DRIVERS OF FINANCIAL STABILITY IN DEPOSIT TAKING SAVINGS AND CREDIT SOCIETIES IN NAIROBI COUNTY, KENYA

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ADM. NO. 094992

A DISSERTATION PROJECT SUBMITTED TO THE STRATHMORE BUSINESS SCHOOL IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN COMMERCE OF STRATHMORE UNIVERSITY

MAY 2025

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 dissertation contains no material previously published or written by another person except where due reference is made in the dissertation itself.

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ABSTRACT

Savings and Credit Cooperative Societies are instrumental in promoting financial inclusion and socio-economic development. Despite their essential role, many SACCOs in Kenya face significant challenges related to financial stability, which threaten their sustainability and effectiveness. The study sought to investigate the drivers of financial stability among deposit taking SACCOs in Nairobi County, Kenya. Specifically, the study reviewed the effect of firm characteristics, board characteristics and management quality on the financial stability of deposit taking SACCOs in Nairobi County, Kenya. The study was guided by the Resource-Based View theory and the contingency theory. This research adopted a positivism research philosophy as well as a descriptive research design. This research focused on collecting survey data from the 176 Deposit Taking SACCOs registered by SASRA and operating within Nairobi City County. This survey utilized quantitative data that was collected from the supervisory reports of the DTS institutions for the period 2010-2023. The collected study data was analysed using descriptive and inferential analysis. Findings were presented using figures and tables. Correlation tests showed that firm characteristics, in particular, firm age had a weak positive and insignificant relation on the financial stability of the DTS. On the other hand, firm size had a weak negative and insignificant effect on the stability of the Saccos. The second objective revealed board characteristics had a weak negative and insignificant association with stability of DTS. Correlation tests on the management quality further established a strong positive and significant relation with the stability of the DTS. Lastly, the research confirmed a weak negative and insignificant effect of non-performing loans ratio on the stability of the deposit taking Saccos. The overall results of the panel regression showed that 31.09% of the financial stability of DTS in Kenya are predicted by the management quality, board, non-performing loans, leverage and firm characteristics. This shows that the selected factors had a positive and significant effect on the financial stability of deposit taking SACCOs. The findings of the first objective indicated that there was a negative and significant effect of firm age on the financial stability of the deposit taking Saccos. The results further showed a negative and significant effect of firm size on financial stability of the deposit taking Saccos. The second objective results established that there was a positive and significant effect of board size on the financial stability of the deposit taking Saccos. Thirdly, the findings revealed that the management quality had a positive and significant effect on the financial stability of the deposit taking Saccos. The study also found a weak negative and insignificant effect of non-performing loans financial stability of the deposit taking Saccos. The study confirmed that leverage had a negative and significant effect on the financial stability of the deposit taking Saccos. The study was beneficial to policymakers, various stakeholders and other scholars. The study provides insights into the financial stability of SACCOs, aiding policymakers in refining regulatory frameworks to ensure the robustness and sustainability of the sector. The study also provides SACCO managers with a clear understanding of critical financial stability factors, risks and challenges, enabling them to implement best practices as well as robust risk management strategies to safeguard their institutions and improve operational efficiency. The study further adds to the existing body of literature on SACCOs, financial stability, and financial institutions, providing a foundation for future research. There were certain limitations that were encountered through the study. The analysis was restricted to Nairobi deposit-taking Saccos operating between 2010 and 2023; However, it is possible that certain Saccos were either not operating during this time or were just starting up, which could have led to the formation of unbalanced panels. Moreover, there may have been changes in SACCO regulations and financial policies during the study period which may have influenced the accuracy of the data. The study recommends that policymakers should

strengthen regulatory oversight and enforce stricter compliance measures to enhance the financial stability of deposit-taking SACCOs. The study also recommends that institutions should focus on operational efficiency rather than just growth as well as prioritize capital adequacy through prudent financial management. Further research could also be conducted to explore additional factors beyond firm characteristics, board characteristics, and management quality which may provide further insights into SACCO financial stability.

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LIST OF ABBREVIATIONS

DPS	Dividends Per Share
DT-SACCOS	Deposit Taking SACCOs
ROA	Return on Assets
ROCE	Return on Capital Employed
SASRA	SACCO Society Regulatory Authority

OPERATIONAL DEFINITION OF TERMS

Board Characteristics	Board characteristics refer to the composition, structure, and functioning of a company's board of directors (Chesire & Kinyua, 2021).
Firm characteristics	Firm characteristics can be defined as the intrinsic attributes and features that define an organization's structure, operations, and identity (Mwebia, 2017).
Financial Stability	Financial stability refers to the resilience and robustness of a financial system, where financial institutions, markets, and infrastructure can withstand shocks and continue to perform their core functions of efficiently allocating resources, managing risks, and facilitating transactions (Bank of Korea, 2024).
Management Quality	Management quality refers to the effectiveness, competency, and leadership capabilities of an organization's management team in executing the firm's strategic goals, optimizing operations, and ensuring financial health (Kiruru, 2022).
Non-Performing Loans	Non-Performing Loans are loans in which the borrower is not making the agreed-upon principal and interest payments as per the loan agreement (Singh, Basuki, & Setiawan, 2021).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The global financial sector has undergone significant transformations over the past decades, with the rise of SACCOs playing a crucial role in financial inclusion and economic empowerment (Pasara, Makochekanwa, & Dunga, 2021). Savings and Credit Cooperative Societies have become an integral part of the financial landscape, especially in developing economies, providing essential financial services to a significant portion of the population (World Council of Credit Unions, 2024). They provide an alternative to traditional banks, offering affordable credit, investment opportunities, and savings accounts to their members. However, the financial stability of these SACCOs is critical to ensuring the continued provision of financial services and safeguarding the interests of their members, many of whom are small-scale entrepreneurs, salaried workers, and low-income individuals (Ntoiti & Jagongo, 2021).

According to the World Council of Credit Unions (2023), Globally there are almost 100 million individual members in SACCOs distributed among 60 plus countries around the world. This is despite SACCOs around the world facing stiff competition from other players in the financial services sector like commercial banks, micro-finance institutions, shylocks, and investment groups. The World Council of Credit Unions (WOCCU, 2020) reports that from 2008 to 2019, the number of SACCO registrations increased by 65% globally, with over 88,000 SACCOs operating in 118 countries, providing services to over 293 million individuals with a total asset value of over USD 2.5 trillion.

According to Magashi, Sam, Agbinya, & Mbelwa (2023), 61% and 51%, respectively, of Tanzania's 103 deposit taking SACCOs experienced operational and financial failure. Furthermore, by the end of December 2019, there were 3,714 SACCOs in Tanzania, down from 4,177 at the end of 2018. This reduction was contributed by failure of various SACCOs due to a number of internal and external challenges, including financial difficulties, ineffective leadership, unstable lending interest rates, and inadequate record-keeping procedures. According to the World Council of Credit Unions (WOCCU, 2023), Zambia ranks among the lowest in Africa in uptake

of SACCOs with only 1197 credit unions worth US$ 25.2 million in assets present in 2018. Shilimi, (2021) attributed the low uptake to financial instability in the country's financial sector.

SACCOs play a crucial role in the socio-economic development of Kenya as they account for at least 10 per cent of Kenya's Gross Domestic Product equivalent to 1.5 trillion, according to the Cooperative Alliance of Kenya (2023). The SACCO industry further supports 32 million people indirectly—or 65 percent of the population—in addition to providing sustainable livelihoods for its members (Amadala, 2023). The industry directly employs 500,000 people and offers over 1.5 million individuals' opportunities for self-employment in rural agriculture as well as in the formal and informal economy in all areas (Cooperative Alliance of Kenya, 2023). According to SASRA (2023), savings in Kenyan SACCOs grew to 1.047 trillion in 2023, thereby reaching the trillion mark for the first time in history. Additionally, savings in deposit taking SACCOs grew to 522.59 billion in 2023 from 474.25 in 2022 (SASRA, 2023). This shows the continued public confidence in SACCOs. There is therefore a need to ensure that these firms are financially stable to ensure that the SACCOs do not fail.

However, despite the increased public confidence, SACCOs are continually failing due to financial troubles. In 2020 for example, SASRA revoked the licences of three deposit taking SACCOs including Moi University SACCO, Transcom and Ufundi and further put 12 more Deposit-Taking Savings and Credit Co-operative Societies (SACCOs) on a watchlist due to their declining financial position (SASRA, 2021). Okoth (2023) on the other hand noted that various SACCOs in Kenya including Network Sacco has been facing risk of collapse due to liquidity and financial issues. However, there is lack of a comprehensive review of the factors that affect the stability of these deposit taking SACCOs in Kenya. The study sought to look into the factors affecting the stability of deposit taking SACCOs in Nairobi County, Kenya.

1.1.2 Financial Stability

Financial stability refers to the resilience and robustness of a financial system, where financial institutions, markets, and infrastructure can withstand shocks and continue to perform their core functions of efficiently allocating resources, managing risks, and facilitating transactions (Bank of Korea, 2024). Ntoiti and Jagongo, (2021) on the other hand defined financial stability as the ability of a financial institution or sector to effectively absorb shocks and continue to meet its financial obligations, while maintaining sustainable growth. According to SASRA (2023), financial stability

refers to the ability of SACCO institutions to provide their members with the necessary financial services and credit without disruption, even in the face of economic shocks or distress. The World Bank (2024) further summarizes financial stability as the lack of systemic events or crises in which an organization's financial system is unable to function. Financial stability is however different from financial sustainability which concerns the ability of an organization to meet its present and future financial obligations while maintaining operations and achieving long-term goals (Flores-Chia & Mougenot, 2023).

Yitayaw (2021) notes that ensuring that SACCOs can operate efficiently and in compliance with regulatory standards can enhance their ability to contribute to economic development and financial inclusion. Persistent financial instability among SACCOs not only threatens their operational effectiveness but also undermines member confidence and trust (Paul, 2023). Members rely on financial institutions to provide reliable financial services and safeguard their savings. Financial instability can lead to reduced member participation, increased withdrawals, and ultimately, the collapse of these vital financial institutions. The recent global crises including COVID19 and the 2008 global financial crisis highlighted the vulnerability of SACCOs to economic shocks, leading to widespread bankruptcies and consolidations (Yoo, Keeley, & Managi, 2021). Since then, the importance of financial stability has been increasingly recognized, with firms focusing on optimizing their financial performance.

Previous studies have focused on various aspects of financial performance, financial sustainability, financial distress or financial efficiency but have hardly studied financial stability. Dirman (2020) focused on the determinants of financial distress in SACCOs while Yitayaw (2021) examined the determinants of profitability and financial sustainability of saving and credit cooperatives. Mwebia (2017), Ngumo, Collins, and David (2020), Nyabaga, and Wepukhulu (2020), Ombati, Kamau and Thuranira (2023) sought to determine the drivers of financial performance among financial firms in Kenya. These studies brought forth a knowledge gap which the study seeks to fill by examining the drivers of financial stability among SACCOs in Kenya.

Financial stability can be measured using a range of constructs including the Z score, the Merton model, (World Bank, 2024) the ratio of non-performing loans to total gross loans, dividend pay-out, profitability (Ntoiti & Jagongo, 2021) and the Systemic Expected Shortfall (SES), which measures each institution's individual contribution to systemic risk (World Bank, 2024). The study

utilized the Z score to measure financial stability. Z score calculates a bank's solvency risk, by clearly contrasting risk (volatility of returns) with buffers (capitalization and returns). The formula for the z-score that was applied in the study is Z = (ROA + CAR) / σ(ROA), where ROA is the return on assets, σ (ROA) is the standard deviation of ROA, and CAR is the capital-to-asset ratio i.e., Equity capital/net assets. A higher Z score is preferred implying a high distance from default or a low default risk (Mateev et al., 2021). Reduced probability of insolvency is also implied by a higher z-score (World Bank, 2024). This research employed the Z-Score as previously adopted in the study by (Mateev, 2024); (Shahriar, 2022)

1.1.3 Drivers of Financial Stability

According to Liahmad, Utami, and Sitompul, (2021) drivers of financial stability are elements or aspects related to financial operations, management, and financial stability of an individual, organization, or sector. Khalatur, Velychko, Pavlenko, Karamushka, and Huba, (2023) note that a company's asset quality, firm size, and board structure may all have an impact on how financially stable it is. Long-term financial stability may be enhanced by companies with strong firm characteristics, adequate capital, and a high-quality leadership team since they may be able to control risks and adjust to changes in the market better (Bischof, Laux, & Leuz, 2021). A firm's financial stability is also significantly influenced by the way its operations are run and the quality of its management (Rahima, 2023).

Okumu, Olweny, and Muturi, (2022) contends that improved governance within firms is a key predictor to the stability of the organizations. Kifworo, Kiveu, and Njuguna, (2023) concluded that liquidity and capital structure were critical determinants to the stability of institutions. Xie, Nozawa, Yagi, Fujii, and Managi, (2019) revealed that the quality of management significantly fosters the stability of SACCOs. On the other hand, Vellanita, Arimbawa, and Damayanti, (2019) showed a negative contribution of non-performing loans on the stability of the institutions. Similarly, in the banking sector, Bacchiocchi, Bischi, and Giombini, (2022) indicated that loan quality was associated with reduced bank stability. The above studies are indicative of various drivers that are critical to the financial stability of organizations. Borrowing from the above; it's evident that various firm-level characteristics do influence the stability of firms to a varying degree. Hence, this research sought to explore the effect of firm characteristics, board characteristics and management quality on the financial stability of Saccos in Kenya.

Firm characteristics play a critical role in determining the firm's overall performance, resilience, and ability to adapt to changes in the business environment. These characteristics include critical aspects such as the firm's age, size, and location (Heniwati & Essen, 2020). Mwendwa (2022) noted that older firms often have more experience in their industry, established customer bases, and proven business models which can lead to greater financial stability while Heniwati and Essen, (2020) posit that older firms may also face challenges such as resistance to change, outdated practices, and difficulties in adopting new technologies, which could impact their competitiveness and efficiency. Larger firms typically have more resources which can enhance their ability to invest in new opportunities and withstand economic downturns contributing to greater financial stability. The location of a firm can also significantly impact its access to resources, markets, infrastructure, and talent. Firms located in urban areas typically benefit from better infrastructure, easier access to markets, and a larger pool of skilled labour as compared to firms in rural areas. However, firms in rural areas may benefit from closer community ties, lower operating costs, and less competition, which can also positively influence financial stability. The study adopted firm age and firm size as the main firm characteristics in this study. Firm age can be assessed by the number of years a firm has been in operation while firm size is the scale of the firm's operations, and was measured by the value of total assets (Mwebia, 2017).

Board characteristics play an important role in shaping the strategic direction, oversight, and overall governance of an organization (Chesire & Kinyua, 2021). Board characteristics includes aspects such as the size of the board, the diversity and expertise and experience of its members, the mix of independent and executive directors, and the board's remuneration (Le, Ting, Kweh, & Ngo, 2023). Board size can be assessed by the total number of directors serving on the board. Board composition involves the mix of independent and executive directors on the board, as well as the diversity in terms of gender, age, ethnicity, and professional background. Board experience entails the level of expertise and experience that board members possess in terms of years particularly in the relevant industries. Board remuneration highlights the compensation provided to board members for their services, which may include salaries, bonuses, stock options, and other forms of remuneration (Okumu, Olweny, & Muturi, 2022).

Management quality reflects the overall effectiveness and competency of the management in running the SACCO's operations (Kiruru, 2022). Efficient management ensures that the firm operates smoothly, minimizes wastage, and maximizes profitability as well as contributes to

member satisfaction and institutional growth (Kazanskaya & Shaykina, 2020). Inefficient management can lead to high operating costs, poor service delivery, and reduced profitability. Management quality also involves various areas, including operational processes, human resource management, strategic planning, and financial management (Kazanskaya & Shaykina, 2020). The study utilized the capital to asset ratio.

Non-Performing Loans (NPLs) are loans in which the borrower is not making the agreed-upon principal and interest payments as per the loan agreement (Singh, Basuki, & Setiawan, 2021). Non-Performing Loans are a critical indicator of a financial institution's health and the broader economic environment. NPLs reduce a financial institution's profitability because they result in lost interest income and may require the institution to make provisions or write-offs, impacting the bottom line (Vellanita, Arimbawa, & Damayanti, 2019).

Additionally, a high level of NPLs can strain an institution's capital adequacy, as the provisions required to cover potential losses reduce the capital available to meet regulatory requirements. NPLs can also reduce a financial institution's liquidity since non-performing assets cannot be readily converted into cash thus hindering the institution's ability to meet its short-term obligations and lend to other borrowers (Ntoiti & Jagongo, 2021). If NPLs rise significantly within a financial system, they can threaten the stability of individual financial institutions and, in extreme cases, the broader financial system which can lead to a banking crisis (Singh, Basuki, & Setiawan, 2021).

1.1.4 Deposit Taking SACCOs

Deposit Taking SACCOs are member-owned financial cooperatives that accept deposits, provide loans, and offer various financial services to their members (World Council of Credit Unions, 2024). Unlike non-deposit taking SACCOs, which primarily focus on providing credit, deposit taking SACCOs are authorized to accept savings and fixed deposits from their members, making them similar to traditional banking institutions in their operations (World Council of Credit Unions, 2024). SACCOs play a significant role in fighting poverty and creation of employment opportunities. Deposit taking SACCOs also play a crucial role in promoting financial inclusion by providing accessible financial services to underserved populations, including those in rural and low-income areas (World Council of Credit Unions, 2024).

In Kenya, the regulatory organization that keeps an eye on SACCO operations is called the SACCO Societies Regulatory Authority, or SASRA. SASRA is in charge of licensing and

overseeing SACCOs. Two types of SACCOs have been licensed by the authorities in Kenya: Non-withdrawable deposit taking SACCOs and deposit taking SACCOs. While non-withdrawable deposit taking SACCOs are only permitted to accept deposits from members, deposit taking SACCOs are permitted to accept deposits from both members and non-members (SASRA, 2023). According to SASRA (2024), there are currently 176 deposits taking SACCOs licensed and registered in Nairobi County, Kenya.

1.2 Statement of the Problem

Globally, Savings and Credit Cooperative Societies are instrumental in promoting financial inclusion and socio-economic development (World Council of Credit Unions, 2024). They provide critical financial services such as savings, credit facilities, and investment opportunities, especially to underserved populations. Despite their essential role, many SACCOs in Kenya face significant challenges related to financial stability, which threaten their sustainability and effectiveness (Amadala, 2023). Ntoiti and Jagongo, (2021) note that financial stability is crucial for SACCOs to meet their obligations, safeguard members' deposits, and ensure long-term viability. However, numerous SACCOs in Kenya struggle with maintaining this financial stability due to a combination of internal and external factors. These challenges manifest in various forms, including insufficient capital reserves, poor quality of assets, low profitability, ineffective liquidity management, and difficulties in adhering to regulatory requirements (Amadala, 2023). For instance, the SACCOs have been experiencing elevated credit risk, with gross NPL rising from 14,876 million in 2017 to 48,401 million in 2022 (SASRA, 2023). Additionally, the liquidity ratio of Kenyan SACCOs has been fluctuating from 50.9 in 2019, 70.8 in 2020 and 42.1 in 2021 (CBK, 2023). The SACCO Societies Regulatory Authority sets standards to ensure the safety, soundness, and transparency of SACCO operations. However, there has been frequent non-compliance among various SACCOs which highlights financial stability issues within these institutions (SASRA, 2023). Additionally, there has been limited research on the factors that bring about these financial stability issues bringing forth a knowledge gap. This study therefore seeks to investigate the underlying financial factors affecting the stability of SACCOs in Nairobi County, Kenya

There has been previous research on the factors affecting the financial stability of SACCOs. For instance, Maeenuddin, Nassir, Fahlevi, Aljuaid, and Jermsittiparsert, (2024) determined that liquidity, asset quality and leverage had a significant impact on financial stability among the

microfinance sector in Pakistan. Yitayaw, (2021) noted that managerial efficiency, and asset quality were determinants of financial sustainability in Ethiopia operational efficiency did not have a statistically significant effect. Magashi, Sam, Agbinya, and Mbelwa, (2023) on the other hand noted that financial factors including asset quality, liquidity and capital adequacy had a significant effect on the stability of SACCOs in Kenya. These studies despite being relevant, were not based in the context of Kenya thereby creating a contextual gap that the study ought to fill.

In Kenya, Kifworo, Kiveu, and Njuguna, (2023) noted that liquidity and capital structure were the factors affecting financial stability and showed a significant relationship. Ombati, Kamau, and Thuranira, (2023) on the other hand established that liquidity risk, credit risk, and operational risk all were detrimental to the financial performance of deposit taking SACCOs. Akuku, (2024) also noted that adequacy, leverage and management efficiency were key determinants of the financial performance of SACCOs in Kenya. Although these studies focus on SACCOs in Kenya, their main focus was the firm's performance as opposed to the financial stability of these SACCOs.

The inconsistencies established by the existing studies can be attributed to the varying methodologies used, different regional contexts, and different operational definitions of financial stability, providing a strong justification for the current study. Additionally, there is also a lack of a comprehensive understanding of the drivers of financial stability of the SACCOs in Kenya. The study sought to bridge these gaps by investigating the financial factors affecting the stability of deposit taking SACCOs in Nairobi County, Kenya.

1.3 Objectives of the Study

The main aim of this research was to investigate the drivers of financial stability in deposit taking SACCOs in Nairobi County, Kenya.

1.3.1 Specific Objectives

i. To establish the effect of firm size on the financial stability of deposit taking SACCOs in Nairobi County, Kenya.
ii. To establish the effect of firm age on the financial stability of deposit taking SACCOs in Nairobi County, Kenya.
iii. To determine the effect of board size on the financial stability of deposit taking SACCOs in Nairobi County, Kenya.

iv. To examine the effect of management quality on the financial stability of deposit taking SACCOs in Nairobi County, Kenya.

v. To examine the effect of non-performing loans on the financial stability of deposit taking SACCOs in Nairobi County, Kenya.

1.4 Research Questions

i. What is the effect of firm size on the financial stability of deposit taking SACCOs in Nairobi County, Kenya?

ii. What is the effect of firm age on the financial stability of deposit taking SACCOs in Nairobi County, Kenya?

iii. What is the effect of board size on the financial stability of deposit taking SACCOs in Nairobi County, Kenya?

iv. What is the effect of management quality on the financial stability of deposit taking SACCOs in Nairobi County, Kenya?

v. What is the effect of non-performing loans on the financial stability of deposit taking SACCOs in Nairobi County, Kenya?

1.5 Scope of the study

The research seeks to investigate the financial factors affecting the financial stability of deposit taking SACCOs in Nairobi County, Kenya. Contextually, the study reviewed the effect of firm characteristics (firm size and firm age), board characteristics, management quality and non-performing loans on the financial stability of deposit taking SACCOs in Nairobi County, Kenya. The geographical scope of the study was Nairobi City County as many SACCOs have their presence in the capital city of Kenya hence acts as a good representation of deposit taking SACCOs. According to SASRA (2024), there are currently 176 deposit-taking SACCOs licensed and registered in Nairobi County, Kenya. The study also considered a timeframe of between 2010 and 2023. This timeframe was selected since SASRA was operationalized in 2010 and thus extensive reports and datasets from SACCOs are available starting from 2010. Additionally, this period captures crucial economic shifts, technological advancements, and crises, all of which may directly impact financial stability.

1.6 Significance of the study

The study was beneficial to policymakers, various stakeholders and other scholars. The study provided insights into the financial stability of SACCOs, aiding policymakers in refining regulatory frameworks to ensure the robustness and sustainability of the sector. Policymakers can design targeted interventions and support mechanisms to address identified weaknesses in SACCO operations, enhancing overall financial stability. Policymakers can also develop contingency plans and proactive measures to mitigate potential crises within the SACCO sector, ensuring continuity and protecting member interests.

The study also provides SACCO managers with a clear understanding of critical financial stability factors, risks and challenges, enabling them to implement best practices as well as robust risk management strategies to safeguard their institutions and improve operational efficiency. The findings will also be important for increased confidence among members as enhanced financial stability of SACCOs instils confidence among members, encouraging savings and participation in SACCO activities. Financially stable SACCOs can also offer better services, including higher dividends, competitive loan products, and improved customer service, benefiting members directly. The study also provides investors and donors with critical information about the financial health of SACCOs, aiding in informed decision-making regarding investments and support.

The study further adds to the existing body of literature on SACCOs, financial stability, and financial institutions, providing a foundation for future research. Other scholars can also conduct comparative studies across different regions or countries, examining the applicability and impact of similar financial stability factors in diverse contexts.

1.7 Chapter Summary

This chapter reviews the background of the current study 'Drivers of financial stability in deposit taking SACCOs in Nairobi County, Kenya.' Background on Financial stability and its drivers is dissected in detail then the exact problem stated in the problem statement. The objectives of the study as well as the study questions are then indicated. The scope of the current study is then detailed followed by the expected significance of this study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter looked into the studies conducted by other scholars who have carried out similar studies in the previous period. The chapter's structure entailed the theoretical framework, empirical review, research gaps as well as a conceptual framework.

2.2 Theoretical Framework

2.2.1 The Resource-Based View (RBV) Theory

As developed by Edith Penrose in 1959, the Resource-Based View theory is a strategic management theory that posits that a firm's competitive advantage and performance are largely determined by its internal resources and capabilities (Taher, 2012). According to the theory, resources that are valuable, rare, inimitable, and non-substitutable provide firms with a sustained competitive advantage. The theory emphasizes the importance of tangible and intangible resources, including financial capital, human skills, organizational processes, brand reputation, and technological capabilities and argues that these resources, when effectively managed and utilized, can drive a firm's performance and long-term success (Beamish & Chakravarty, 2021).

The Resource-Based View theory is particularly relevant to this study as it highlights the need to focus on internal strengths. RBV Theory posits that an organization's competitive advantage and overall performance are largely determined by its internal resources, such as assets, capabilities, processes, and knowledge (Beamish & Chakravarty, 2021). For SACCOs, these internal resources can include management expertise, board composition, firm size, firm age, and location which are all critical determinants of their financial stability. Larger SACCOs may benefit from economies of scale, while older SACCOs often have more established reputations and networks, which can enhance stability. Board characteristics, such as size, experience, and composition, can be seen as organizational capabilities that shape strategic decisions and risk management (Beamish & Chakravarty, 2021). Management quality represents how well SACCOs utilize their human and financial resources.

RBV highlights that effective management and governance can enhance the utilization of resources, leading to better financial outcomes.

Mwendwa, (2022) states that SACCOs can gain a competitive advantage through the strategic use of unique resources such as strong member loyalty and trust, which can be a source of long-term customer retention and stability. They can also do so through gaining local knowledge, relationships, and networks which give SACCOs a better understanding of members' financial needs and risks thus improving loan recovery and member engagement. Additionally, tailored financial products customized to the community's economic activities, such as farming, small business, or local trade, can provide them with greater relevance than standardized banking products.

The theory guided the independent variables in the study. The research highlights the importance of leveraging internal strengths and competencies to achieve financial stability by anchoring the study in RBV. The theory aligns with the study's focus on understanding how intrinsic factors within SACCOs contribute to their resilience against financial challenges.

2.2.2 Contingency Theory

Contingency Theory is a management theory that was developed in the 1960s by Joan Woodward, Fred Fiedler, Paul Lawrence, Jay Lorsch, and Tom Burns (Otley, 2016). The theory suggests there is no universal or one-size-fits-all approach to managing organizations. Instead, the effectiveness of any management practice or organizational structure depends on the specific context or environment in which the organization operates (Mnif & Gafsi, 2020). The theory posits that organizational success is contingent upon the alignment of internal characteristics such as structure, strategy, and leadership with external factors such as market conditions, competition, and regulatory environment. The theory emphasizes the importance of flexibility and adaptability in organizational management. It challenges the notion of prescriptive management principles, highlighting that what works well in one context might not be effective in another. For instance, a SACCO operating in a stable economic environment might successfully adopt a traditional hierarchical structure, whereas another SACCO facing high market volatility might need a more dynamic and responsive approach (Mnif & Gafsi, 2020).

Contingency Theory is relevant to understanding the financial stability of SACCOs because it highlights the importance of tailoring management practices, governance structures, and financial

strategies to specific internal and external conditions (Mnif & Gafsi, 2020). In the context of the study, SACCOs must align their management quality, board characteristics, and firm-specific characteristics with their strategic goals. Economic conditions, regulatory changes, and competitive pressures are external factors that SACCOs must also consider. An adaptable management team can quickly adjust financial strategies in response to inflation, interest rate changes, or regulatory requirements, thus maintaining financial stability. The theory also suggests that SACCOs should not rigidly adhere to fixed strategies but instead continuously assess their environment and adjust their operations accordingly to sustain financial health (Mnif & Gafsi, 2020).

This theory therefore anchored financial stability. It is particularly relevant to this study as it provides a framework for understanding how firm characteristics, board characteristics, and management quality influence the financial stability of deposit-taking SACCOs in Nairobi County. The theory's emphasis on the alignment of internal and external factors helps explain why SACCOs with similar characteristics may experience different levels of financial stability.

2.3 Empirical Review of Literature

This section reviewed the literature discussing the factors that affect the financial stability of deposit taking SACCOs. There are numerous drivers of financial stability are documented in past research. However, the current study focused on firm characteristics, board characteristics, and management quality due to their contextual relevance, theoretical backing, and practical measurability in SACCOs. This choice ensures a well-scoped and focused research that addresses critical gaps in SACCO-specific financial stability literature.

2.3.1 Firm Characteristics and Financial Stability

According to Heniwati and Essen, (2020), firm characteristics refer to inherent attributes of an organization, such as firm age, size, and location, which influence its operations, decision-making, and financial outcomes. Legislation through the Sacco Societies Act (2008) and subsequent regulations under SASRA introduced parameters for classifying SACCOs and ensuring compliance with operational standards. In this line, Mwendwa (2022) noted that larger and older SACCOs exhibit higher resilience to economic shocks due to diversified portfolios and stable

capital bases. Mwebia (2017) on the other hand posits that rural SACCOs face higher risks due to limited access to liquidity and challenges in expanding membership. Firm characteristics therefore provide the foundational structure for assessing financial stability. This variable is also supported by the resource-based view theory which emphasizes that organizational characteristics like size, location, and longevity are critical internal resources that provide competitive advantages and influence financial outcomes (Beamish & Chakravarty, 2021).

Dirman, (2020) examined the impact of firm size on financial distress among manufacturing firms listed on the Indonesia Stock Exchange. A quantitative study was adopted collecting data from financial statements over 3 years from 2016-2018. The study revealed that firm size had a negative and significant effect on financial distress. The study revealed that size of the company measured by using total assets, has a negative influence on financial distress, because the greater the total assets owned by the company will have an impact on the increasing ability to pay off corporate obligations in the future, so that the company can avoid financial problems. The study was however conceptualized on manufacturing firms listed on the Indonesia Stock Exchange while the current study's focus is on deposit taking SACCOs in Kenya. The study was also based on only three years which could be insufficient to determine the impact of firm size on financial distress.

Furthermore, Kücher, Mayr, Mitter, Duller, and Feldbauer-Durstmüller (2020) examined the relationship between firm age and business failures among SMEs in Austria. The study adopted a cross-sectional study analysing qualitative data from 459 bankrupt firms in Austria, with firm age categorized into young, middle-aged, and old. The study found that age was a significant factor in failures of SMEs. Middle-aged firms showed the highest profitability and the lowest rate of failure, with older firms struggling. The findings noted that young and adolescent firms predominantly fail due to internal shortcomings and mature small and medium-sized enterprises struggle more with increased competition and economic slowdowns. The study however adopted a qualitative approach which highlighted the perceived impact of bank age on business failure while the current study employed a quantitative methodology.

In the African context, Ehiedu and Priscilla, (2022) evaluated the relationship between firm characteristics and financial performance among manufacturing firms in Nigeria. The study used a quantitative research design and panel data from 10 Oil and Gas Firms in Nigeria. The data was analysed using multiple regression analysis. The study found a positive relationship between firm

characteristics and financial performance. The findings revealed that liquidity, leverage and operating expenses have a significant relationship on performance as measured by ROA while firm size, firm age and sales did not have a significant relationship on ROA. The findings suggest that not all characteristics of the firm significantly contribute to the financial performance of manufacturing firms. The study was however contextualized in Nigeria while the current study was based on the Kenyan context.

Similarly, Aribaba, et al., (2022) evaluated the influence of firm characteristics on the financial performance of listed oil and gas companies in Nigeria. Regression analysis of financial data from 12 Nigerian firms revealed that there is a negative relationship between firm Size and financial performance, while firm age showed a positive relationship on the financial performance. Nyabaga and Wepukhulu (2020) also sought to identify the effect of firm characteristics on financial performance of listed commercial banks in Kenya. The findings noted that firm size had a significant positive effect on performance as measured by both ROE and ROA. The results showed that larger firms exhibited better financial performance as compared to lesser firms. These studies were however conceptualized on financial performance while the current study was focused on financial stability.

Similarly in Kenya, Ngumo, Collins, and David, (2020) sought to find out the drivers of financial performance among microfinance banks in Kenya. A descriptive research design was adopted and quantitative analysis using regression models on data from 7 Microfinance banks for a period of 5 years from 2011 to 2015 was employed. The study found that firm size was a critical driver of financial performance showing a positive and significant relationship. Findings revealed that larger banks were more profitable due to diversified portfolios. The study also found that firm size enhances resilience to economic shocks by spreading risk across various assets. The study was however conducted on microfinance banks in Kenya while the current study was based on deposit taking SACCOs in the country.

2.3.2 Board Characteristics and Financial Stability

Le, Ting, Kweh and Ngo (2023) noted that board characteristics involve attributes that influence corporate governance and decision-making processes. These attributes may include board size, composition, experience, and remuneration. Board attributes significantly influence the strategic oversight required for effective financial and operational management. Chesire and Kinyua, (2021)

found that boards with diverse skill sets and relevant experience make more effective strategic decisions, mitigating risks like non-performing loans. Okumu, Olweny, and Muturi, (2022) also notes that high board remuneration can sometimes weaken financial performance if it strains operational budgets. Strong governance mechanisms within SACCOs are therefore essential for maintaining accountability and ensuring financial stability. This variable is further anchored by the RBV theory which highlights the importance of internal resources and competencies including a skilled and experienced board which acts as a key governance resource driving financial stability.

Dwaikat, Qubbaj, and Queiri, (2021) investigated the relationship between gender diversity on the board of directors and the financial performance of Palestinian firms. Quantitative date was obtained from financial statements of Palestinian non-financial companies for the period 2008–2015. The study further assessed gender diversity as a percentage of women in the BOD employing two-stage least squares (2SLS) to analyse the relationship between gender diversity and company performance. Findings revealed that the gender diversity on the board of directors had a positive and significant effect on firm performance. Additionally, firms with at least one woman in the BOD have a large debt ratio, independence of BOD and a better ROA performance. The study was however conceptualized on financial performance while the current study was focused on financial stability.

On the other hand, Al-Matari, (2020) sought after the effect of board characteristics and top management on firm performance among financial firms in Oman. Survey and financial data from 2011-2017 were collected from top management and annual statements for financial firms in Oman. Findings revealed a significant effect of all the board characteristics assessed with firm performance among financial firms. The results specifically showed that board size, board diversity and board experience showed a significant positive effect, while board meeting showed a negative and significant effect on firm performance. Furthermore, the size and experience of top executive management did not have a significant relationship with corporate performance. The study was however conceptualized on financial performance while the current study was focused on financial stability.

Similarly, John, Kamukama, and Fredrick, (2020) examined the relationship between board size and financial performance of private limited companies in Uganda. The study adopted a mixed research methodology collecting quantitative data from financial statements of 394 companies and

qualitative data by administering questionnaires to managers of these companies. The analysis revealed a positive and significant relationship between board size and financial performance. Large boards were found to foster better decision-making due to diversification of skills leading to the conclusion that board size should be carefully balanced to optimize firm performance. The study was however based on private limited companies in Uganda while the current study's focus is on deposit taking SACCOs in Kenya.

Moreover, Benvolio and Ironkwe, (2022) looked into the impact of board composition and firm performance among quoted commercial banks in Nigeria. Cross-sectional study on all the fourteen quoted commercial banks in Nigeria, focusing on different variables of board composition and firm market value from 2011-2021 was employed. Findings revealed that board composition contributes significantly and positively to firm performance contributing for around 86% of the performance of the firm. Results showed that a higher proportion of independent directors improved profitability by ensuring better oversight and contributing to more objective decision-making, while reducing the risk of self-serving decisions by insiders. The study was however contextualized in Nigeria while the current study was based in Kenya.

In the regional context, Githaiga and Kosgei, (2023) on the other hand examined the relationship between board characteristics and sustainability among firms in East Africa. The analysis makes use of data from 2011 to 2020 and a sample of 79 listed companies selected from Nairobi securities markets. Three-panel data estimation models, fixed effect, random effect, and the generalized technique of moments were used to evaluate the data. The findings show that there is a positive and significant relationship between sustainability and board independence, gender diversity, and financial expertise. On the other hand, board size negatively and significantly affects sustainability. The study was however conceptualized on sustainability while the current study was focused on financial stability.

2.3.3 Management Quality and Financial Stability

Kazanskaya and Shaykina, (2020) defines management quality as the efficiency and effectiveness of a SACCO's management team. In Kenya, mismanagement has been identified as a contributing factor in SACCOs' failure to maintain stability (Kiruru, 2022). Xie, Nozawa, Yagi, Fujii, and Managi, (2019) notes that SACCOs with higher management quality metrics including profit per employee ratios demonstrate better loan portfolio performance, contributing to stronger financial

stability. Furthermore, efficient management practices reduce the level of non-performing loans (Kyenze & Aluoch, 2022). Management quality is therefore considered a cornerstone for operational efficiency and SACCOs can enhance financial performance and ensure organizational stability by ensuring high standards of managerial performance.

Kliestik, Valaskova, Lazaroiu, Kovacova, and Vrbka, (2020) examined the role of management quality in ensuring that European firms remain financially healthy and competitive. 400 models from 12 countries in Europe were analysed to assess the impact of management practices on financial outcomes. Findings from the analysis revealed that there was a significant effect of management quality on financial health among firms. Strong management was associated with better financial decision-making and stability and firms and countries benefit significantly from strong leadership and strategic planning, which enhances stability. The study was however contextualized in China while the current study focused on the Kenyan context.

In contrast, Liu, Wu, Zhong, and Liu, (2021) conducted an empirical review of the Chinese manufacturing industry focusing on the connection between quality management practices and firm performance. Cross-sectional study of 148 Chinese manufacturing companies that won Chinese national and provincial quality management awards was conducted. Findings showed an insignificant effect of quality management on firm performance and competitive advantage. This study provides evidence that quality management cannot assure companies of competitive advantages. Furthermore, the findings show that while quality management have advantages in terms of their profitability and operating efficiency, their sales growth is not improved as expected. The study was however based in China while the current study's scope was among deposit taking SACCOs in Kenya.

Hower, contrary to the previous Chinese study, Xie, Nozawa, Yagi, Fujii, and Managi, (2019) investigated the relationship between management efficiency and corporate sustainability among firms in China to determine whether firms concerned about governance issues can also be efficient and profitable. The study utilized econometric modelling to analyse data from 20 firms over a 10-year period. Efficiency scores were computed using data envelopment analysis. The analysis revealed a positive and significant effect of managerial efficiency on firm sustainability also noting that the link was the strongest. The study revealed that firms with higher managerial efficiency scores tended to exhibit greater financial sustainability, characterized by stable cash flows and low

debt levels. The study was however contextualized in China while the current study was based on the Kenyan context.

Regionally, Shuaib, He, and Song, (2021) sought after the effect of management quality on innovation among Nigerian manufacturing companies. The study applied an empirical methodology collecting data from 400 manufacturing companies registered in Nigeria. Findings from the empirical analysis showed that quality management practices are positively and significantly related to innovation. High-quality management was associated with higher levels of innovation and product development. The study therefore concluded that effective management is crucial to foster a culture of innovation, leading to sustained competitive advantage. The study was however conceptualized on innovation among Nigerian manufacturing companies while the current study's focus is on deposit taking SACCOs in Kenya.

Closer home, Kiruru, (2022) investigated the impact of managerial efficiency on financial performance of SACCOs in Kenya. The study adopted a panel data regression model to analyse financial data from 175 SACCOs over a period of five years from 2017-2021. Findings from the study revealed that managerial efficiency positively affects the financial performance of SACCOs but their relationship was not statistically significant. Despite the insignificant effect, the study notes the need for efficient management teams to contribute to other aspects of a firm performance. The study was however conceptualized on financial performance while the current study was focused on financial stability.

2.3.4 Effect of Non-Performing Loans on Financial Stability

Non-performing loans refer to loans on which borrowers have defaulted or are no longer making timely repayments (Singh, Basuki, & Setiawan, 2021). This metric signals the risk of asset deterioration and the overall financial health of an organization. According to SASRA (2023), SACCOs must maintain prudent lending practices to manage NPL levels. They must also report their NPLs regularly, and failure to meet these standards results in regulatory penalties. Vellanita, Arimbawa, and Damayanti, (2019) notes that high NPL levels correlate negatively with financial stability due to reduced cash flows and increased provision costs. NPLs are thus a critical moderating factor influencing financial stability and effective management of loan portfolios significantly enhances stability (Ntoiti & Jagongo, 2021).

Bacchiocchi, Bischi, and Giombini, (2022) examined the relationship between non-performing loans and bank stability in Italy. The study adopted a case study approach focusing on 2 banks in Italy. The study found a negative and significant effect of non-performing loans on bank stability. Findings showed that higher NPLs were associated with reduced bank stability and profitability. Boussaada, Hakimi, and Karmani, (2023) further assessed the impact of non-performing loans on bank performance among European Banks. The study applied the generalized method of moments (SGMM) model for analysis of banks data from 2008–2017. Regression analysis on the financial statements of the 32 European banks revealed a negative and significant effect of non-performing loans on bank performance as measured by Tobin Q. These studies were conducted in Europe while the current study was based on Kenyan deposit taking SACCOs.

Setiawan and Putri, (2021) on the other hand investigated the correlation between non-performing loans and the bank efficiency of Islamic banks in Indonesia. Time series monthly data from Indonesia's Islamic banks for the period 2007 to 2012 was utilized with the data envelopment analysis (DEA) approach used to measure efficiency of Islamic banks. Results showed a significant correlation between non-performing loans and the bank efficiency. Findings showed that non-performing loans were strongly correlated to the ROA as compared to the weak association with inflation, interest rate and GDP. The finding implied that the increase of non-performing financing of the Islamic banks in Indonesia is mainly caused by poor management rather than external factors. The study however targeted bank efficiency of Islamic banks in Indonesia while the current study was focused on financial stability of Kenyan SACCOs.

Similarly, Katuka, Mudzingiri, and Vengesai, (2023) sought to understand the relationship between non-performing loans and bank stability as well as the general economic performance in Zimbabwe. Time series data of NPL trends in Zimbabwe public sector banks from 2009 to 2017 was analysed using the panel vector autoregressive (PVAR) model. The analysis revealed that non-performing loans had a negative and significant impact on stability in the short term but is insignificant in the long term. Additionally, the findings revealed that in the short run, non-performing loans have a strong negative and significant effect on economic performance as compared to an insignificant effect on economic performance in the long run. The study was however contextualized in Zimbabwe while the current study was based on the Kenyan context.

Finally, Ntoiti and Jagongo, (2021) assessed the relationship between non-performing loans and financial stability in SACCOs registered by SASRA. The study used a mixed approach combining a desktop methodology which was reliant on already published studies, reports and statistics and secondary data which was easily accessed through the online journals and library. The study revealed that non-performing loans had a significant effect on the financial stability of SACCOs. SACCOs with better asset quality, as indicated by low non-performing loans, demonstrated higher financial stability. The study thereby concluded that non-performing loans is a strong predictor of long-term financial stability. The study however adopted a desktop approach while the current study employed a quantitative methodology.

2.4 Summary of Literature and Research Gaps

The reviewed studies provide significant insights into the relationships between firm characteristics, board characteristics, management quality, non-performing loans, and financial stability. A majority of these studies analyse firms across industries and regions, allowing for comparative insights between urban and rural firms. Studies also span various sectors, making findings transferable across financial institutions, including SACCOs. Additionally, the studies often use regression models to demonstrate relationships between the independent variables and financial stability, offering measurable evidence. Some studies also employ sophisticated econometric models, such as dynamic panel regression, to capture the lagged effects on financial performance. Firm characteristics and board characteristics are also operationalized with measurable metrics strengthening their analytical precision.

However, the literature brought out several gaps. For instance, some studies are confined to specific regions, limiting generalizability to SACCOs in other areas with different economic contexts. Furthermore, some studies focus exclusively on profitability, neglecting other dimensions of financial stability like solvency or liquidity bringing about a conceptual gap. Additionally, there are notable methodological limitations, including over-reliance on quantitative data, endogeneity issues, and short-term analysis. This research gaps are summarized in table 2.1 below.

Table 2.1 Research Gaps

Author	Title	Findings	Gap in Study
Dirman, (2020)	The impact of firm size on financial distress among manufacturing firms listed on the Indonesia Stock Exchange.	The study revealed that size of the company measured by using total assets, has a negative influence on financial distress	The study was based on manufacturing firms listed on the Indonesia Stock Exchange creating a contextual gap.
Al-Matari, (2020)	The effect of board characteristics and top management on firm performance among financial firms in Oman	The results specifically showed that board size, board diversity and board experience showed a significant positive effect, while board meeting showed a negative and significant effect on firm performance.	The study was however conceptualized on financial performance creating a conceptual gap.
John, Kamukama, and Fredrick, (2020)	The relationship between board size and financial performance of private limited companies in Uganda.	The analysis revealed a positive and significant relationship between board size and financial performance	The study was however based on private limited companies in Uganda while the current study's focus is on deposit taking SACCOs in Kenya
Shuaib, He, and Song, (2021)	The effect of management quality on innovation among Nigerian manufacturing companies.	Findings from the empirical analysis showed that quality management practices are positively and significantly related to innovation.	The study was however conceptualized on innovation among Nigerian manufacturing companies creating a conceptual gap.
Ngumo, Collins, and David, (2020)	The drivers of financial performance among microfinance banks in Kenya.	The study found that firm size was a critical driver of financial performance	The study was however conducted on microfinance banks in Kenya while the current study was based on

Author	Title	Findings	Gap in Study
		showing a positive and significant relationship.	deposit taking SACCOs in the country.
Ntoiti and Jagongo, (2021)	Relationship between non-performing loans and financial stability in SACCOs registered by SASRA.	The study revealed that non-performing loans had a significant effect on the financial stability of SACCOs.	The study however adopted a desktop approach creating a methodological gap.

2.5 Conceptual Framework

The conceptual framework is a depiction of the relationship between the study's independent factors and the study's predictor variables (Gure, 2015). The independent variables in the study are firm characteristics, board characteristics, management quality non-performing loans and leverage. The study therefore sought to determine the impact of firm characteristics, board characteristics, NPL, leverage and management quality on the financial stability of deposit taking SACCOs in Nairobi County, Kenya.

Independent Variable **Dependent Variable**

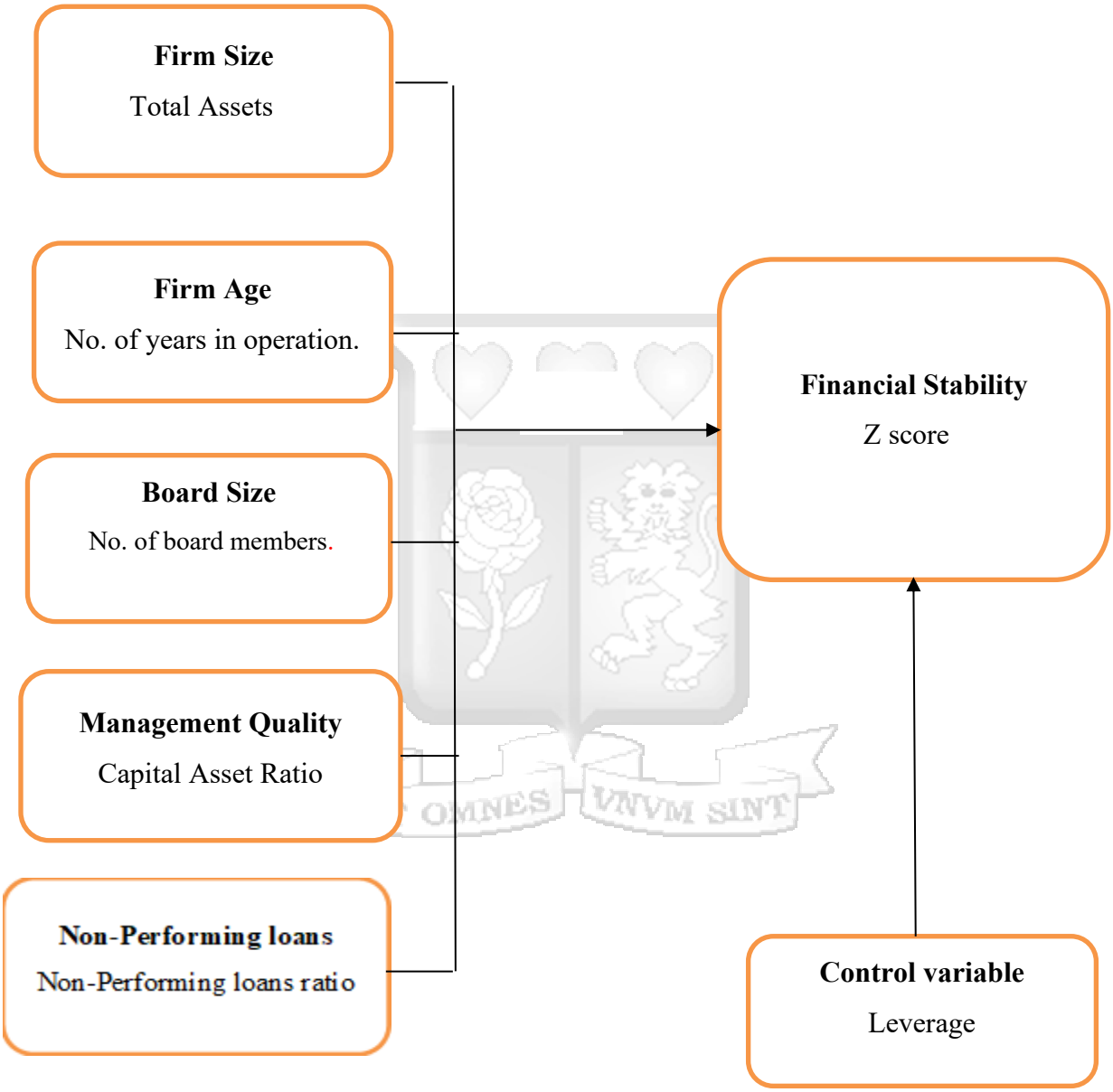

Figure 2.1 Conceptual Framework

Source: Author (2024)

Table 2.2 Operationalization of Variables

Variable	Type	Indicators	Measurement Scale	Measurement	Type of Analysis	Relevant Literature
Financial Stability	Dependent	• Z Score	• FTSB ≡ (k+μ)/σ k = CAR which is the equity capital/ asset ratio μ = ROA - return as percent of assets σ = is standard deviation of return on assets	Panel data 2010-2023	Descriptive, correlation and panel regression	(World Bank, 2024)
Firm Characteristics	Independent	• Firm age • Firm size	• Number of years in Operation • Total Assets	Panel data 2010-2023	Descriptive, correlation and panel regression	(Mwebia, 2017)
Board Size	Independent	• Board size	• Number of board members	Panel data 2010-2023	Descriptive, correlation and panel regression	(Okumu, Olweny, & Muturi, 2022)
Management Quality	Independent	• Capital Assets Ratio	• Capital Assets Ratio	Panel data 2010-2023	Descriptive, correlation and panel regression	(Kazanskaya & Shaykina, 2020)
Non-Performing Loans	Independent	• Non-Performing Loans (NPL) Ratio	• Non-Performing loans ratio	Panel data 2010-2023	Descriptive, correlation and panel regression	(Ntoiti & Jagongo, 2021)
Leverage ratio	Control	• Leverage	• Leverage ratio	Panel data 2010-2023	Descriptive, correlation and panel regression	Maeenuddin et.al. (2024)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The third chapter of the study presented the methodological framework that was applied in the course of conducting the research. This survey utilized a quantitative approach. The main sections of the chapter are the philosophical paradigm, research design, population, data collection instruments and the data analysis and presentation.

3.2 Research Philosophy

The research philosophy presents the framework that identifies the underlying assumptions that help in directing and conducting the study (Stokes & Wall, 2017). There are four main basic philosophies; constructivism, post-positivism, realism, and pragmatism. Constructivism focuses on the development of knowledge with minimal interaction with the real-world while realism holds that objects or things have an independent existence that is not dependent on human perception or influence. On the other hand, pragmatism is a philosophical foundation grounded on the practicality of ideas and advocates they should be judged on their real application in the world (Adams & McGuire, 2022). This study adopted a positivism research philosophy that is ideal when conducting quantitative data and helps in the analysis of an underlying hypotheses of the study and produce knowledge that can be adopted in making inferences (Ghauri, Grønhaug, & Strange, 2020). Thus, this philosophy was key in this study in identifying the drivers of financial stability in Deposit Taking Savings and Credit Societies in Nairobi County, Kenya.

3.3 Research Design

The design of the study focuses on the methodological procedures that are adopted to guide how the research is conducted from selection of respondents, tools and the analytical approach (Privitera & Ahlgrim-Delzell, 2018). This research adopted a descriptive research design which allows for a holistic approach in the review of the association between the study variables thus supporting in the answering the research problem (Adams & McGuire, 2022). Further, the design is ideal for quantitative analysis as it helps in answering the research hypothesis by utilizing quantitative statistical tests that was critical to this study.

3.3 Target Population

The population of the study focuses on all the individuals, objects or items that are the focus of the study since they hold common characteristics that are key to the research (Ghauri, Grønhaug, & Strange, 2020). The population of the research should be able to provide the necessary information that is needed to examine the phenomena under investigation (Bougie & Sekaran, 2019). This research focused on collecting survey data from the Deposit Taking SACCOs registered by SASRA and operating within Nairobi City County. There are 176 DTS institutions based in Nairobi County (SASRA, 2023); that was considered for this study.

3.4 Data Collection Instruments

The various tools and methods used to measure research variables are referred to as data gathering instruments (Privitera & Ahlgrim-Delzell, 2018). This survey utilized quantitative data that was collected from the supervisory reports of the DTS institutions published by the authority (SASRA). The data was extracted for the period 2010-2023 thus providing adequate panel data that can be utilized in the survey.

3.5 Data Collection Procedures

The research procedures entail the various processes and scientific methods that are adopted in the conduct of the study (Bougie & Sekaran, 2019). The researcher ensured approval of the supervisor is obtained before submission of the document for defence and ethical review process. The study extracted survey data from the audited financial statements of the registered Deposit Taking Saccos in Kenya.

3.6 Data Analysis and Presentation

The extracted research data was checked for errors and edited in Microsoft Excel and exported to Stata 19 for subsequent analysis. The research utilized descriptive measures such as means, maximum, minimum and standard deviation to summarize the observations of the survey. Further, correlation tests were applied to determine the association between the research variables. The study will further conduct regression analysis that will aid in testing the hypothesis of the study. The findings were presented using tables and figures. The following models was applied in the study;

$FS_{it} = \alpha + \beta_1 FC_{it} + \beta_2 BC_{it} + \beta_3 MQ_{it} + \beta_4 NPL_{it} + \beta_5 LV_{it} + \varepsilon_{it}$……..……Equation 3.1

Where FS denotes financial stability of deposit taking SACCOs *i* at time *t*

i denotes the observation (DTS Firms) i= 1--------176

t is the time period t= 2010--------2023

FC_{it} denotes firm characteristics of DTS firms *i* at time t

BC_{it} denotes board characteristics of DTS firms *i* at time t

MQ_{it} denotes management quality of DTS firms *i* at time t

NPL_{it} denotes non-performing loans of DTS firms *i* at time t

LV_{it} denotes leverage of DTS firms *i* at time t

β- β_5 is coefficients

ε is the error term

3.7 Diagnostic Test

The survey will adopt various diagnostic tests to ensure the data meets the standard regression analysis assumptions. Normality tests were conducted using the Jarque-Bera test at 5% with significance values above .05 showing the data is from a normal distribution (D'Agostino, 2017). Collinearity tests were performed in the study to ensure there is no linear association between the independent variables. The study will adopt the variance inflation factor tests with values below 10 being used as the criteria of confirming no multicollinearity problem in the model (Beins & McCarthy, 2017). Thirdly, the survey conducted autocorrelation test to determine whether there is presence of serial correlation in the variables. The research utilized the Durbin-Watson statistic with values between 1-4 being and indicator there is no autocorrelation violation.

The research also conducted heteroscedasticity tests to examine whether there is constant variance within the model thus not leading to false inferences. The Breusch Pagan test was utilized at a 5% significance level to check whether there is any violation (Osborne & Waters, 2019). Lastly, the Hausmann specification test was employed to check whether the fixed effects or random effects

panel regression was utilized. A probability value above .05 at 5% significance level indicates the random effects models should be adopted and vice-versa (Beins & McCarthy, 2017).

3.8 Ethical Considerations

The research ensured that all the collected data is treated with confidentiality and only applied for the stated academic goals. The researcher securely stored the data extracted to ensure no unauthorized access to the study data. All quoted material was properly cited to ensure there are no cases of plagiarism within the report. Further, permit was sought from the Institutional Ethical Review Committee of Strathmore University. The study sought the research license from the National Commission for Science Technology and Innovation (NACOSTI).

CHAPTER FOUR

PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction

This chapter entailed the presentation of the findings of the study drawn from the analysis of the extracted data. The key areas of the section include the descriptive results, the diagnostic tests, correlation and regression analysis.

4.2 Descriptive Analysis

The focus of the descriptive analysis is to aid in analysing the various observations to view the trends and present the data in a summarized manner. The main analysis that was conducted are the means, standard deviation, sum, maximum and minimum of the various measures applied in the operationalization of the variables.

Table 4.1 Summary of Descriptive Analysis

	Board Size	Capital To Asset Ratio	Firm Age	Firm Size	NPL Ratio	Leverage	Z-Score
Mean	8.494447	1.231186	20.30025	7.939906	0.551508	0.211541	0.635376
Median	9.000000	0.795394	16.0000	7.954200	0.052069	0.172912	0.117777
Maximum	13.00000	18.31068	61.0000	9.872324	286.6807	3.141340	36.73325
Minimum	7.000000	-36.89498	0.0000	0.000000	0.000000	-1.696600	-29.22598
Std. Dev.	1.099469	1.919976	13.79207	0.812866	7.747709	0.205370	2.339177
Sum	16063.00	2454.986	40499	15832.17	1098.604	422.2358	1266.940
Sum Sq. Dev	2284.692	7346.812	379301.1	1316.879	119513.8	84.14259	10905.19

Source: Research Data (2025)

The findings on the diversity of the Sacco boards indicated they had at least 2 female directors and 6 male directors within the study period which implied there was skewness in the gender representation within the institutions. Further results showed an average of 8 board members with a maximum of 13 board members within the Saccos. The analysis indicated the Saccos held a capital to asset ratio of 1.23% which did not meet the SASRA requirement of at least 10% to be held by Saccos. The results indicated that the average years under operation for the Saccos was 20

years with the oldest deposit-taking Sacco at 61 years. The average non-performing loans for the DTS was at 55.15% which was above the prescribed 5% by SASRA indicating the DTS were struggling in recovering the loans advanced. The findings on the Z-Score values of the Saccos showed an average of 0.6353 which showed the institutions were within distress zone as the values were below 1.81 implying there is a potential of facing financial difficulties for the DTS.

4.3 Diagnostic Test

The research adopted diagnostic tests to establish if the data being utilized met the basic regression assumptions and the findings are shown in this section.

4.3.1 Heteroscedasticity Test

The research conducted heteroscedasticity tests to examine whether there is constant variance within the model thus not leading to false inferences. The results are shown in Table 4.2 below

Table 4.2 Heteroscedasticity Test

Breusch–Pagan/Cook–Weisberg test for Heteroskedasticity
Assumption: Normal error terms
Variable: Fitted values of Z-Score
H0: Constant variance
chi2(1) = 3393.98
Prob>chi2= 0.0000

Source: Research Data (2025)

The Breusch Pagan test was utilized at a 5% significance level to check whether there is any violation. The findings indicated the Prob>chi2= 0.0000 was less than .05 which was an indicated there was heteroscedasticity problem. The data was logged before conducting the regression analysis.

4.3.2 Collinearity Test

Collinearity tests were performed in the study to ensure there is no linear association between the independent variables. The research applied the variance inflation factor in the test and results are shown below.

Table 4.3 Collinearity Test

Variable	VIF	1/VIF
Board Size	1.05	0.9513
Firm age	1.21	0.8245
Firm size	1.16	0.8600
Capital Asset Ratio	1.00	0.9951

Source: Research Data (2025)

The above findings were indicative of lack of collinearity problem among the predictor variables as the VIF values were below 10 which showed the variables were not linearly dependent on each other.

4.3.3 Autocorrelation Test

The study performed the autocorrelation test to determine whether there is presence of serial correlation in the variables. The Durbing-Watson test was applied and results are shown below.

Table 4.4 Autocorrelation Test

Durbin-Watson stat	1.852773

Source: Research Data (2025)

The research utilized the Durbin-Watson statistic with values between 1-4 being and indicator there is no autocorrelation violation. The analysis showed a value of 1.85 which was within the range of 1.5-2.5 which indicates there is no serial correlation problem within the model adopted in the study.

4.3.4 Unit Root Test

The study performed unit root tests to check the stationarity of the panel data using the Augmented Dickey Fuller Test and results are shown in Table 4.5

Table 4.5 Unit Root Test

Augmented Dickey-Fuller test			
Variable	**t-Statistic**	**Prob.***	**Remarks**
Z-score	-34.53582	0.0000	Stationary
Management quality	-31.29736	0.0000	Stationary
Firm characteristics (age)	-6.038497	0.0000	Stationary
Firm characteristics (size)	-20.19742	0.0000	Stationary
Board size	-5.780673	0.0000	Stationary
NPL Ratio	-20.72555	0.0000	Stationary
Leverage	-18.53524	0.0000	Stationary

From the results of the Augmented Dickey Fuller tests above show a Prob.* that was less than 0.05 testing at 5% significance level thus indicating there was stationarity thus rejecting the null hypothesis that panels contain unit roots.

4.3.6 Normality Test

The research employed the Jarque-Bera test to check for normality in the data observations being adopted in the regression model. The results of the Jarque-Bera test yielded a Prob = .000<.05 showing the data was not from a normal distribution. The variables were logged before conducting regression analysis to solve for this normality violation as shown below.

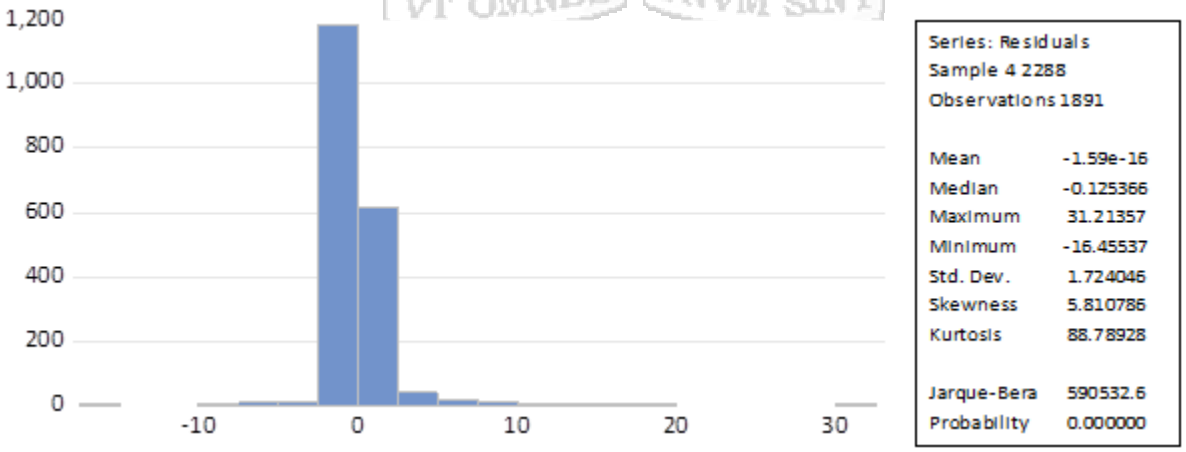

Figure 4.1 Normality Test

4.3.7 Redundant Fixed Effect Tests

The study performed the redundant fixed effect test to determine whether the inclusion of the fixed effects model contributes to the explanatory power of the model. The test results are shown below;

Table 4.6 Redundant Fixed Effect Test

Redundant Fixed Effects Tests

Equation: Untitled

Test period fixed effects

Effects Test	**Statistic**	**d.f.**	**Prob.**
Period F	16.354487	(12,1810)	0.0000
Period Chi-square	188.075723	12	0.0000

The tests results showed that the Prob-values from the of F and Chi-Square statistics are statistically significant as they are less than .05 thus the null hypotheses of redundant fixed effects are rejected. The study holds that the heterogeneity signifying the appropriateness of applying the model with fixed effects.

4.4 Correlation Test

Correlation tests are performed to check the nature of the association between the research variables. Pearson correlation was adopted and the significance levels were checked at 5% significance level.

Table 4.7 Correlation Test

	Z-score	Management quality_LN	Firm Age_LN	Firm Size_LN	Board Size_LN	NPL Ratio_LN	Leverage
Z-score	1.000						
Management quality_LN	0.6273* 0.0000	1.000					
Firm Age_LN	0.0102 0.6475	0.0261 0.2444	1.000				
Firm Size_LN	-0.0763* 0.0006	-0.0585* 0.0090	0.3553* 0.0000	1.000			
Board Size_LN	-0.0266 0.2481	-0.0303 0.1874	0.2165* 0.0000	0.0554* 0.0160	1.000		
NPL Ratio_LN	-0.0179 0.4246	-0.0376 0.0933	-0.0083 0.7096	-0.1389* 0.0000	-0.0181 0.4321	1.000	
Leverage	0.0047 0.8356	0.1939* 0.0000	-0.0251 0.2670	-0.0550* 0.0140	-0.0984* 0.0000	-0.0291 0.1942	1.000

Source: Research Data (2025)

On the first objective the firm characteristics the findings indicated that firm age had a weak positive and insignificant relation on the financial stability of the DTS (r = 0.0102, sig = 0.6475). The analysis revealed that firm size had a weak negative and insignificant effect on the stability of the Saccos (r = .0763*, Sig = 0.0006<.05). The second objective reviewed board size and findings established that the size of the board had a weak negative and insignificant association with stability of DTS (r = -.0266, sig = 0.2481). The third objective on the management quality established there was a strong positive and significant relation with the stability of the DTS (r = 0.6273*, sig = .000). The research further confirmed a weak negative and insignificant effect of NPL ratio (r = -.0179, sig = 0.4246) and leverage (r = 0.0047, sig = 0.8356) on the stability of the Saccos.

4.5 Model Specification Test

Hausmann specification test was employed to check whether the fixed effects or random effects panel regression was utilized. The test was performed at a 5% significance level and the results are shown in Table 4.8

Table 4.8 Hausman Specification Test

Model 1. Fitted for Z-Score

Variable	(b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
Management Quality	1.09159	1.21081	-.11992	.02255
Firm age	-.49902	-.09077	-.40825	.09219
Firm size	-8.27592	-5.21297	-.40825	.09219
Board Size	1.20606	.58856	0.61720	0.2015

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(3) = (b-B)'[(V_b-V_B) ^ (-1)] (b-B)

= 96.81

Prob>chi2 = 0.0000

Source: Research Data (2025)

From the findings presented in the table above Prob>chi2 = 0.0000 which was less than 0.05 for the overall panel model between the study's independent and dependent variables. As a result, the Fixed Effects Model (FEM) was utilized to draw inference from the multivariate panel regression model.

4.6 Regression Analysis

The study performed regression analysis to estimate the magnitude of the relationship between the selected drivers and the financial stability of the DTS in Nairobi County, Kenya. Based on the results of the Hausman specification test a fixed effects models were adopted and results are shown below.

Table 4.9 Panel Regression Analysis

Variable	Coefficient	Std. Error	T	P>|t|
Management Quality_LN	.6901	.02314	29.81	0.000
Firm age_LN	-.0337	.01326	-2.54	0.011
Firm size_LN	-.3097	.0935	-3.31	0.001
Board Size_LN	1.4321	.6894	2.65	0.008
NPL Ratio	-.00583	.00538	-1.08	0.278
Leverage	-.58854	.2808	-2.10	0.036
_cons	3.04803	.66879	4.56	0.000
Weighted Statistics				
Fixed-effects GLS regression		Number of obs = 1888		
R-sq:		F (5,1716) = 191.15		
within = 0.3577		Prob > F = 0.0000		
between = 0.2200				
overall = 0.3109				

Source: Research Data (2025)

The overall results of the panel regression indicated a R –squared was 0.3109, indicating that 31.09% of the financial stability of DTS in Kenya are predicted by the management quality, board and firm characteristics. The results showed Prob > F = 0.000 which revealed that the selected factors had a positive and significant effect on the financial stability of deposit taking SACCOs.

Based on the above results, the research objectives are interpreted as follows.

The findings of the study indicated there was a negative and significant effect of firm age on the financial stability of the deposit taking Saccos (β = *-.0337*, P>|t|= .011). This shows that when a Sacco's age is lower by 3.37%, its financial stability is higher by a unit. The results also showed a negative and significant effect of firm size on financial stability of the deposit taking Saccos (β =

-.3097, P>|t|= .001). The findings indicate that when a Sacco's total assets decrease by 30.97%, the Sacco's financial stability increases by a unit. The results of the third objective established that there was a positive and significant effect of board size on the financial stability of the deposit taking Saccos (β = 1.4321, P>|t|= 0.008) indicating that a Sacco's financial stability increases by a unit when its board size grows by 143.21%. The findings further revealed that the management quality had a positive and significant effect on the financial stability of the deposit taking Saccos (β = .6901, P>|t| = .000), showing that when a Sacco's management quality, measured using the Capital Assets ratio, increases by 69.01%, the firm's financial stability increases by a unit thus a linear relationship.

Non-performing loans had a negative and insignificant effect on the financial stability of the deposit taking Saccos (β = -.00583, P>|t| = .278), showing that regardless of the inverse effect of the Non performing loans on the Sacco's financial stability, the effect is not significant hence does not pose a threat to its financial stability. Finally, leverage had a negative and significant effect on the financial stability of the deposit taking Saccos (β = -.58854, P>|t| = .036), therefore a decrease in leverage by 58.854% leads to the increase in the Sacco's stability by a unit.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Summary of the Study

The study sought to investigate the drivers of financial stability among deposit taking SACCOs in Nairobi County, Kenya. Specifically, the study reviewed the effect of firm characteristics, board characteristics and management quality on the financial stability of deposit taking SACCOs in Nairobi County, Kenya. The study was guided by the Resource-Based View theory and the contingency theory. This research adopted a positivism research philosophy as well as a descriptive research design. This research focused on collecting survey data from the 176 Deposit Taking SACCOs registered by SASRA and operating within Nairobi City County. This survey utilized quantitative data that was collected from the supervisory reports of the DTS institutions for the period 2010-2023. The collected study data was then analysed using descriptive and inferential analysis.

Correlation tests showed that firm characteristics, in particular, firm age had a weak positive and insignificant relation on the financial stability of the DTS. On the other hand, firm size had a weak negative and insignificant effect on the stability of the Saccos. The second objective reviewed board characteristics and findings established that the size of the board had a weak negative and insignificant association with stability of DTS. Correlation tests on the management quality further established a strong positive and significant relation with the stability of the DTS. Lastly, the research confirmed a weak negative and insignificant effect of NPL ratio on the stability of the deposit taking Saccos.

The overall results of the panel regression showed that 20.87% of the financial stability of DTS in Kenya are predicted by the management quality, board and firm characteristics. This shows that the selected factors had a positive and significant effect on the financial stability of deposit taking SACCOs. The findings of the first objective indicated that there was a negative and significant effect of firm age on the financial stability of the deposit taking Saccos. The results further showed a negative and significant effect of firm size on financial stability of the deposit taking Saccos. The second objective results established that there was a positive and significant effect of board size on the financial stability of the deposit taking Saccos. Thirdly, the findings revealed that the capital to asset ratio had a positive and significant effect on the financial stability of the deposit taking

Saccos. The study findings confirmed non-performing loans had an insignificant effect on financial stability while the leverage had a significant negative effect on FS of the Saccos.

5.2 Discussion of Findings

The findings of the overall regression revealed that the selected factors altogether had a positive and significant effect on the financial stability of deposit taking SACCOs. The findings support the Resource-Based View Theory, which posits that organizations gain a competitive advantage through internal resources, capabilities, and governance structures. Larger SACCOs with strong asset bases and operational experience were found to have better financial stability, reinforcing the RBV theory's assertion that firm-specific resources drive performance. A well-structured board with diverse expertise improved governance and decision-making, enhancing financial stability. This aligns with RBV's argument that firms with strong internal leadership and governance frameworks have a competitive edge. Effective management played a critical role in ensuring financial sustainability. This finding supports the RBV's view that human capital and strategic leadership are critical organizational resources influencing financial outcomes.

The study findings were also corroborated by the contingency theory which suggests that financial stability is not solely determined by internal resources but also by how SACCOs adapt their governance and management strategies to external challenges, such as regulatory requirements and economic conditions. Larger SACCOs demonstrated greater financial resilience supporting the contingency perspective that firm structures must align with external conditions. The study also established that the relationship between governance, firm characteristics, and financial stability depended on how SACCOs managed credit risks thus reinforcing the contingency view that external financial risks must be accounted for in decision-making to maintain stability.

5.2.1 Firm Characteristics and Financial Stability

The first objective sought to investigate the effect of firm characteristics on the financial stability of deposit taking SACCOs in Nairobi County, Kenya. The findings of the study indicated that there was a negative and significant effect of firm age on the financial stability of the deposit taking Saccos. The results further showed a negative and significant effect of firm size on financial stability of the deposit taking Saccos. Overall, the findings challenge the conventional assumption that larger and older SACCOs are inherently more stable. Instead, firm size and age may introduce various operational inefficiencies that outweigh the benefits of scale and experience.

For instance, Mwendwa (2022) argued that larger and older SACCOs exhibit higher resilience to economic shocks due to diversified portfolios and stable capital bases thus contrasting with the current study's findings, where firm age negatively affected financial stability, suggesting that older SACCOs might face inefficiencies, operational rigidity, or governance challenges that counteract their expected stability benefits. In the same line, Mwebia (2017) posited that rural SACCOs face higher risks due to limited access to liquidity and challenges in expanding membership. The current study contrasts this by revealing a weak negative relationship between firm size and financial stability suggesting that larger SACCOs do not necessarily enjoy superior stability, potentially due to liquidity constraints and operational inefficiencies.

The findings on the current study further contradicts those by Dirman (2020) who found a negative and significant effect of firm size on financial distress among Indonesian manufacturing firms, implying that larger firms have better financial stability due to their ability to meet financial obligations. Unlike SACCOs, manufacturing firms can leverage tangible assets for collateral, reducing financial distress. Moreover, the study covered only a three-year period, which may not capture long-term financial stability trends, unlike the current study.

Ehiedu and Priscilla's (2022) study in Nigeria also found that various other firm characteristics significantly influenced financial performance, while firm size and age had no significant impact on ROA. This contradicts the current study, which found a significant but negative effect of both firm age and size on financial stability. These differences may arise due to industry-specific dynamics, as the Nigerian study focused on oil and gas firms, whereas SACCOs operate in the financial sector with different risk exposures. The findings were further disputed by Ngumo, Collins, and David (2020) whose study on microfinance banks in Kenya found that firm size had a positive and significant impact on financial performance, arguing that larger banks are more profitable due to diversified portfolios and risk-spreading strategies. The discrepancy with the current study may be due to differences in business models and regulatory frameworks.

Findings were however supported by Kücher et al. (2020) who found that middle-aged firms had the lowest failure rates, while younger and older firms faced higher risks. The current study similarly found that firm age negatively affects financial stability, which aligns with Kücher et al.'s (2020) conclusion that mature firms struggle with economic slowdowns and competition. The

findings were also in line with Aribaba et al. (2022) who found that firm size negatively affected financial performance, which aligns with the weak negative relationship found in the current study. However, they observed a positive effect of firm age, contrary to the current study's findings.

5.2.2 Board Size and Financial Stability

The second objective sought to understand the effect of board size on the financial stability of deposit taking SACCOs in Nairobi County, Kenya. The results established that there was a positive and significant effect of board size on the financial stability of the deposit taking Saccos. This supports findings from several previous studies that have associated board size with firm performance, governance efficiency, and financial sustainability. For instance, the study findings were corroborated by Chesire and Kinyua (2021) who established that boards with diverse skill sets and experience contribute to better strategic decisions, which can mitigate risks such as non-performing loans. The present study supports this finding by demonstrating that larger boards contribute to financial stability by incorporating diverse perspectives and expertise, leading to improved governance and risk mitigation strategies. This finding is also in line with the resource-based view (RBV) theory, which suggests that a large board composition can drive financial stability.

A study by Okumu, Olweny, and Muturi (2022) highlighted that high board remuneration can sometimes weaken financial performance if it strains operational budgets. However, they also noted that strong governance mechanisms enhance financial stability. The study findings imply that while board size enhances financial stability, it must be accompanied by effective governance mechanisms to prevent excessive financial burdens, such as unsustainable board remuneration. Furthermore, Dwaikat et al. (2021) found that gender diversity on boards had a positive effect on firm performance in Palestinian firms. While the previous study focused on financial performance, the current study provides additional insight by linking board characteristics, specifically board size, to financial stability, reinforcing the notion that a well-structured board enhances overall organizational health.

Similarly, the findings were in line with Benvolio and Ironkwe (2022) who found that board composition had a significant impact on firm performance among Nigerian commercial banks, with independent directors improving profitability. This aligns with the current study's findings, which suggest that a well-structured and adequately sized board within SACCOs similarly

enhances financial stability by fostering better governance and oversight. Findings were also supported by Al-Matari (2020) who found that board characteristics such as size, diversity, and experience positively influenced financial performance in Oman's financial firms. Similarly, John, Kamukama, and Fredrick (2020) found that larger boards facilitated better decision-making in Ugandan private companies.

However, Githaiga and Kosgei (2023) examined board characteristics and sustainability in East Africa, and found that board independence, gender diversity, and financial expertise positively influenced sustainability, while board size had a negative effect. Unlike their findings, which suggest that larger boards negatively affect sustainability, the present study finds that larger boards contribute positively to financial stability in SACCOs. This discrepancy may be due to differences in organizational structures, regulatory frameworks, and industry-specific governance practices. The inconsistency in results further suggests that board size alone is not a definitive predictor of financial stability.

5.2.3 Management Quality and Financial Stability

Thirdly, the study sought to examine the effect of management quality on the financial stability of deposit taking SACCOs in Nairobi County, Kenya. The research findings revealed that the capital to asset ratio had a positive and significant effect on the financial stability of the deposit taking Saccos. This finding aligns with the broader argument that strong management quality enhances financial stability by ensuring efficient resource utilization, effective risk management, and financial resilience.

For example, the findings were corroborated by Xie, Nozawa, Yagi, Fujii, and Managi (2019) who found that SACCOs with higher management quality metrics, including profit per employee, exhibited better loan portfolio performance, ultimately contributing to financial stability. Similarly, Kyenze and Aluoch (2022) highlighted that efficient management reduces non-performing loans, reinforcing the notion that effective management plays a critical role in organizational stability. The findings of the current study support this perspective, as a higher managerial efficiency ratio significantly enhanced financial stability among SACCOs.

The results were also in line with Kliestik et al. (2020) who analyzed European firms and found that strong management improved financial decision-making and stability, benefiting both firms and economies. While this study was conducted in Europe, the underlying principle of strategic

management driving financial stability holds true in the Kenyan SACCO context. The current study reinforces this by showing that capital strength, a direct outcome of management quality ensures financial stability in SACCOs. Xie et al. (2019) also found that higher managerial efficiency was strongly linked to corporate sustainability in China. The current study aligns with these findings, as SACCOs with stronger management quality were found to be more financially stable suggesting that efficient financial management is a universal driver of long-term financial stability.

In Africa, the findings were also in line with existing studies. For example, Shuaib, He, and Song (2021) examined Nigerian manufacturing firms and found that management quality significantly influenced innovation. While their study was focused on innovation rather than financial stability, it underscores the role of strong management in driving key performance indicators. The implication for the current study is that SACCOs with high-quality management are not only more financially stable but also likely to adopt better financial strategies, fostering long-term resilience.

However, the findings were disputed by Liu et al. (2021) who conducted a study in the Chinese manufacturing industry and found that quality management had an insignificant effect on firm performance and competitive advantage. While quality management improved profitability and operating efficiency, it did not translate into expected sales growth. This contrasts with the current study's findings, where capital strength and managerial efficiency had a significant impact on financial stability. The contextual difference between manufacturing firms in China and SACCOs in Kenya could explain the variance in findings. Unlike manufacturing firms, SACCOs rely heavily on financial prudence and capital efficiency, making management quality a more direct determinant of stability. Furthermore, In Kenya, Kiruru (2022) further contradicted these findings when he found a positive but statistically insignificant effect on financial performance. This suggests that SACCOs with sound capital management practices may not always boost financial performance but may still be better positioned to withstand financial shocks.

5.2.4 Non- Performing Loans and Financial Stability

The research findings revealed that the non-performing loans had a negative and insignificant effect on the financial stability of the deposit taking Saccos (β = -.00583, P>|t| = .278). This was consistent with Vellanita, Arimbawa, and Damayanti (2019) who found that high NPL levels correlate negatively with financial stability due to reduced cash flows and increased provision costs. Similarly, Ntoiti and Jagongo (2021) emphasized that NPLs significantly affect financial stability, with SACCOs demonstrating low NPLs experiencing greater financial stability.

Studies by Bacchiocchi, Bischi, and Giombini (2022) in Italy and Boussaada, Hakimi, and Karmani (2023) in Europe also found a negative and significant relationship between NPLs and bank stability. In both cases, higher NPLs were associated with reduced financial stability and profitability. While these findings align with the traditional view of NPLs as financial risks, the current study suggests that if SACCOs implement sound risk management strategies, they can turn NPL challenges into opportunities for financial discipline and stability.

The findings were not in line with the work by Setiawan and Putri (2021) who examined Islamic banks in Indonesia and found that NPLs were significantly correlated with bank efficiency, particularly return on assets (ROA). The study attributed high NPL levels to poor internal management rather than external macroeconomic factors. This aligns with the current study's findings, which indicate that management practices can influence how NPLs impact financial stability. By implementing strong credit policies and loan recovery mechanisms, SACCOs can maintain financial stability despite having NPLs in their portfolio. Katuka, Mudzingiri, and Vengesai (2023) analyzed NPL trends in Zimbabwean banks and found that NPLs had a strong negative impact on stability in the short term but became insignificant in the long term. This suggests that while NPLs initially destabilize financial institutions, long-term corrective measures can neutralize their impact. The current study's findings align with this view, as they highlight that NPLs do not necessarily weaken financial stability when properly managed, reinforcing the need for efficient risk mitigation strategies in SACCOs.

The findings of Ntoiti and Jagongo (2021) provide the closest comparison to the current study, as they examined SACCOs in Kenya. Their study found that lower NPL levels were associated with greater financial stability, indicating that better asset quality leads to stronger financial resilience.

5.3 Conclusions

Based on the first objective, the study found a negative and significant effect of firm age on the financial stability of deposit-taking SACCOs. This suggests that as SACCOs grow older, their financial stability tends to decline rather than improve. Additionally, the study further found a weak negative and significant effect of firm size on financial stability. This led to the conclusion that while larger firms are often expected to exhibit stronger financial stability due to economies of scale, the weak negative effect suggests that in the case of SACCOs, size does not necessarily translate into stability. Overall, the study concludes that firm characteristics alone do not guarantee stability, and various other factors may play a critical role.

The study also indicated that board size had a positive and significant effect on financial stability. This suggests that the number of board members in SACCOs plays a significant role in determining financial stability, and increasing or reducing the board size may improve financial outcomes. The study concluded that larger boards contribute to better governance, risk management, and strategic decision-making, which are essential for financial resilience. The descriptive results indicated that most SACCOs had moderate board sizes, implying a structured governance framework that balances decision-making efficiency and oversight.

The findings on the third objective indicated that the management quality had a positive and significant effect on financial stability. This implies that SACCOs with higher capital adequacy levels are more financially stable, reinforcing the critical role of capital buffers in safeguarding against financial distress and insolvency. However, descriptive analysis noted high variability in capital levels among SACCOs with some having dangerously low capital levels, possibly due to accumulated losses or poor asset quality. The study confirms that management quality plays a crucial role in stabilizing SACCOs, ensuring they remain resilient against financial turbulence. SACCOs with an efficient management quality are more likely to thrive, expand, and safeguard members' savings.

It was further concluded that leverage had a negative and significant effect on the financial stability of the Saccos showing that excessive debt reliance by Saccos can be detrimental to their financial stability. Lastly, the research findings revealed that the non-performing loans had a negative and insignificant effect on the financial stability of the deposit taking Saccos. The research concludes

that the level of NPL does not have a significant effect on the overall financial stability of the institutions.

5.4 Recommendations

5.4.1 Recommendations for Policy

The study suggests that policymakers should strengthen regulatory oversight and enforce stricter compliance measures to enhance the financial stability of deposit-taking SACCOs. The Sacco Societies Regulatory Authority should also introduce more rigorous capital adequacy and risk management frameworks to ensure that SACCOs maintain sufficient reserves to withstand financial shocks. Additionally, policies that promote transparency in corporate governance and financial reporting should be reinforced, ensuring that board structures and management practices align with best financial stability standards.

To mitigate non-performing loans (NPLs), the government and regulatory bodies should introduce standardized credit risk assessment models that SACCOs must adopt before issuing loans. Moreover, financial literacy programs targeting SACCO members should be incorporated into national financial inclusion strategies to ensure that borrowers fully understand credit terms and repayment obligations.

5.4.2 Recommendations for Practice

SACCOs should carefully manage expansion strategies, particularly regarding firm size and age, as the findings suggest that larger and older SACCOs face financial stability challenges. Furthermore, since firm characteristics showed a negative effect on financial stability, the study recommends that institutions should focus on operational efficiency rather than just growth, ensuring that increased size does not lead to mismanagement of resources. Additionally, younger SACCOs should adopt best governance and financial management practices early to avoid long-term instability.

Given the significant effect of board size on financial stability, SACCOs should focus not just on increasing board members but on improving board composition, expertise, and effectiveness. Regulatory agencies should enforce governance training programs for SACCO board members, ensuring that decisions are made based on financial prudence rather than personal interests. Additionally, board remuneration structures should be aligned with performance indicators to enhance accountability.

Since the management quality positively and significantly affects financial stability, the study recommends that SACCOs should prioritize capital adequacy through prudent financial management. This can be achieved by increasing retained earnings, improving loan portfolio management, and ensuring optimal utilization of financial resources. Management should also implement cost-control strategies to enhance profit per employee and business per employee ratios, leading to improved operational efficiency.

5.4.3 Recommendations for Theory

The application of the theories was also enhanced as the findings supported theoretical literature. The study increased data on the adaptability of the resource-based view, and the contingence theory in the financial sector. The study's findings and recommendations also provide a framework for Saccos in Kenya to manage financial stability effectively. Future theoretical frameworks should expand the RBV perspective by incorporating governance-specific factors as key intangible assets that contribute to long-term financial stability.

5.5 Limitations of the Study

There were certain limitations that were encountered through the study. The analysis was restricted to Nairobi deposit-taking Saccos operating between 2010 and 2023; However, it is possible that certain Saccos were either not operating during this time or were just starting up, which could have led to the formation of unbalanced panels. Moreover, there may have been changes in SACCO regulations and financial policies during the study period which may have influenced the accuracy of the data. Moreover, the reliance on secondary data may contain some undiscovered inaccuracies. Given the aforementioned limitations, it is possible that the study findings were obtained without being aware of such inaccuracies, which could have an impact on the study's ultimate result. The study overcomes this restriction, though, by checking the data for accuracy and normality.

5.6 Suggestions for Further Research

Further research could be conducted to explore additional factors beyond firm characteristics, board characteristics, and management quality which may provide further insights into SACCO financial stability. Additionally, other studies could adopt different metrics to quantify the current study variables. These could important to compare whether the metrics measured matter in determining Sacco stability. This study focused on deposit-taking SACCOs in Nairobi County.

Further research could compare the financial stability of deposit-taking SACCOs with non-withdrawable deposit-taking SACCOs or expand the scope to other regions in Kenya to identify contextual differences.

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APPENDICES

Appendix I: Data Extraction Form

Variable	Indicators	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Firm characteristics	● Firm size ● Firm age														
Board characteristics	● Board size ● Board diversity														
Management quality	● Capital to asset ratio														
Non-performing loans	● NPL Ratio														
Financial stability	● Z-score														

Appendix II: SU-IERC Permit

Strathmore UNIVERSITY

17th February 2025

Ms Aboka Ruth,
ruth.aboka@strathmore.edu

Dear Ms Aboka,

RE: Drivers of Financial Stability in Deposit Taking Savings and Credit Societies in Kenya: Moderated by Non-Performing Loans

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU-masters** proposal. Your application reference number is **SU-ISERC2570/25.** The approval period is from **17th February 2025 to 16th February 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

Appendix III: NACOSTI Research Licence

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **525654**

Date of Issue: **11/March/2025**

RESEARCH LICENSE

This is to Certify that Ms.. Ruth Achola Aboka 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: DRIVERS OF FINANCIAL STABILITY IN DEPOSIT TAKING SAVINGS AND CREDIT SOCIETIES IN KENYA: MODERATED BY NON-PERFORMING LOANS. for the period ending : 11/March/2026.

License No: **NACOSTI/P/25/416764**

525654

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

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See overleaf for conditions