg et al., 2010).

Elevated non-performing loans (NPL)s curtail both profitability and liquidity, augmenting the asset quality and financial instability of SACCOs. DT SACCOs, due to the presence of deposit management, are more susceptible to systemic hazards, as a result of subpar asset quality which has the potential to foster member scepticism and result in widespread withdrawals. NDT SACCOs on the other hand, may see reduced information asymmetry and improved creditworthiness evaluations because of enhanced and more intimate connections between members and management, and the probability of experiencing significant withdrawals is low, because they do not accept deposits. Birchall (2013) explained that cooperative banks possess the ability to tap into local expertise, enabling them to have a more comprehensive understanding of the risk profile of their consumers. This type of knowledge is especially important when providing loans to small enterprises that lack access to collateral, such as tangible assets and receivables (Canales and Nanda, 2012).

Information asymmetry theory provides a unifying lens to examine the financial performance disparities, financial indicators, and operational strategies of DT and NDT SACCOs in Kenya. Information asymmetry has predominantly been applied in the financial sector, with a primary focus on asset quality as a critical determinant of performance. However, its application has been relatively limited in exploring other factors such as organizational attributes and operational strategies, which also play significant roles in influencing financial performance. Expanding the use of information asymmetry theory to include these factors could provide a more holistic understanding of the dynamics affecting financial institutions.

The stricter regulatory frameworks of DT SACCOs reduce information asymmetry, fostering better transparency, trust, and financial outcomes, while NDT SACCOs, with less oversight, face greater challenges such as inefficiencies in resource allocation and higher non-performing loans. Organizational factors like governance structures and financial metrics are directly influenced by information gaps, with DT SACCOs benefiting from more robust systems to manage asymmetry. Additionally, management perspectives on operational strategies, such as technology adoption and resource optimization, are shaped by the availability and quality of information. Through a comparison of DT and NDT SACCOs, this study will explore how transparency and information flow impact financial performance, providing insights to address gaps and enhance the sector's sustainability.

2.3 Empirical Review

A preview of empirical reviews of previous studies on the financial performance of SACCOs are examined in Section 2.3.1, Section 2.3.2, and Section 2.3.3. Empirical literature on NDT SACCOs in Kenya are few. This section provides a broad highlight of studies carried out on DT SACCOs and banks, and because there are no studies conducted on NDT SACCOs in Kenya, to represent the NDT SACCOs, there will be some studies on credit unions and non deposit taking micro finance institutions in Kenya and in other jurisdictions.

2.3.1 Comparative Studies and Financial Performance

The first objective of this study "To establish the differences in performance between DT and NDT SACCOs in Kenya" is grounded in a significant contextual and empirical gap in the literature. The selection of variables in this study was based on indicators consistently reported for both DT and NDT SACCOs in SASRA's Annual Reports, SASRA (2022) and SASRA (2023). Financial ratios related to capital adequacy, asset quality, earnings, and liquidity were prioritized, as they align with the CAMEL framework for assessing institutional soundness (Ngui and Jagongo, 2017). Specifically, ROA, Core Capital, Cost-to-Income Ratio, NPL Ratio, and Liquidity Ratio were chosen to ensure data comparability, reliability, and alignment with regulatory benchmarks for financial performance analysis. While various comparative studies such as, Lu and Swisher (2020) and Salman and Nawaz (2018) have assessed financial performance across banks, credit unions, and Islamic versus conventional financial institutions, however, these studies do not account for the unique attributes of SACCOs, such as member-driven governance and the cooperative model's dual social-financial mission. There is a need for SACCO-specific analysis that distinguishes the performance of DT versus NDT models under Kenya's regulatory framework.

From a theoretical perspective, Agency Theory and Asymmetric information theory provided relevant lenses. Agency Theory explained how DT SACCOs may reduce agency costs due to stronger regulatory oversight, while NDT SACCOs may leverage closer member relationships for internal monitoring. Asymetric information theory underscored differences in credit risk management and transparency, which can directly influence performance outcomes between the two SACCO types. Methodologically, this objective is best served by the application of descriptive statistics to provide a clear and foundational understanding of financial performance metrics across DT and NDT SACCOs. Descriptive statistics are appropriate at this stage because they allow for the summarization and comparison of the key indicators such

as Return on Assets (ROA), capital adequacy, asset quality, liquidity, and efficiency across both SACCO categories. This approach helps identify central tendencies, variability, and patterns that may not be visible through qualitative insights alone. These findings set the stage for deeper causal analysis in later objectives using econometric models. Through the combination of theoretical relevance with a structured empirical approach, this study contributes to a nuanced understanding of SACCO performance and offers a comparative foundation to inform regulatory strategies, institutional reforms, and financial sustainability planning.

This section presents empirical literature that examines comparative performance across financial institutions with a focus on regulatory classification, organizational structures, and operational frameworks. These studies form the foundation for understanding financial performance disparities between DT and NDT SACCOs in Kenya an area currently under-researched. Comparative studies in banking and cooperative finance have revealed that institutional type significantly affects financial performance. Lu and Swisher (2020) studied U.S. banks and credit unions before and after the financial crisis, finding that banks exhibited stronger growth pre-crisis, while credit unions showed greater resilience during and post-crisis, largely due to their member-focused governance. This aligns with Agency Theory, which explains that stronger governance and alignment of interests between management and members can reduce agency costs, enhancing performance. This theory is particularly relevant for SACCOs, where member trust and managerial accountability play central roles. Similarly, Salman and Nawaz (2018) compared Islamic and conventional banks, concluding that while conventional banks demonstrated higher profitability and efficiency under normal conditions, Islamic banks were more stable during financial turmoil due to asset-backed lending models. These findings offer parallels to the DT and NDT SACCO dichotomy: DT SACCOs may achieve higher efficiency and profitability through broader financial access and diversified income streams, whereas NDT SACCOs may be more resilient due to localized operations and tighter community governance factors emphasized in theory and Agency Theory.

Erfani and Vasigh (2018) used Altman Z-scores and DEA models to compare the profitability and risk of domestic and foreign Islamic banks in Malaysia. Their findings indicated that domestic banks outperformed foreign counterparts due to better cost control and efficiency, suggesting that institutional proximity and governance structures impacted performance. Translating this to SACCOs, DT SACCOs more regulated and financially integrated, may enjoy similar advantages over their NDT counterparts.

Ansari and Rehman (2014) evaluated Islamic and conventional banks and concluded that Islamic banks, while less efficient, were more liquid and less exposed to risk, reflecting a cautious lending culture. This offered a theoretical lens from Asymmetric information theory, because institutions with closer monitoring mechanisms for example credit unions and NDT SACCOs, may be better at managing borrower risk despite fewer financial resources.

However, these studies have limitations when applied to SACCOs. First, the comparative models used such as t-tests, ratio analysis, and Z-score modeling and are not sufficiently robust to analyze long-term financial performance within cooperatives. Muda et al. (2013) employed panel regression and Generalized Least Squares (GLS) to examine profitability among Malaysian banks but did not account for member-based institutions. Ibrahim (2009), although based in Kenya, focused on Islamic versus conventional banks and not on SACCOs, missing the unique cooperative attributes such as democratic governance and voluntary membership. From a methodological standpoint, few studies have applied panel data techniques, Fixed Effects, Random Effects, or OLS regression to SACCOs. These models are critical in isolating the effect of key organizational and operational variables on financial performance over time. Existing literature often overlooks the cooperative structure and assumes profit-maximization, which does not reflect the dual financial-social mission of SACCOs.

This study therefore fills three major gaps, firstly a contextual gap by focusing specifically on regulated DT and NDT SACCOs in Kenya, a comparative area that is currently under-explored, secondly a conceptual gap through the use of agency-based frameworks to understand performance beyond profit, including member-driven governance and operational strategies and finally a methodological gap through the introduction of panel econometric techniques to analyze financial performance trends over time, accounting for structural and organizational differences across SACCO types.

2.3.2 Financial Ratios and Financial Performance

The second objective, which is to assess the influence of selected financial ratios on the financial performance of DT and NDT SACCOs in Kenya, is directly aligned with the variables presented in the study's conceptual framework, specifically linked to the the indicators capital adequacy, asset quality, efficiency, and liquidity, which are used to evaluate the financial stability of both DT and NDT SACCOs in Kenya. The selection of the independent variables core capital, NPL ratio, CIR, and liquidity ratio, was guided because they are the common ratios analysed by SASRA in both DT and NDT SACCOs. Agency Theory and Information

Asymmetry Theory underpin this analysis. Agency Theory highlights how internal controls, managerial accountability, and governance structures, such as those driven by capital adequacy or efficiency policies, influence performance by reducing agency costs. Information Asymmetry Theory emphasizes how variations in information transparency, particularly in asset quality and liquidity reporting, affect risk exposure and decision-making. DT SACCOs, subject to stricter regulatory frameworks, are expected to demonstrate more effective risk and performance management compared to NDT SACCOs, which operate under lighter oversight.

Studies applying the CAMEL framework emphasize that capital adequacy acts as a safety net against financial losses, particularly for DT SACCOs, where higher capital ratios strengthen resilience against economic shocks, Tarus and Simiyu (2024) ; Denje and Olando (2021). Similarly, asset quality and lower non-performing loan (NPL) ratios contribute to stable revenue streams, ensuring sustainable operations. Efficient management practices further enhance performance by optimizing resource allocation and profitability. At the same time, adequate liquidity allows SACCOs to meet withdrawal demands an especially critical factor for DT SACCOs, which operate under strict regulatory requirements, Barus (2018) ; Tarus and Simiyu (2024). These studies highlight the importance of strategic governance and targeted financial strategies in both DT and NDT SACCOs to promote financial sustainability. Understanding the differences between these SACCO types is key: DT SACCOs, which manage member deposits, must maintain strong capital and liquidity positions to comply with regulations. In contrast, NDT SACCOs operate under different risk conditions, requiring tailored approaches to ensure long-term resilience and growth.

According to Chepkirui et al (2021), DT SACCOs having a core capital-to-total-assets ratio exceeding 10% exhibited lower efficiency compared to those with ratios below 10%. This suggests that stricter capital adequacy regulations may not necessarily enhance efficiency and could even have unintended negative effects on financial performance. Furthermore, technical and scale efficiency have been identified as significant contributors to the financial sustainability of SACCOs. In a study on Tanzanian SACCOs, Marwa and Aziakpono(2015) assessed various metrics such as Return on Assets (ROA), financial sustainability scores, technical efficiency, deposit mobilization, loan size, and cost per loan portfolio. Their findings revealed that 61% of the SACCOs in their sample were operationally sustainable, with 51% being both operationally and financially sustainable. This suggests that,

despite some challenges, SACCOs could achieve profitability and sustainability when adhering to international standards.

Asset quality is a fundamental determinant of financial performance in SACCOs, as it reflects the risk exposure of loan portfolios and their influence on profitability. In DT and NDT SACCOs, asset quality plays out differently due to variations in regulatory frameworks, credit risk management, and product structures, which affect their financial stability in unique ways. Poor asset quality, often linked to high non-performing loan (NPL) ratios, erodes profitability and increases financial distress, (Siddique et al., 2022). Studies in South Asia, Nigeria, and Sri Lanka have consistently shown that weaker asset quality reduces return on assets (ROA) and return on equity (ROE), necessitating strong capital adequacy reserves as a buffer (Salike and Ao, 2018; Sanathanee, 2020). However, contradictory findings, such as Sanathanee's (2020) assertion that asset quality had an insignificant effect on bank profitability, highlight the need for further empirical scrutiny.

In the African context, Muffee and Neh (2024) found that client education and enhanced loan appraisal processes significantly improved asset quality in Cameroonian microfinance institutions, while Mutunga and Gatauwa (2021) in Kenya linked asset quality directly to interest income and credit risk management efficiency. However, findings on the impact of NPLs on SACCO performance in Kenya remain inconsistent. Kithuka (2024), in a study of 13 DT SACCOs, reported a weak positive relationship between NPL ratios and financial performance, suggesting that efficient asset management mitigates risk-related costs. In contrast, Simiyu (2023), analyzing 40 SACCOs over five years, found that poor asset quality correlated with lower ROA and liquidity challenges, reinforcing the argument that weak asset quality leads to declining financial performance. These conflicting findings indicate that DT and NDT SACCOs may have different risk management mechanisms that shape how asset quality affects their profitability.

The regulatory environment further distinguishes asset quality dynamics in DT versus NDT SACCOs. DT SACCOs are subject to SASRA's stringent credit risk oversight, necessitating higher capital adequacy reserves and loan monitoring (Barus et al., 2017). In contrast, NDT SACCOs operate with more flexibility but face greater exposure to asset quality risks due to limited regulatory constraints. Despite SASRA (2022) reporting that NDT SACCOs had better NPL ratios than DT SACCOs, studies by Ntoiti and Jagongo (2021) emphasized that rising NPLs in both categories erode profitability, highlighting the need for stringent credit policies.

Additionally, Keitany (2013) linked poor credit analysis and weak follow-up strategies to loan defaults, demonstrating how credit policy inefficiencies undermine SACCO sustainability.

While empirical studies underscore the link between asset quality and financial performance, key gaps remain. Conceptually, most studies focus on DT SACCOs, leaving NDT SACCOs underexplored, despite their differing risk profiles. Methodologically, many studies relied on financial ratios without incorporating qualitative insights from SACCO management, limiting the depth of understanding regarding credit risk mitigation strategies. Given these gaps, a comparative analysis of DT and NDT SACCOs would provide a holistic perspective on how asset quality management strategies influence financial sustainability in different regulatory environments.

Efficiency is a critical determinant of financial performance in SACCOs, with cost-to-income ratio (CIR) widely used as a key measure. Several studies have demonstrated that improved efficiency correlates positively with financial performance, reinforcing the need for SACCOs to optimize resource allocation (Hughes & Mester, 2008). Sufian (2007) highlighted efficiency as a core performance driver, emphasizing that SACCOs must convert inputs, such as deposits and operating expenses, into income-generating outputs effectively. Empirical studies have produced mixed results on the impact of efficiency on financial performance. In Kenya, Kiruru (2022) found that management efficiency, measured as interest income and dividends to deposits, had no significant effect on financial performance, suggesting that broader efficiency metrics should be examined. Conversely, Antwi (2019) reported a strong negative correlation between CIR and profitability (ROA, ROE) in Ghana's banking sector, indicating that lower CIR reflecting higher efficiency, improves financial outcomes. Similarly, Hussain (2014) analyzed Indian banks and found that private sector banks with lower CIRs outperformed public sector banks, highlighting cost efficiency as a competitive advantage.

While CIR remains a widely accepted efficiency metric, its limitations, such as sensitivity to interest margins and labor costs can distort cross-institutional comparisons (Burger & Moormann, 2008). Despite these limitations, Antwi (2019) and Hussain (2014) affirm that CIR is a reliable efficiency measure, with lower CIR consistently linked to better financial performance. However, DT and NDT SACCOs differ in operational structures, product offerings, and regulatory oversight, which may affect how efficiency influences financial performance.

Liquidity, defined as the proportion of liquid assets (cash, deposits, and short-term investments) held relative to liabilities, is a critical factor in financial performance, ensuring that SACCOs meet short-term obligations while maintaining operational stability (SASRA, 2022). Proper liquidity management enables SACCOs to fund loan demands, cover withdrawals, and comply with regulations, directly influencing profitability and resilience. While numerous studies explore liquidity in SACCOs, research comparing its impact on DT and NDT SACCOs remains limited. Liquidity is shaped by asset composition, liability structure, and cash flow management (Nduati & Oluoch, 2021). Key determinants include capital adequacy, firm size, and non-performing loans (NPLs), all of which impact operational sustainability and investment capacity. Shibutse et al. (2019) found that SACCOs with strong liquidity buffers perform better financially, reinforcing the need for a minimum liquidity threshold to ensure stability and regulatory compliance. However, liquidity challenges arise from high withdrawal demands, low deposit mobilization, and rising loan defaults, making effective liquidity management essential for long-term sustainability (SASRA, 2022). The COVID-19 pandemic further exposed liquidity vulnerabilities, with institutions lacking sufficient reserves struggling to meet withdrawals, leading to operational disruptions (Ben & Atieno, 2022).

Empirical findings suggest that liquidity positively correlates with financial performance. Shibutse et al. (2019) found that a unit increase in liquidity led to a 0.1% increase in financial performance, demonstrating its role in ensuring sustainability. Similarly, Song'E (2015) highlighted that SACCOs with higher liquidity levels experience fewer financial constraints, reducing reliance on costly external borrowing. However, excess liquidity or poor management can lead to inefficient asset utilization, lower returns on assets, and reduced profitability. Institutions that over-rely on short-term liabilities often exhibit higher financial volatility, emphasizing the need for a balanced liquidity risk strategy that maximizes firm value (Waitherero et al., 2021).

The role of liquidity varies between DT and NDT SACCOs due to differences in regulatory requirements and operational structures. DT SACCOs operate under strict SASRA liquidity regulations, requiring them to maintain minimum liquidity ratios, making liquidity a key determinant of trust, solvency, and financial stability. Institutions with higher liquidity levels demonstrate stronger resilience against financial shocks, enhancing financial performance (Shibutse et al., 2019; Jepkorir et al., 2019). Conversely, NDT SACCOs, which lack strict liquidity regulations, enjoy greater flexibility in liquidity management but face higher liquidity

risks. They rely on alternative financing sources, such as retained earnings and member contributions, reducing immediate withdrawal pressures but lacking deposit insurance or external liquidity support, making them more vulnerable to liquidity crises (Waitherero et al., 2021). While DT SACCOs must meet strict regulatory liquidity thresholds, NDT SACCOs require adaptive liquidity management strategies to navigate financial uncertainties (Jepkorir et al., 2019).

Despite extensive research on SACCO financial performance, significant gaps persist. A key conceptual gap lies in the dominant focus on DT SACCOs, with limited exploration of NDT SACCOs, whose regulatory and operational dynamics differ considerably. Additionally, research seldom addresses the optimal liquidity thresholds that balance profitability with compliance, or how financial crises such as COVID-19 and the rise of digital financial services impact SACCO liquidity management. A prominent methodological gap is evident in the reliance on cross-sectional financial ratios and financial statement analyses, which often lack longitudinal depth and omit qualitative insights from SACCO practitioners. Theoretical models also frequently disregard cooperative-specific features like democratic governance and voluntary membership, which shape financial decision-making. To address these gaps, this study investigates how selected financial ratios core capital ratio, NPL ratio, cost-to-income ratio, and liquidity ratio affect the financial performance of SACCOs in Kenya. It distinguishes performance variations between DT and NDT SACCOs and applies Agency Theory and Information Asymmetry Theory to interpret the observed relationships.

2.3.3 Operational Strategies and Financial Performance

The relationship between operational strategies and financial performance has been a consistent focus of empirical research, particularly within financial institutions where resource optimization and accountability are critical. From the lens of agency theory, operational strategies help mitigate agency problems by aligning the interests of managers with those of members, while information asymmetry theory emphasizes the role of transparent processes in reducing uncertainty and inefficiencies in decision-making. Operational strategies such as Total Quality Management (TQM), benchmarking, and relationship lending have been widely recognized as mechanisms to enhance efficiency and financial performance (Ahmed et al., 2022). These strategies are particularly effective when supported by clear lines of accountability and transparent information flows, key tenets of agency and asymmetric information perspectives.

Joshi et al. (2003) demonstrated that strategic alignment between general and functional managers improved organizational performance by minimizing information gaps and enhancing consensus on operational goals. Silvestro (2014), critiquing one-size-fits-all models of performance, emphasized the importance of customized operational strategies that reflect organizational realities, an approach that aligns with the information asymmetry framework, where performance is influenced by access to context-specific and timely information. In SACCOs, Towo et al. (2022) found that relationship lending influenced financial performance differently depending on SACCO type and loan duration. These variations can be explained by asymmetric information between borrowers and lenders, where longer relationships may lead to moral hazard or rent-seeking behavior, ultimately affecting performance.

Agency theory is also central to studies focusing on governance structures. Mugilwa et al. (2024a) highlighted that effective corporate governance mechanisms, such as optimal board structures and prudent funding strategies, reduce agency costs and promote financial sustainability in DT SACCOs. Their follow-up study (Mugilwa et al., 2024b) showed that funding structures mediated the relationship between governance and financial performance, illustrating that information transparency and internal accountability mechanisms significantly influence outcomes. These findings reinforced that governance practices act as both control systems and information channels, curbing managerial opportunism while improving decision quality.

Customer focus and differentiation strategies have also been shown to improve SACCO performance. Mutuku et al. (2024) found that customer-centric practices, such as digital engagement and personalized services, enhanced financial performance in DT SACCOs. These outcomes align with information asymmetry theory, which posits that organizations that reduce the gap between customer needs and service delivery through feedback mechanisms and data analytics are more likely to experience improved financial outcomes. In a related study, the same authors observed that SACCOs implementing differentiation strategies, such as unique product offerings, performed better financially. Such strategies also reflected the agency perspective, as they demonstrate managerial responsiveness to member interests and market demands, reducing the likelihood of self-serving behavior.

Organizational restructuring is another strategic response to performance challenges. Ingow and Opuodho (2019) found that capital restructuring had a positive effect on financial performance, while asset restructuring had a negative effect. Operational restructuring,

however, showed a positive influence, suggesting that when internal processes are realigned to improve transparency and control, SACCOs can overcome inefficiencies, consistent with agency theory's emphasis on reducing information imbalances and improving monitoring mechanisms.

Mathuva (2018) examined SACCOs that participated in the Financial Reporting Excellence Awards and found that those with higher ICT adoption and better reporting standards performed better financially. This supports the argument in information asymmetry theory that improved disclosure reduces information gaps between SACCO management and stakeholders, enhancing trust and financial accountability. Similarly, Mathuva et al. (2016) found that strategic transformations such as mergers and rebranding improved SACCO performance over time, likely due to improved signaling, reputation, and transparency factors critical to reducing perceived information risks among members.

Internal governance dynamics also play a role in financial outcomes. Kiaritha et al. (2013) found that internal politics affected financial performance but did not disrupt operations, suggesting the presence of governance mechanisms capable of managing internal conflicts. This aligns with agency theory's premise that well-structured internal controls reduce the impact of managerial discretion on firm outcomes. Meanwhile, Ogum and Jagongo (2022) found that strategic investment decisions, particularly in development lending, positively influenced financial performance, whereas investments in real estate yielded lower returns. From an agency perspective, this suggests that SACCOs that direct resources toward member-focused investments are more likely to enhance member trust and accountability.

Lastly, Kharrat et al. (2024) examined the role of FinTech and regulatory compliance in MENA-region banks, noting that Islamic banks, while highly efficient operationally, were less profitable due to strict adherence to regulatory principles. This observation parallels the experience of DT SACCOs, which benefit from stringent oversight that improves information disclosure and curbs opportunism, but may also limit short-term profitability. In contrast, NDT SACCOs, operating under lighter regulation, may face greater information asymmetries and governance challenges that impede financial performance.

In conclusion, the reviewed studies reveal a rich understanding of how operational strategies, governance structures, and investment decisions affect SACCO performance, particularly when interpreted through the lens of agency and information asymmetry theories. However, most of the existing research either focuses solely on DT SACCOs or treats SACCOs as a

homogenous group, leaving a gap in understanding how differences in regulatory oversight and organizational structure influence the application and outcomes of these strategies. Moreover, limited attention has been given to integrating theoretical foundations when analyzing the effectiveness of operational strategies within SACCO contexts. This study addresses these gaps by providing a comparative analysis of management perspectives on operational strategies between DT and NDT SACCOs in Kenya. It explicitly contextualizes variables such as technology adoption, member service approaches, efficiency-driven practices, service diversification and governance dynamics within the agency and information asymmetry frameworks. By doing so, the study not only advances theoretical understanding but also offers practical insights into how different SACCO models can adopt context-appropriate strategies to enhance financial performance and sustainability.

2.4 Summary of Empirical Studies and Research Gaps

Table 2.1 presents the summary of literature reviewed above. The summary of the literature gives the findings of the reviewed study, methodology, literature gaps present in the reviewed studies and how the current study worked to fill the literature gaps.

Table 2.1 Summary of Empirical Review Findings

Author	Title	Methodology	Findings	Research Gaps
Lu and Swisher (2020)	A Comparison of Bank and Credit Union Growth Around the Financial Crisis	Comparative growth analysis of banks and credit unions before and after the financial crisis	Credit unions, particularly medium-sized ones, exhibited stronger growth and resilience compared to banks during and after financial crises.	The study presented a contextual gap brought about by the focus on credit unions and banks, not SACCOs in Kenya and the findings may not directly apply to DT and NDT SACCOs in Kenya.
Erfani and Vasigh (2018)	Financial Performance of Islamic and Conventional Banks in Pakistan: A Comparative Study	Ratio analysis, Altman Z-score, Data Envelopment Analysis (DEA) to assess efficiency and profitability	Domestic Islamic banks outperformed foreign Islamic banks in profitability due to lower leverage and better cost management.	Conceptual Gap : Focused on banks, overlooking cooperative institutions like SACCOs.
Salman and Nawaz (2018)	Islamic and Conventional Banks: Profitability, Efficiency, and Liquidity	Regression analysis of financial ratios between Islamic and conventional banks	Islamic banks demonstrated better financial stability, whereas conventional banks exhibited higher efficiency and profitability.	Contextual Gap: The study did not account for cooperative financial models like SACCOs, which have different risk structures.
Muda et al. (2013)	Comparative Analysis of Profitability Determinants of	Panel data regression, Generalized Least Squares (GLS)	Domestic banks performed better in profitability due to stronger local market integration, while	The study focused on banks and also on profitability, it lacked broader

	Domestic and Foreign Islamic Banks in Malaysia		foreign banks were more sensitive to macroeconomic factors.	financial performance indicators like operational efficiency and governance.
Ibrahim (2009)	Comparative Study of Islamic and Conventional Banks in Kenya	Comparison of financial ratios using t-tests and F-tests.	Conventional banks were more profitable, but Islamic banks were more liquid and solvent.	Contextual Gap – The study focused on banks, SACCOs may present different findings.
Ansari and Rehman (2014)	Financial Performance Analysis of Islamic and Conventional Banks	Ratio analysis and statistical tests (t-tests, ANOVA) to measure financial performance indicators	Islamic banks were more liquid and less risky, whereas conventional banks had better resource allocation efficiency.	Methodological Gap – Relies on static financial ratios without incorporating panel data models to track financial trends over time.
Barus (2018)	Effect of Internal Factors on Financial Performance of Deposit Taking SACCOs in Kenya	Quasi-experimental design; census of 83 DT SACCOs (2012–2016); multiple linear regression	Capital adequacy, asset quality, earnings ability, and liquidity positively influenced financial performance; management efficiency was insignificant	The study presented a methodological gap, due to reliance on secondary data and did not incorporate risk sensitivity or primary insights from SACCO managers.
Chepkirui et al. (2021)	Capital Adequacy Requirements and Capital Efficiency of Deposit-Taking SACCOs (DTSs)	Correlational design; Data Envelopment Analysis (DEA); regression analysis	Capital adequacy negatively influenced efficiency, though not significantly	The study presented a conceptual gap by not fully exploring how regulatory capital thresholds affect SACCO performance across different sizes and risk categories.

Tarus and Simiyu (2024)	Sacco-Based Financial Characteristics and Financial Performance of Deposit Taking SACCOs in Kenya	Descriptive design; panel regression on 181 DT SACCOs (2018–2023)	Capital adequacy and liquidity positively influenced performance; asset quality and investments had negative effects	The study presented a contextual gap due to its exclusive focus on DT SACCOs and lack of comparative analysis with NDT SACCOs.
Marwa and Aziakpono (2015)	Financial Sustainability of Tanzanian Saving and Credit Cooperatives	Linear regression on audited financial statements; ROA and expense-to-revenue ratio	61% of SACCOs operationally sustainable; 51% both operationally and financially sustainable	The study presented a contextual gap brought about by its focus on Tanzanian SACCOs, which limits generalizability to the Kenyan SACCO environment.
Denje and Olando (2021)	CAMEL Rating System and Financial Performance of Islamic Banks in Kenya	Correlational research design; census of 3 Islamic banks (2012–2020); regression and correlation analysis	Capital adequacy, management efficiency, and earnings ability had significant positive effects on financial performance; asset quality and liquidity had significant negative effects	The study presented a contextual gap brought about by the focus on Islamic banks, not SACCOs, and the findings may not directly apply to DT and NDT SACCOs in Kenya.
Siddique et al. (2022)	The Effect of Credit Risk Management and Bank-Specific Factors on the Financial Performance of	Generalized Method of Moments (GMM); panel data from 19 banks (2009–2018)	NPLs, cost-efficiency ratio, and liquidity negatively affect ROA and ROE; capital adequacy and lending rates have positive impact	The study presented a contextual gap due to focus on commercial banks in South Asia, not SACCOs, limiting applicability to DT and NDT SACCOs in Kenya

	South Asian Commercial Banks			
Salike and Ao (2018)	Determinants of Bank's Profitability: Role of Poor Asset Quality in Asia	Panel data; fixed effects model; 947 banks across 12 Asian countries (2001–2015)	Poor asset quality negatively affects profitability; macroeconomic factors like GDP growth also significant	The study presented a contextual gap brought about by the cross-country focus on Asian banks, which may not directly apply to SACCOs
Sanathanee (2020)	The Impact of Asset Quality on Profitability: A Panel Data Analysis of Domestic Commercial Banks in Sri Lanka	Panel fixed effect regression; secondary data from 9 banks (2008–2016)	Asset quality had a statistically insignificant negative effect on profitability	The study presented a contextual gap as it focused on Sri Lankan commercial banks, not cooperative institutions like SACCOs
Muffee and Neh (2024)	Determinants of Non-Performing Loans and Their Effects on the Performance of Cooperative Credit Unions in Bamenda	Descriptive and inferential analysis; structured questionnaires and audited statements; OLS regression	Member education reduced NPLs; appraisal and monitoring showed mixed results; NPLs negatively affected performance but insignificantly	The study presented a contextual gap due to its focus on credit unions in Cameroon, limiting direct application to the Kenyan SACCO context
Hussain (2014)	The assessment of operational efficiency of commercial banks in	Descriptive analysis using cost-to-income ratio	Banks in India operate with competitive CIRs aligned with international standards; size and	The study presented a methodological gap as it lacked empirical performance data and did not assess financial metrics or compare SACCO types.

	India using cost to income ratio approach		ownership significantly affect operational efficiency.	
Antwi (2019)	Capital adequacy, cost income ratio and performance of banks in Ghana	Panel data regression analysis	Capital adequacy negatively related to ROE; cost-income ratio significantly negatively associated with ROA and ROE.	The study presented a methodological gap as it lacked empirical performance data and did not assess financial metrics or compare SACCO types.
Kiruru (2022)	Effect of management efficiency on financial performance of deposit-taking SACCOs in Kenya	Regression analysis using secondary financial data from DT SACCOs	Management efficiency had a positive but insignificant effect on ROA, while liquidity and capital adequacy showed significant positive effects.	The study presented a methodological gap as it did not compare deposit-taking and non-deposit-taking SACCOs.
Hughes and Mester (2008)	Efficiency in banking: Theory, practice, and evidence	Review of theoretical and empirical approaches	Explores theoretical and empirical methods to measure bank efficiency, emphasizing the roles of agency theory and X-inefficiency.	The study presented a conceptual gap as it did not apply the theories in a comparative SACCO context or include empirical analysis.
Sufian (2007)	Trends in the efficiency of Singapore's commercial banking groups: A non-stochastic	Data Envelopment Analysis (DEA)	Singapore banks showed varying efficiency trends over time; DEA window analysis revealed scale inefficiencies.	The study presented a contextual gap as it focused on Singapore's commercial banks, not on SACCOs or African financial institutions.

	frontier DEA window analysis approach			
Ntoiti and Jagongo (2021)	Non-performing loans and financial stability of deposit-taking SACCOs regulated by SASRA	Desktop review and secondary data analysis	Rising non-performing loans threaten SACCO stability; regulatory policies recommended for better risk management.	The study presented a methodological gap as it used a desktop approach without primary data or financial metric comparison.
Keitany (2013)	The relationship between loan default and the financial performance of SACCOs in Kenya	Correlation analysis using SACCO financial statements	Loan default has a strong negative relationship with profitability; recommended credit policy reforms.	The study presented a methodological gap as it focused on Nairobi-based SACCOs only, limiting generalizability.
Barus et al. (2017)	Effect of asset quality on the financial performance of savings and credit societies in Kenya	Survey and regression analysis	Asset quality significantly and positively affects financial performance; management practices are crucial.	The study presented a methodological gap as it did not differentiate between DT and NDT SACCOs.
Joshi et al. (2003)	Alignment of strategic priorities and performance: An integration of operations and strategic management perspectives	Survey-based study on 98 manufacturing units; tested alignment-performance relationship through matched responses	Alignment between general and manufacturing managers' priorities improves performance; organizational factors moderate the relationship	The study presented a methodological gap as it lacked empirical performance data and did not assess financial metrics or compare SACCO types.

Mugilwa et al. (2024a)	Corporate governance and financial performance of deposit taking SACCOs in Kenya	Panel regression using data from 163 SACCOs; ROA as performance measure	Strong governance (e.g., board diversity, independence) significantly improves financial performance	The study presented a methodological gap as it focused only on DT SACCOs and did not compare them with NDT SACCOs.
Mugilwa et al. (2024b)	Does funding structure mediate the relationship between corporate governance and financial performance?	Panel data (2018–2022) for 172 SACCOs analyzed using fixed effect regression; tested mediation model	Funding structure partially mediates the CG-FP relationship in SACCOs	The study presented a methodological gap as it did not assess differences across SACCO types or include qualitative governance assessments.
Silvestro (2014)	Performance topology mapping: Understanding the drivers of performance	Comparative case study of two retail chains; strategy mapping vs. topology mapping	Performance topology mapping reveals complex performance relationships better than traditional service profit chain models	The study presented a methodological gap as it focused on retail firms and did not include SACCOs or financial cooperatives.
Towo et al. (2022)	Relationship lending and financial performance of SACCOS in Tanzania	Panel data of 460 observations; descriptive and panel regression	Long relationships negatively affect financial performance; number of relationships has no significant effect	The study presented a methodological gap as it focused on Tanzanian SACCOS and did not assess specific financial metrics or SACCO types.

Mutuku et al. (2024)	Influence of customer focus strategy on the financial performance of deposit-taking SACCOs in Kenya	Descriptive cross-sectional design; 174 DT SACCOs surveyed using structured questionnaires	Customer focus strategy significantly improves financial performance (ROA)	The study presented a methodological gap as it focused only on DT SACCOs and did not include a comparative analysis with NDT SACCOs.
Mutuku et al. (2024)	Influence of differentiation strategy on the financial performance of deposit-taking SACCOs in Kenya	Descriptive cross-sectional study using structured questionnaires; analyzed with SPSS	Differentiation strategy has a strong positive impact on financial performance	The study presented a methodological gap as it did not compare SACCO types or investigate interaction effects with other strategic variables.
Messabia et al. (2023)	Governance and management of a savings and credit cooperative: The successful example of a Haitian SACCO	Qualitative case study using semi-structured interviews and thematic analysis (NVIVO)	Effective leadership, participatory governance, and community engagement are key to SACCO success	The study presented a methodological gap as it used a single-case design and did not incorporate comparative or financial performance data.
Ingow and Opuodho (2019)	Effect of corporate restructuring on financial performance of SACCOs in Kenya	Descriptive survey with 35 SACCO managers in Kiambu County; structured questionnaires and correlation analysis	Capital restructuring improves financial performance; asset restructuring has a negative but significant effect	The study presented a methodological gap as it focused only on a small geographic area and did not assess or compare SACCO typologies.

Mathuva (2018)	An empirical analysis of the characteristics of SACCOs participating in the reporting excellence awards	Correlation and probit regression analysis using 1,272 firm-year observations (2008–2013)	Governance strength, SACCO size, and external audit quality significantly increase likelihood of award participation	The study presented a methodological gap as it did not assess direct financial outcomes or compare performance across participating and non-participating SACCOs.
Githaiga (2022)	Revenue diversification and financial sustainability of microfinance institutions	Two-step system GMM on panel data from 443 MFIs across 108 countries	Revenue diversification significantly enhances MFIs' financial sustainability by reducing overdependence on donor funding.	The study presented a methodological gap as it focused on MFIs and not SACCOs, and did not assess financial performance across SACCO types.
Ogum and Jagongo (2022)	Investment Decisions and Financial Performance of Deposit Taking SACCOs in Nairobi City County, Kenya	Descriptive and causal design using financial data and regression analysis	Lending to members significantly improved financial performance, while other investment types had mixed effects.	The study presented a methodological gap as it focused only on DT SACCOs in Nairobi without comparing them with NDT SACCOs.

Kharrat et al. (2024)	Relationship between FinTech index and bank's performance: A comparative study between Islamic and conventional banks in the MENA region	Text mining and simultaneous equation modeling using data from 120 banks	FinTech development improved bank performance across profitability, efficiency, and stability in both Islamic and conventional banks.	The study presented a contextual gap as it focused on banks in MENA, not SACCOs, and did not examine performance differences in cooperative financial institutions.

2.5 Conceptual Framework

Figure 2.1 represented the conceptual framework, which is a graphical expression of the relationship between the independent variables and the dependent variable. The independent variable is the variable that causes change to the dependent variable. In this conceptual framework the independent variables are capital adequacy represented by core capital, asset quality represented by NPL ratio, efficiency level represented by cost to income ratio and liquidity ratio represented by total liquid assets/total assets, the control variable is the size of the SACCO and the dependent variable is the financial performance represented by ROA.

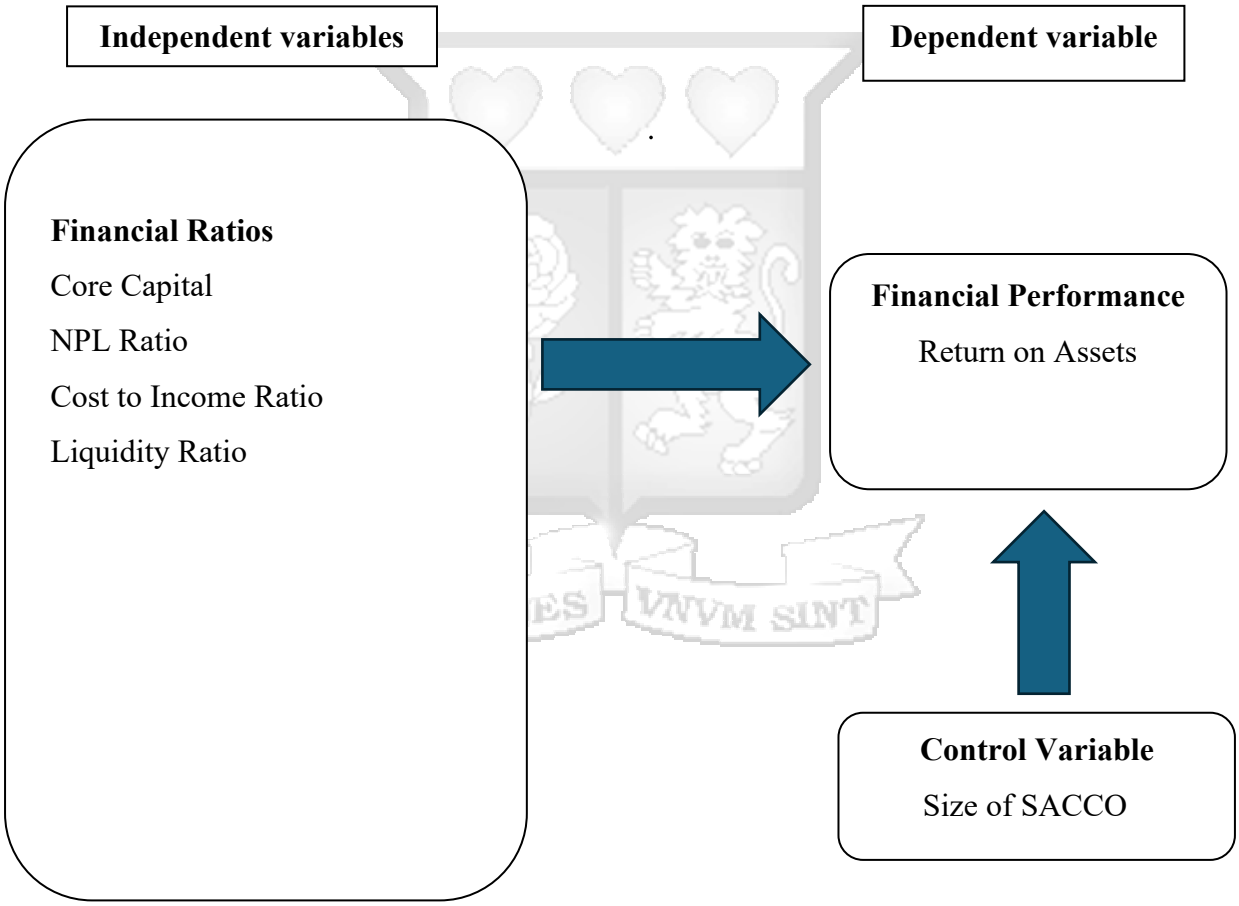

Figure 2.2 Conceptual Framework

2.6 Operationalization of Variables

Operationalization is performed to ensure that readers are informed of the specific meaning attributed to the variables, as these variables may have distinct interpretations across various fields. This section outlines the methodology for measuring the independent and dependent variables.

Table 2.2 Operationalization of Variables

Variable	Measurement of Variable	Supporting Studies	Supporting Theories	Data Source	Analysis
Dependent Variable					
Financial Performance	Return on Assets (Net Income/ Total Assets)		IAT and AT	Audited financial reports, SASRA,Commisioner of Cooperatives	Regression Analysis, Descriptive analysis
Independent Variables					
Capital Adequacy	Core Capital	Barus (2018); Tarus and Simiyu (2024) ; Denje and Olando (2021)	AT	Audited financial reports, SASRA,Commisioner of Cooperatives	Regression Analysis, Descriptive analysis
Asset Quality	NPL Ratio (Non-Performing Loans/Total Loans)	Barus et al. (2017b) ; Keitany (2013); Kithuka (2024) ; Lucky and Andrew (2015) ; Muffee and Neh (2024) ; Mutunga and	IAT and AT	Audited financial reports,	Regression Analysis,

		Gatauwa (2021) ; Ntoiti and Jagongo (2021); Salike and Ao (2018); Sanathanee (2020) ; Siddique et al. (2022); Simiyu et al. (2023)		SASRA,Commisioner of Cooperatives	Descriptive analysis
Efficiency level	Cost to Income Ratio (Operating income/ Operating expenses)	Chepkirui et al. (2021) ; Hughes and Mester (2008) ; Kiruru (2022); Marwa and Aziakpono (2015); Said et al. (2019); Sufian (2007)	IAT and AT	Audited financial reports, SASRA,Commisioner of Cooperatives	Regression Analysis, Descriptive analysis
Liquidity	Total Liquid assets/Total Assets	Barus (2018); Tarus and Simiyu (2024) ; Denje and Olando (2021)	AT	Audited financial reports, SASRA,Commisioner of Cooperatives	Regression Analysis, Descriptive analysis
Type of SACCO (DT vs. NDT)	Nominal (Binary: 0 = NDT, 1 = DT)	Ansari and Rehman (2014); Erfani and Vasigh (2018) ; Ibrahim (2009) ; Lu and Swisher (2020) ; Muda et al. (2013) ; Salman and Nawaz (2018)		SASRA reports and questionnaire	Descriptive and Regression Analysis
Control Variable					
Size of SACCO	Total Assets			SACCO annual reports	Regression Analysis

IAT – Assymetric Information Theory ; AT – Agency Theory

2.7 Chapter Summary

This chapter explored the theoretical and empirical foundations of SACCO performance in Kenya, guided by agency theory and information asymmetry theory. Agency theory explained how governance structures affected the alignment between members and management, while information asymmetry theory highlighted the impact of unequal information on decision-making and financial outcomes. The empirical review was structured around the study's revised objectives and conceptual framework. It examined differences in performance between DT and NDT SACCOs, the influence of key financial indicators such as asset quality, liquidity, and efficiency, and the role of operational strategies. The literature consistently showed that DT SACCOs tend to perform better due to stronger regulatory oversight, better governance, and resource advantages, while NDT SACCOs face structural and operational limitations. Despite this, gaps remain. Many studies focused only on DT SACCOs, lacked comparative analysis, or did not incorporate management perspectives. This study addresses those gaps by integrating financial data and qualitative insights to compare DT and NDT SACCOs, providing a more complete understanding of what drives performance across different SACCO types.

The chapter concluded with a conceptual framework that linked the independent variables governance, asset quality, liquidity, efficiency, and operational strategies, to SACCO financial performance, laying the groundwork for the study's methodology and analysis.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provided a detailed overview of the study's research methodology, outlining the structured approach taken to investigate the research problem. Section 3.2 explored the research philosophy, establishing the foundational perspective that guided the study. Section 3.3 described the research design, outlining the overall strategy for answering the research questions. Section 3.4 defined the study's population, while Section 3.5 detailed the data collection process and the tools used. The data analysis methods were explained in Section 3.6, followed by an assessment of research quality in Section 3.7. Section 3.8 presented the diagnostic tests conducted to ensure the reliability and validity of the results. Finally, Section 3.9 addressed the ethical considerations adhered to throughout the study.

3.2 Research Philosophy

The research philosophy forms the foundational principles and beliefs that guide the process of scientific inquiry by providing a critical framework for understanding knowledge, and underpins the core assumptions upon which a study is constructed. Creswell and Creswell (2013) defined an interpretative framework as encompassing several philosophical dimensions, such as ontology (the nature of reality), epistemology (the process of understanding reality), axiology (the role of values), and methodology (the approach to inquiry). Research paradigms are overarching worldviews that integrate these dimensions, with prominent paradigms namely positivism, post-positivism, constructivism, and pragmatism (Creswell, 2021).

In designing this study, it was important to first consider the various philosophical paradigms that inform how researchers understand knowledge and reality. One of the most established paradigms is positivism, which views reality as objective and measurable. Rooted in the scientific method, positivism emphasizes observable facts, structured instruments, and statistical analysis as tools for generating knowledge (Creswell, 2013). Building on positivism is post-positivism, which also assumes the existence of an objective reality but acknowledges that it cannot be perfectly observed or understood due to human limitations. Post-positivists recognize the potential for bias and seek to reduce its effects through critical reflection, triangulation, and rigorous testing (Creswell, 2013). In contrast, interpretivism (also referred

to as constructivism) holds that reality is socially constructed and subjective. This paradigm focuses on understanding how individuals make sense of their experiences within specific contexts (Creswell, 2013). The interpretivist lens is particularly relevant to the third objective of this research, which explores management perspectives on operational strategies. This component required qualitative methods specifically thematic analysis of questionnaire responses, to capture nuanced insights from SACCO managers and better understand the organizational and behavioral dynamics at play.

Given the multidimensional nature of the research problem, a single paradigm would not have been sufficient. As such, this study adopts a pragmatic philosophy, which emphasizes the value of using different methods to understand a research problem comprehensively. Pragmatism is especially well-suited to mixed methods research because it does not restrict researchers to a specific worldview but instead focuses on what works best for answering the research questions (Creswell, 2022). It allows for the integration of both quantitative and qualitative data to generate well-rounded, actionable insights. In this study, the convergent mixed methods design involved collecting and analyzing both forms of data simultaneously, then merging the results to offer a fuller picture of the factors influencing SACCO performance. Ultimately, pragmatism provided the flexibility needed to engage with both the numerical rigor of financial analysis and the contextual richness of management perspectives. It ensured that the methodological choices were guided not by strict adherence to a single tradition, but by the practical goal of producing relevant and impactful knowledge for SACCO stakeholders and policymakers.

3.3 Research Design

According to Creswell and Creswell (2017), research design refers to the specific procedures and strategies used within qualitative, quantitative, or mixed methods approaches to guide a research study from problem formulation to data interpretation. In quantitative research, the design typically involves identifying a focused research problem, formulating hypotheses or specific questions, quantifying variables, applying statistical procedures, and interpreting the results to draw objective conclusions (Creswell, 2021). This differs from qualitative research, which tends to address broader, exploratory questions through non-numerical data such as text, audio, or visual content, with analysis focused on uncovering patterns and meaning from participants' experiences.

For this study, a mixed methods research design was adopted, integrating both quantitative and qualitative approaches to provide a more holistic understanding of the factors influencing the financial performance of SACCOs. While the primary data collection tool was predominantly composed of closed-ended questions, it also included open-ended items specifically designed to capture management perspectives on operational strategies. These qualitative responses were subjected to thematic analysis, enabling the researcher to extract strategic insights, challenges, and innovations that would not have been captured through numerical analysis alone.

The inclusion of both data types, analyzed separately and then merged, aligned with the convergent mixed methods design, a core strategy in mixed methods research where qualitative and quantitative data are collected concurrently and integrated during interpretation (Creswell, 2022). Despite the structured nature of the data collection instrument, the richness of the open-ended responses provided meaningful qualitative depth, thereby justifying the study's classification as a mixed methods inquiry. Creswell and Creswell (2017) emphasized that mixed methods research offers a more complete understanding of complex research problems than relying on a single methodological approach. At its core, mixed methods research involves the integration of qualitative and quantitative databases to enrich analysis and interpretation. As outlined by Creswell (2021), there are three primary designs in mixed methods research: convergent, explanatory sequential, and exploratory sequential. This study employed the convergent design, in which qualitative and quantitative data were collected simultaneously and given equal weight in the interpretation process. This design was particularly suited to the study's goals, as it facilitated a robust comparative analysis of both measurable performance outcomes and managerial insights across DT and NDT SACCOs.

3.4 Population and Sampling

To address the first and second objectives of this study, a census approach was adopted to analyze all 357 regulated SACCOs in Kenya, including 176 Deposit-Taking (DT) and 181 Non-Deposit-Taking (NDT) SACCOs, as documented by the Sacco Societies Regulatory Authority (SASRA) (Appendix III). This approach was chosen to ensure comprehensive coverage of the target population, thereby eliminating sampling bias and enhancing the reliability of the results. According to Kish (1979), a census provides superior inclusiveness and detailed geographic representation, particularly in studies focusing on smaller or

segmented groups. Although censuses are typically more resource-intensive and time-consuming, their value in capturing a complete and accurate sectoral picture justified their use in this context. Notably, non-regulated SACCOs were excluded from the analysis due to the absence of uniform regulatory standards, which limits the consistency, comparability, and availability of their financial data.

To complement this quantitative data, the study employed a purposive sampling strategy to select 43 SACCOs for primary data collection. This sampling method was used to ensure balanced representation across SACCO types (DT and NDT) and across Kenya's diverse regions. As described by Robinson (2023), purposive sampling involves intentionally selecting participants who are best suited to provide detailed and relevant insights into a specific phenomenon. Guarte and Barrios (2006) further emphasized that this method allowed researchers to focus on units most likely to yield meaningful data, particularly when depth and context are more important than generalizability. In this case, SACCOs were selected based on their accessibility, regulatory classification, and the willingness of their management to participate criteria that ensured data richness and contextual relevance.

Although the approach is non-random, purposive sampling was appropriate for the qualitative component of this study, which aimed to explore strategic and operational factors influencing SACCO performance topics not easily captured through secondary data alone. The open-ended responses gathered from SACCO management were analyzed thematically, yielding insights into challenges, strategies, and institutional behavior within the sector. In sum, the combination of a census for secondary quantitative data and purposive sampling for primary qualitative data reflects a deliberate methodological strategy. This dual approach enabled both sector-wide analysis and in-depth exploration of management perspectives, producing findings that are both robust and nuanced. Together, these methods provided a comprehensive understanding of the financial and strategic dynamics shaping the performance of SACCOs in Kenya.

3.5 Data Collection and Tools

The data for the study was derived from both primary and secondary sources. Secondary data was obtained from the audited financial statements of the regulated DT and NDT SACCOs, for the period of 2020 to 2023. Secondary data for this study was collected for the period 2020 to 2023. The choice of this timeframe was intentional to align with significant regulatory changes

in Kenya's SACCO sector. In 2020, the Sacco Societies (Non-Deposit-Taking Business) Regulations, 2020, came into effect, bringing large NDT SACCOs under SASRA's supervision for the first time. Consequently, 2020 marked the earliest point at which consistent and comparable audited financial data became available across both DT and NDT SACCOs within a unified regulatory framework. By selecting the 2020–2023 period, the study ensured that the analysis would reflect the new regulatory environment and facilitate an equitable comparison between the two SACCO types over a complete four-year financial cycle.

Primary data was gathered through a questionnaire which was unstructured (Appendix II). Kothari (2004) described an unstructured questionnaire as having an allowance for flexible questioning without predetermined questions or standardized recording methods, this enabled the interviewer to ask follow-up questions, omit questions as needed, and adjust the sequence based on the conversation, with discretion in emphasizing or excluding responses.

3.6 Data Analysis

To achieve the first objective, descriptive analysis was done to assess and compare financial performance indicators between DT and NDT SACCOs. Descriptive statistics are a key analytical approach used to collect, organize, summarize, and interpret data, providing insights into patterns and relationships within a dataset without making inferences beyond observed values. It helps in simplifying large datasets through tables, graphs, and numerical measures, ensuring data is well-characterized using central tendency measures such as the mean, median, and mode, which indicate where values cluster. Additionally, dispersion measures like range, variance, standard deviation, and confidence intervals assess data spread and variability, offering a clearer understanding of performance distributions (Ali et al., 2019 ; Sheard, 2018). Through the analysis of central tendency measures (mean, median, mode) and dispersion measures (range, variance, standard deviation), descriptive statistics highlighted key performance differences. Graphical tools like histograms enhanced visualization, through aiding interpretation. Descriptive statistics also lay the groundwork for inferential analysis, ensuring a deeper understanding of observed differences before hypothesis testing and regression analysis (Sheard, 2018).

The financial indicators assessed for the first objective included financial monitoring and reporting tools used by SASRA. These tools measured various financial indicators, including:

Capital adequacy (represented by core capital), Asset quality (represented by the NPL ratio), Efficiency (represented by the cost-to-income ratio) and Liquidity (represented by the liquid assets-to-short-term liabilities ratio). The specific ratios selected for each tool align with SASRA's reporting framework, as they are commonly used to assess both DT and NDT SACCOs. Summarizing performance trends using these descriptive statistical techniques, effectively highlighted the financial strengths and weaknesses of each SACCO type. The results were presented using charts and tables to facilitate clear comparisons between the two SACCO types.

For the second objective, given that the financial performance was represented by ROA, which is a continuous variable and the independent variables were a combination of continuous and binary variables, a fixed effects regression model was used to investigate the impact of financial indicators on the financial performance of DT versus NDT SACCOs. The variables were grouped into financial ratio variables (core capital, NPL Ratio, operating expenses to operating income, cost-to-income ratio and total liquid assets to total assets), and the control variable size of SACCO (total assets). The analysis of this study will be done based on the model below:

$$ROA_{it} = \beta_0 + \beta_1 CA_{it} + \beta_2 AQ_{it} + \beta_3 LQ_{it} + + \beta_4 LQ_{it} + \beta_5 SACCO + \beta_6 TA_{it}$$

The symbols represent the variables below:

Table 3.1 Summary of variables in the regression model

Symbol	Meaning
ROA_{it}	The dependent variable, measured using Return on Assets (ROA) which reflect the profitability of SACCOs in generating returns from their assets and equity.
β_0	Constant
CA_{it}	Capital Adequacy
β_1	Capital Adequacy coefficient
AQ_{it}	Asset Quality
β_2	Asset Quality coefficient
EF_{it}	Efficiency levels
β_3	Efficiency levels coefficient
LQ_{it}	Liquidity
β_4	Liquidity coefficient
SACCO	Type of organization (NDT=0, DT = 1)
β_5	Type of organization coefficient
TA_{it}	Size of SACCO as measured by Total Assets
β_6	Total Asset coefficient
ε_t	Error Term

The relevant software for both descriptive and regression analysis was SPSS version 29, the detailed diagnostics are discussed at diagnostic level. The fixed effects (FE) model was the most appropriate for this study as it effectively controled for unobserved SACCO-specific characteristics, ensuring that only time-varying factors influence financial performance estimates. This model eliminated omitted variable bias by differencing out time-invariant confounders, leading to more reliable results, deHaan (2020). Given the panel nature of the data, FE accommodated both cross-sectional and time-series variations, which outperformed the ordinary least squares (OLS) and random effects models, Hazlett and Wainstein (2022).

Finally the third objective, compared management perspectives on operational strategies across SACCOs, responses from management interviews were analyzed using descriptive statistics, while open-ended responses were categorized into themes. The questionnaire consisted of a combination of question formats, including yes/no questions, Likert scale ratings, and both structured and unstructured open-ended questions. To ensure accurate and informed responses,

the questionnaire was administered online to a single representative from each SACCO, ideally someone with comprehensive knowledge of the organization's operations and financial strategies. While specialized managers would be have been the preferred respondents, this study acknowledged potential constraints in accessing multiple participants per SACCO. Therefore, a finance department representative, such as an accountant, finance manager, or finance officer, was the target respondent to ensure that responses are grounded in financial expertise and strategic decision-making.

A questionnaire is an essential tool in quantitative research, enabling standardized, efficient, and objective data collection from a broad population. The structured format ensures comparability across different respondent groups, making it particularly valuable for comparative studies (Roopa and Rani, 2012). By facilitating the identification of patterns and trends, the questionnaire provided reliable, cost-effective, and bias-reducing insights, allowing for structured data collection that enhances statistical robustness. In this study, the questionnaire was instrumental in capturing management perspectives on operational strategies and their impact on financial performance, offering a comparative analysis between DT and NDT SACCOs in Kenya. Additionally, the questionnaire design aligned with all research objectives, ensuring a comprehensive data collection process that facilitated meaningful comparisons. Addressing all objectives allowed for a holistic analysis, capturing insights on financial performance, financial indicators, and operational strategies to ensure a well-rounded study. By ensuring that the questionnaire effectively covered all three objectives, the study established critical linkages between financial performance, governance structures, and strategic approaches, which resulted in a robust comparative analysis of DT and NDT SACCOs in Kenya.

3.7 Research Quality

Research quality refers to the standards and characteristics that make research reliable, valid, and meaningful, it considers both the validity and reliability of the collected data. Creswell (2021b) highlighted standards such as validity, reliability, generalizability, and the control of bias as a basis for research validity. Validity refers to the accuracy and truthfulness of the findings and assesses whether the research truly measures what it claims to measure. Reliability refers to the consistency of the research results over time or across different samples. If the research were repeated under similar conditions, it should yield similar outcomes.

Generalizability refers to the extent to which findings can be applied to broader contexts beyond the study sample and controlling bias involves identifying and minimizing factors that can skew the research results, thus ensuring more accurate and objective findings. Both qualitative and quantitative research methods were used together in this study to make the results more true and trustworthy.

3.8 Diagnostic Tests

Diagnostic tests played a critical role in ensuring the robustness and credibility of the findings by assessing the appropriateness of the models, data, and assumptions used in the analysis. Beggs (1988) emphasized that diagnostic tests are used to evaluate whether an estimated econometric model accurately describes an economic phenomenon. To ensure the validity and reliability of the regression models used in this study, several diagnostic tests were conducted. The diagnostic tests included tests for model fit, normality, multicollinearity, heteroscedasticity and autocorrelation.

3.8.1 Test for Model Fit

In panel data analysis, the choice between Fixed Effects (FE) and Random Effects (RE) depends on the nature of individual specific effects and whether they are correlated with the independent variables. These models are used to control for unobserved heterogeneity, ensuring that estimates are accurate and not biased by omitted variables. The FE model is preferable when individual effects are correlated with the explanatory variables, ensuring that omitted variable bias is minimized. Conversely, the random effects model assumes no correlation between individual effects and the regressors, making it more efficient when this assumption holds (Pesaran, 2016).

Additionally, the Hausman test as a key diagnostic tool to determine whether fixed effects or random effects should be used. If the Hausman test rejected the null hypothesis that individual effects are uncorrelated with explanatory variables, the fixed effects model is appropriate. Otherwise, the random effects model is preferred for its efficiency. The study emphasized that panel data models required robust diagnostic testing for heteroscedasticity and serial correlation, which affect the efficiency and consistency of estimators (Pesaran, 2016). Baltagi et al. (2003) concurred with the use of the Hausman Test as key in deciding between FE and RE if significant, FE should be used; otherwise, RE is preferred. The study also added

the Breusch-Pagan Lagrange Multiplier (LM) Test to assesses whether RE is necessary compared to OLS, while the Hausman-Taylor Pretest helps identify whether endogeneity exists, indicating the need for the HT model.

To determine the most appropriate model for panel data analysis, the Ordinary Least Squares (OLS) method was first considered. However, to assess its suitability, a series of statistical tests were conducted. First, the Breusch-Pagan Lagrange Multiplier (LM) Test was performed to determine whether the Random Effects (RE) model was preferable over OLS. Since the test result was significant, OLS was deemed unsuitable, necessitating further testing. Next, the Hausman Test was conducted to decide between Fixed Effects (FE) and Random Effects (RE) by examining whether individual-specific characteristics were correlated with the independent variables. The test result was significant, indicating that the FE model was the appropriate choice as it provided more reliable estimates. Finally, the F-Test for Fixed Effects was carried out to confirm whether FE was significantly better than OLS. The results showed that FE was the superior model, reinforcing that OLS was not suitable for this analysis. These tests ensured that the selected model effectively accounted for individual-specific variations and provided unbiased, efficient estimates for analyzing the financial performance of SACCOs. The results of the Hausman test, which favored the use of the fixed effects model, are presented in Table 4.3 in Chapter Four.

3.8.2 Test for Normality

Normality in regression analysis refers to the assumption that the residuals (errors) of a model follow a normal distribution. This assumption is crucial because it ensures the validity of hypothesis testing and confidence intervals in regression analysis. If the error terms are normally distributed, it allows for more reliable statistical inference, particularly when using Ordinary Least Squares (OLS) estimators, Pesaran (2016). To test for normality, the Jarque-Bera Test was performed. The Jarque-Bera Test, is recommended for large samples ($n > 50$), the test is widely used in econometrics due to its effectiveness in testing for deviations from normality based on skewness and kurtosis (Rani Das, 2016; Yazici and Yolacan, 2007) .

3.8.3 Test for Multicollinearity

Multicollinearity occurs when two or more independent variables in a regression model are highly correlated, making it difficult to determine the individual effect of each predictor on the

dependent variable. When multicollinearity is present, it inflates the standard errors of the estimated coefficients, leading to unreliable statistical inferences. This can result in incorrect significance tests and unstable coefficient estimates, meaning that small changes in the data can produce large variations in estimated coefficients (Kumar, 1975).

Given that this study involved multiple financial performance indicators for DT and NDT SACCOs, it was crucial to ensure that independent variables are not excessively correlated, as this could distort the results and misrepresent the true relationship between variables. The Variance Inflation Factor (VIF) method was used to test for multicollinearity, as it provides a clear and quantitative measure of the degree of correlation between the independent variables. If VIF values exceeded 5, moderate multicollinearity would be considered, while values above 10 would indicate severe multicollinearity, requiring corrective measures such as variable transformation or removal. The VIF method is preferred over simple correlation coefficients because it provides a more comprehensive assessment of multicollinearity in multiple regression models (Shrestha, 2020).

3.8.4 Test for Heteroscedasticity

Heteroscedasticity refers to the presence of non-constant variance in the residuals of a regression model, meaning that the variability of errors differs across levels of an independent variable. Detecting heteroscedasticity is crucial in regression analysis because its presence can lead to inefficient estimators and incorrect standard errors, affecting hypothesis testing and confidence intervals (Hayes and Cai, 2007). Given the panel nature of the data in this study, the Breusch-Pagan test was a suitable choice as it is effective for detecting linear forms of heteroscedasticity (Astivia and Zumbo, 2019).

3.8.5 Test for Autocorrelation

Autocorrelation is defined as a condition in regression analysis where error terms (residuals) from one observation are correlated with those from another observation (L'Esperance and Taylor, 1975). The Durbin-Watson Test is considered as the most appropriate test for detecting first-order autocorrelation (L'Esperance and Taylor, 1975). To check for the presence of autocorrelation, the Durbin-Watson Test was conducted. This test determined whether errors in one time period were correlated with errors in another. Since the Durbin-Watson Test did not indicate a significant issue, the Breusch-Godfrey Test, which detects more complex

autocorrelation patterns, was not necessary. The Durbin-Watson Test was chosen as the initial test because it is simple and widely used in financial data analysis.

3.9 Ethical Considerations

The validity of research is contingent upon the respect of the rights of the respondents, which is why ethical considerations are crucial. In order to guarantee that the results accurately reflected the data that was analysed, respondents were required to maintain high levels of confidentiality during the primary data collection process. Respondents were granted the opportunity to participate voluntarily, with the assurance of confidentiality and anonymity. The proposal was submitted to the Strathmore Institutional Ethics and Scientific Review Committee (SERSRC) for ethical approval, as well as to the local regulator, the National Commission for Science, Technology, and Innovation (NACOSTI) (Appendix IV and V). To prevent plagiarism, all academicians whose work was utilised in the study were cited and referenced.

3.10 Chapter Summary

This chapter outlined the methodology used to examine the financial performance of DT and NDT SACCOs in Kenya. Guided by a pragmatic research philosophy, the study adopted a convergent mixed methods design, allowing for the integration of both quantitative and qualitative data to achieve a comprehensive understanding of the research problem. A census approach was used for secondary data collection, covering all 357 SACCOs regulated by SASRA from 2020 to 2023. This period was selected to align with the implementation of the Sacco Societies (Non-Deposit-Taking Business) Regulations, 2020, which introduced consistent oversight across SACCO types. For primary data, purposive sampling was employed to select 43 SACCOs, ensuring diverse representation and access to management perspectives. Quantitative data were analyzed using descriptive statistics and panel regression, while open-ended responses were subjected to thematic analysis. The chapter also addressed diagnostic tests to validate the statistical models used. Overall, the methodology ensured coherence between the study's objectives, data sources, and analytical technique

CHAPTER FOUR

PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction

This chapter presented the analysis of the data collected, detailing the findings and interpretations in relation to the study objectives. The aim being to establish the differences in financial performance between DT and NDT SACCOs in Kenya, to assess the impact on selected financial ratios on the financial performance of DT versus NDT SACCOs and to compare the operational strategies of DT versus NDT SACCOs.

4.2 Sample Representation

This section presented the sample representation for both the secondary panel data drawn from regulated SACCOs between 2020 and 2023, and the primary data collected from SACCO management respondents through questionnaires.

4.2.1 Sample Representation for Secondary Data

To ensure consistency and completeness in the analysis, the final panel dataset comprised 332 regulated SACCOs with full data availability across the period 2020 to 2023. This included 160 Deposit-Taking (DT) SACCOs and 172 Non-Deposit-Taking (NDT) SACCOs, resulting in a total of 1,328 SACCO-year observations. The selection focused only on SACCOs with uninterrupted annual data during the study period, allowing for a balanced panel structure and a robust longitudinal comparison of financial performance across the two SACCO types.

4.2.2 Sample Representation for Primary Data

Out of 60 SACCOs approached for the qualitative inquiry, 43 provided completed responses, yielding a response rate of 71.6%. These included both DT and NDT SACCOs selected based on accessibility and willingness to participate. A sample of 43 SACCOs was used for the qualitative component based on purposive sampling to capture diverse management perspectives. This sample size was deemed sufficient to achieve data saturation and thematic richness. Table 4.14 represents a sample representation from the primary data.

Table 4.14 Sample Representation from Primary Data

Strategic Priorities Explanation	Technology Used	Perceived Strength	Additional Explanation
This will enable the SACCO to improve performance and enhance financial viability in the long run.	Mobile Application, USSD code	Building a deposit base	This is the main advantage of a DT SACCO.
To remain competitive and meet member expectations.	Mobile Application, USSD code	Enhanced trust and credibility among members	It enables growth of assets.
To enhance member satisfaction.	Online Platform, Automated Loan System	Enhanced trust and credibility among members	Members are from a common affiliation.
To remain competitive so as to meet member expectations	Mobile Application, Automated Loan System, Digital Reporting	Stronger regulatory framework and oversight	This provides confidence to members and ensures financial stability.

To increase efficiency and also to provide accessible financial solutions.	Mobile Application, Online Platform, USSD code	Building a deposit base	This ensures that the SACCOfacilitates sustainable growth and to provide affordable credit to members.
To ensure that members are satisfied, and to minimize losses.	Mobile Application, USSD code	Greater flexibility in operations	NDT SACCOs can tailor services to meet their members needs without heavy regulation.
To diversify income streans and enhance member satisfaction.	Mobile Application, USSD code, Automated Loan System	Enhanced trust and credibility among members	Members have a sense of community which makes them more secure in their investments.
To support financial inclusion and risk management.	Online Platform, Automated Loan System, Digital Reporting	Building a deposit base	Encourages long term financial security.
To increase the profitability of the SACCO.	Mobile Application, Automated Loan System, Digital Reporting	Building a deposit base	Significantly helps sustain the lending capacity.
To improve liquidity and reduce non-performing loans.	Mobile Application, USSD code	Access to a wider range of financial products	Members have access to savings, credit and investment opportunities.
To enhance loan repayment rate and SACCO sustainability.	USSD code, Automated Loan System	Stronger regulatory framework and oversight	This ensures that members feel secure in a cooperative financial institution.
To reach rural members and enhance loan repayment efficiency.	Mobile Application, Automated Loan System	Access to a wider range of financial products	Accessibility to deposit products for members

4.3 Diagnostic Tests

This section outlined the diagnostic tests that were performed to assess the reliability and accuracy of the regression models in this study. These tests ensured that key assumptions are met, strengthening the validity of the analysis and the credibility of the findings.

4.3.1 Test for Model Fit

The Durbin-Wu-Hausman test was conducted to determine the most appropriate econometric model among Ordinary Least Squares (OLS), fixed effects, and random effects models. This test evaluated whether the estimators of the random effects model are consistent by assessing the correlation between unobserved individual effects and the regressors. The null hypothesis of the Hausman test posits that the preferred model produces efficient and unbiased estimators, implying no correlation between the individual effects and explanatory variables. A statistically significant test result, indicated by a p-value less than 0.05, suggested that the null hypothesis should be rejected, meaning that the random effects model was inconsistent due to the presence of endogeneity. Consequently, the fixed effects model was preferred as it provided unbiased and consistent estimates by accounting for unobserved heterogeneity. As shown below (Table 4.3), the p-value obtained in this study was below 0.05, confirming that unobserved effects were correlated with the regressors, thereby justifying the use of the fixed effects model for analysis.

Table 4.1 Random- Effects Model

Financial Performance	Coef.	Std.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Capital Adequacy	0	0	2.84	.004	0	0	***
Efficiency level	0	0	-2.35	.019	-.001	0	**
Liquidity	.038	.007	5.18	0	.023	.052	***
Asset Quality	-.034	.005	-6.70	0	-.044	-.024	***
Constant	.014	.002	7.77	0	.011	.018	***

Mean dependent var	0.018	SD dependent var	0.026
Overall r-squared	0.097	Number of obs	1108
Chi-square	.	Prob > chi2	.
R-squared within	0.034	R-squared between	0.147

*** p<.01, ** p<.05, * p<.1

Table 4.2 Fixed-Effects Model

Financial Performance	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Capital Adequacy	0	0	0.69	.491	0	0	
Efficiency level	0	0	-1.73	.084	-.001	0	*
Liquidity	.049	.015	3.17	.002	.019	.08	***
Asset Quality	-.026	.007	-3.79	0	-.04	-.013	***
Constant	.012	.003	3.87	0	.006	.018	***

Mean dependent var	0.018	SD dependent var	0.026
R-squared	0.037	Number of obs	1108
F-test	6.798	Prob > F	0.000
Akaike crit. (AIC)	-6014.570	Bayesian crit. (BIC)	-5994.529

*** *p*<.01, ** *p*<.05, * *p*<.1

Table 4.3 Random and Fixed-Effects Test Results

	Coef.
Chi-square test value	0
P-value	0.000

4.3.2 Test for Normality

The Jarque-Bera test was employed to evaluate whether the distribution of the sample data conforms to the assumptions of normality by investigating its skewness and kurtosis. This test followed a Chi-square distribution, and its statistical significance is determined through a p-value. A p-value below the conventional significance threshold of 0.05 leads to the rejection of the null hypothesis, which posits that the data is normally distributed. As indicated in Table 4.4, the test results revealed a statistically significant deviation from the normal distribution, leading to the rejection of the null hypothesis. Consequently, the data does not adhere to a normal distribution, which could potentially impact the accuracy of statistical analyses that assume a normal distribution.

Table 4.4 Jarque-Bera Test

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj_chi2(2)	Prob>chi2
Financial Performance	1,312	0.000	0.000	.	0.000

4.3.3 Test for Multicollinearity

Shrestha (2020), posit that multicollinearity exists when VIF is greater than 10 and tolerance is less than 0.1. This criterion was adopted in the current research in testing for collinearity between the independent variables of the research. Table 4.5 indicated that there was no multicollinearity between the independent variables.

Table 4.5 Variance Inflation Factor

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	1.793	0.111		16.211	0.000		
Capital Adequacy	3.589E-10	0.000	0.151	4.837	0.000	0.993	1.007
Asset Quality	-1.963E-11	0.000	-0.005	-0.121	0.904	0.598	1.673
Efficiency level	1.246E-11	0.000	0.030	0.748	0.455	0.600	1.666
Liquidity	-0.010	0.003	-0.097	-3.088	0.002	0.993	1.007

4.3.4 Test for Heteroscedasticity

In order to check for heteroscedasticity in the model, the Breusch-Pagan method was performed. The results of the study were a p-value > 0.05, which indicated that there was no heteroscedasticity.

Table 4.6 Breusch Pagan Test

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of Financial Performance
F(1 , 627) = 1.88
Prob > F = 0.1708

4.3.5 Test for Autocorrelation

The Durbin Watson test takes values of between 0 to 4. A value of 2 indicates that errors are not correlated. However, values from 1.50 to 2.50 are considered acceptable. Table 4.7 presents a Durbin Watson value of 1.982, an indication that autocorrelation is acceptable.

Table 4.7 Durbin-Watson Test

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.185	0.034	0.030	2.4897%	1.982

4.4 Descriptive analysis comparing DT versus NDT SACCOs

The descriptive statistics presented in Table 4.8 provided a comparative analysis of the financial performance and key financial indicators of DT and NDT SACCOs. The results indicated that the financial performance of both DT and NDT SACCOs had a mean of 0 with a standard deviation of 0, suggesting uniformity in this measure across the sample. On the subject of asset quality, both DT and NDT SACCOs recorded a mean value of 0.1 and a standard deviation of 0.2, indicating minimal variation in the quality of assets between the two categories. Liquidity, an essential determinant of financial stability, showed slight variation between the two SACCO types. DT SACCOs had a mean liquidity ratio of 0.2 with a standard deviation of 0.1, while NDT SACCOs exhibited a mean of 0.2 but with a higher standard deviation of 0.2, reflecting greater variability in liquidity levels within the NDT segment.

A notable difference emerged in efficiency levels, where DT SACCOs reported a mean of 0.9 and a standard deviation of 6.5, whereas NDT SACCOs had a lower mean of 0.6 with a standard deviation of 1.1. This suggested that efficiency is more stable among NDT SACCOs, while DT SACCOs exhibit significant variability, potentially due to differences in operational scale and resource utilization. The most pronounced disparity was observed in capital adequacy, where DT SACCOs had a significantly higher mean of Ksh 532,601,659.9 with a standard deviation of Ksh 1,330,767,138.5, compared to NDT SACCOs, which recorded a mean of Ksh 55,911,575.1 and a standard deviation of Ksh 96,861,775.6. This substantial difference suggested that DT SACCOs operate with significantly larger capital reserves, likely due to their regulatory requirements and broader service offerings compared to NDT SACCOs. Overall, the findings highlighted key structural and financial differences between DT and NDT

SACCOs, particularly in capital adequacy and efficiency levels, which may have implications for their financial sustainability and risk management practices

Table 4.8 Descriptive statistics

Sacco type	Variables	n	Mean	Median	Standard Deviation
DT	Financial Performance	632	0.02	0.021	0.0314
	Capital Adequacy	632	532,601,659	102,043,808	1,330,767,139
	Asset Quality	632	0.13	0.067	0.1584
	Liquidity	632	0.20	0.175	0.1093
	Efficiency level	632	0.94	0.667	6.4629
NDT	Financial Performance	684	0.01	0.012	0.0169
	Capital Adequacy	684	55,911,575	24,112,959	96,861,776
	Asset Quality	684	0.11	0.036	0.1585
	Liquidity	684	0.18	0.133	0.1520
	Efficiency level	684	0.57	0.514	1.1101
Total	Financial Performance	1316	0.02	0.015	0.0252
	Capital Adequacy	1316	321,814,606	38,139,850	1,023,426,314
	Asset Quality	1316	0.12	0.053	0.1587
	Liquidity	1316	0.19	0.157	0.1334
	Efficiency level	1316	0.75	0.608	4.5582

The results presented below (Figure 4.1) on financial performance, specifically ROA (calculated as Net Income/Total Assets), revealed notable differences between DT and NDT SACCOs across five performance categories. In the lower three ROA categories, NDT SACCOs exhibited superior performance compared to DT SACCOs, with 27.4% versus 12.2%, 25.7% versus 13.8%, and 22.4% versus 17.4%, respectively. Conversely, in the upper two ROA categories, DT SACCOs outperformed NDT SACCOs, recording 24.8% versus 15.4% and 31.8% versus 9.1%, respectively. These findings suggested that while NDT SACCOs tend to perform better in the lower ROA ranges, DT SACCOs demonstrated stronger financial performance at higher ROA levels.

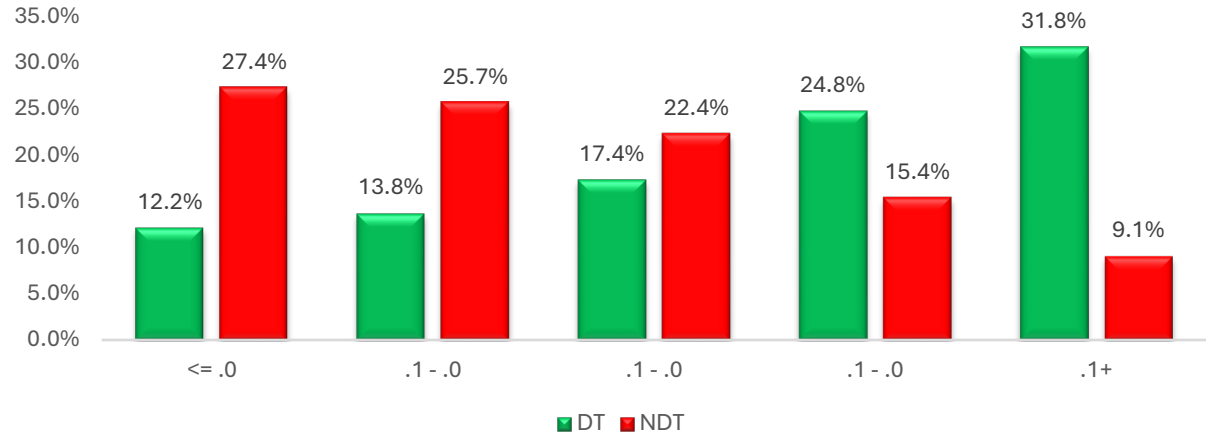

Figure 4.1 Financial performance: Return on Assets (Net Income/ Total Assets)

Figure 4.2 presents a comparative analysis of capital adequacy between DT and NDT SACCOs across different performance categories. The results indicated that DT SACCOs outperformed NDT SACCOs in categories one, four, and five, with respective performance levels of 9.2% versus 28.6%, 17% versus 22.5%, and 3% versus 33.4%. Conversely, NDT SACCOs exhibited superior performance in categories two and three, recording 41.1% compared to 3.5% for DT SACCOs, and 29.7% compared to 12%, respectively. These findings highlighted notable differences in capital adequacy between the two SACCO types, suggesting that DT SACCOs tend to excel in higher capital adequacy brackets, while NDT SACCOs demonstrate stronger performance in mid-range categories.

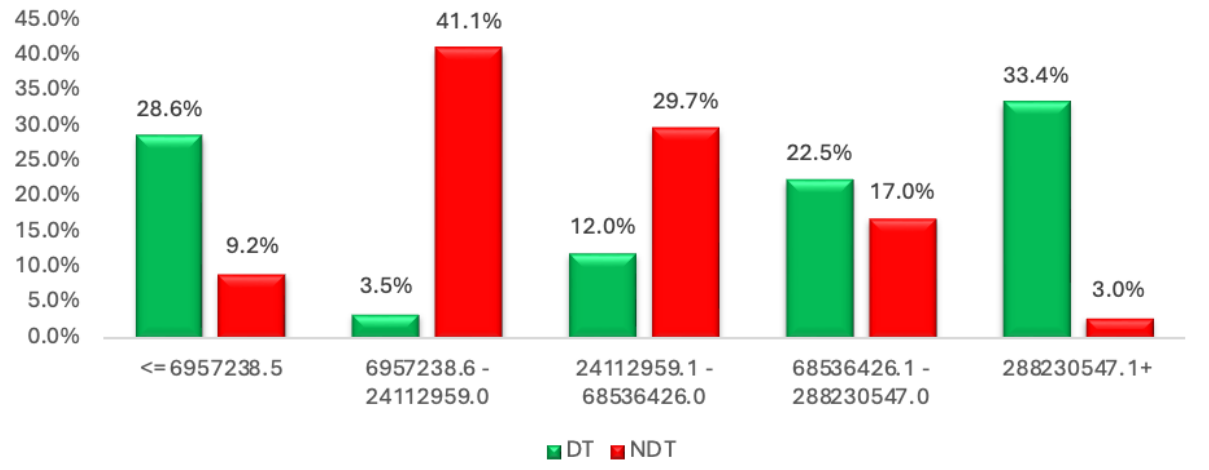

Figure 4.2 Capital Adequacy (Core Capital)

Figure 4.3 presents a comparative analysis of asset quality between DT and NDT SACCOs. The results indicate that DT SACCOs demonstrated superior performance in three out of five

asset quality categories, specifically categories three, four, and five. In category three, DT SACCOs accounted for 25.0%, outperforming NDT SACCOs at 15.4%. Similarly, in category four, DT SACCOs recorded 24.8%, compared to 15.1% for NDT SACCOs, while in category five, DT SACCOs led with 21.0% against 18.9% for NDT SACCOs. Conversely, NDT SACCOs exhibited stronger asset quality in categories one and two. Specifically, in category one, NDT SACCOs accounted for 28.9%, significantly higher than DT SACCOs at 10.8%. Likewise, in category two, NDT SACCOs recorded 21.7%, marginally surpassing DT SACCOs at 18.4%. These findings suggest that while DT SACCOs perform better in higher asset quality categories, NDT SACCOs dominate in the lower asset quality segments.

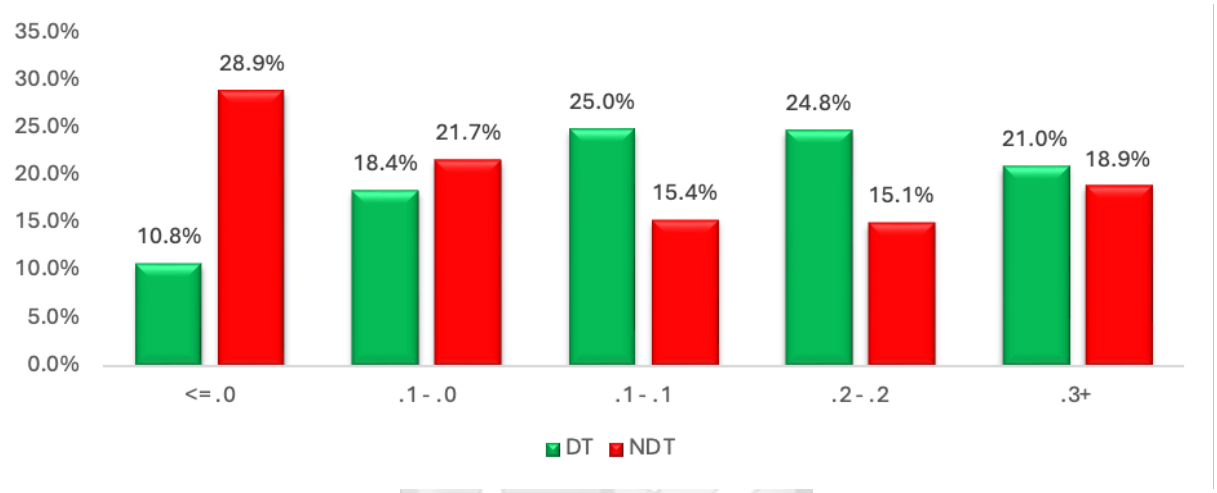

Figure 4.3 Asset Quality (NPL Ratio)

Efficiency demonstrated as below in figure 4.4, DT outperformed NDT in three of the five categories thus categories three, four and five. In category three DT had 24.5% compared to 15.9% for NDT, category four 25.8% against 14.6% and category five 25.3% against 15%. On the other hand, NDT had highest performance in category one and two compared to DT at 33.1% against 6% and 21.5% against 18.4%.

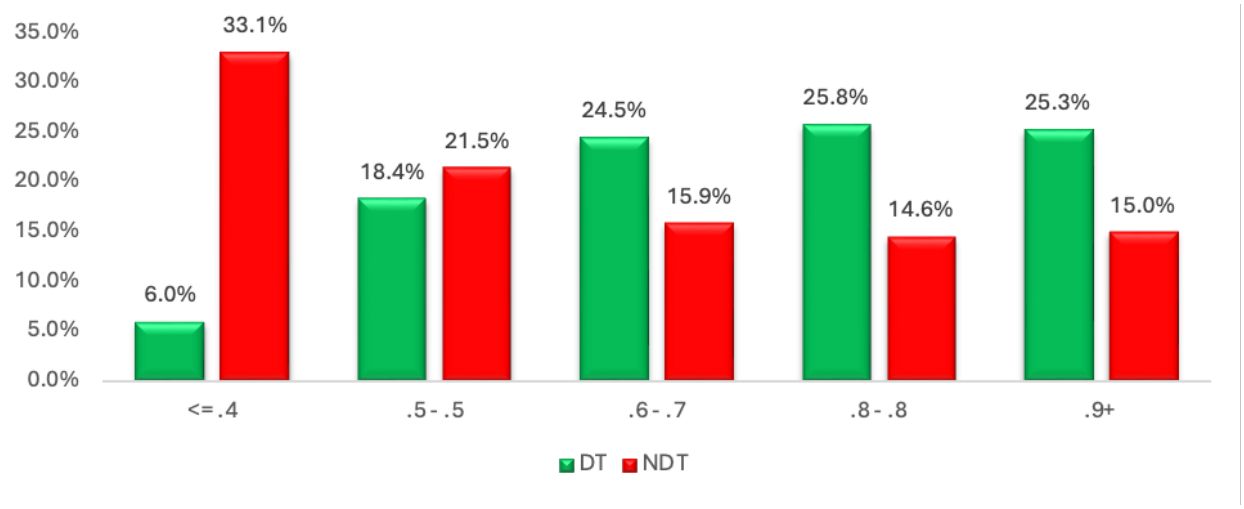

Figure 4.4 Efficiency : Cost to Income Ratio (Operating income/ Operating expenses)

Figure 4.5 illustrated the liquidity performance across different categories for DT and NDT SACCOs. DT SACCOs demonstrated superior liquidity in three out of five categories, specifically categories three, four, and five. In category three, DT SACCOs recorded a liquidity rate of 24.8%, outperforming NDT SACCOs at 15.4%. Similarly, in category four, DT SACCOs achieved 23.3%, compared to 17% for NDT SACCOs. In category five, DT SACCOs continued to lead with 21.7%, whereas NDT SACCOs reported 18.3%. Conversely, NDT SACCOs outperformed DT SACCOs in categories one and two. In category one, NDT SACCOs exhibited the highest liquidity performance at 29.1%, significantly higher than DT SACCOs at 10.3%. Likewise, in category two, NDT SACCOs recorded 20.1%, marginally surpassing DT SACCOs at 19.9%. This distribution indicated that while DT SACCOs generally maintain higher liquidity in the upper categories, NDT SACCOs exhibited stronger liquidity performance in the lower categories. This variation may be attributed to differences in financial strategies, regulatory requirements, or operational structures between the two SACCO types.

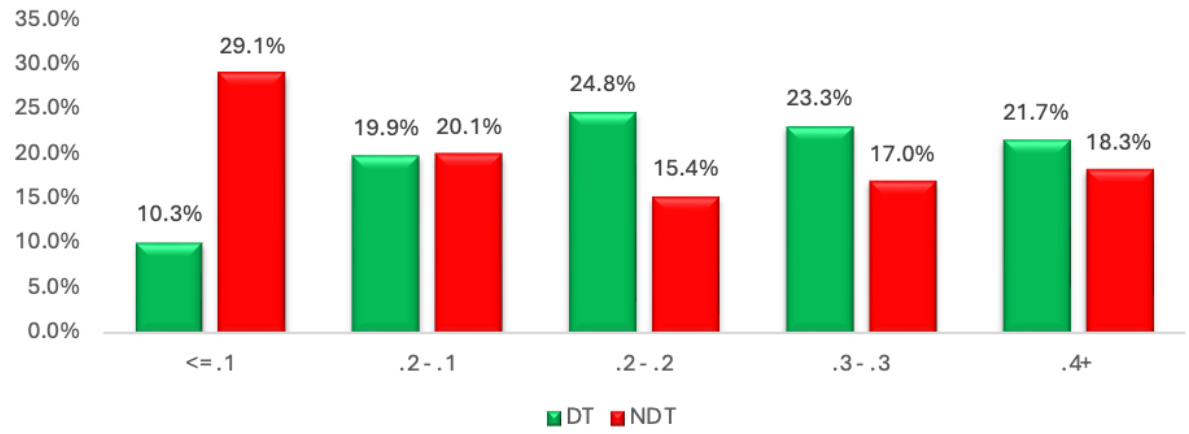

Figure 4.5 Liquidity (Total Liquid Assets/Total Assets)

To assess whether there are significant differences in economic and financial measures between DT and NDT SACCOs, an independent samples t-test was conducted. The null hypothesis (H_0) posits that there is no significant difference in the mean values of these measures between the two SACCO categories. The results, as presented in Table 4.9, indicated that four out of the five examined financial measures exhibited statistically significant differences in their means, with the exception of efficiency levels, which remain comparable across both SACCO types.

Table 4.9 Independent Sample T-Test for DT and NDT SACCOs

	t-test for Equality of Means						
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper
Financial Performance	5.126	1310	**0.000***	0.0071	0.0014	0.0044	0.0098
Capital Adequacy	8.000	1131	**0.000***	476690084.8612	59584413.9086	359781669.7394	593598499.9829
Asset Quality	2.198	1277	**0.028***	0.0195	0.0089	0.0021	0.0369
Efficiency level	1.483	1310	0.138	0.3733	0.2517	-0.1206	0.8671
Liquidity	2.671	1306	**0.008***	0.0197	0.0074	0.0052	0.0341
Size of SACCO	11.237	1314	**0.000***	3688561164.4699	328262000.4412	3044586290.9986	4332536037.9411

4.5 Regression Analysis by SACCO type

This objective examined the impact of key financial factors asset quality, efficiency levels, liquidity, and capital adequacy on the financial performance represented by the ROA of DT and NDT SACCOs in Kenya. A fixed-effects regression model was performed to analyze these relationships, both with and without the inclusion of a control variable (size of SACCO). The results below (Table 4.10 and Table 4.11) on DT saccos, it is noted Liquidity and Asset Quality both influenced financial performance with or without control variable. The influence has no positive nor negative impact as the R-squared both without and with control variable is 0.121 (12.1%). On the other hand in (Tables 4.12 and 4.13), efficiency level is the only factor which influences performance among NDT saccos both without and with control variable. The influence has a slightly positive influence of 0.2%.

Table 4.10 Fixed-Effects (within) regression – DT SACCOs without control variable

Financial Performance	Coef.	Std. Err.	t-value	p-value	[95% Conf	Interval]	Sig
Capital Adequacy	0	0	0.57	.57	0	0	
Efficiency level	0	0	-1.02	.308	-.001	0	
Liquidity	.087	.025	3.53	0	.038	.135	***
Asset Quality	-.101	.015	-6.78	0	-.13	-.072	***
Constant	.017	.005	3.22	.001	.007	.027	***
Mean dependent var		0.021	SD dependent var			0.032	
R-squared		0.121	Number of obs.			629	
F-test		14.725	Prob > F			0.000	
Akaike crit. (AIC)		-3178.482	Bayesian crit. (BIC)			-3160.705	

*** $p<.01$, ** $p<.05$, * $p<.1$

Table 4.11 Fixed-Effects (within) regression - DT SACCOs with control variable

Financial Performance	Coef.	Std. Err.	t-value	p-value	[95% Conf	Interval]	Sig
Capital Adequacy	0	0	0.27	.788	0	0	
Efficiency level	0	0	-1.02	.309	-.001	0	
Liquidity	.087	.025	3.52	0	.038	.135	***
Asset Quality	-.101	.015	-6.78	0	-.131	-.072	***
Size of SACCO	0	0	-0.34	.732	0	0	
Constant	.019	.008	2.41	.017	.003	.034	**

Mean dependent var	0.021	SD dependent var	0.032
R-squared	0.121	Number of obs.	629
F-test	11.779	Prob > F	0.000
Akaike crit. (AIC)	-3178.655	Bayesian crit. (BIC)	-3160.878

*** *p<.01, ** p<.05, * p<.1*

Table 4.12 Fixed-Effects (within) regression – NDT SACCOs without control variable

Financial Performance	Coef.	Std. Err.	t-value	p-value	[95% Conf	Interval]	Sig
Capital Adequacy	0	0	0.23	.821	0	0	
Efficiency level	-.002	0	-3.58	0	-.003	-.001	***
Liquidity	.006	.011	0.52	.604	-.017	.029	
Asset Quality	.004	.004	0.88	.379	-.005	.012	
Constant	.013	.002	5.86	0	.008	.017	***

Mean dependent var	0.013	SD dependent var	0.015
R-squared	0.052	Number of obs.	478
F-test	3.775	Prob > F	0.000
Akaike crit. (AIC)	-3296.378	Bayesian crit. (BIC)	-3279.700

*** *p<.01, ** p<.05, * p<.1*

Table 4.13 Fixed-Effects (within) regression – NDT SACCOs with control variable

Financial Performance	Coef.	Std. Err.	t-value	p-value	[95% Conf	Interval]	Sig
Capital Adequacy	0	0	0.00	.997	0	0	
Efficiency level	-.002	0	-3.55	0	-.003	-.001	***
Liquidity	.005	.012	0.46	.644	-.017	.028	

Asset Quality	.004	.004	0.91	.364	-.004	.012	
Size of SACCO	0	0	0.71	.479	0	0	
Constant	.012	.003	4.59	0	.007	.017	***

Mean dependent var	0.013	SD dependent var	0.015
R-squared	0.054	Number of obs.	478
F-test	3.115	Prob > F	0.000
Akaike crit. (AIC)	-3297.258	Bayesian crit. (BIC)	-3280.580

*** $p<.01$, ** $p<.05$, * $p<.1$

4.5.1 Interpretation of Regression Results

The study applied fixed-effects regression models to evaluate how key financial ratios influenced the financial performance of SACCOs, as measured by ROA. The fixed-effects model was selected following the Hausman test, which confirmed that individual effects were correlated with the explanatory variables, thereby rendering the random-effects model inappropriate. Among DT SACCOs, liquidity was identified as the strongest positive determinant of ROA ($\beta = 0.049$, $p = 0.002$), indicating that higher levels of liquid assets significantly enhanced profitability and asset utilization. Asset quality, on the other hand, showed a significant negative association with ROA ($\beta = -0.026$, $p = 0.000$), suggesting that an increase in non-performing loans weakened financial outcomes. Efficiency, captured through the cost-to-income ratio, demonstrated a marginally negative effect on ROA ($p = 0.084$), implying that operational inefficiencies may have slightly diminished financial returns. Capital adequacy, however, was not statistically significant, indicating that it did not directly influence short-term profitability in this context. Although SACCO size was not part of the initial model, its inclusion in subsequent specifications did not materially alter the results.

For NDT SACCOs, the analysis revealed that efficiency was the only variable with a statistically significant relationship with ROA ($\beta = -0.002$, $p = 0.000$), emphasizing the crucial role of cost management in sustaining profitability. In contrast, capital adequacy, liquidity, asset quality, and SACCO size were all found to have no significant effect on ROA, pointing to a more subdued influence of these factors in non-deposit-taking SACCOs. Overall, the findings highlight that while operational efficiency is an important performance driver across both SACCO types, liquidity plays a particularly critical role in enhancing the financial performance of DT SACCOs. In contrast, for NDT SACCOs, maintaining cost efficiency emerges as the most vital factor in achieving sustainable .

4.6 Thematic Analysis of Primary Data

This section presented the results of the thematic analysis conducted on the primary data collected from SACCO management respondents, highlighting key patterns and insights regarding operational strategies and their impact on financial performance.

4.6.1 Age and Board Size

The study examined the age, distribution, and governance structures of SACCOs, revealing key differences between DT and NDT SACCOs. Among the 43 SACCOs surveyed, DT SACCOs were generally more mature, with most operating for over 30 years, some exceeding 40, while NDT SACCOs were relatively younger, with an average operational age of 10 years. This disparity in longevity suggests that DT SACCOs benefit from more established financial foundations, deeper regulatory experience, and broader asset bases, whereas NDT SACCOs may face challenges in capital mobilization and governance capacity due to their shorter operational history. In terms of governance, DT SACCOs tended to have slightly larger boards, commonly composed of nine members and reaching up to 13, while NDT SACCOs averaged seven members, with board sizes ranging from 10 to 11. Although both SACCO types shared some similarities, such as having 11-member boards in common, the larger board structures in DT SACCOs likely support stronger financial oversight and compliance, whereas the leaner boards of NDT SACCOs may offer agility in decision-making, albeit with potential limitations in governance depth and strategic planning.

4.6.2 Membership Onboarding and Accessibility

Both DT and NDT SACCOs primarily relied on in-person registration as the dominant method for onboarding new members, with mobile registration being the least utilized approach. However, the accessibility of the onboarding process differed. DT SACCOs reported a "very accessible" process characterized by fewer requirements and quicker processing, while NDT SACCOs indicated a "moderately accessible" process, citing additional procedural requirements. The most common requirement for registration in both SACCO types was an initial deposit or membership fee, while proof of social affiliation and guarantor requirements were the least cited. These findings suggest that DT SACCOs have streamlined their onboarding processes to accelerate member growth, while NDT SACCOs maintain more controlled entry aligned with social bonds and trust structures.

Thematic analysis from management responses reinforced these patterns. Managers underscored the strategic value of efficient onboarding:

"To remain competitive and meet member expectations, digital innovation and operational streamlining are vital."
"Efficiency is key in improving our returns and managing limited resources."

These reflections emphasized that DT SACCOs view accessible onboarding as central to deposit mobilization, while NDT SACCOs prioritize member screening to maintain portfolio quality and community cohesion.

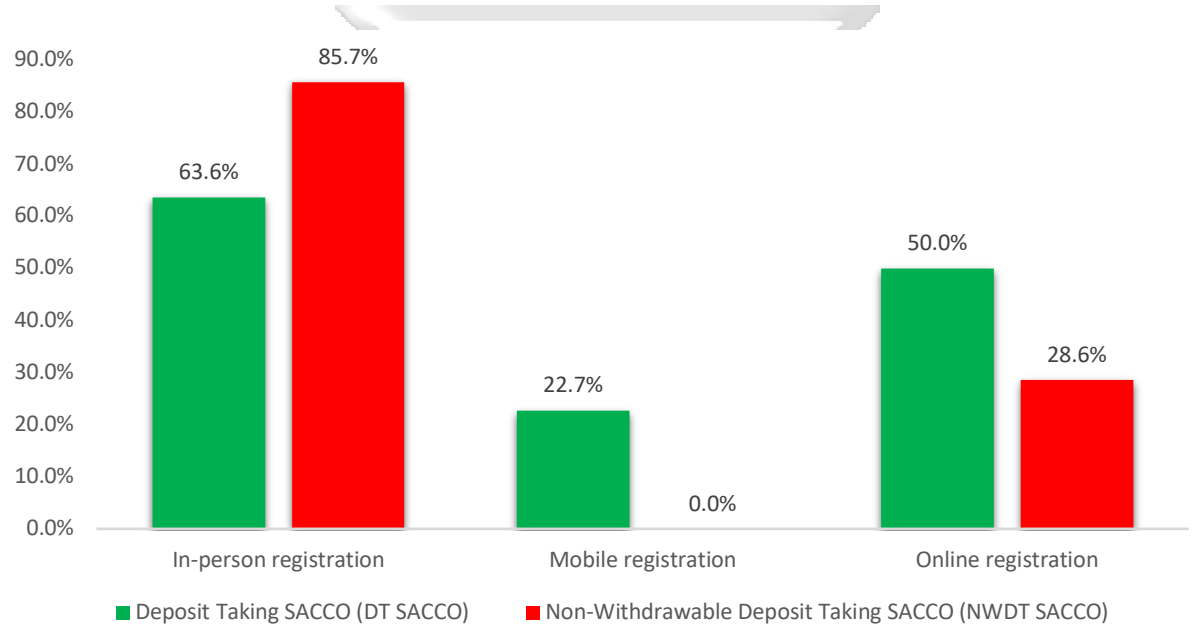

Figure 4.6 Membership Registration

4.6.3 Loan Application and Processing Efficiency

The study revealed significant differences in how DT and NDT SACCOs processed loan applications. DT SACCOs favoured online platforms (websites and mobile apps), reflecting greater digital investment. In contrast, NDT SACCOs predominantly relied on in-branch applications, which limited speed and access. DT SACCOs averaged 1–3 days in processing, while NDT SACCOs took 4–7 days, with none processing loans in under a day. These operational disparities highlight the role of technology in enhancing service delivery in DT SACCOs and the lag in NDT SACCOs due to infrastructural limitations. Qualitative responses

supported these observations. Managers described how digital tools improved turnaround times and transparency:

"We are using mobile applications, automated loan systems, and digital reporting tools to improve efficiency."
"Mobile platforms and USSD codes allow easier member engagement, especially in rural areas."

These comments underscored that DT SACCOs benefited from structured risk systems and integrated platforms, whereas NDT SACCOs experienced delays due to manual processes and limited tech investment.

4.6.4 Loan Products and Their Popularity

Business loans emerged as the most widely available products across both SACCO types. However, product preference varied: DT SACCOs favoured housing/mortgage loans/asset finance loans, while NDT SACCO members primarily preferred personal loans. Educational loans were absent among DT SACCOs, and NDT SACCOs showed limited uptake of asset finance or mortgages. Key factors influencing loan popularity in DT SACCOs included affordable interest rates and structured repayment plans. NDT SACCOs cited quick processing and alignment with immediate needs such as farming, education, or emergency obligations.

Thematic data echoed these trends. Respondents emphasized how loan offerings are influenced by member profiles and SACCO structures:

"Our SACCO's strength lies in its people-first approach and conservative lending."
"Being community-based makes us more relatable and flexible."

These insights suggested that NDT SACCOs design loans for immediacy and simplicity, while DT SACCOs leverage scale and structure to offer more complex, long-term financing.

4.6.5 Impact of Operational Efficiency on Financial Performance

This section assessed management perspectives on how operational efficiency in onboarding, loan processing, and product diversification affects financial performance. Both DT and NDT

SACCOs rated the impact as moderate (3 out of 5), indicating that while efficiency matters, other financial and regulatory elements also play critical roles. Technological investment emerged as a key differentiator. DT SACCOs reported significant use of mobile and web-based platforms, credit scoring systems, and core banking integrations. NDT SACCOs used simpler tools like USSD codes, which offered basic functionality but lacked full integration.

The impact of technology on financial performance also differed. For DT SACCOs, ROA improved notably, reflecting gains in productivity and asset utilization. For NDT SACCOs, technology investments most affected the cost-to-income ratio suggesting that while operations became more efficient, costs also increased. Thematic analysis validated these findings, with SACCO leaders sharing:

"Digitalization and efficiency go hand in hand in today's SACCO landscape."
"There's still a need for training and exposure to better technology for smaller SACCOs."

Such responses revealed a shared belief in the value of operational innovation, but also highlight capacity constraints, especially in NDT SACCOs.

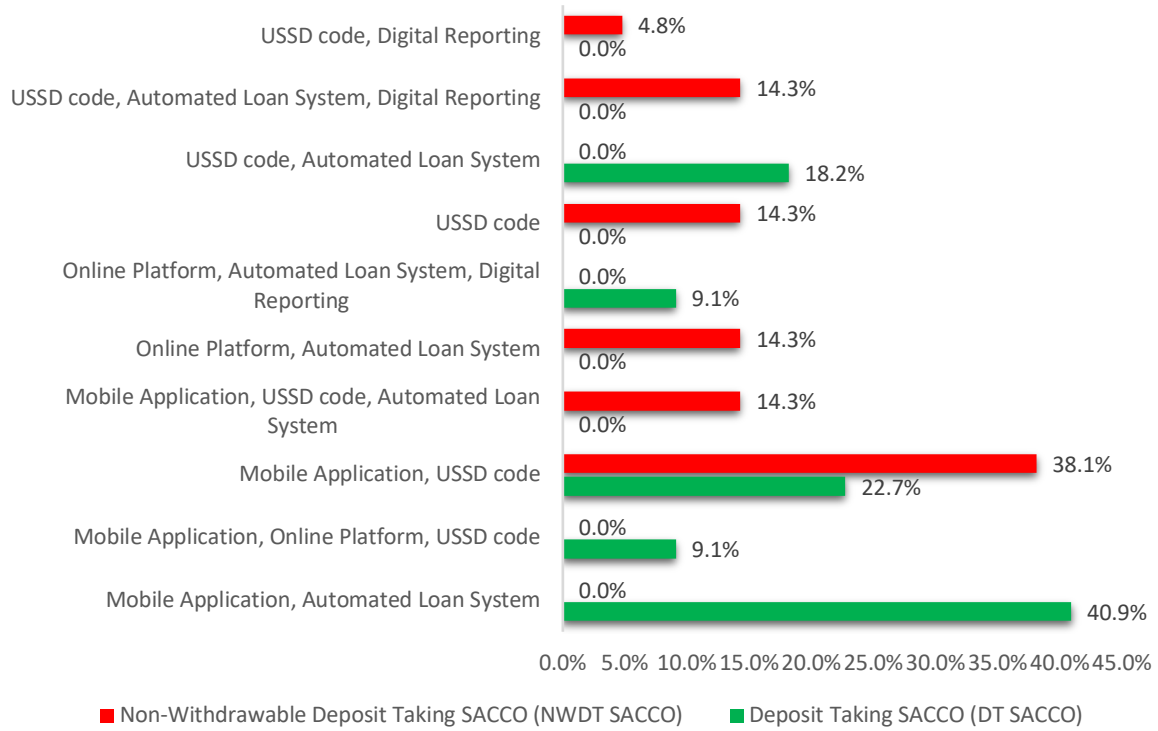

Figure 4.7 Loan Application Process in each type of SACCO

4.7 Chapter Summary

Chapter Four presented the analysis of both quantitative and qualitative data, organized around the study's four specific objectives. The descriptive statistics and comparative analysis revealed clear performance disparities between DT and NDT SACCOs. DT SACCOs consistently outperformed their NDT counterparts in key financial indicators such as ROA, capital adequacy, and liquidity. Conversely, NDT SACCOs demonstrated relatively better asset quality but lagged in overall efficiency and profitability. These differences were statistically validated through an independent sample t-test, which confirmed that the financial indicators varied significantly between the two SACCO types.

The regression analysis employed fixed-effects models, selected based on the Hausman test results, which confirmed their appropriateness over random-effects models. For DT SACCOs, liquidity and asset quality emerged as significant predictors of ROA, emphasizing the importance of resource management and credit performance in driving profitability. In contrast, efficiency was the only statistically significant factor influencing ROA among NDT SACCOs, highlighting the centrality of cost management to their financial outcomes. Interestingly, SACCO size was found to have no significant effect on ROA in either group, suggesting that performance is more strongly tied to operational and internal factors than to scale alone.

Qualitative findings from the thematic analysis provided further insight into the operational strategies adopted by each SACCO type. DT SACCOs emphasized the role of digital transformation, including core banking systems and automated loan processing, in enhancing service delivery and financial outcomes. NDT SACCOs, while also leveraging mobile technology, primarily relied on simpler platforms such as USSD codes and focused more on strong member relationships to support loan repayment and efficiency. These technological strategies affected different financial metrics: for DT SACCOs, digital innovation had a positive impact on ROA, whereas for NDT SACCOs, it mainly influenced the cost-to-income ratio by improving operational efficiency, albeit with increased costs.

Finally, diagnostic tests were conducted to validate the assumptions underlying the regression models. These included the VIF test for multicollinearity, the Breusch-Pagan test for heteroscedasticity, the Jarque-Bera test for normality, and the Durbin-Watson test for

autocorrelation. All tests indicated that the models met the necessary assumptions, thereby reinforcing the reliability of the findings.

In sum, Chapter Four demonstrated the substantial influence of financial indicators and operational factors on SACCO financial performance. It affirmed that the drivers of performance differ between DT and NDT SACCOs, underscoring the importance of context-specific strategies and justifying the comparative approach adopted in this study.

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter synthesized the research findings, contextualising them within theoretical frameworks and offering actionable recommendations for SACCOs, regulators, and policymakers. Additionally, it identified areas for future research, ensuring that the ongoing discourse on SACCO financial sustainability continues.

5.2 Summary of Findings

This study set out to examine the factors influencing the financial performance of regulated Deposit-Taking (DT) and Non-Deposit-Taking (NDT) SACCOs in Kenya, guided by Agency Theory and Asymmetric Information Theory. Through a mixed-methods approach combining secondary panel data analysis (2020–2023) and primary qualitative insights from SACCO management, the study found notable differences in financial performance indicators between DT and NDT SACCOs. DT SACCOs consistently outperformed NDT SACCOs in return on assets, capital adequacy, and liquidity, largely attributed to stronger regulatory oversight, access to deposits, and greater operational scale. However, DT SACCOs also faced higher operational inefficiencies compared to NDT SACCOs, driven by compliance costs and complex administrative structures. NDT SACCOs, while less capitalized, exhibited stronger cost efficiency and asset quality management, owing to leaner structures, localized governance, and closer member relationships.

The study further revealed that operational strategies significantly influenced financial outcomes. DT SACCOs leveraged digital platforms and diversified product offerings to strengthen financial performance, while NDT SACCOs relied more heavily on personal member engagement and flexible credit solutions. Management perspectives highlighted that operational efficiency, technological investment, and strategic governance were critical to improving financial performance across both SACCO types. These findings underscore the importance of tailored regulatory support and strategic innovation to enhance the financial sustainability of both DT and NDT SACCOs in Kenya's evolving financial landscape.

5.3 Discussion of Findings

This section delved into the study's findings, providing a thorough analysis of how they align with the research objectives. The findings are examined in the context of Agency Theory and Asymmetric Information Theory, shedding light on how governance structures, regulatory environments, and operational efficiency impact the financial performance of DT versus NDT SACCOs in Kenya. The discussion also draws comparisons between the study's results and existing literature, identifying both similarities and differences that contribute to the ongoing academic and policy discourse on the financial sustainability of SACCOs in Kenya.

5.3.1 Differences in Performance between DT and NDT SACCOs in Kenya

The study revealed notable differences in the financial performance of DT and NDT SACCOs, particularly in terms of capital adequacy, liquidity, asset quality, efficiency, and overall profitability. These findings reinforce the theoretical assumptions underlying this study, especially those drawn from Agency Theory and Information Asymmetry Theory. From the perspective of Agency Theory, the superior performance of DT SACCOs in areas such as capital adequacy and ROA can be attributed to their stronger governance structures and regulatory oversight. The regulatory environment under SASRA imposes stricter monitoring and reporting requirements on DT SACCOs, which enhances accountability and aligns managerial actions more closely with the interests of members. This supports the assertions of Simiyu et al. (2023) and Kiaritha et al. (2013), who emphasized that formal governance frameworks reduce agency costs by mitigating opportunistic behavior and promoting prudent financial management. However, the observed inefficiencies among DT SACCOs despite their stronger capitalization highlight the limitations of regulatory pressure. As Chepkirui et al. (2021) found, institutions with high capital reserves may also incur higher administrative and compliance costs, which can dilute operational efficiency. This suggests that while governance structures in DT SACCOs promote financial stability, they may simultaneously contribute to bureaucratic rigidity and inefficiency.

In contrast, NDT SACCOs, though operating with fewer regulatory constraints, demonstrated more consistent efficiency levels and better asset quality in some cases. These findings are consistent with the Asymmetric Information Theory, which explains how localized knowledge and closer member relationships in NDT SACCOs can reduce adverse selection and moral hazard. As Birchall (2013) and Kithuka (2024) noted, community-based governance models in

cooperative institutions allow for more personalized risk assessment and tighter borrower monitoring, thereby enhancing loan repayment behavior and safeguarding asset quality. However, the trade-off lies in the limited financial resources and vulnerability to liquidity shocks, which are more pronounced in NDT SACCOs due to their restricted access to external funding and limited deposit mobilization.

The findings further confirmed prior empirical studies. For example, Lu and Swisher (2020) showed that regulated institutions tend to outperform their unregulated counterparts in profitability due to access to diverse income streams and stronger internal controls. Similarly, Erfani and Vasigh (2018) emphasized that higher capital adequacy contributes to institutional resilience, a pattern evident among DT SACCOs in this study. Yet, the results also align with Muda et al. (2013), who found that smaller, less regulated financial institutions can achieve greater cost efficiency due to leaner operational structures mirroring the performance of NDT SACCOs in this analysis.

Overall, the study affirms the theoretical propositions of both Agency and Information Asymmetry theories. DT SACCOs benefit from reduced agency conflicts through stronger regulation and oversight, leading to better financial buffers and higher returns. Meanwhile, NDT SACCOs leverage proximity to members and informal governance mechanisms to manage risk and contain costs, albeit with limitations in scale and liquidity. These differences underscore the importance of aligning governance models, risk management practices, and operational strategies with the regulatory context and institutional objectives of each SACCO type.

5.3.2 Impact of selected financial ratios on the financial performance of DT versus NDT SACCOs in Kenya

The findings of this study underscored the differentiated impact of selected financial indicators on the financial performance of DT and NDT SACCOs, with liquidity and asset quality playing more significant roles for DT SACCOs, and efficiency being the most critical determinant for NDT SACCOs. These results reaffirm the relevance of Agency Theory, which posits that regulated governance structures can align management actions with member interests, thus enhancing accountability and performance. In the case of DT SACCOs, stringent liquidity requirements imposed by SASRA appear to facilitate financial stability, allowing these

institutions to manage obligations effectively and support sustainable operations. This finding is in line with the CAMEL framework and supported by studies such as those by Tarus and Simiyu (2024), who highlighted the importance of liquidity management in SACCO sustainability.

Conversely, the negative impact of poor asset quality among DT SACCOs confirms that despite regulatory oversight, weak loan portfolio management can erode financial performance. This aligns with the insights of Mutunga and Gatauwa (2021) , as well as Siddique et al. (2022), who emphasized that high levels of non-performing loans limit profitability and weaken institutional resilience. These findings also reflect Agency Theory's caution that compliance alone does not eliminate inefficiencies; rather, it must be complemented by effective internal controls and incentive structures to reduce agency costs. For NDT SACCOs, the results showed that efficiency is the primary financial indicator influencing financial performance. Unlike DT SACCOs, whose performance is shaped by regulatory liquidity and capital thresholds, NDT SACCOs rely heavily on lean operations and member-focused services to remain viable. These results resonate with Asymmetric Information Theory, particularly its emphasis on how institutions with limited formal reporting structures must rely on localized knowledge and community trust to reduce risk. The efficiency gains observed in NDT SACCOs may reflect their ability to maintain operational discipline without the burden of extensive compliance costs. This finding is consistent with Marwa and Aziakpono (2015), which established that smaller, more focused financial cooperatives can achieve sustainability through prudent cost control.

The absence of significant effects from asset quality, liquidity, and capital adequacy in NDT SACCOs highlighted their unique structure and operational model. Without deposit-taking responsibilities, their exposure to liquidity and capital risk is limited. However, their resilience remains contingent on governance and credit risk assessment mechanisms, which were not directly captured in this model. These findings aligned with Birchall (2013) asserting that community-based governance enhances creditworthiness assessment, even in the absence of formal oversight.

Collectively, the results reinforced the theoretical propositions guiding this study. Agency Theory is confirmed in the case of DT SACCOs, where regulatory oversight strengthens financial outcomes but may constrain operational efficiency. Asymmetric Information Theory

holds in the case of NDT SACCOs, where localized member relationships compensate for the absence of sophisticated credit evaluation systems. The differentiated impact of financial indicators therefore underscored the importance of tailoring governance, operational models, and risk management practices to the structural realities of each SACCO type.

5.3.3 Differences in operational strategies and their impact of financial performance of DT versus NDT SACCOs in Kenya

The findings of this study confirm that the operational strategies adopted by DT and NDT SACCOs in Kenya differ markedly due to variations in regulatory demands, governance structures, and resource capacities. These differences are consistent with the theoretical foundations of Agency Theory and Information Asymmetry Theory. From the lens of Agency Theory, the results confirmed that DT SACCOs, which are subject to stricter regulatory oversight, implement operational strategies that reduce agency costs and enhance accountability. Their use of advanced technologies, such as mobile and online platforms and automated loan systems, reflects efforts to improve transparency, streamline processes, and align management decisions with member interests. This aligns with Simiyu et al. (2023) and Mugilwa et al. (2024), who found that structured governance and internal controls help DT SACCOs minimize principal-agent conflicts, resulting in more effective operational management and stronger financial performance.

On the other hand, NDT SACCOs although less constrained by formal regulation, pursue more flexible community-driven strategies centered on member engagement and cost efficiency. However, the limited adoption of integrated digital systems and reliance on simpler tools like USSD codes suggest a constrained capacity to scale or implement risk-management practices. This supports Kyazze et al. (2020) and Mutuku et al. (2024), who argue that weaker governance structures in less regulated institutions often leave room for inefficiencies and inconsistencies in financial oversight, potentially increasing agency risks.

The findings also reflect the assumptions of Asymmetric Information Theory, particularly with regard to credit risk and reporting structures. DT SACCOs, through their regulatory frameworks and digital infrastructure, are better positioned to reduce adverse selection and moral hazard by accessing reliable data on borrower behavior and enforcing formal reporting standards. This corresponds with Joshua et al. (2021), who observed that SACCOs with greater access to member financial histories are more effective in credit assessments. In contrast, NDT

SACCOs face heightened exposure to information asymmetry, as informal relationships and limited data systems hinder their ability to screen and monitor borrowers effectively. This supports the insights of Kithuka (2024) and Ombati et al. (2023), who found that SACCOs with weaker information structures are more vulnerable to credit risk and loan defaults.

These theoretical insights are further supported by empirical literature. For example, Ahmed et al. (2022) and Mathuva (2018) observed that technology-driven strategies, when aligned with governance frameworks, enhance institutional efficiency and resilience. The findings of this study similarly show that DT SACCOs benefit more directly from technological investments, which improve ROA and operational speed. NDT SACCOs, while embracing digital tools to some extent, do not achieve the same financial impact, often due to financial limitations and smaller operational scales.

In conclusion, the discussion confirms that the operational strategies of SACCOs are deeply shaped by their regulatory environments and governance dynamics. DT SACCOs leverage structured oversight and technological capabilities to enhance performance, thereby validating the relevance of Agency and Information Asymmetry theories. NDT SACCOs, though agile and community-focused, require strengthened governance and strategic innovation to overcome structural inefficiencies. These findings reinforce the argument that sustainable SACCO performance depends not only on operational choices but also on the institutional frameworks within which those choices are made.

5.4 Conclusions

This study examined the factors influencing the financial performance of DT versus NDT SACCOs in Kenya through a comparative analysis. Three key research questions guided the study: What are the differences in financial performance between DT and NDT SACCOs in Kenya? How do selected financial ratios influence the financial performance of DT SACCOs versus NDT SACCOs in Kenya? How do the operational strategies of Deposit-Taking (DT) and Non-Deposit-Taking (NDT) SACCOs in Kenya differ, and what impact do these strategies have on their financial performance? The findings confirmed the relevance of the theoretical foundations underpinning the research Agency Theory and Asymmetric Information Theory by demonstrating how the governance structures, resource mobilization, and operational decision-making distinctly shape financial outcomes across the two SACCO models.

The results affirmed that DT SACCOs benefit from enhanced financial performance through stronger capital adequacy, liquidity management, and higher profitability. These advantages are a direct reflection of regulatory oversight under SASRA, which mandates strict governance and risk control practices. Such oversight reduces agency problems by aligning managerial actions with member interests, thus confirming the relevance of Agency Theory. However, the study also revealed that DT SACCOs faced notable inefficiencies due to high compliance burdens and operational rigidity an outcome also predicted by the theory, which acknowledges that the cost of oversight can sometimes reduce managerial flexibility and efficiency.

In contrast, NDT SACCOs demonstrated relatively leaner operations and greater efficiency despite having fewer financial resources. Their reliance on community-based governance and close member engagement helps mitigate information gaps, supporting the core propositions of Asymmetric Information Theory. These SACCOs appear to compensate for their limited capital by leveraging trust-based lending relationships and simplified structures, which promote effective credit screening and operational discipline. This is consistent with findings by Birchall (2013) and Kithuka (2024), who highlighted the role of localized knowledge in managing credit risk and maintaining asset quality in cooperative institutions.

Financial indicators such as liquidity and asset quality had a stronger influence on DT SACCOs, reflecting their exposure to regulatory and operational risks associated with deposit-taking activities. In contrast, efficiency emerged as the most critical driver of financial performance in NDT SACCOs, underscoring the importance of cost management in the absence of diversified revenue streams. These patterns further validate the theoretical frameworks, Agency Theory explained how regulated governance mechanisms influence resource allocation and financial discipline in DT SACCOs, while Asymmetric Information Theory accounted for the role of informal monitoring and trust in shaping the performance of NDT SACCOs.

In conclusion, the study confirmed that both theoretical models remain highly applicable in explaining the divergent performance pathways of DT and NDT SACCOs. While regulation enhances financial resilience in DT SACCOs, it may also introduce inefficiencies. Meanwhile, NDT SACCOs, despite operating with fewer safeguards, leverage close-knit governance structures to maintain stable operations. These insights not only validate the theoretical

framework but also offer a nuanced understanding of the trade-offs inherent in SACCO regulation and management.

5.5 Policy Recommendations

The study identified significant disparities between DT and NDT SACCOs, necessitating targeted policy interventions to enhance their financial sustainability and regulatory efficiency. To address these disparities, a refined dual-regulation framework should be adopted to align regulatory requirements with the distinct operational risks and structures of each SACCO type. For DT SACCOs, policymakers should maintain stringent risk-based supervision to ensure robust liquidity buffers and effective credit risk management, thereby mitigating exposure to NPLs. Additionally, regulatory agencies should enhance capital adequacy and financial reporting requirements to strengthen financial resilience and stability in DT SACCOs. Given the high compliance costs associated with regulatory adherence, there is a need for policies that promote efficiency enhancing mechanisms such as automation, digital transformation, and cost optimization strategies. For NDT SACCOs, policy efforts should focus on strengthening governance structures and financial disclosure requirements to enhance transparency and reduce risks associated with information asymmetry. Since NDT SACCOs primarily rely on member contributions, measures should be introduced to promote financial literacy and encourage prudent financial management among members. Furthermore, a tiered regulatory approach that differentiates NDT SACCOs based on size and financial complexity can ensure proportionate oversight without stifling their operational flexibility.

A key recommendation to bridge the efficiency gap between DT and NDT SACCOs is the promotion of financial technology (FinTech) adoption. Government-led initiatives and incentives should be introduced to encourage the integration of digital banking, mobile money services, and automated credit scoring systems. This will not only enhance operational efficiency but also expand financial inclusion by enabling SACCOs to reach underserved populations more effectively. In addition to this, policymakers should establish capacity-building programs aimed at strengthening SACCO leadership and governance. Training programs on risk management, strategic financial planning, and compliance with regulatory frameworks should be introduced to equip SACCO managers and board members with the necessary skills to navigate the evolving financial landscape. Overall, the study emphasizes the need for a balanced regulatory framework that fosters financial stability while promoting

operational flexibility. Through the adoption of targeted policies that address the unique challenges faced by DT and NDT SACCOs, regulators can create an enabling environment that enhances the financial sustainability of SACCOs, safeguards member deposits, and contributes to the overall growth and resilience of Kenya's cooperative financial sector.

5.6 Limitations of the Study

The study encountered certain limitations that could have potentially affected its results and the extent of its analysis. First, inconsistencies in SACCO data availability posed a challenge, although SASRA regulates 357 SACCOs, only 332 SACCOs (160 DT and 172 NDT) were included in the final panel dataset. This was because only these SACCOs had complete and uninterrupted financial data available for all four years (2020–2023). SACCOs with missing annual reports or incomplete disclosures were excluded to maintain the integrity and balance of the panel data used in the analysis. These changes resulted in fluctuations in the number of SACCOs considered, leading to gaps in historical data and limiting the ability to track long-term performance trends consistently. Secondly, challenges in collecting primary data affected the comprehensiveness of the study. While efforts were made to gather insights from a wide range of SACCOs, some institutions were unresponsive, making it difficult to obtain complete and comparable data across all respondents. This may have introduced a potential response bias, where findings predominantly reflect SACCOs that were more willing to participate, rather than a fully representative sample of the entire sector.

5.7 Recommendations for Future Studies

Future research can adopt longitudinal studies to assess performance trends over time, enabling a more comprehensive understanding of how regulatory changes, economic fluctuations, and operational shifts impact NDT SACCOs. Analyzing historical data over extended periods would offer deeper insights into the sustainability of both DT and NDT SACCOs, shedding light on cyclical financial trends, capital adequacy shifts, and the long-term effects of liquidity management strategies. For example analyzing the impact of COVID-19 on the financial performance of DT versus NDT SACCOs to understand the sustainability of the two different organizations. Additionally, examining the impact of technological adoption, particularly within NDT SACCOs, would be instrumental in understanding how digital transformation influences financial efficiency, member engagement, and risk mitigation. Given that efficiency plays a big role in NDT SACCOs, further research could explore the integration of mobile and

online banking and automated loan processing, in improving their overall financial performance.

Another critical area for future study is corporate governance and its role in shaping SACCO financial sustainability. Board composition, leadership effectiveness, and decision-making structures significantly influence financial performance, risk management, and member trust. Investigating the relationship between governance frameworks and SACCO resilience would provide valuable insights into best practices for ensuring transparency, accountability, and operational efficiency. Finally, research on SACCO membership dynamics and its effect on financial performance would be crucial and also analysing the member perspectives on the SACCOs operations. The understanding of how membership size, composition, and engagement levels contribute to SACCO sustainability would help in developing strategies for member retention, capital mobilization, and loyalty-driven product innovation. This is particularly relevant for NDT SACCOs, which heavily rely on member contributions rather than external funding sources.

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APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

I am student currently undertaking the Master of Science in Development Finance at Strathmore University. I am kindly requesting for your support in providing data on for my research titled **'FACTORS INFLUENCING THE FINANCIAL PERFORMANCE OF SACCOS IN KENYA: A COMPARATIVE ANALYSIS OF REGULATED DEPOSIT TAKING SACCOS VERSUS NON-DEPOSIT TAKING SACCOS'**.

Please find attached the:-

1. Letter of introduction from Strathmore University
2. Research License from the NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
3. Ethical approval from Strathmore University

The data requested will be used for academic purposes and any information that you provide will be treated confidentially. Your assistance is highly appreciated.

Yours Sincerely,

Anita Chelangat Maritim

Student Reg No. 068415

APPENDIX II: QUESTIONNAIRE

Instructions

Kindly complete the following questionnaire using the instruments provided for each set of questions. Please tick appropriately or write your answers in the spaces provided.

Confidentiality

All information given shall be treated with strict confidence. No reference will be made to any individual(s) or organization in the report of the study.

Part A: Respondent Details

1. Title _____

2. Industry Experience _____

Part B: Organizations Details

1. Is your SACCO a:

Deposit Taking SACCO (DT) ☐

Non-Deposit Taking SACCO (NDT) ☐

2. Years in operation

_____

3. Number of Directors on Board

_____

Part C: Operational Strategies

1. Which of the following is your SACCO's primary method for onboarding new members

☐ In-Person registration

☐ Online registration

☐ Mobile registration

Briefly explain your response:

_____

2. How accessible is the onboarding process for prospective members?

   ☐ Very accessible (few requirements, quick process)

   ☐ Moderately accessible (some requirements, manageable process)

   ☐ Slightly difficult (several requirements, time-consuming process)

   ☐ Difficult (many requirements, lengthy process)

3. Which of the following requirements apply to your SACCO's registration and onboarding process? (Select all that apply)

   ☐ Initial deposit or membership fee

   ☐ Employment verification or proof of income

   ☐ Proof of social or group affiliation (e.g., employer, association)

   ☐ Reference or guarantor requirement/introduction

   ☐ Proof of residence

   ☐ Other (please specify): _____

4. How do members typically apply for loans at your SACCO? (Select all that apply)

   ☐ Online application (through website or mobile app)

   ☐ In-branch application (members visit the SACCO branch)

   ☐ Agent-assisted application (through a SACCO representative or agent)

   ☐ Paper application (forms submitted manually to the head office)

   ☐ Other (please specify): _____

5. What is the average processing time for loan applications at your SACCO?

   ☐ Less than 1 day

   ☐ 1-3 days

   ☐ 4-7 days

☐ 1-2 weeks

☐ More than 2 weeks

6. Are the following of loan products available to your members? ((Tick as appropriate)

	YES	NO
Personal loans		
Business loans		
Emergency loans		
Asset financing		
Educational loans		
Housing/mortgage loans		
Agricultural loans		
Others		

☐ Other (please specify): _____

7. Among the selected, which loan product is the most popular among your SACCO's members?

☐ Personal loans

☐ Business loans

☐ Emergency loans

☐ Asset financing

☐ Educational loans

☐ Housing/mortgage loans

☐ Agricultural loans

☐ Other (please specify): _____

8. Please explain the factors that contribute to its popularity (e.g., favorable terms, accessibility, member needs)?

9. How would you rate the impact of your SACCO's operational efficiency (in onboarding, loan processing, variety of products, loan processing time) on its financial performance (e.g., profitability, member growth, cost-effectiveness)

   ☐ 1 - No impact

   ☐ 2 - Minimal impact

   ☐ 3 - Moderate impact

   ☐ 4 - Significant impact

   ☐ 5 - Very significant impact

10. Has your SACCO invested in technology to enhance efficiency (e.g., automated systems, digital reporting, mobile apps)?

    ☐ Yes

    ☐ No

11. If yes, to what extent has this investment impacted financial performance?

    ☐ 1 - No improvement

    ☐ 2 - Minimal improvement

    ☐ 3 - Moderate improvement

    ☐ 4 - Significant improvement

    ☐ 5 - Very significant improvement

12. Which of the following are the top three priorities in your SACCO's operational strategy? (Select up to three)

    ☐ Improving operational efficiency

    ☐ Expanding product range

    ☐ Enhancing digital services

    ☐ Increasing member engagement

    ☐ Reducing operational costs

    ☐ Strengthening risk management

☐ Expanding member base

☐ Other (please specify): _____

13. Please explain why these priorities are important for your SACCO type (DT or NDT).

_____

_____

_____

14. Do you use financial indicators to assess your performance

☐ Yes

☐ No

If Yes to Question 15, which of the financial indicators listed below do you use (multiple responses allowed), Tick as appropriate:

	YES	NO
Total Assets		
Loan Loss Ratio		
Loan Loss Reserve		
Portfolio At Risk (PAR)		
Net Interest Margin		
Cost to Income Ratio		
Quick Ratio		
Gearing Ratio		

15. What do you believe is the greatest strength of operating as a (DT/NDT) SACCO type that contributes to achievening financial performance goals? (Select one)

☐ Access to a wider range of financial products

☐ Stronger regulatory framework and oversight

☐ Enhanced trust and credibility among members

☐ Greater flexibility in operations

☐ Strong community or group affiliation

☐ Building a deposit base

☐ Other (please specify): _____

Please explain further:

Thank you for participating in this study, if you would like to receive a copy of the research findings, please provide your email address below. Your email will only be used for this purpose and will be kept confidential."

Email Address:

APPENDIX III: LIST OF SACCOS REGULATED BY SASRA

	LIST OF REGULATED DEPOSIT TAKING SACCOS
1	2NK Sacco Society Ltd
2	Acumen Sacco Society Limited
3	Afya Sacco Society Ltd
4	Agrochem Sacco Society Ltd
5	Ainabkoi Sacco
6	Airports Sacco Society Ltd
7	Amica Sacco Society Ltd
8	Ammar Sacco Society Ltd
9	Ardhi Sacco Society Ltd
10	Asili Sacco Society Ltd
11	Azima Sacco Society Ltd
12	Bandari Sacco Society Ltd
13	Baraka Sacco Society Ltd
14	Baraton Sacco Society Ltd
15	Biashara Sacco Society Ltd
16	Biashara Tosha Sacco Society Ltd
17	Bi – High Sacco Society Ltd
18	Bingwa Sacco Society Ltd
19	Boresha Sacco Society Ltd
20	Capital Sacco Society Ltd
21	Centenary Sacco Society Ltd
22	Chai Sacco Society Ltd
23	Chuka University Sacco Society Ltd
24	Chuna Sacco Society Ltd
25	Cosmopolitan Sacco Society Ltd
26	County Sacco Society Ltd
27	Daima Sacco Society Ltd
28	Defence Sacco Society Ltd
29	Dhabiti Sacco Society Ltd
30	Dimkes DT Sacco Society Ltd
31	Dumisha Sacco Society Ltd
32	Eco – Pillar Sacco Society Ltd
33	Edis Sacco Society Ltd
34	Egerton Sacco Society Ltd
35	Elimu Sacco Society Ltd

36	Enea Sacco Society Ltd
37	Faridi Sacco Society Ltd
38	Fariji Sacco Society Ltd
39	Fortitude Sacco Society Ltd
40	Fortune Sacco Society Ltd
41	Fundilima Sacco Society Ltd
42	GDC Sacco Society Ltd
43	Golden Pillar Sacco Society Ltd
44	Good faith Sacco Society Ltd
45	Good Hope Sacco
46	Goodway Sacco Society Ltd
47	Gusii Mwalimu Sacco Society Ltd
48	Harambee Sacco Society Ltd
49	Hazina Sacco Society Ltd
50	Home Business SaccoSociety Ltd
51	Ilkisonko Sacco Society
52	Imarika Sacco Society Ltd
53	Imarisha Sacco Society Ltd
54	Invest&Grow(IG)SaccoSociety Ltd
55	Jamii Sacco Society Ltd
56	Jamii Yetu Sacco Society Ltd
57	Jitegemee Sacco
58	Joinas Sacco Society Ltd
59	Jogoo Sacco Society Ltd
60	Jumuika Sacco Society Ltd
61	Kabiyet Sacco Society Ltd
62	Kencream Sacco Society Ltd
63	Kenpipe Sacco Society Ltd
64	Kenversity Sacco Society Ltd
65	Kenya Achievas Sacco Society Ltd
66	Kenya Highlands Sacco Society
67	Kenya National Police DT Sacco Society Ltd
68	Keystone Sacco Society Ltd
69	Kimbilio Daima Sacco Society Ltd
70	Kimisitu Sacco Society Ltd
71	Kingdom Sacco Society Ltd
72	Kitui Teachers Sacco Society Ltd

73	Kolenge Tea Sacco Society Ltd
74	Koru DT Sacco Society Ltd
75	K – Pillar Sacco Society Ltd
76	K – Unity Sacco Society Ltd
77	Kwetu Sacco Society Ltd
78	Kwikas DT Sacco Society Ltd
79	Lainisha Sacco Society Ltd
80	Lamu Teachers Sacco Ltd
81	Lengo Sacco Society Ltd
82	Mafanikio Sacco Society Ltd
83	Magadi Sacco Society Ltd
84	Magereza Sacco Society Ltd
85	Maisha Bora Sacco Society Ltd
86	Mentor Sacco Society Ltd
87	Metropolitan National Sacco Society Ltd.
88	Mudete Sacco Society Ltd.
89	Muki Sacco Sacco Society Ltd
90	Mwalimu National Sacco Society Ltd.
91	Mwietheri Sacco Society Ltd
92	Mwito Sacco Society Ltd
93	Nacico Sacco Society Ltd
94	Nafasi Sacco Society Ltd
95	Nandi Farmers Sacco Society Ltd
96	Nation DT Sacco Society Ltd
97	Nawiri Sacco Society Ltd
98	Ndege Chai Sacco Society Ltd
99	Ndosha Sacco Society Ltd
100	New Fortis Sacco Society Ltd
101	Nexus Sacco Society Ltd
102	Ng'arisha Sacco Society Ltd
103	Njiwa Sacco Sacco Ltd
104	NRS Sacco Society Ltd
105	NSSF Sacco Society Ltd
106	Nufaika Sacco Society Ltd
107	Nyambene Arimi Sacco Society Ltd
108	Nyati Sacco Society Ltd
109	Ollin Sacco Society Ltd

110	Orient Sacco Society Ltd
111	Patnas Sacco Society Ltd.
112	Ports DT Sacco Society Ltd
113	Prime – Time Sacco Society Ltd
114	Puan Sacco Society Ltd
115	Qwetu Sacco Society Ltd
116	Safaricom Sacco Society Ltd
117	Sheria Sacco Society Ltd
118	Shirika DT Sacco Society Ltd
119	Shoppers Sacco Society Ltd
120	Simba Chai Sacco Society Ltd
121	Siraji Sacco Society Ltd
122	Skyline Sacco Society Ltd
123	Smart Champions Sacco Society
124	Smartlife Sacco Society Ltd
125	Solution Sacco Society Ltd
126	Sotico Sacco Society Ltd
127	Southern Star Sacco Society Ltd
128	Stake Kenya Sacco Society Ltd
129	Stawisha Sacco Society Ltd
130	Stima DT Sacco Society Ltd
131	Strategic DT Sacco Society Ltd.
132	Suluhu Sacco Society Ltd
133	Supa Sacco Society Ltd
134	Tabasamu Sacco Society Ltd
135	Tabasuri DT Sacco Society Ltd
136	Tai Sacco Society Ltd
137	Taifa Sacco Society Ltd
138	Taqwa Sacco Society Ltd
139	Taraji Sacco Society Ltd
140	Telepost Sacco Society Ltd
141	Tembo Sacco Society Ltd
142	Tenhos Sacco Society Ltd
143	Thamani Sacco Society Ltd
144	The Apple Sacco Society Ltd
145	The Kenya Bankers Sacco Society Ltd.
146	The Noble Sacco Society Ltd

147	Times U Sacco Society Ltd
148	Tower Sacco Society Ltd
149	Topkrim DT Sacco Society Ltd
150	Trans Elite County Sacco Society Ltd
151	Trans Nation Sacco Society Ltd
152	Trans–Counties SaccoSociety Ltd
153	Trans – National Times Sacco Society Ltd
154	Ufanisi DT Sacco Society Ltd
155	Ukristo Na Ufanisi Sacco Society Ltd
156	Ukulima Sacco Society Ltd
157	Unaitas Sacco Society Ltd
158	Uni – County Sacco Society Ltd
159	Unison Sacco Society Ltd
160	United Nations DT Sacco Society Ltd
161	Universal Traders Sacco Society Ltd
162	Ushuru Sacco Society Ltd
163	Vihiga County Farmers Sacco So ciety Ltd
164	Viktas Sacco Society Ltd
165	Vision Afrika Sacco Society Ltd
166	Vision Point Sacco Society Ltd
167	Wakenya Pamoja Sacco Society Ltd.
168	Wakulima Commercial Sacco Society Ltd
169	Wanaanga Sacco Society Ltd
170	Wananchi Sacco Society Ltd
171	Wanandege Sacco Society Ltd
172	Washa Sacco Society Ltd
173	Waumini Sacco Society Ltd
174	Wevarsity Sacco Sociey Ltd.
175	Winas Sacco Society Ltd
176	Yetu Sacco Society Ltd

	LIST OF REGULATED NON-WITHDRAWABLE DEPOSIT TAKING SACCO SOCIETY
1	3N Regulated Non-WDT-Sacco
2	ABC Empowerment Regulated Non-WDT-Sacco
3	Accel Regulated Non-WDT-Sacco
4	ACK Kihara Regulated Non-WDT-Sacco
5	ACK Thika Talents Regulated Non-WDT-Sacco
6	Adventist Regulated Non-WDT-Sacco
7	AIBK Regulated Non-WDT-Sacco
8	Airlink Regulated Non-WDT-Sacco
9	Alarms Regulated Non-WDT-Sacco
10	AMREF Regulated Non-WDT-Sacco
11	Appollosure Regulated Non-WDT-Sacco
12	B - Smart Regulated Non-WDT-Sacco
13	Ballot Regulated Non-WDT-Sacco
14	Balozi Regulated Non-WDT-Sacco
15	Bamburi Regulated Non-WDT-Sacco
16	Bands Regulated Non-WDT-Sacco
17	Banki Kuu Regulated Non-WDT-Sacco
18	Barabara Regulated Non-WDT-Sacco
19	Baraka Yetu Regulated Non-WDT-Sacco
20	BAT Regulated Non-WDT-Sacco
21	Besco Regulated Non-WDT-Sacco
22	Bestrock Regulated Non-WDT-Sacco
23	Biblia Regulated Non-WDT-Sacco
24	Blue Eagle Regulated Non-WDT-Sacco
25	Braemeg Regulated Non-WDT-Sacco
26	Brookside Regulated Non-WDT-Sacco
27	Bunge Regulated Non-WDT-Sacco
28	Bunista Regulated Non-WDT-Sacco
29	CDF Regulated Non-WDT-Sacco
30	Christian Enterpreneurs Regulated Non-WDT- Sacco

31	CIC Regulated Non-WDT-Sacco
32	COCOTECH Regulated Non-WDT-Sacco
33	Communication Regulated Non-WDT-Sacco
34	Concorde Regulated Non-WDT-Sacco
35	Co-operative Bank Regulated Non-WDT-Sacco
36	Cotts Regulated Non-WDT-Sacco
37	Davis & Shirtlif Regulated Non-WDT-Sacco
38	Devco Regulated Non-WDT-Sacco
39	Dhamini Regulated Non-WDT-Sacco
40	DHL Regulated Non-WDT-Sacco
41	Digital Media Regulated Non-WDT-Sacco
42	Dudu Regulated Non-WDT-Sacco
43	Eagle's Eye Regulated Non-WDT-Sacco
44	Embassava Regulated Non-WDT-Sacco
45	Energy Regulated Non-WDT-Sacco
46	EPZA Regulated Non-WDT-Sacco
47	Equity Regulated Non-WDT-Sacco
48	Esta Regulated Non-WDT-Sacco
49	Exams Regulated Non-WDT-Sacco
50	Family Regulated Non-WDT-Sacco
51	Farmers Choice Regulated Non-WDT-Sacco
52	Faulu Bank Regulated Non-WDT-Sacco
53	Finnlemm Regulated Non-WDT-Sacco
54	Fugo Regulated Non-WDT-Sacco
55	Gathers RegulatedNon-WDT-Sacco
56	Grain Bulk Regulated Non-WDT-Sacco
57	Grand Granite Diaspora Regulated Non-WDT- Sacco
58	Green Aro Community Regulated Non-WDT-Sacco
59	Haco Regulated Non-WDT-Sacco
60	Heart Regulated Non-WDT-Sacco
61	HELB Regulated Non-WDT-Sacco
62	Hills Regulated Non-WDT-Sacco

63	Hoechem Regulated Non-WDT-Sacco
64	Hyperfora Regulated Non-WDT-Sacco
65	ICEA Agents Regulated Non-WDT-Sacco
66	Irrigation Regulated Non-WDT-Sacco
67	Jachin Regulated Non-WDT-Sacco
68	Java Regulated Non-WDT-Sacco
69	Jumuia Ya Ulaya Regulated Non-WDT-Sacco
70	Kabarak University Regulated Non-WDT-Sacco
71	KAG Regulated Non-WDT-Sacco
72	Kanisa Regulated Non-WDT-Sacco
73	KASNEB Regulated Non-WDT-Sacco
74	KEMRI Regulated Non-WDT-Sacco
75	Kenchic Regulated Non-WDT-Sacco
76	Kenred Regulated Non-WDT-Sacco
77	Kentours Regulated Non-WDT-Sacco
78	Kenya Medical Association Regulated Non-WDT-Sacco
79	Kenya Re Regulated Non-WDT-Sacco
80	Kenya Rural Roads Regulated Non-WDT-Sacco
81	Kenyatta Matibabu Regulated Non-WDT-Sacco
82	Ketepa Regulated Non-WDT-Sacco
83	Kewisco Regulated Non-WDT-Sacco
84	Kiambu Chania Umoja Regulated Non-WDT-Sacco
85	Kiatu Regulated Non-WDT-Sacco
86	Kico Regulated Non-WDT-Sacco
87	KIDAPU Regulated Non-WDT-Sacco
88	Kijabe Regulated Non-WDT-Sacco
89	Kilele Regulated Non-WDT-Sacco
90	Kimtech Regulated Non-WDT-Sacco
91	Kinga Regulated Non-WDT-Sacco
92	Kingsize Regulated on-WDT-Sacco
93	Kirungii Regulated Non-WDT-Sacco
94	Kumbukumbu Regulated Non-WDT-Sacco

95	Kutafti Regulated Non-WDT-Sacco
96	Law Society Of Kenya Regulated Non-WDT-Sacco
97	Limlak Regulated Non-WDT-Sacco
98	Lompasago Regulated Non-WDT-Sacco
99	London Regulated Non-WDT-Sacco
100	Madison Regulated Non-WDT-Sacco
101	Majanees Regulated Non-WDT-Sacco
102	Maktaba Regulated Non-WDT-Sacco
103	Masterways Regulated Non-WDT-Sacco
104	Mataara Travellers Regulated Non-WDT-Sacco
105	Mhasibu Regulated Non-WDT-Sacco
106	Mikebe Regulated Non-WDT-Sacco
107	Minet Regulated Non-WDT-Sacco
108	Mkombozi Regulated Non-WDT-Sacco
109	Mofaa Regulated Non-WDT-Sacco
110	Mount Kenya University Regulated Non-WDT-Sacco
111	MTN Regulated Non-WDT-Sacco
112	Multiple Regulated Non-WDT-Sacco
113	Mzima Springs Regulated Non-WDT-Sacco
114	Nairobi Consumers Regulated Non-WDT-Sacco
115	Nairobi Water Regulated Non-WDT-Sacco
116	Nendeni Regulated Non-WDT-Sacco
117	Neno Regulated Non-WDT-Sacco
118	Network Regulated Non-WDT-Sacco
119	Nimepata Regulated Non-WDT-Sacco
120	Nyumba Generations Regulated Non-WDT-Sacco
121	Nyumba - Nairobi Regulated Non-WDT-Sacco
122	Olkaunsel Regulated Non-WDT-Sacco
123	Panda Regulated Non-WDT-Sacco
124	Parents Plan Regulated Non-WDT-Sacco
125	Parliamentarians Regulated Non-WDT-Sacco
126	PCEA Kayole Regulated Non-WDT-Sacco

127	PEFA Nairobi Central Regulated Non-WDT-Sacco
128	PCEA Regulated Non-WDT-Sacco
129	PCEA Ruiru Regulated Non-WDT-Sacco
130	PEFA Nairobi Central Regulated Non-WDT-Sacco
131	PESA Regulated Non-WDT-Sacco
132	PICEA Staf Regulated Non-WDT-Sacco
133	Polytech Regulated Non-WDT-Sacco
134	Postbank Regulated Non-WDT-Sacco
135	Queensway Regulated Non-WDT-Sacco
136	Radio Guard Regulated Non-WDT-Sacco
137	Rambhai Regulated Non-WDT-Sacco
138	Ramco Group Regulated Non-WDT-Sacco
139	Reli Regulated Non-WDT-Sacco
140	Relief Regulated Non-WDT-Sacco
141	Rembo Shuttle Regulated Non-WDT-Sacco
142	Royal Media Regulated Non-WDT-Sacco
143	Rubani Regulated Non-WDT-Sacco
144	Sauti Regulated Non-WDT-Sacco
145	Sawa Regulated Non-WDT-Sacco
146	Shamiri Regulated Non-WDT-Sacco
147	Shelloyees Regulated Non-WDT-Sacco
148	Sisi Kwa Sisi Regulated Non-WDT-Sacco
149	Smart Savers Regulated Non-WDT-Sacco
150	Stoke - UK Diaspora Regulated Non-WDT-Sacco
151	Taa Regulated Non-WDT-Sacco
152	CFAO Regulated Non-WDT-Sacco
153	Tetra Pak Regulated Non-WDT-Sacco
154	The Standard Regulated Non-WDT-Sacco
155	Torch Regulated Non-WDT-Sacco
156	Total Regulated Non-WDT-Sacco
157	Tramom Regulated Non-WDT-Sacco
158	Transglob Regulated Non-WDT-Sacco

159	Transwest Regulated Non-WDT-Sacco
160	Uaminifu Regulated Non-WDT-Sacco
161	Ubora Regulated Non-WDT-Sacco
162	Ukaguzi Regulated Non-WDT-Sacco
163	Ukombozi Regulated Non-WDT-Sacco
164	United Winners Regulated Non-WDT-Sacco
165	Unbound Regulated Non-WDT-Sacco
166	Unga Regulated Non-WDT-Sacco
167	Unifying Regulated Non-WDT-Sacco
168	United Women Regulated Non-WDT-Sacco
169	Uokoaji Regulated Non-WDT-Sacco
170	USIU-Africa Regulated Non-WDT-Sacco
171	Utabibu Regulated Non-WDT-Sacco
172	Utafti Regulated Non-WDT-Sacco
173	Uwezo Regulated Non-WDT-Sacco
174	Vegpro Regulated Non-WDT-Sacco
175	Verona Huruma Regulated Non-WDT-Sacco
176	Vision Regulated Non-WDT-Sacco
177	Wasado Regulated Non-WDT-Sacco
178	Waskom Regulated Non-WDT-Sacco
179	Zoghori Regulated Non-WDT-Sacco
180	Kenya - USA Diaspora Regulated Non-WDT-Sacco
181	Forward Travellers Regulated Non-WDT-Sacco

APPENDIX IV: ETHICAL APPROVAL

24th January 2025

Ms Maritim Anita,
anita.maritim@strathmore.edu

Dear Ms Maritim,

RE: Factors Influencing the Financial Performance of SACCOs in Kenya: A Comparative Analysis of Regulated Deposit Taking SACCOs versus Non-Deposit Taking SACCOs

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU-masters** proposal. Your application reference number is **SU-ISERC2511/24.** The approval period is from **24th January 2025 to 23rd January 2026.**

This approval is subject to compliance with the following requirements:

i. Only approved documents including (informed consents, study instruments, MTA) will be used.
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 72 hours of notification.
iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 72 hours.
v. Clearance for the export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) https://research-portal.nacosti.go.ke/ and obtain other clearances needed.

Yours sincerely,

Mr Ambrose Rachier,
Chairperson; SU-ISERC

Ole Sangale Rd, Madaraka Estate. PO Box 59857-00200, Nairobi, Kenya. Tel +254 (0)703 034000
Email admissions@strathmore.edu www.strathmore.edu

APPENDIX V: NACOSTI RESEARCH LICENSE

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **916095**

Date of Issue: **03/February/2025**

RESEARCH LICENSE

This is to Certify that Miss.. Anita Chelangat Maritim of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: FACTORS INFLUENCING THE FINANCIAL PERFORMANCE OF SACCOS IN KENYA: A COMPARATIVE ANALYSIS OF REGULATED DEPOSIT TAKING SACCOS VERSUS NON-DEPOSIT TAKING SACCOS for the period ending : 03/February/2026.

License No: **NACOSTI/P/25/415722**

916095

Applicant Identification Number

Director General
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See overleaf for conditions