

**EFFECT OF LIQUIDITY-RISK MANAGEMENT PRACTICES ON
FINANCIAL PERFORMANCE OF SAVINGS AND CREDIT
COOPERATIVES SOCIETIES IN MERU COUNTY**

BASHIR HAJI ABDULLAH

**A THESIS SUBMITTED TO THE DEPARTMENT OF BUSINESS AND
ECONOMICS IN PARTIAL FULFILLMENT FOR THE AWARD OF
DEGREE OF MASTERS IN BUSINESS ADMINISTRATION OF KENYA
METHODIST UNIVERSITY**

SEPTEMBER, 2024

STUDENT DECLARATION

This thesis is my original work and has not been submitted for a degree award in any university.

Signature.....

Date...../...../2024

Name Bashir Haji Abdullah

Admission no: BUS-3-0837-2/2020

This thesis has been submitted for examination with our approval as university supervisors

Signature.....

Date...../...../2024

Moses Muriuki Kithinji

Department of Business and Economics

Kenya Methodist University

Signature.....

Date...../...../2024

Dr Dorothy kirimi

Department of Business and Economics

Kenya Methodist University

DEDICATION

My sincere gratitude goes out to my parents and all the parents in the North Eastern Province for all the help, wisdom, and encouragement they've given me. Every time I felt like I was hitting a wall while writing my thesis, they would come on and encourage me.

ACKNOWLEDGEMENT

My deepest gratitude and admiration go out to Dr Dorothy kirimi and Moses Muriuki Kithinji, my distinguished advisors, for their steadfast dedication and enthusiastic support during the whole of my thesis project. The thesis came to fruition as a result of individual hard work, spontaneous mentoring, constructive criticism, timely communication, and commitment. Without their priceless assistance, I am absolutely convinced that I would not have been able to develop and advance my theory. For your contribution, I am eternally grateful.

I am deeply grateful to my family members for their unfaltering support and understanding over this entire journey.

In closing, I want to convey my deepest appreciation to Kenya Methodist University for granting me the priceless chance to be a part of this monumental program.

ABSTRACT

The purpose of this research was to analyze the licensed deposit-taking credit and savings cooperatives in Meru County and determine the effect of liquidity risk control methods on their financial performance. From 2017 to 2020, big tiered SACCOs had the fastest growth rate compared to the rest of the pack. However, small, tiered DT-SACCOs had their growth rate decrease, reaching 7.51% in 2019/2020 after 8.69% in 2017/2018 and 7.64% in 2018/2019. The analysis was guided by the following precise objectives: Licensed deposit-compelling SACCOs in Meru County, Kenya, will have their financial performance impacted by asset quality management. This study aims to assess how licensed DT SACCOs in Meru County, Kenya fared financially after implementing a capital adequacy management strategy. This study aims to analyze how licensed DT SACCOs in Meru County, Kenya fared financially after using capital leverage management strategies. The theories of shiftability, liquidity preference, pecking order, and loanable money. The four goals of the study were accomplished through the use of an expressive research design. Meru County is home to thirteen SACCOS that have been accredited to accept deposits. This study's sample frame was based on a random selection of all SACCOS in Meru County that accepted deposits and were officially registered with the county's SASRA database. This research used a census-based methodology. To round up the main facts, the academicians also compiled secondary sources. The majority of the secondary data we gathered came from reviewing the SACCO's financial statements and annual reports. To reach the study's objectives, the quantitative data was analyzed using SPSS, a statistical tool that incorporates both descriptive and inferential statistics (SPSS version 25). In order to analyze, synthesize, and present the study data for the purpose of drawing conclusions, several statistical procedures were utilized. These procedures included regularities, ratios, tables, pie charts, and bar graphs. For this multiple regression study, we used the following statistical tools: T-tests, F-tests, ANOVA, and Z-Tests with 90%, 95%, and 100% confidence intervals to examine the impact of liquidity-risk administration techniques on the financial implementation of deposit-taking SACCOs in Meru County. A favorable and statistically significant correlation between SACCOs' capital adequacy and their financial success was found in the research. Furthermore, the data demonstrated a positive and statistically significant relationship between capital leverage and the financial success of SACCOs. Finally, asset quality did not correlate with SACCO financial success in a statistically meaningful way. According to the research, SACCOs should set aside money that can be taken out if loans go into default. Secondly, the report suggests that the different SACCO governing bodies should make sure that their organizations have enough capital. Lastly, DT SACCOS should improve their fixed-charge fund profits beyond their costs by utilizing capital leverage.

TABLE OF CONTENTS

STUDENT DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	v
LIST OF TABLES	ix
LIST OF FIGURES	x
ABBREVIATIONS AND ACRONYMS	xi
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Background of the Study	1
1.1.1 Liquidity Risk Management	3
1.1.2 Financial Performance of SACCOs	6
1.1.3 Deposit Taking SACCOs.....	9
1.2 Problem Statement	10
1.3 Research Objectives	13
1.3.1 General Objective.....	13
1.4 Research Hypotheses.....	13
1.5 Significance of the Study	13
1.6 Scope of the Study.....	14
1.7 Limitations and Delimitations of the Study	14
1.8 Definition of Terms	15
CHAPTER TWO	16
LITERATURE REVIEW.....	16
2.1 Introduction	16
2.2 Theoretical Framework	16
2.2.1 Theory of Shiftability.....	16
2.2.2 Theory of Liquidity Preference.....	18

2.2.3 Theory of Pecking Order	19
2.2.4 The Loanable Funds Theory	21
2.3 Empirical Literature	22
2.3.1 Asset Quality and Financial Performance	22
2.3.3 Capital Leverage and Financial Practice	33
2.4 Research Gaps	37
2.6 Conceptual Framework	39
CHAPTER THREE	40
RESEARCH METHODOLOGY	40
3.1 Introduction	40
3.2 Research Design	40
3.3 Target Population	41
3.4 Sample Frame	41
3.4.1 Sampling Size and Sampling Technique	42
3.5 Data Collection Instruments	42
3.6 Data Collection Procedure	43
3.7 Research Instrument Pretesting	43
3.7.1 Pilot Research	43
3.7.2 Validity of the Instrument	44
3.7.3 Reliability of Instruments	44
3.8 Data Preparation and Analysis	45
3.9 Test of Significance	46
3.10 Diagnostic Test	46
CHAPTER FOUR	48
RESULTS AND DISCUSSIONS	48
4.1 Introduction	48
4.2 Response Rate	48
4.3 Demographic Data	49

4.3.1 Gender Distribution	49
4.3.2 Age Distribution	50
4.3.3 Academic Qualifications.....	52
4.3.4 Number of years worked by Respondents	52
4.5 Effect of Asset Quality	57
4.6 Effect of Capital Adequacy	59
4.7 Financial Performance of SACCOs	60
4.8 Diagnostic Tests	62
4.8.2 Autocorrelation Test	63
4.8.3 Normality Test	64
4.9 Regression Analysis	65
4.9.1 Model Summary	66
4.9.2 Analysis of Variance (ANOVA).....	66
CHAPTER FIVE.....	69
SUMMARY, CONCLUSION AND RECOMMENDATION	69
5.1 Introduction	69
5.2 Summary of the Findings	69
5.3 Conclusions	70
5.4 Recommendations	71
5.6 Recommendation for Further Research.....	72
REFERENCES.....	73
APPENDICES	82

LIST OF TABLES

Table 3.1: Target Population	29
Table 4.1: Distribution of Respondents by Gender	38
Table 4.2: Age Distribution Per Groups	40
Table 4.3: Number of Years Worked	41
Table 4.4: External Constrains	42
Table 4.5: Asset Quality	44
Table 4.6: Capital Adequacy	46
Table 4.7: Financial Performance of SACCOs	47
Table 4.8: Multicollinearity Test	48
Table 4.9: Autocorrelation Test	49
Table 4.10: Normality Test	50
Table 4.11: Model Summary	51
Table 4.12: ANOVA	52
Table 4.13: Multiple Regression (Coefficients)	42

LIST OF FIGURES

Figure 2.1	Conceptual Framework.....	27
Figure	4.1	Response
rate.....		38
Figure	4.2	Age
group.....	Distribution	Per
		40

ABBREVIATIONS AND ACRONYMS

ACCOSSCA	Africa Confederation of Cooperative Society Savings and Credit Association
KNFC	Kenya National Federation of Co-operatives
OCED	Organization for Economic Co-operation and Development
ROI	Returns on Investment
SACCOs	Savings and Credit Cooperative Organizations
SASRA	Sacco Societies Regulatory Authority
WOCCU	World Council of Credit Unions

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The recent development of constrained liquid assets has engendered a heightened liquidity risk within numerous firms, thereby yielding potential gains or losses. Financial institutions have devised intricate and exceedingly challenging liquidity management programs in order to synchronize their operations, as there exists a positive correlation between liquidity and performance (Agbada & Osuji, 2013). Cooperative societies can be defined as self-governing entities comprised of individuals who willingly collaborate in collectively managed enterprises, operating in accordance with cooperative principles, with the aim of fulfilling their shared economic and social needs (Jacob, 2014).

In 2014, the World Council of Credit Unions (WOCCU) released a statistical study detailing the global presence of credit unions, which accounted for fifty-seven thousand SACCOs. These unions were located in 105 independent nations across six continents. Every one of the world's credit unions has an additional \$1.8 trillion in assets on top of the \$1.5 trillion in deposits they have. Part of this asset base consists of a \$1.2 trillion USD loan portfolio. At 8.2 percent, credit unions were the most widely used financial institution in the world. United Nations, in its declaration, designated the year 2012 as the Year of Co-operatives, with the intention of acknowledging and commemorating the significant contributions made by Co-operatives throughout their extensive 170-year history. The International Co-operative Alliance (ICA) has formulated a comprehensive framework, known as the Blueprint for a Co-operative Decade, which outlines the desired trajectory for co-operative enterprises. This blueprint envisions co-operatives as esteemed frontrunners in the realms of economic, social, and environmental sustainability. Furthermore, it advocates for co-operatives to be recognized as the preferred business model by individuals and as the most rapidly expanding form of enterprise by the year 2020 (Olando et al., 2020).

Due to monetary instability and defaults in foreign exchange liquidity, the normal change divergence is significantly impacted in Europe (Ivo, 2014). Financial institution performance and liquidity rates in China and Malaysia were examined in a research by Pham et al (2020) examined the efficiency of South African banks and the findings indicated that financial risk has reduced asset profit. Simon et al. (2018) states that credit unions in Ghana are required to save 10% of their depositors' money and cut their liquidity failure rate to nearly nothing.

Osoro and Muturi (2015) indicates that about 7 percent of the African population is involved with cooperatives. Despite their large membership and recognized position as an organized organization, the empirical data reveals that co-op face obstacles due to a lack of influence or effective representation in society at large. Social safety systems in Africa related to cooperatives are few and far between. Clement (2012) states that SACCOs have been significantly more common across Africa. The expansion was so great that in 1965, a continental organization called the ACCOSSCA was established in response. The main reason for the founding of ACCOSSCA was to promote SACCO principles, offer insurance services specifically designed for SACCOs, and educate its members on a range of topics related to SACCOs (Ng'aari, 2016).

Foreign funding sources might be problematic, however Tanzania does guarantee external finance for SACCOs. One explanation for the rapid growth of SACCOs, according to Jared (2016), is that its members are able to get loans at reasonable interest rates. Based on recommendation, SACCOs should allocate 5% of their assets to non-productive items including buildings, land, vehicles, furniture, and even cash. The remaining 95% should be invested in productive assets that generate more income and revenue than operating expenditures (Ratemo, 2018).

Fredrick (2014) conducted a comprehensive examination of the impact of liquescence risk policies on commercial enterprises in the country of Kenya. Through his analysis, he determined that the primary factors leading to the occurrence of bank failures were the valuation of assets and the level of liquidity. In accordance with the findings posited by Mwandia (2014) it is imperative for SACCOs to optimize the utilization of their resources in light of the foreseen future earnings. The fundamental resolution for

investment lies in the incorporation of diversity, achievement, transformation, and the substitution of enduring assets (Makori & Jagongo, 2013). According to Mumanyi (2014) the financial prosperity of a financial institution hinges upon its ability to forecast, preempt, and identify risks, as well as effectively manage potential losses associated with such risks. Hence, it is imperative for a financial institution to meticulously assess the impact of risk on assets when making determinations regarding resource allocation for said assets. According to Ngeche's (2017) findings, it has been observed that financial institutions are susceptible to liquidity risk due to their engagement in a multitude of activities that entail the handling of cash and other assets with high liquidity. The inherent peril lies in the eventuality wherein a financial establishment endeavors to effectuate a withdrawal of funds, thereby potentially falling short of fulfilling its fiduciary obligations to its stakeholders. There is a good chance that this incident will damage the credibility of SACCOs in Meru County, which will drive up their capital costs and hurt their bottom lines.

A financial institution that is sufficiently capitalized possesses the ability to endure financial losses, as capital assumes a pivotal function in mitigating bank resolutions and minimizing losses to shareholders in the event of a closure of a commercial establishment (Kamonjo, 2016). In alignment with the findings of Waithera (2013), it can be posited that in instances where the debt level is elevated, financial institutions are exposed to a heightened risk potentiality. The main reason for this is that interest payments are increasingly handled by financial organizations. With the use of liquidity risk management strategies, this study set out to determine how Sacco deposits in Kenya's Meru County affected the bottom line.

1.1.1 Liquidity Risk Management

The capacity of a financial organization to satisfy its current commitments and expand its assets without suffering unfavorable losses is known as liquidity (Kamonjo, 2016). The ability of financial organizations to get funds or pay back loans while keeping their liquidity and avoiding unnecessary expenses is usually the focus of the review. The effective management of liquidity holds significant importance in the pursuit of both short-term and long-term objectives for every financial institution. According to Barako

and Brown (2018), certain financial institutions exhibit a notable degree of liquidity as a strategic measure to circumvent allocating funds towards particular investments that possess the potential to yield greater returns (Amoa-Gyarteng, 2023) underscored the significant correlation between the liquidity level and the profitability of a financial institution.

According to Kamonjo (2016), financial institutions can boost their profits by switching from short-term to long-term bonds. However, this strategy comes with a price: an increase in liquidity risk due to the institutions past experiences trading liquidity for return risk. Financial businesses that maintain high liquidity ratios have reduced risks and provide lower profits. The management of liquidity risk and the creation of credit are two-dimensional processes. In order to create liquidity, financial institutions are putting their unused resources into other businesses.

Financial institutions are crucial to the economy, and that much is obvious. To deal with unfriendly working capital, businesses will set up borrowing lines with financial institutions (Graham, 2017). Without them, banks and other financial institutions can lease these companies at inflated prices, which drives up their liquidity needs (Graham, 2017). Accordingly, the Sacco Society Act of 2008 states that in times of crisis, financial institutions must invest their idle or surplus funds in high-quality liquid assets to serve as a safety net.

Mosongo et al. (2018) state that the bank is vulnerable to credit, liquidity, and exchange rate risks due to its extremely precarious capital structure, which impacts its business strategy. The majority of the operational cash flow comes from the depositor, who has the option to withdraw funds at any time without prior notice. In order to meet this requirement, the financial institution must put in place effective management practices. Cash inflow and outflow are monitored by a proper liquidity management software. Financial organizations face liquidity risk when customers and banks fail to adequately plan for and manage their liquidity needs. Thus, the responsibility for managing liquidity correctly lies with the commercial institution, in light of the intricate aspects of asset and liability management (Barako & Brown, 2018). Factors including as leverage, asset quality, and capital sufficiency are used to quantify liquidity risks. Osoro and Muturi

(2015) states that a company's overall dangers are linked to a number of its assets. In order to determine the amount of risk assets and the degree of resources to be set aside in the event of a loss, financial organizations utilize this term. According to Kariuki (2018), a SACCO's capacity to weather major storms depends on its enough capital.

The capital-asset ratio is a measure of capital sufficiency that all financial institutions must meet to guarantee their functional existence. Deposits and capital funds serve this purpose. Profitability is higher for financial firms with sufficient capital as compared to those with inadequate capital. According to Mwandia (2014), the ability of SACCOs to handle shocks to their balance sheets is influenced by their capital sufficiency. So, to measure a bank's ability to handle risks like credit and operational hazards, the capital adequacy ratio is utilized. There are two types of capital used in SACCO designs: organizational capital and non-organizational capital.

A financial firm is more likely to take risks when its obligations are substantial since it is responsible for compensating for the huge cash expenses (Waithera, 2013). If a SACCO's deposit-to-asset ratio is low, the organization must seek loans to make up the difference. A decrease in income and the liquidity disaster caused by increased cash spending can be achieved by higher borrowing fees (Jacob, 2014).

In the Kenyan context, it is noteworthy to highlight the significant contribution of SACCOs in the realm of financial mobilization. These SACCOs have successfully amassed a substantial amount of Kshs.200 billion in savings, thereby constituting a noteworthy 30% proportion of the overall National Domestic Saving (Osoro & Muturi , 2015). Liquidity risk refers to the inherent vulnerability of SACCOs in fulfilling their obligations to disburse approved loans, primarily stemming from an insufficiency of available loanable funds.

In the preceding decade, there has been a substantial surge in the proliferation of SACCOs, resulting in their representation encompassing a noteworthy 50% of the total number of registered cooperative entities. The significance of SACCO societies as key stakeholders in enhancing financial inclusivity and facilitating the accumulation of funds for both entrepreneurial ventures and individual growth is duly acknowledged within Kenya's overarching strategic framework for national progress, known as Vision 2030.

The monitoring of liquidity risk is imperative within the context of a comprehensive, institution-wide risk management framework. Stability and improved loan portfolio quality as seen on the balance sheet are the end goals of this process, which requires meticulous analysis of market and credit risk. This helps the SACCO identify potential risks and its future financing needs. Inadequate management of liquidity risk and credit risk leads to loan portfolios of lower quality. On the other hand, SACCOs that have successfully dealt with credit risk and liquidity risk have impressive loan portfolios (Alukwe et al., 2015).

1.1.2 Financial Performance of SACCOs

Corporate entities, especially profit-motivated ones, relentlessly strive for financial success. Specifically, according to Ratten (2023) performance is the extent to which an organization has accomplished its goals. The idea of organizational performance, according to Kanyi, et al. (2018) is based on how well a group uses its resources to carry out its primary function of managing business operations and making money. Acknowledging competency as an indicator of an organization's overall condition of profitability is vital while analyzing the financial yearly reports.

Topics such as dividend yield, sales returns, capital usage, and corporate resources may be at the heart of the financial performance study (Kanyi, et al., 2018). As an example, Maheshkar and Sharma (2023) state that accomplishing goals is a crucial indicator of economic success. When a business does well financially, it usually means a lot to the stockholders. Many things affect a company's bottom line. These include the firm's competence, its competitive advantage, the executives' cost-effective goals, and the reliability of current and prospective contractors.

When people or businesses bring money to a bank, that bank takes it as a deposit and uses it for future transactions. Assets to total loans, net loans and advances to total loans, market share to total loans, non-performing loans to total loans, and total deposits to total loans ratio are some of the metrics used by Kenyan SACCOs to measure productivity and efficacy. While the growth rate was slower than in prior years, the DT-SACCOs' financial performance in the 2019 fiscal year nonetheless demonstrated a definite upward trend. The total assets of the DT-SACCOs rose sharply from Kshs

393.29 billion in 2018 to Kshs 442.27 billion in 2019. This expansion shows a remarkable growth rate of 12.4%. Assets had a notable increase in the preceding fiscal year, with a growth rate of 14.8%. But it's worth mentioning that this growth rate dropped by 24% (Kariuki (2018)). With a total of 72.46 percent, net loans and advances remain the principal component of DT-SACCOs' asset portfolio. This serves as a powerful reminder of SACCOs' steadfast dedication to their primary mission of facilitating the mobilization of resources through the provision of loans and other credits. After standing at 8.57% in 2018, the percentage of total assets held in cash and equivalents increased somewhat to 8.96% by December 2019.

Assessing a company's financial success is as simple as looking at its growth sales, which show how much the company has grown overall. Another tool that will be used to evaluate the profitability of a firm is ROE, which shows how much profit a company makes in comparison to the money that shareholders put in. One further thing to think about when evaluating financial performance is to use ROA. ROA is a measure of how well a business turns its total assets into profit. It sheds light on how good the management is at their job. The earnings ratio, which is determined by dividing earnings by profits, is a commonly used indicator for assessing a bank's financial performance (Amoa-Gyarteng, 2023) Generally speaking, a greater income is indicative of less financial difficulties, which may lead to a lower likelihood of bank failures.

Al-Swidi and Al-Hosam (2015) analyzed the financial results of seven different commercial banks in Jordan. The study used ROA as a performance measure for banks, and it looked at three separate factors—bank size, asset management, and operational efficiency—that may affect ROA. Regression results show a strong negative correlation between bank size and ROA. First, the asset management ratio is positively correlated with return on assets ROA. On the flip side, operational efficiency and return on investment show a weak negative association. An organization's plans and actions may be measured in measurable monetary units through the evaluation of financial success, according to the scientific work of Osoro and Muturi 2015). According to Ongore (2013) research, the internal factors that determine a bank's performance include liquid management, asset quality, managerial efficiency, and capital sufficiency. With the

exception of liquidity management, these factors significantly impact performance. It has been proposed that using ROE and ROA are appropriate measures for evaluating the financial performance of banks.

Waithera (2013) gathered data to better understand how SACCOs in Mombasa County may financially benefit from institutional, process, and product innovation. Gathering and analyzing data about the financial well-being of SACCOs in Mombasa County was the primary objective of this research. All the analysis's focus was on financial restructuring-related issues. The research sample consisted of 155 SACCOs located within Mombasa County. The research utilized a sample size of 36 SACCOs to guarantee that the findings are applicable to the entire community. Many Mombasa County Savings and Credit Cooperative Organizations (SACCOs) have demonstrated tangible benefits from implementing financial innovation, according to the determination index results (23.2% to be exact). Data from Mombasa County's SACCOs shows a robust correlation between organizational success and financial growth. By implementing a number of financial innovations, the Mombasa County SACCOs have significantly enhanced their financial performance. Research shows that product innovation has the greatest impact on a company's bottom line as a whole, therefore SACCO management boards should give it some thought.

Kariuki (2018), performed an empirical study in the illustrious Kiambu County to examine the complex relationship between financial variables and the efficiency of SACCOs that accepted deposits. The focus of the study was on the Sacco institutions that had their licenses renewed by the Kiambu County regulatory authority, SASRA, at the end of 2015. Information gathered for the inquiry came from Sacco's audited annual reports covering the years 2011–2015 in a row. Results from the empirical study showed that Saccos' fiscal performance improved once they started investing and dispersing dividends. On the flip side, it was found that Saccos' financial performance was severely affected by the policies regarding loans that were developed and implemented. Sacco institutions should think about extending default loans to reduce loan delinquency, according to the Commission. The Sacco can try to educate its members so that they are

more likely to save money, which will help expand the investment portfolio and create a reliable system for paying out dividends.

1.1.3 Deposit Taking SACCOs

During their nascent stages, SACCOs operated within a framework characterized by deliberate planning rather than being driven by market forces. The inception of the Kenyan cooperative movement can be historically traced back to the year 1908, wherein a cooperative was established in the region of Kericho with the primary objective of enhancing the tea market (Kamonjo, 2016). In order to ensure the protection of members' investments and, ultimately, the nation's economic well-being, the government implemented revisions to the regulations in 2004, thereby altering its role in the supervision and surveillance of SACCO (Alukwe et al., 2015).

In the Kenyan context, it is noteworthy to observe a rapid expansion in the realm of DT-SACCOs in recent times. SACCOs are established by a collective of individuals with the primary aim of pooling their savings in order to generate credit facilities for their constituents, all the while ensuring that the interest rates offered remain competitive. Given the socioeconomic circumstances of a significant portion of its members, SACCOs are inherently designed with the objective of mitigating poverty. The aforementioned entity is an integral component of the co-operative movement, a socio-economic framework that plays a pivotal role in bolstering approximately 45% of Kenya's economic endeavors. Consequently, it emerges as a viable avenue for attaining enduring economic progress, as posited by Nobanee in their scholarly work of 2017.

In Kenya, it is estimated that there exists a considerable number of approximately 17,000 registered cooperatives. Additionally, SASRA has granted approval to over 150 DT-SACCOs. Notably, within Meru County specifically, there are thirteen (13) deposit-taking SACCOs that have obtained the necessary licensing from SASRA. The crusade's estimated investment portfolio surpasses Kenya Shillings 500 billion, with an additional Ksh 650 million in investments. Furthermore, it serves as a direct employer for approximately 500,000 individuals. SACCOs contribute approximately 4% to the overall gross domestic profit, thereby playing a significant role in the national economy. Moreover, a substantial number of individuals depend on the SACCO movement as a

means of livelihood. The oversight of SACCO liquidity administration in Kenya is conducted in accordance with the provisions outlined in the Sacco Society Act of 2008. According to SASRA (2019), it is imperative for Sacco Unions to maintain a minimum of 15% of their deposits and short-term loans in liquid assets. This prudent practice is deemed essential for the effective operation and sustainability of their business activities.

The proliferation of physical branches and operational reach of DT-SACCOs has exhibited a notable expansion across diverse regions within the nation. A comprehensive tally of 464 physical branches dispersed throughout the country was documented in the year 2017. Beside the aforementioned headquarters, it is important to note that DT-SACCOs have a vast network of around 638 strategically placed physical financial distribution channels around the country. It should be noted that SACCO branch networks are mostly located in minor market and trading hubs, even if there is a highly concentrated number of physical branches in around one-third of all counties. Because SACCOs are the only officially registered financial institution in certain regions, they greatly improve the availability of financial services to the people of Kenya.

1.2 Problem Statement

Over the past several years, there has been a meteoric rise in the number of SACCOs in Kenya. These organizations aim to bridge the gap between savings and lending institutions and facilitate financial intermediation. According to a directive from SASRA, the Securities and Exchange Commission of Kenya will be in charge of supervising and issuing licenses to 175 DT-SACCOs operating within the borders of Kenya as of the end of the calendar year on December 31, 2020. One such reason has to do with the stringent rules that the SASRA has put in place for DT-SACCOs. All SACCOs are required to follow specific guidelines regarding their financial reserves as per the 2019 regulations issued by the SASRA. A minimum principle requirement of 10% of total assets, 8% of all deposits, and 8% of SACCO equity in proportion to the organization's aggregate assets is anticipated of SACCOs.

It is pertinent to acknowledge the significance of DT SACCOs. However, it is crucial to note that these SACCOs have been marred by suboptimal member service delivery and

underperformance, ultimately resulting in their demise, cessation, and imposition of limitations (Mathuva et al., 2019). In the fiscal year of 2017, it was observed that two DT-SACCOs had their licenses rescinded, while an additional twelve DT-SACCOs were found to be operating under the constraint of conditionally restricted half-year licenses due to their inability to fulfill their financial obligations. Furthermore, despite the consistent growth of overall revenue within the SACCOs over the previous five-year period, there has been a noticeable upward trend in the prevalence of non-performing loans. Specifically, the non-performing loan ratio has risen from 5.2 percent in 2017 to 6.14 percent in the year 2018. Alukwe et al. (2015) concur with the notion that insufficient financial resources have hindered the ability of SACCOs, specifically DTs, to fulfill their loan repayment obligations to external entities and attract skilled and capable personnel. Consequently, this predicament has led to a decline in membership as the credit requirements of individuals remain unaddressed. The aforementioned statement underscores the criticality of effective liquidity risk management in the context of distributed transaction systems (DTs).

The financial performance of DT-SACCOs has exhibited a degree of instability and volatility throughout the years, as evidenced by the fluctuations observed in the ROA metric. The ROA experienced an increase from 2.45 percent in 2016 to 2.69 percent in 2017. In the year 2018, there was a decline observed, with the rate dropping to 2.40 percent. Subsequently, in the year 2019, there was an upward trend, as the rate increased to 2.60 percent. This upward trajectory continued into the year 2020, with the rate further rising to 2.65 percent. On the contrary, there has been a downward trend observed in the ratio of liquid assets to total assets. According to the SASRA Report of 2020, the percentage of interest rates exhibited a fluctuating trend over the course of five years. Specifically, in the year 2016, the interest rate stood at 12.49 percent, which experienced a slight decline to 11.85 percent in 2017. Subsequently, in 2018, a marginal decrease was observed, resulting in an interest rate of 11.77 percent. The trend continued in 2019, with a further decrease to 11.62 percent. However, in the year 2020, a notable increase was witnessed, as the interest rate rose to 14.43 percent. This statement elucidates the manifestation of fluctuation in the availability of liquid assets, consequently engendering a potentiality for liquidity risk. While larger tiered SACCOs

exhibited a more rapid rate of expansion compared to other SACCOs between 2017 and 2020, the growth of smaller tiered DT-SACCOs experienced a decline over the same period. Specifically, the growth rate of DT-SACCOs decreased from 8.69% in 2017/2018 to 7.64% in 2018/2019, ultimately reaching a low of 7.51% in 2019/2020, as indicated in the SASRA report of 2020. Based on the analysis conducted by SASRA, it can be inferred that if the current trend persists, there is a high probability of witnessing a significant decline in the market share of small, tiered DT-SACCOs. This potential outcome has the potential to negatively impact their overall competitiveness and long-term viability.

Scholarly works conducted have neglected to explicitly mention the audit status of the financial statements employed as secondary data. This omission raises concerns regarding the dependability and trustworthiness of the data utilized in their respective studies. Moreover, several scholarly inquiries have delved into the examination of the impact of liquidity on financial performance, whereas others have focused on the scrutiny of liquidity risk and its influence on financial performance. Consequently, the outcomes of these investigations have displayed a lack of consistency, as certain studies have reported adverse correlations, while others have identified positive connections between liquidity risk and financial performance. Furthermore, it is worth noting that certain investigations carried out in a distinct jurisdiction have revealed a contextual disparity. This disparity arises due to the fact that DT SACCOs in Kenya function within unique economic circumstances, distinct from those observed in other nations such as Ghana or Uganda. Moreover, it is worth noting that the aforementioned studies employed varying metrics to assess both liquidity risks and financial performance. Hence, it is imperative to undertake an investigation into the potential impact of liquidity risk on the volatility and variability of return on assets (ROA) as well as the discernible disparities in performance observed among Deposit-Taking Savings and Credit Cooperative Organizations (DT-SACCOs), as highlighted in the SASRA report of 2020. The present study aims to address the dearth of comprehensive knowledge and comprehension pertaining to the liquidity risk and financial performance of DT-SACCOs in Meru County.

1.3 Research Objectives

This study was guided by the following general and specific objectives:

1.3.1 General Objective

The general objective of the study was to analyze the effect of liquidity risk management practices on the financial performance of licensed deposit taking SACCOs in Meru County.

1.3.2 Specific Objectives

- i. To analyze the effect of asset quality on the financial performance of licensed deposit-compelling SACCOs in Meru County.
- ii. To analyze the effect of capital adequacy on the financial performance of licensed deposit-taking SACCOs in Meru County.
- iii. To analyze the effect of capital leverage on the financial performance of licensed deposit-taking SACCOs in Meru County.

1.4 Research Hypotheses

The study was guided by the following hypotheses

H₀₁: Asset quality has no significant effect on the financial performance of licensed deposit-compelling SACCOs in Meru County.

H₀₂: Capital adequacy has no significant effect on the financial performance of licensed deposit-compelling SACCOs in Meru County.

H₀₃: Capital leverage has no significant effect on the financial performance of licensed deposit-compelling SACCOs in Meru County.

1.5 Significance of the Study

1.5.1 Government

Study findings will aid authorities in crafting and enforcing strong supervisory policy frameworks for SACCO liquidity risk management, which in turn will safeguard account holders' and shareholders' investments and bring the Sacco's financial stability and performance under control.

1.5.2 Sacco Management

By elucidating the study objectives, the results will enable SACCO managers to educate the Kenyan SACCO movement on the present prospects for liquidity risk management. For SACCOs to fulfill their goals, it is crucial that they implement effective liquidity risk management methods, and this research can help them do just that.

1.5.3 Regulators

Policymakers like SASRA and the Vision 2030 secretariat would benefit from the study's findings, especially with regard to enhancing the efficacy of regional strategies. To increase SACCOs' efficacy in liquidity rule, it is helpful to update rules that contribute to the improvement of superintendent principles for SACCOs.

1.5.4 Academicians and other Scholars

Policymakers like SASRA and the Vision 2030 secretariat might benefit from the report's findings, particularly for bettering strategy considerations in the sector. If SACCOs want to become more efficient in their liquidity regulation, rocketing tactics can help them improve their performance.

1.6 Scope of the Study

In order to better understand how licensed deposit-taking SACCOs in Meru County, Kenya, handle liquidity risk, this research set out to analyze their financial performance. Licensed DT SACCOs' financial performance in Meru County, Kenya, was the dependent variable, with asset quality, capital appropriateness practice, and capital leverage serving as the independent variables. The study sample included one hundred and thirty-three SACCOs in Meru County, Kenya, that had their registration status with SASRA verified as of January 31, 2020. A total of five business days, from Monday, August 2nd, to Friday, August 7th, 2021, were needed to collect the data. Since this was the case, the researcher had enough time to collect data methodically.

1.7 Limitations and Delimitations of the Study

A shortage of time and money was the primary limitation that this inquiry anticipated. Despite the importance of these two factors in achieving the study's goal, the researcher had to allocate both time and money to find a solution. Moreover, a major limitation is the readiness of DT-SACCOS management to divulge vital secondary data like their

financials and annual earnings. The study team tried to get around this limitation by attaching an official letter from the school assuring participants that their information would be used for academic purposes only and kept secret. This way, they could keep their identities hidden. To give the results some thought and, maybe, put them into action, the researcher consented to share them with some of the respondents. The research also used hand-delivered questionnaires as a means of collecting data.

1.8 Definition of Terms

Asset Quality:	The overall risk connected with the several types of assets that Sacco owns is one dimension of asset quality (Ombaba, 2016).
Capital Adequacy:	Is the ratio of a financial institution's leverage to the minimum required by law (Paul et al., 2021)
Capital Leverage:	Tangible representation of borrowed funds within the capital structure of a financial organization(Nguyen & Nguyen, 2020)
Financial Performance:	This is the range of high value that is associated with the levels of intentional disclosure (Amoa-Gyarteng, 2023)
Liquidity Risk:	The inherent inability of an entity to fulfill its financial obligations promptly and without incurring intolerable losses (Scherer, 2011).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section reviewed the literature on the effects of liquidity risk supervisory policies on the stability of commercial institutions. The theoretical framework, financial performance hypothesis, asset worth management's impact, capital competence and influence, conceptual framework, prose precipitate, research gaps, and factor operationalization were all covered.

2.2 Theoretical Framework

The theories reviewed under this section are; shiftability theory, theory of Liquidity Preference, theory of Pecking Order and the loanable funds theory.

2.2.1 Theory of Shiftability

The theoretical framework known as Shiftability theory was formulated by Mouton in the year 1918, as documented in his scholarly article titled "Commercial banking and capital formation." The theoretical framework encompasses a constellation of pivotal themes, which serve as the focal points of inquiry and analysis. In order to optimize liquidity, it is imperative for a bank to strategically structure its portfolio. This entails allocating a significant portion of investments towards secondary money market securities, thereby ensuring the ability to readily convert assets into cash with minimal or negligible loss in value. Examples of such investment instruments encompass treasury bills, commercial paper, and securities issued by reputable entities. Additionally, banks may resort to obtaining cash from the central bank by utilizing these aforementioned instruments as collateral, should they encounter any financial challenges (Barako & Brown, 2008).

The theory of shift-ability posits that in the event of a necessity, commercial banks can transfer a significant portion of their assets to other banks in exchange for cash without incurring substantial losses. Consequently, this ability obviates the need to heavily rely on maturities. According to this perspective, in order for an asset to possess perfect

shiftable characteristics, it must possess the ability to be promptly transferred without incurring any loss in capital value when the necessity for liquidity arises. This observation finds particular relevance within the context of short-term market investments, specifically encompassing treasury bills and bills of exchange. These financial instruments possess the advantageous characteristic of being readily liquidated by banks in order to promptly generate funds as required. In the context of a broad-based crisis wherein all financial institutions experience a liquidity shortfall, the shift-ability theory posits that it is imperative for all banks to hold assets that can be readily transferred to the central bank, which serves as the ultimate provider of liquidity support (Ivo, 2014).

This theory exhibits certain veracious constituents. Financial institutions have recently begun to acknowledge and embrace the acceptance of sound assets, which possess the ability to be transferred to alternative banking establishments. Shares and debentures of prominent corporations are deemed to possess liquidity, akin to treasury bills and bills of exchange. This phenomenon has served as a catalyst for the proliferation of long-term lending practices within the banking sector. The implementation of the Shiftability theory has effectively mitigated the need for maintaining substantial reserves of idle cash balances. The discourse has introduced an alternative perspective on the doctrine/theory of real bills, wherein the potential for risk arises due to economic downturns in the context of commercial transactions involving the purchase and sale of goods and raw materials. By employing the tenets of Shiftability theory, it is plausible to augment the likelihood of attaining higher income levels while concurrently mitigating the likelihood of encountering risks (Ngeche, 2017).

Based on the tenets of shiftability theory, it can be posited that the liquidity of a Savings and Credit Cooperative (SACCO) can be effectively safeguarded through the presence of assets that possess the capacity for seamless transferability to alternative financial institutions, as and when the need arises, particularly in the context of developmental exigencies. The phenomenon wherein assets are transferred to the central bank instead of being allocated to other financial institutions is commonly denoted as "shiftability." The composition of this entity comprises a balanced amalgamation of fluid credit extensions

and fluid financial instruments, which are diligently maintained by depository institutions. The provision of liquid guarantees functions as a safeguard against unanticipated and impending challenges pertaining to liquidity. In the present framework, a secondary reserve is delineated as any form of collateral that is seized for the purpose of transformation in the event of a liquidity crisis, wherein cash assets assume the role of primary repositories (Robson et al., 2019).

This study applies the shiftability theory to the data in order to deduce how DT Saccos in Kenya fared financially after implementing liquidity risk management strategies. If DT Sacco assets can be easily reallocated before they mature, then liquidity will be guaranteed. This will allow the DT Sacco to meet its financial obligations, like repaying members' deposits, disbursing loans, and recalling deposits

2.2.2 Theory of Liquidity Preference

A liquidity risk occurs when a number of depositors or customers decide to withdraw more funds than the SACCO currently has available. Therefore, both borrowers and SACCOs face the same liquidity risk in their partnerships. It is common for SACCOs to discover discrepancies between their assets and liabilities that need to be rectified since, as their name suggests, they issue liquid liabilities (Kimari, 2013).

The handling of short-term assets and liabilities creates liquidity risk. The majority of a Sacco's current assets are cash and short-term loans, whereas the majority of its current liabilities are member savings. If SACCOs are unable to close these gaps, liquidity risk, insolvency, status risk, and the possibility of government bailouts of failing SACCOs are all things to worry about. The supply and demand for stable financial markets determine interest rates. People are likely to hold onto their savings as a safety net rather than invest them in the hopes of earning interest. A reluctance to hold money now is a direct result of interest rate rises, which suggest increased profit. According to the theory, people will never run out of spending money (Kimari, 2013).

The higher the premiums paid by investors, the riskier the long-term assets are considered to be. Even a little movement in interest rates can have a significant impact on the demand for speculative money. It is advantageous to hold onto some resources in

the form of pure purchasing power because people need money for reasons such as planning to spend it, betting on future interest rate changes, or being uncertain about what will happen. Transactional, speculative, and precautionary motives all involve the pursuit of financial gain. When bonds and other non-liquid assets are preferred, a premium is necessary. According to Mumanyi (2014) the premium goes up as the investment duration gets longer. Reilly and Norton (2016) state that the liquidity inclination principle shows that long-term securities tend to be more profitable than short-term ones. The reason for this phenomenon is that shareholders are choosing to invest in short-term bonds rather than long-term ones, which means they are ready to forego some of their prospective earnings. This is done to avoid the higher expenses and inherent instability of the former (Ratemo, 2018).

The theory states that various banks' liquidity levels change over time. This theory proposes that super liquid banks should reduce interest rates on deposits and loans in an effort to attract more customers. Banks that are less liquid do worse than more liquid financial organizations. Given that investors prefer short-term bonds over long-term ones due to the ease of liquidation in terms of both time and principal, this theory posits that bonds with a shorter maturity date are superior. Investment in long-term securities can help SACCOs increase their income, as these metrics reflect the health and liquidity of the organization's assets. A financial institution may quickly amass enough capital by selling its assets at a reasonable price. For SACCOs to succeed in the long run, diversifying their business models should be a top concern for the organization's leadership. The significance of total quality management of assets in financial companies is informed by this principle.

2.2.3 Theory of Pecking Order

Based on the Pecking Order theory, managers and investors often have different perspectives when it comes to a company's leverage decisions. According to the companies, it is anticipated that investors will exercise caution in relation to the stock offering. As a corollary, it is observed that corporations exhibit a preference for financing their investment endeavors primarily through the utilization of retained earnings, followed by recourse to debt, and ultimately resorting to equity as a last resort,

in the event that the preceding alternatives prove insufficient in meeting the entirety of the required capital for said investments. The aforementioned approach fails to account for the existence of target leverage, wherein the allocation of retained profits is given precedence in the context of funding new investments, while equity instruments such as stocks are accorded lower priority

To better understand the consequences of information asymmetries between external entities and internal stakeholders in the corporate world, Myers and Majluf developed the Pecking Order theory in 1984. In the event that the company's internal resources prove insufficient to sustain its investment activities, the utilization of debt financing may be considered as a viable alternative. In instances where the costs associated with debt financing surpass the benefits derived from it, an organization may opt to pursue equity financing by issuing stock (Kamonjo, 2016).

According to Laisi (2016), the pecking order theory posits that due to managers' reluctance to issue additional equity in the form of stocks, companies with substantial financial needs are likely to exhibit a pronounced inclination towards maintaining a disproportionately high debt ratio. The concept of financial leverage posits that its impact is significant when external financing is exclusively pursued in instances where internal funding proves insufficient. Consequently, when a SACCO encounters severe financial distress, its only viable recourse is to initiate the issuance of stocks. In the event that this surplus persists, the SACCO will inevitably transition into a net lending entity. The present hypothesis elucidates the manner in which the performance of SACCOs is influenced by the implementation of capital leverage techniques. The significance of the pecking order theory within the context of this research lies in its capacity to elucidate the rationale behind the propensity of preeminent financial institutions to exhibit reduced reliance on borrowing. Their ability to do so stems from their self-sufficiency in terms of not requiring external financial support. Financial institutions that exhibit lower levels of success resort to borrowing as a means to compensate for their insufficient internal capital reserves, thereby enabling them to engage in investment activities. This hypothesis demonstrates a notable relationship

between profitability and financial leverage, wherein an inverse association is observed within the realm of business operations.

2.2.4 The Loanable Funds Theory

Respected economist Knut Wicksell released a foundational study in 1936 that laid out the theoretical basis for how interest rates are determined; this work is known as the loanable funds theory. The interplay between the demand and supply of loanable money determines the prevailing interest rate. According to Dawson-Rose et al (2020) the idea of loanable money, according to Burton and Brown (2014) includes all kinds of credit instruments, such as savings accounts, bonds, and loans. The theoretical framework is predicated upon a multitude of underlying assumptions. The initial point of consideration pertains to the amalgamation of loanable funds markets, wherein a notable feature is the presence of impeccable funds mobility. Furthermore, it is imperative to acknowledge the presence of perfect competition. The underlying theoretical framework posits an assumption wherein the interest rate is considered to be devoid of any interactions with other macroeconomic variables.

Over a given time period, the funds that are available for lending are significantly affected by the saving habits of depositors and the growth of the money supply through the creation of bank credit. Borrowers and savers at a bank should both get the same benefits in a perfect world (Kiyotaki & Moore, 2018). Ivo (2014) suggests that while establishing the interest rate spread, both parties should aim for a mutually agreeable amount. The notion is that a lack of savings limits the availability of loans, which in turn limits investment opportunities. How the demand for and supply of loanable capital are related impacts this notion. The demand for loanable funds may rise, leading to higher interest rates if supply remains constant, and the reverse is also true. In addition, while an increase in the flow of loanable principal might lead to a lower rate, the actual rate that falls as a consequence could be quite sensitive to changes in the demand for and distribution of loanable funds.

The ability of banks to weather unexpected shocks and maintain efficient operations is directly related to their loanable capital levels. The process of lending money is done using savings (Ngeche, 2017). Having a high interest rate on savings will encourage

customers to save more frequently, whilst a low rate would discourage them. Customers need to be rewarded with money for saving consistently. Lenders are prepared to extend credit due to the high demand for their services. Borrowing money, which often incurs interest, is most often done by individuals and businesses. Consequently, SACCOS can't make the most of interest rates on client loans unless they have enough loanable capital. Revenue will consequently rise annually

It has been noted in the empirical literature that the loanable funds theory of interest is being used. Research by Iqbal and Jahangir (2019) was based on the interest theory of loanable funds. Mortgage market risk and its effect on mortgage uptake. By referring to its underlying assumptions, the aforementioned research clarify the loanable funds theory's inherent limitations. Assumption of perfect capital mobility is a crucial component of the theoretical framework. The complex process of transferring cash over international boundaries is, however, effectively governed by a multiplicity of rules and limits, which must be acknowledged.

2.3 Empirical Literature

2.3.1 Asset Quality and Financial Performance

Financial institutions, specifically Deposit-Taking Institutions (DTIs), fulfill their intermediary function by accepting deposits from individuals and entities, which are subsequently utilized for the purpose of lending to borrowers. Once the loans have been lent, they can be classified as assets due to the anticipation of future economic benefits accruing to the firm. The concept of asset quality within the realm of financial institutions pertains to the punctual fulfillment of borrowers' contractual responsibilities. The inverse relationship between asset quality and the quantity of nonperforming assets is evident. As per Kwamboka (2021) scholarly work, a nonperforming loan/asset can be defined as a credit facility wherein the payment of interest and/or principal amount has exceeded the designated timeframe.

The overall risk connected with an organization's various assets is what Ombaba (2013) calls asset quality. This phrase is commonly used by financial organizations to calculate the value of assets that may be forfeited and the amount of money that has to be set aside in such an event. It is important for financial organizations to thoroughly evaluate the

quality of their loans and progresses since they are common assets. The study's author asserts that financial institutions' revenue, liquidity, and creditworthiness are all affected by non-performing assets. Improving loan quality boosts bank loan revenues and decreases failure costs. The capacity of financial institutions to foresee, mitigate, and identify risks—possibly in order to account for losses resultant from risks—is crucial to their financial success. Consequently, while distributing funds to assets, a financial institution should think about how much risks affect such assets.

The two main causes of financial institution disaster are low-quality assets and a lack of liquidity. Unlike previous research that examined financial institutions generally, the current study narrows its attention to registered SACCOs in Meru County, Kenya (Amoa-Gyarteng, 2023). The quality of a SACCO's loans is crucial for measuring its performance as loans are the organization's most valuable asset and the factor most influencing its success. The current and future performance of SACCOs is affected by trends in asset quality and changes in the economy (Said & Tumin, 2012).

Loans that have been delinquent for more than two months and are impacting a bank's revenue and profitability are considered non-performing. Share sales, deposits, and external borrowing all contribute to a SACCO's financial stability. As a precaution against loss, all assets should have sufficient security measures in place. According to Simon et al. (2018), a liquidity crisis is caused by a spike in defaulted loans, which is a consequence of low asset quality. It causes people to overestimate their income and assets. Since customer deposits are not insured, there is a risk of a lack of capital to meet the demand for daily withdrawals, which might lead to a liquidity problem. Optimal liquidity equilibrium can be re-established by the use of successive recovery mechanisms, strong loan appraisal processes, and enough loan provision. Since asset quality affects interest revenue and reduces the cost of managing non-performing loans, it is a key determinant of SACCO success according to the regulations.

To handle losses caused by defaulted loans, SACCOs must have cash that may be taken out. Ombaa (2013) found that there is a negative correlation between asset quality and performance, with a greater non-performing loan ratio relative to gross/net assets and poorer asset quality. The study investigated the relationship between the quality of assets

and the performance of banks in India. The research concluded that a bank has to be more attentive to asset quality processes if its procedures are inadequate if it wants to justify the construction of a comprehensive banking system. The analysis found that banks with high-quality assets outperformed those with low-quality assets. The study's author concluded that long-term securities were the best bet for financial institutions seeking high-quality assets.

These results are in line with those of a research by Manyuanda (2013) that looked at how SACCOs in Nairobi, Kenya fared when bad loans were a factor. The study's results show that SACCO performance is significantly inversely correlated with non-performing loans. According to the research, SACCOs can increase their leverage by switching to equity financing instead of debt financing. Prudence requires that SACCOs not engage in predatory lending activities, maintain hard credit standards, and limit lending to debtors without sufficient hedging systems.

The goal of the study by Mumanyi (2014) was to look at the bottom line of SACCOs in connection to the quality of their assets. This study utilized an explanatory research design. This study analyzed 83 Kenyan SACCOs that have been operational for a minimum of five years and have the ability to receive deposits. The analysis encompassed all 83 SACCOs that were operational from 2011 to 2015. Census technique was employed as the research strategy for the study. The sources used in this study were secondary as well as primary. The data was subjected to several linear regression models through the use of STATA and SPSS, two statistical software tools. Research in Kenya found that savings and credit associations' bottom lines were impacted by the quality of their assets. The regression results shed light on this phenomenon by demonstrating the beneficial influence of asset quality and quantifying its impact on the financial performance of credit and savings institutions. The one-way regression findings demonstrate a strong correlation between the quality of assets and the financial success of savings and credit organizations, with a coefficient estimate of 5.827 units.

Maheshkar and Sharma (2023) states that the relevant variable is evaluated by comparing the provision for loan loss reserve to total asset ratio. The Sacco's non-

performing and problematic loans are covered by the aforementioned percentage. The amount of money set aside by the Sacco for emergencies caused by bad investment results may be more precisely calculated with the use of this variable. Asset quality rating is the standard method for evaluating the state of an asset. This grade is based on the actual and prospective credit risk associated with the asset characteristics. This study employed a methodology to assess asset quality by considering factors such as the implementation of credit policy, the prevailing economic conditions, and the trajectory of creditors. The assessment of asset quality serves as a crucial determinant for financial institutions in their endeavor to comprehend the level of risk associated with the indebtedness of the organization's debtors.

In a seminal study conducted by Odero et al. (2019), the examination of the impact of credit risk on the performance of banks in Nigeria yielded noteworthy findings. Specifically, the study revealed a substantial correlation between the financial performance of banks, as measured by profitability, and the management of credit risk, as gauged by loan performance. The aforementioned study highlights the significance of loans and advances, as well as nonperforming loans, as pivotal factors in assessing the asset quality of a financial institution. The empirical evidence suggests that inadequate credit risk management practices have a detrimental impact on the profitability of banks, compromising the integrity of their asset portfolios and amplifying the incidence of loan losses and non-performing loans. Ultimately, these adverse outcomes can precipitate a state of financial distress for the affected banks. The study suggests that prudence should be exercised by management when establishing a credit policy, so as to mitigate any adverse impact on profitability. Additionally, it is imperative for management to comprehend the influence of credit policy on the operational dynamics of their banks, in order to ensure the prudent allocation of deposits and the maximization of profit.

Ng'aari (2016) set out to determine whether there was a connection between the size of SACCOs and their financial success in Kenya. The research used total assets, deposits, and turnover as typical measures to evaluate the size of the SACCOs. There was a significant relationship between SACCO size and performance outcomes, according to the empirical research. The purpose of Kwamboka (2021) was to analyze how SACCOs

fares when they shared credit information. The study's findings confirm that DT-SACCO performance outcomes are significantly impacted by the practice of exchanging credit information. The study conducted by Ratten (2023)) revealed a notable trend of an upward trajectory in the asset quality ratio over the observed time period. This statement suggests a deficiency in the capacity to identify, quantify, oversee, and manage the credit-related uncertainties associated with an entity, concurrently acknowledging the adverse and uncertain debt obligations pertaining to Lehman Brothers. The policy implemented in the issuance of loans has been demonstrated to be highly unfavorable, as it involved extending loans to financially insolvent and high-risk clientele. Consequently, this approach has resulted in a consistent escalation of non-performing loans on an annual basis.

Mathuva (2016) compiled data pertaining to the provision of loans within the temporal span of 2010 to 2013. The findings of the study indicate the presence of an inverse correlation between loan loss provision and profitability among deposit taking SACCOs. Additionally, a positive correlation was observed between the magnitude of the SACCO and its overall performance. The aforementioned study also explicated that the caliber of management exhibited a positive influence on organizational performance. The investigation also examined the influence of loan intensity on the performance of SACCOs. The empirical evidence suggests that there is a positive correlation between loan intensity and profit among deposit taking SACCOs. Specifically, the findings indicate that a one-unit increase in loan intensity is associated with a one-unit increase in profit for these SACCOs.

Reilly and Norton (2016) conducted an investigation pertaining to NPLs within the region of Central, Eastern, and South-Eastern Europe (CESEE). The empirical investigation has revealed that the magnitude of NPLs can be ascribed to a combination of macroeconomic circumstances and idiosyncratic determinants pertaining to banks. However, it is worth noting that the latter category of factors exhibited a comparatively modest capacity for elucidation. According to the findings, NPLs exhibit a discernible impact on various macroeconomic indicators, including but not limited to gross domestic product (GDP) growth, unemployment rates, inflation levels, and the overall

performance of firms. The analysis further elucidates the presence of robust feedback mechanisms originating from the banking system and extending to the real economy. Consequently, it posits that the elevated levels of NPLs experienced by numerous CESEE countries presently exert a detrimental influence on the trajectory of economic recuperation.

2.3.2 Capital Adequacy and Financial Performance

The capital requirement stands as a pivotal element in the regulation of the financial sector. The establishment of capital requirements represents a significant policy concern for regulatory bodies on a global scale. The subject matter in question garnered heightened attention subsequent to the occurrence of the 2007/2008 financial crises, which in turn prompted a comprehensive reassessment of the Basel capital requirements. Driven by the imperative of safeguarding stability within the SACCOs, which have ventured into the realm of more precarious deposit-taking activities, the SASRA has promulgated prudential guidelines mandating that DTS maintain a minimum core capital of KSh. 10 Million. Furthermore, it is imperative that they maintain a minimum core capital amounting to no less than eight percent (8%) of the aggregate sum of their deposit liabilities.

The South African Special Risks Insurance Association (SARSRA) has established criteria for the definition of core capital. Included in this are deductions, investments in other institutions' subsidiaries and equity instruments, net surplus after taxes, equity-type capital grants, general reserves that include all losses, other reserves, statutory reserves, retained earnings or accumulated losses, and other deductions (Said & Tumin, 2012). To calculate the total deposits, we added up the principal and accrued interest from member deposits as well as deposits from other sources. A savings mobilization strategy may not be pursued by the DTS because to the core capital to total deposit requirements. After the minimum threshold of 8% is met, any subsequent savings must be matched by an equivalent increase in core capital levels to maintain compliance with the DTS.

The pivotal role of capital in mitigating bank closures and depositor losses during bank shutdowns has been well-documented. It is widely acknowledged that a financial institution equipped with ample capital is better positioned to endure losses and maintain stability in such circumstances. Based on the findings, it can be posited that an abundance of capital can have a detrimental impact on earnings. This can be attributed to risk-averse financial institutions, which may overlook potential investment opportunities, thereby prompting shareholders to demand a reduced return on capital in exchange for assuming lesser risks. Despite the potential drawbacks of high capital costs in relation to expected returns, as posited. According to Mwandia (2014), it is noteworthy that financial establishments endowed with significant capital exhibit a diminished susceptibility to insolvency and a reduced propensity to solicit external funding, particularly within the context of emerging economies where borrowing opportunities are constrained. As a corollary, it can be observed that financial institutions endowed with ample capital tend to accrue greater advantages compared to their counterparts characterized by insufficient capital. The efficacy of SACCOs in managing balance-sheet shocks is contingent upon the adequacy of capital sufficiency.

The bank's capacity to efficiently manage several types of risks, such as operational and credit risk, is later evaluated by using the capital adequacy ratio. The design of SACCO capital includes both organizational and non-organizational capital elements. Organizational capital consists of several crucial elements, including long-lasting and unchangeable customer stocks, legal reserves, comprehensive reserves, cumulative profits or losses, yearly returns, and borrowed money. Burton and Brown (2014) identifies three specific types of non-organizational capital: modified funds, temporary funds, and un-shared money. The susceptibility of clients to instability necessitates the presence of adequate capital in order to bolster the liquidity of a financial institution. The exacerbation of financial instability can be attributed to a dearth of capital resources. Adequate financial resources serve as a catalyst for the expansion of funds and act as a safeguard against the risk of insolvency. An essential component in the assessment of capital adequacy lies in the fulfillment of capital requisites.

Maheshkar and Sharma (2023) sought to establish a correlation between the profitability of Malaysian banks and their capital adequacy. The impact of capital adequacy on the efficacy and efficiency of Sacco institutions was examined in the study. Loanable money theory and agency theory were the two pillars upon which the investigation rested. Using a descriptive study approach, all 25 Saccos in Meru County were covered. The Sacco's annual reports provided some secondary data. It would appear from the numbers that the capital adequacy of Malaysian banks did not significantly impact their overall performance. Capital adequacy is the phenomena that indicates a SACCO capacity to endure and absorb external disruptions. Efficient deployment of funds is crucial for maximizing operational efficiency and increasing overall production. Clients have voiced worries about whether or not financial institutions have sufficient capital to safeguard their funds. When it comes to capital adequacy, which is defined by the capital-asset ratio and is a must-have for financial institutions to stay in business, deposits and capital funds play a key role.

The application of the capital adequacy ratio pertains to the bank's capacity to effectively utilize various perils, including but not limited to operational and credit risk. The design of SACCO capital encompasses both organizational and non-organizational capital components. Organizational capital encompasses the enduring and irrevocable equity held by customers. According to Ng'aari (2016), the three distinct categories of non-organizational capital include accustomed funds, provisional funds, and un-shared funds. The enhanced liquidity of a financial institution is contingent upon the presence of sufficient capital, as customers tend to exhibit heightened susceptibility to feelings of insecurity. Moreover, it is worth noting that an increase in capital has the potential to diminish the allure of anxiety. The principal objective of adequate capital is to ensure the maintenance of members' payments.

According to the SACCO Societies Act of 2013, the minimum capital in Kenya is precisely ten million shillings. The preservation of a specific magnitude of capital serves to enhance client assurance and guarantee the safeguarding of customer deposits. The exacerbation of financial instability can be attributed to a dearth of capital resources. Sufficient capital serves as a catalyst for the advancement of funds and acts as a

safeguard against insolvency. The fulfillment of capital requirements constitutes a pivotal factor in ascertaining the sufficiency of capital.

According to Ngeche (2017), Egyptian commercial banks' bottom lines have taken a hit as a result of capital requirement rules. The restrictions set down by the Basle committee and the Egyptian central bank regarding capital requirements were the primary areas of concentration for the researchers. The empirical analysis revealed that an elevated level of capital requirement exhibited a positive correlation with the augmentation of intermediation expenses. Conversely, the imposition of capital requirements resulted in an expansion of banks' scale, thereby fostering heightened levels of bank activity and subsequently enhancing financial performance. The findings of the investigation ultimately ascertain that the regulatory implementation of capital requirements has yielded improvements in financial performance.

Waidi (2016) analyzed data to determine how capital sufficiency affected the profitability of Nigerian banks. The ADF test was used to determine if the data was stationary. In addition, a pairwise Granger causality test was run in the study to see if the variables that were being studied were co-integrated. In terms of the banking sector's capital adequacy, the empirical study shows that the three performance indicators (ROCE, ROA, and ER) that were considered had no statistically significant effect. The authors argue that in order to improve the financial performance of Nigeria's commercial banks, pragmatic governance and a stable financial and economic environment are essential.

Commercial banks in Kenya were the focus of an effort by Ongore and Kusa (2013) to quantify the relationship between capital sufficiency, credit risk, and operational efficiency. The research, which was based on the operational efficiency theory, demonstrated that credit risk ratios significantly affected the efficiency of banking institutions. Capital sufficiency did not significantly impact banks' performance, which is an unexpected outcome of the study. Banks should shift their focus from growing capital levels to better managing credit risk, according to the research.

Kanyi, et al .(2018) looked at the relationship between capital sufficiency and profitability showed that there was no association between the two. Using a combination of primary and secondary sources, the writers conducted their research using a mixed-methods technique. The main data was gathered by sending out surveys to banking workers; 518 people filled them out, yielding an impressive 76% response rate. Secondary data from publicly available bank financial statements covering the years 2006–2010 was also used by the authors. There did not appear to be a statistically significant association in the main data analysis. On the other hand, secondary data analysis showed that capital sufficiency is positively and statistically significantly correlated with bank profitability. A bank's total profitability is heavily impacted by its degree of capital adequacy, according to this statement, when it comes to deposit-taking financial institutions.

The impact of prudential regulation on the profitability of deposit-accepting Kenyan SACCOs was examined by Odero (2019). According to the findings, the core capital of these SACCOs was an important factor in their financial performance. The findings of the inferential statistical investigation, namely the analysis of variance (ANOVA), show that core capital is positively correlated with the financial performance of SACCOs, and this link is robust and statistically significant. The capital adequacy of savings and credit institutions in Kenya has an effect on their financial performance. Regression results that demonstrated a positive effect of capital adequacy and measured the extent to which it affected the financial performance of savings and credit institutions provided more explanation for the findings.

An investigation by Odero (2019) into the link between DT-SACCOs' working capital management and their financial performance in Nairobi County found that better management of working capital led to better financial performance. Consequently, financial success was positively correlated with effective management of working capital. Studying a case study in Meru County, Olando (2013) looked at how financial practices affected the growth of Saccos' wealth in Kenya. The data for this study came from forty-four SACCOs, and it was based on a comparative research study. According to the study's findings, SACCOs couldn't control their spending if they didn't follow

their by-laws thoroughly and didn't have investment income. According to the research, the government should review the current statutes and regulations to make sure that Sacco can increase its funding by making good use of institutional capital. The results demonstrated that reliable cash management is an essential part of SACCO operations. To reduce the likelihood of depositors making panicked withdrawals, the person said that banks must prudently manage their excess funds.

As per the findings posited by Von (2011), it has been observed that a heightened capital ratio tends to correspond with diminished profitability. Banks exhibiting a high capital ratio tend to display risk aversion tendencies, thereby disregarding ventures with inherent risk. Consequently, investors exhibit a reduced inclination to demand higher returns on their invested capital, as they are willing to accept a commensurately lower level of risk. The prevailing regulatory framework in numerous nations centers around the implementation of capital requirements. The diverse array of forms in which capital adequacy requirements may manifest themselves is worthy of consideration. The majority of nations possess a comprehensive understanding of the minimum capital threshold that is deemed necessary. Henceforth, numerous nations necessitate the preservation of a capital adequacy solvency ratio, denoting a prescribed minimum proportion between capital and the comprehensive magnitude of the balance sheet, encompassing total assets or liabilities, or a weighted metric of risk assets. The Basel Accord underwent modifications in 2004, wherein it incorporated more advanced methodologies for calculating capital requirements and placed greater emphasis on risk management policies and systems within the banking sector. The forthcoming regulation, set to commence implementation towards the conclusion of 2006, serves as an impetus for financial institutions to cultivate their own computational frameworks, subject to regulatory scrutiny, for the determination of minimum capital requisites.

Nyanyuki et al. (2022) posited that the assessment of capital adequacy plays a crucial role in ascertaining the extent to which banking institutions are capable of absorbing risks, thereby contributing to the overall evaluation of banking performance. The researcher posited an additional argument, contending that the concept of capital adequacy exhibits a strong correlation with the economic performance of interconnected

nations. The concept of capital adequacy holds significant importance within the realm of financial institutions. The authors define capital adequacy as the proportionate relationship between a financial institution's primary capital and its assets, serving as a metric to assess its overall financial robustness and sustainability. The utilization of capital becomes imperative in the event of an unanticipated abnormal loss, particularly in situations where the financial institutions' earnings are insufficient to absorb such losses.

According to Nyanyuki et al. (2022) in the context of capital adequacy, two accounting ratios have been proposed for consideration. These ratios include the leverage ratio and the risk weighted assets ratio. The leverage ratio, as defined by the total capital divided by total assets, is intended to serve as an indicator of regulatory capital. The risk weighted assets ratio can be defined as the quotient obtained by dividing the core capital by the total risk weighted assets. This ratio serves as a metric for evaluating risk-based capital. The assessment of capital adequacy serves as an indicator of a bank's internal resilience, particularly during periods of financial turmoil.

The study conducted by Aldrich and Auster (2016) delved into the ramifications of bank losses within the context of a stress test pertaining to bank capital. The research conducted on banks in the United States aimed to evaluate the capital adequacy of these institutions by incorporating the leverage ratio as a metric. The findings of the study revealed a significant negative correlation between the leverage ratio and the capital adequacy of US banks during the year 2016. Furthermore, it was observed that the assessment of capital adequacy, as determined by metrics such as the capital adequacy ratio and leverage ratio, significantly impacts the overall operational efficacy of a financial institution. This influence extends to various aspects, including the establishment of new branches, the provision of loans in high-risk environments, and the diversification of business activities.

2.3.3 Capital Leverage and Financial Practice

A financial institution's capital leverage can be defined as the extent to which its assets are financed by debt and shares. Capital leverage increases in tandem with rising debt levels. Due to the lower risk associated with equity financing, managers choose it over

debt financing. Leverage allows investors to boost their earnings, but it also raises their risk of loss if the value of the firm drops, which would mean paying back the loan plus interest. Because of this, capital leverage is essential, as banks and other financial organizations can use a variety of stock and debt to fund their investments and operations.

To increase their fixed-charge fund profits above their expenses, financial organizations utilize capital leverage. Problems are more likely to arise for financial institutions with large levels of debt since paying interest is their responsibility and results in substantial outlays of capital (Shah, 2016). An asset-to-debt ratio of 25% is a requirement of SASRA for all SACCOs. (Act on SACCO Societies of 2013). The bigger the ratio, the harder it is for the SACCO to raise funds through deposits. The SACCO will have to take out loans to make up for the low deposit-to-asset ratio. More debt means less profit and a liquidity disaster if you want to spend more money (Jacob, 2014).

According to the findings of Kariuki (2018), it can be posited that firms with a significant amount of leverage tend to exhibit a greater propensity to undertake financial measures such as dividend reductions, debt restructuring, and even resorting to bankruptcy. Consequently, it can be inferred that there exists a strong correlation between leverage and the occurrence of financial distress. The study revealed an additional finding that firms with high levels of leverage exhibit a heightened propensity to promptly address the ramifications stemming from subpar performance. The present study undertook an examination of leverage as a pivotal determinant among the various financial distress factors that exert an influence on the bottom line of financial institutions. An elevated leverage ratio signifies an increased allocation of debt relative to equity within the realm of long-term financing. In the context of favorable business conditions, it is observed that an increase in leverage would have a positive impact on the ROI. Conversely, it is important to note that during unfavorable business conditions, an elevated level of leverage would have a detrimental effect on the return on investment.

The results presented by Shah (2016) indicate that leverage has a negative correlation with company performance. However, with regards to business performance, an

interesting interaction effect between product diversification and leverage is seen. The effect of leverage on general insurance companies' bottom lines depends on how diversified their product lines are. High leverage is positively correlated with decreased investment in employee-centric initiatives. The result is that the company's total risk exposure increases as a result of lower leverage levels.

Combining the descriptive research method with agency theory and trade-off theory, Makori and Jagongo (2013) conducted their study. Secondary data from the audited financial accounts were also used in the study. Financial organizations with substantial capital have lower bankruptcy costs and rely less on outside funding. This is especially true in developing nations where it might be difficult to get money from outside sources. Thus, banks that have plenty of capital are more profitable than banks that don't have enough capital. Licenced deposit-accepting SACCOs in Meru County, Kenya are not yet able to see how liquidity risk management strategies affect their bottom lines. To fill this current need, researchers are interested in studying it.

As the amount of debt grows, the capital leverage also grows. Managers choose equity financing over debt financing due to the lower risk involved (Matt, 2012). Investors run the danger of losing a lot of money if the initiative doesn't do well, forcing them to pay back the loan plus interest. However, using leverage can increase earnings. Therefore, capital leverage at its highest level is essential, as financial institutions can fund their investments and operations through a mix of stock and debt. Financial institutions boost their fixed-charge fund returns above costs by using capital leverage. High levels of debt put financial institutions at greater risk since interest payments are the duty of the institution, which leads to substantial outlays of capital (Al-Otaibi, 2013). All SACCOs are required by SASRA to keep their debt-to-asset ratio at 25%. The SACCO Societies Act of 2013.

This study's overarching objective is to investigate the relationship between SACCOs' liquidity and their financial performance in Meru County. How does capital edifice impact the profitability of Saudi financial institutions? Andersen and Enger (2024) sought to answer this question. A main objective was to determine if capital structure influences the performance of banks. Theories of agency and trade-off were utilized in

conjunction with the descriptive research approach. The SACCO's ability to raise capital through deposits is negatively correlated with the ratio. The SACCO has to take out loans to fill the money shortfall caused by the low deposit-to-asset ratio. Contributor information from the audited financial accounts was also utilized in this study.

According to the findings of Said and Tumin (2012), it can be posited that alterations in leverage exert a substantial impact on the performance of firms. In light of this, it is imperative for financial institutions to employ debt financing in a more proficient manner, thereby optimizing their returns and overall performance. It can be inferred that financial leverage emerges as a pivotal factor influencing the performance of companies subsequent to the crisis that transpired from 2008 to 2012. The impact of financial leverage on corporate performance has been found to be substantial and adverse, both prior to and subsequent to periods of economic crisis. The escalation of debt financing observed during the period of the financial crisis signifies that firms adopting this financing approach become more vulnerable to the risks associated with refinancing, resulting in higher borrowing costs that subsequently lead to a decline in their overall performance.

Financial leverage and financial performance were investigated by Towo (2022) within the context of Tanzanian SACCOS. From 2011–2014, 115 SACCOS in Tanzania were a part of the panel data set utilized for the study. The research was carried out using the use of fixed-effects models. This study aims to learn more about SACCOS, or savings and credit cooperative societies, and specifically if board meetings have a moderating effect on the link between financial leverage and financial success. The results demonstrate a statistically significant adverse association between financial leverage and the financial success of SACCOS. The fact that board meetings have a notable and beneficial moderating effect further complicates the intricate relationship between financial leverage and financial success. The study concludes that rather than relying solely on foreign funding, Tanzanian SACCOS should prioritize generating internal capital through member mobilization. The operating expenditures of SACCOS in Tanzania have traditionally been financed by debt; this measure might potentially lessen that reliance.

The purpose of the study by Kariuki (2018), was to analyze the relationship between the financial performance of Kenyan DT-SACCOs as measured by ROA and two important capital structure factors: firm size and leverage. Theories such as Pecking Order Theory, Tradeoff Theory, and the Modigliani and Miller Capital Structure Theorem served as the theoretical foundations for the research. On this study, a mixed-method research strategy grounded on positivism was utilized. This study used primary and secondary data collected from 174 different deposit-taking savings and credit cooperative societies as its sample size. Stratified and purposive sampling was a part of the research approach used in this study. Descriptive statistics and a regression model were used to analyze the data. The study's results show that larger firms do better financially, and the correlation is statistically significant. While there was a statistically significant link between leverage and financial success, the opposite was true: leverage had a negative effect. Every DT-SACCOs should have an Assets and Liabilities committee, according to the report. Sound liquidity and efficient management of cash flow would be ensured by this committee's competent management of the institution's assets and obligations. Thorough investigation and analysis are required to examine important elements that determine a firm's size, such as, but not limited to, the increase of membership and the mobilization of deposits.

2.4 Research Gaps

The subject of financial performance within the SACCO movement has been vigorously studied by several researchers. A number of factors have been investigated in these studies. These include commercial bank competition, financial, organizational, educational, and membership aspects. Other variables include economic factors, management committee and staff members, members' satisfaction and engagement, and the voice and effective representation of SACCOs. In order for SACCOs to succeed financially and remain in business, certain elements are essential. This study set out to fill that information gap by analyzing how savings and credit cooperatives in Meru County fared financially after using liquidity-risk management strategies.

In light of the nation's prominent position within the region regarding SACCO performance and outreach, it is imperative to underscore the significance of

implementing prudential regulations, which have wide-ranging implications. However, it is worth noting that there is a dearth of comprehensive empirical research on this subject matter. This will entail relinquishing the oversight of a pivotal economic sector to the capricious whims of fate. Moreover, it is imperative to consider the potential decrease in operational effectiveness, which runs counter to the intended objectives of liquidity risk management strategies. This phenomenon poses noteworthy inquiries that have yet to be adequately addressed within the current body of empirical research. Furthermore, the empirical review encompasses a diverse array of approaches and methodologies, encompassing descriptive survey design, historical research design, causal research design, explanatory research design survey, and regression techniques. These rigorous investigations have yielded a multitude of findings and conclusions. Notwithstanding the plethora of extant studies, the intricate nexus between the practices pertaining to the management of liquidity risk and the ensuing financial performance of deposit taking Sacco institutions has regrettably remained unexplored.

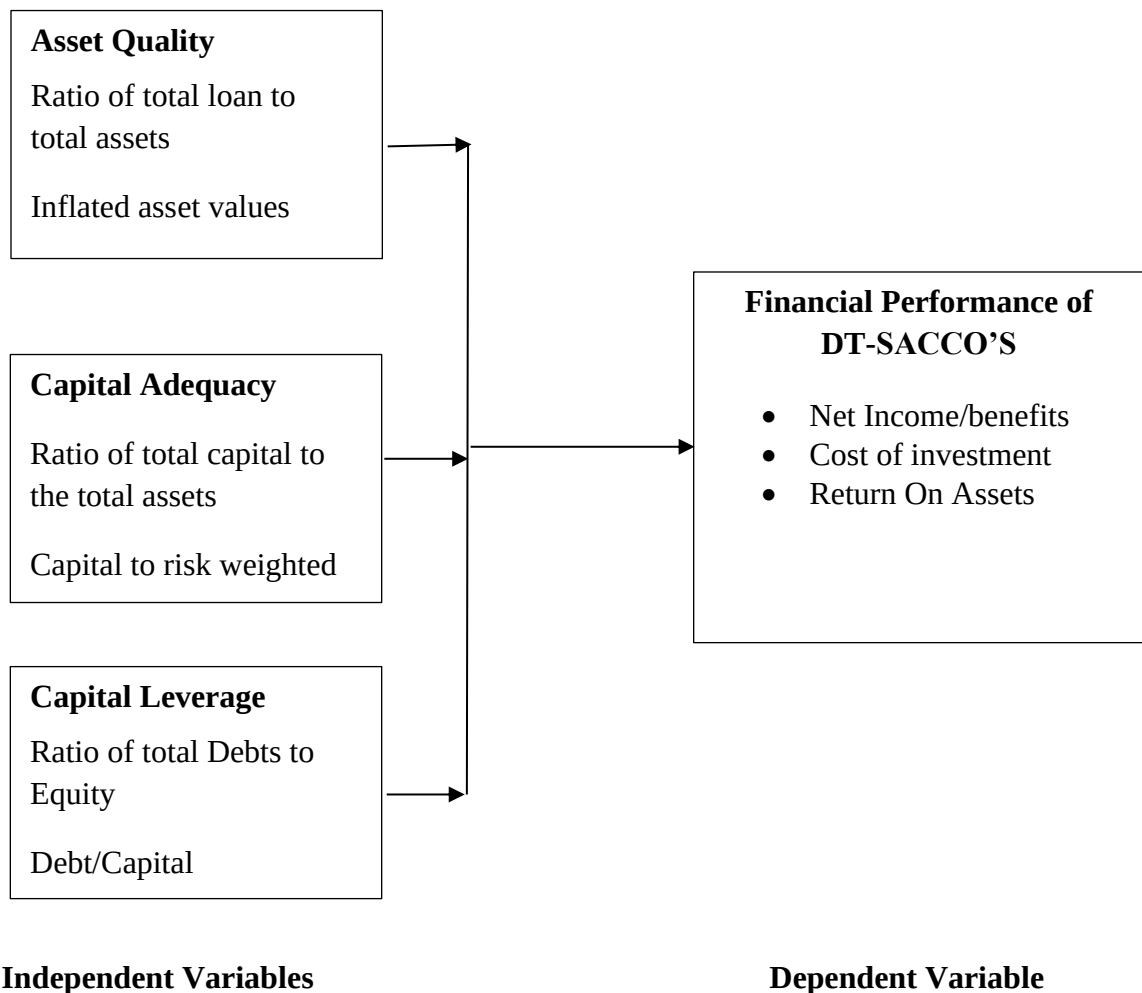
A thorough review of the relevant literature reveals a clear relationship between financial institution performance, capital adequacy, asset quality, and leverage. Having said that, it should be mentioned that certain empirical findings have pointed to a negative correlation with this. In addition, the empirical review covers a wide range of procedures and approaches, including descriptive surveys, causal studies, explanatory surveys, historical research, and regression techniques. A plethora of results and conclusions have been produced by these thorough examinations. Despite the abundance of research, the correlation between deposit-taking Sacco institutions' financial performance after implementing liquidity-risk management measures has remained surprisingly uncharted territory. On the other hand, many studies have not been able to definitively determine the effects of various factors on the efficiency of financial institutions based on their results. Capital sufficiency, asset quality, and capital leverage as they relate to licensed DT-SACCOS's financial performance have not been the subject of enough academic investigation on a regional level. Therefore, our work aims to fill that knowledge vacuum.

2.6 Conceptual Framework

According to Schumpeter (2014), a conceptual framework is a set of related ideas that, when combined, provide a thorough understanding of a phenomenon or phenomena. The present study's conceptual framework examines the relationship between liquidity risk management practices, namely asset quality, capital adequacy, and capital leverage, and the financial performance of DT SACCOs. The financial performance, as measured by profits, serves as the dependent variable in this analysis. The successful implementation of liquidity risk management strategies holds significant potential for enhancing the financial performance of SACCOs.

Figure 2.1

Conceptual Framework



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The present chapter elucidates the methodologies and techniques employed in the execution of this research endeavor, with the ultimate aim of achieving the predetermined objectives of the study. The aforementioned text also encompassed various facets of scholarly inquiry, including research design, the identification of the target population, the establishment of a sampling frame, determination of an appropriate sample size, selection of a suitable sampling technique, delineation of the data collection procedure, implementation of a pilot test, assessment of the validity and reliability of questionnaires, and the subsequent analysis of the gathered data utilizing the Statistical Package for the Social Sciences (SPSS).

3.2 Research Design

Descriptive research endeavors to examine and elucidate the prevailing patterns and attributes exhibited by a given population. The research design serves as a comprehensive framework that outlines the systematic approach for gathering, assessing, and interpreting data. According to McNabb (2014) the concept of research design pertains to the systematic organization of various factors and elements that facilitate the gathering and examination of data, with the overarching objective of effectively integrating the research purpose and optimizing procedural efficiency.

The present investigation has employed a descriptive research design. Descriptive research is primarily concerned with ascertaining the current state or condition of a particular phenomenon, as opposed to the identification and examination of causal factors that contribute to its existence. The primary aims of a descriptive research endeavor encompass the identification of prevailing conditions and the elucidation of existing needs. Furthermore, it entails a comprehensive examination of the immediate status of a given phenomenon, encompassing the discernment of factual findings. Additionally, it involves the scrutiny of the interrelationships between various traits and characteristics, as expounded upon.

3.3 Target Population

The concept of a target population refers to the comprehensive assemblage of elements upon which additional populations are constructed or, alternatively, a collection of variables under investigation (Schumpeter, 2014). The study focused on a target population comprising 33 respondents who were members of DT-SACCOs. Hence, the aforementioned group comprised individuals occupying positions within the intermediate and upper echelons of the organizational hierarchy.

Table 2.1

Target Population of the Study

S/NO	NAME OF DT-SACCO	Number of managing director(s)	Number of finance manager(s)	Target population
1	CAPITA SACCO	1	1	2
2	CENTENARY SACCO	1	2	3
3	DHABITI SACCO	1	2	3
4	IMENTI SACCO	1	1	2
5	KATHERA RURA	1	2	3
6	GOLDEN PILLAR	1	1	2
7	NYAMBENE ARIMI	1	1	2
8	SIRAJI SACCO	1	2	3
9	SMART CHAMPIONS SACCO	1	1	2
10	SOLUTION SACCO	1	1	2
11	TIMES U SACCO	1	1	2
12	YETU SACCO	1	2	3
13	MMH SACCO	1	2	3
	TOTAL	13	20	3
				3

3.4 Sample Frame

The term "sampling frame" is defined by Kothari (2004) as a set of variables used to choose a sample from a larger population. A sampling unit is a predetermined group of units used to establish an accidental variable. According to Maheshkar and Sharma (2023) the only population that may be used to draw conclusions is the one that is represented by the sample. Every DT-SACCO in Meru County was a part of the study's sample frame, as per the Meru County SASRA database.

3.4.1 Sampling Size and Sampling Technique

Sampling techniques facilitate the researcher in mitigating the quantum of data acquisition by selectively focusing on data derived from a subset, as opposed to encompassing all conceivable instances or constituents. The present investigation employed a census methodology, as recommended by Leon et al. (2011) who posits reservations regarding the utilization of probability sampling techniques for populations consisting of less than 50 individuals. Kothari (2004) posited that the comprehensive collection of data from the entire target population is advisable, given that the impact of a solitary outlier on subsequent statistical analyses is more accentuated when compared to larger sample sizes. A census is a methodological endeavor that facilitates the collection and subsequent analysis of data pertaining to each and every conceivable case or constituent within a given population.

3.5 Data Collection Instruments

The design of the questionnaire was aligned with the study's objectives and research inquiries, employing closed-ended questions to guide participants towards essential responses and facilitate the expression of their sentiments in a pragmatic fashion. The utilization of a questionnaire was deemed suitable given that the data will be derived from a primary source. A methodological approach involving the utilization of a structured questionnaire was employed in order to systematically gather pertinent data from a carefully selected subset of employees affiliated with the SACCOs. The questionnaires were administered utilizing the drop and pick later approach, wherein the researcher retrieved them subsequent to a two-day interval, thereby affording the respondents sufficient time to comprehensively complete the inquiries.

The researcher collected secondary data in order to complement the primary data obtained through the administration of the questionnaire. The primary method employed for secondary data collection entailed a comprehensive examination of the pertinent data contained within the financial statements and Financial Annual reports of the SACCO. These documents, namely the audit Accounts, encompassed a span of five years, commencing on January 1st, 2016, and concluding on December 31st, 2020. The review encompassed an analysis of the balance sheets and statements of income.

3.6 Data Collection Procedure

Following the application's approval, the researcher proceeded to get the necessary clearances to commence data collection. In addition to assuring responders that their information would remain confidential, the researcher took the time to explain the study's purpose in great detail. We performed a comprehensive evaluation of the data to find out how extensive and coherent it was so that we could simplify the statistical analysis. In order to evaluate the SACCOs' financial performance, the researcher used the ROA metric.

All DT-SACCOs registered in Meru County were surveyed by sending out questionnaires to their respective managing directors and financial managers. The plan's goal was to supplement the secondary data gleaned from the SACCO's financial reports and statements with primary data collected through this method.

Many research-related ethical considerations, including confidentiality and anonymity, were taken into account in this study to increase the response rate. The researcher made sure the participants understood the significance of the study and got their informed consent prior to the research day. The participants' anonymity and confidentiality were guaranteed by the research. Respondents were given thorough explanations when asked difficult questions. Participants were also free to opt out if they so desired. In addition, the data collection technique was designed to ensure that the respondents would not experience any emotional distress.

3.7 Research Instrument Pretesting

3.7.1 Pilot Research

A pilot test, as elucidated by Kombo and Tromp (2006) and Kothari (2004), serves as a faithful replication and preparatory exercise for the primary test. The pilot test holds immense significance, as emphasized by Newing (2011), as it serves the purpose of identifying any potential ambiguities, lack of clarity, inadequate construction, or unsuitability of questions within the questionnaire, as noted by Waidi (2016). Preliminary investigations, commonly referred to as pilot studies, involve the administration of pretest research instruments, such as questionnaires, as outlined by Gumbo and Gasa. (2023) The pilot test additionally provided the researcher with

valuable insights into the strengths and weaknesses inherent in the proposed thesis endeavor. Moreover, the utilization of pre-testing serves the purpose of ascertaining the replicability of variables, assessing the potential for errors in measurement that may arise during the course of the actual study, and enhancing the efficacy of the data collection instrument.

3.7.2 Validity of the Instrument

Mueller and Knapp (2019) state that the validity of an instrument is defined as the extent to which it measures "what it is designed to measure" or "what it purports to measure." In other words, it assesses how well the instrument addresses the study's purpose and research questions.

It is common practice for experts in the field to determine a study's content validity as there is no universally accepted way to do so. A group of experts and the researcher's supervisors followed the procedures described to determine the study's face and content validity. The researcher enhanced the reliability of the research tool by developing research questions that are in line with the aims of the study. For a measurement to be considered construct valid, it must be able to both accurately reflect and capture a specific construct, while also producing a distinct and reliable result that can be distinguished from results obtained from measuring another construct. To determine if the study instrument was construct valid, the researchers used Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) score.

3.7.3 Reliability of Instruments

Trustworthiness and impartiality are guaranteed by reliability, which also increases openness and decreases bias potential. According to Mueller and Knapp (2019), reliability is defined as the degree to which test results obtained by the same individual when administered under varied circumstances, on different forms, with different items, or by different raters are consistent with one another. If an instrument has a consistent subject or topic, or if the items in each half of the test correlate with each other, then the degree to which the items correlate with each other is indicated by internal consistency (Golafshani, 2003).

The Cronbach's alpha reliability coefficient, which serves as an indicator of the positive correlation among the items within a test, was employed. As the reliability coefficient approaches unity, there is a concomitant increase in the level of internal consistency reliability. In broad terms, it can be posited that a Cronbach's alpha coefficient falling within the range of 0.7 to 0.8 is deemed acceptable, as per the scholarly work of Mohajan (2017). Conversely, a coefficient of 0.6 or lower is regarded as suboptimal. The concept of reliability pertains primarily to the degree of consistency and stability exhibited by the outcome of a given test.

In order to determine how trustworthy the questionnaire's measurements were, Cronbach's alpha was used. In order to determine the data's trustworthiness, this study used a methodology that involved randomly selecting a cohort of respondents and having them fill out a well designed questionnaire. The purpose of include these participants in the final study sample was to reduce the possibility of response bias. The reliability of the measure was evaluated by computing the Cronbach's alpha coefficient. The dependability of the internal consistency grows in direct proportion to the value of Cronbach's alpha as it approaches unity. The freshly developed questionnaire is best administered with a coefficient of 0.7.

3.8 Data Preparation and Analysis

Extraction, coding, classification, and tabularization of solid data for analysis is what data processing is all about (Kothari, 2019). After collecting questionnaire responses, the researcher would either import the data into a database program like Microsoft Excel or straight into an SPSS spreadsheet. To achieve the study's objectives, the researcher analyzed quantitative data using SPSS version 25, combining descriptive and inferential statistical approaches. As praised by Cooper and Schindler (2011), the first step was to edit, disseminate, and spring-clean the data. Then, the acquired data was tabulated to identify and reduce any errors, incompleteness, misclassification, or gaps in the information gathered from the respondents. To illustrate descriptive statistics, bar charts and frequency distribution tables were employed. Based on the data that was evaluated, inferential statistics let the researcher develop inferences and generalize the information.

The Random Effects Model was as follows;

Firm value/ Y_{it} = Dependent Variable on firm i at time t ,

$$\text{Firm Value } Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \omega_{it} \dots\dots\dots$$

(model 3.2) Where:

Y_{it} / Firm Value it = the dependent variable (financial performance),

β_0 = The Regression constant term.

β_1 , β_2 and β_3 represents the Coefficients Independent Variables

X_1 = Asset Quality

X_2 = Capital Adequacy

X_3 = Capital Leverage

That the change in firms' value is not caused by fluctuations in the independent variable captured in the model, $\alpha_1 = \{1, 2, 3\}$ Regression coefficients or Coefficients of the model while

ω = is the error term which seizes the inexplicable disparities in the model.

i = individual index, 1, 2, 3

3.9 Test of Significance

At 90%, 95%, and 100% confidence intervals, the model's implications were tested using T-tests, F-tests, ANOVA, and Z-Tests. When determining the extent to which the regression model accounts for changes in independent variables, the strength coefficient was employed. Results are deemed statistically significant (0.05 Level) if the probability value is less than 5%.

3.10 Diagnostic Test

The regression model is based on the assumptions that the response Y to the explanatory variables follows a straight line in the model and that the errors are independent, normally distributed, and with a mean of zero and a standard deviation of two. Linearity,

autocorrelation, homoscedasticity, and normalcy tests are used to examine the assumptions of linear regression.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

The results of the in-depth analysis performed on the data collected from the sample examination are presented in this section. This study mainly aims to examine the financial performance of approved DT-SACCOs in Meru County, Kenya, by examining the present relevance or levels of various indicators of liquidity risk management strategies. This chapter gives a synopsis of lots of different things, such the instrument return rate, respondent demographics, and parts of the research variables.

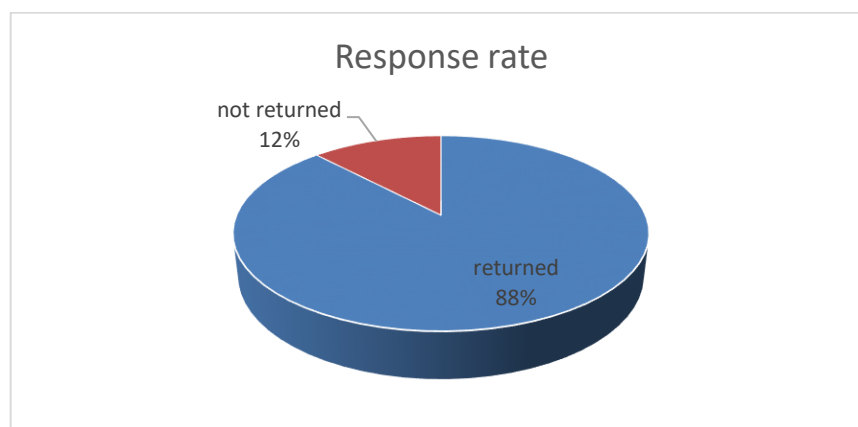
4.2 Response Rate

A comprehensive set of 33 questionnaires was disseminated to a cohort of 33 respondents, specifically managers affiliated with DT-SACCOS in Meru County. The outcome of this endeavor yielded a commendable response rate, with 29 questionnaires, constituting 88% of the total, successfully retrieved. The instrument return rate refers to the ratio of participants who have been remunerated for their participation in a dialogue or questionnaire, subsequent to the distribution of said instruments to the participants. An attainment rate of 88% was achieved in the completion of the questionnaires, rendering them deemed appropriate for inclusion in this analysis.

The observed elevated level of response rate, as depicted in Figure 4.1, can be ascribed to the meticulous implementation of data collection protocols. Specifically, the researcher employed a proactive approach by providing advance notification to the prospective participants regarding the forthcoming survey. Furthermore, a self-administered questionnaire was utilized, enabling the respondents to promptly complete the survey at their convenience. Subsequently, the completed questionnaires were expeditiously collected by the researcher. Subsequent telephone communications were additionally conducted in order to provide elucidation on any uncertainties pertaining to the questionnaires.

Figure 4.1

Response Rate



4.3 Demographic Data

4.3.1 Gender Distribution

Individuals were requested to declare their gender. How the respondents were classified by gender is detailed in the following information.

Table 4.1

Distribution of Respondents by Gender

Gender	Frequency	Percentage
Male	16	55.2%
Female	13	44.8%
Total	29	100.0%

The analytical findings indicate that the survey had a relatively equal representation of males, with 16 participants (55.2%), and females, with 13 participants (44.8%). This ensured that there was an equal representation of both male and female participants, so minimizing any potential distortion or prejudice in the recorded replies. Additionally, the Deposit-taking SACCOS in Meru County demonstrated a commitment to gender equity

in their hiring practices. The participants were also requested to provide their respective ages, and the corresponding replies are displayed in table 4.2.

4.3.2 Age Distribution

The table below displays the replies obtained from the respondents when requested to provide their ages in years.

Table 4.2

Distribution of stakeholders according to age in chuka town

Description of Stakeholder's age					
Age	N	Minimum	Maximum	mean	std deviation
Value	29	30	56	39.66	7.437

Stakeholders' ages range from 23 to 48 years old, according to the data. The study found a total of 39.66 years of age with a std dev of 7.437.

Table 4.3

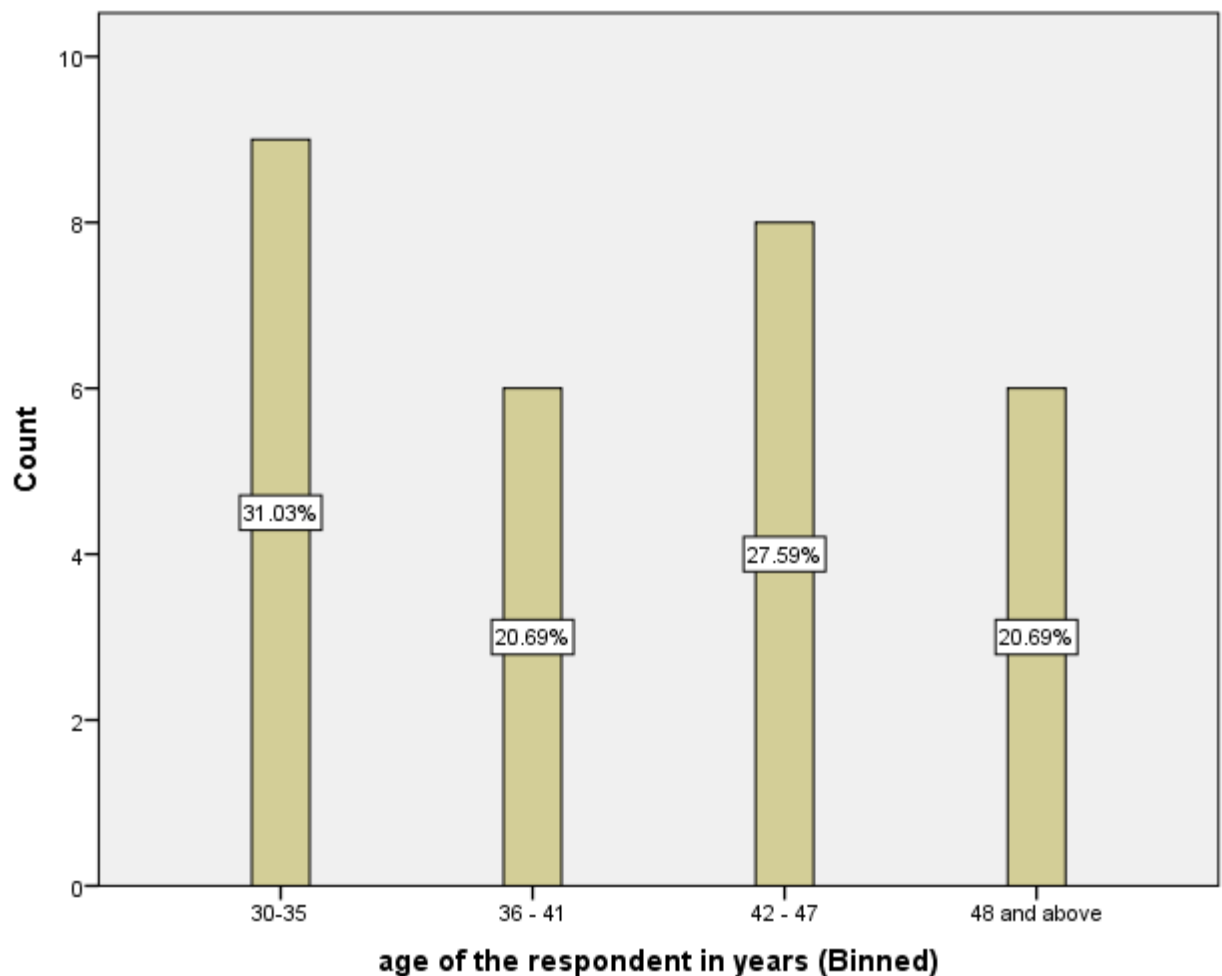
Age of the respondent in years (Binned)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	30-35	9	31.0	31.0	31.0
	36 - 41	6	20.7	20.7	51.7
	42 - 47	8	27.6	27.6	79.3
	48 and above	6	20.7	20.7	100.0
	Total	29	100.0	100.0	

The outcomes of grouping and compressing the individuals' ages are likewise displayed in Table 4.3 The study's findings indicate that most of the participants fell between the age range of 30-35 (N=9, or 31% of the total), as seen in graph 1.0. The next largest age group was 42-47, with 8 responses or 27.6% of the total. The age groups 36-41 and 48 and above each had 6 responses or 20.7% of the total. This proves that the DT-SACCOS in Meru County employed hardworking individuals who were enthusiastic about the work they did and committed to the bank's objective.

Figure 4.2

Age Distribution per groups



4.3.3 Academic Qualifications

Below is a table displaying the results of the researcher's pursuit of describing the academic prerequisites of the survey participants.

Table 4.2

Academic Qualifications of the respondent

Academic Qualification	Frequency	Percentage
Completed college	6	20.7
Completed Under-graduate	18	62.1
Post-graduate	5	17.2
Total	29	100.0

The data shows that college graduates make up the second most common type of manager (N=6, 20.7% of the total), behind those with bachelor's degrees (N=18, 62.1%). Workers with advanced degrees were reported by 5.2% of the staff (N=5), 12.2% of the staff (N=12, 13.2%), and 6.6% of the staff (N=6). Since this kind of academic distribution among staff members guarantees that the SACCOS has the workforce ability to drive it to its goals, it is recommended. In order to ensure that the responses collected were objective and based on high levels of knowledge and literacy, academic qualification was a major factor in this study.

4.3.4 Number of years worked by Respondents

In addition, the researcher tracked the respondents' years of management experience at DT-SACCOS by having them identify the duration of service in years.

Table 4.3***Number of Years Worked***

Years Worked	Frequency	Percentage
0-2	4	13.8
3-4	5	17.2
5-6	8	27.6
7-8	12	41.4
Total	29	100.0

A large portion of the employees at the Meru County SACCOS who accept deposits have a lot of experience, with 41.4% of the total staff having between seven and eight years of work experience (Table 4.3). After that, 27.7% (5-6) come next. 18.2% had worked for 1-2 years, whereas 17.2% had worked for 3-4 years. Because most of the respondents had solid professional expertise in the field, they were able to contribute objectively to the study and ensure that the data acquired was trustworthy and reliable.

Table 4.4***External Constrains***

		Cumulative		
	Frequency	Percent	Valid Percent	Percent
Valid yes	9	31.0	31.0	31.0
no	20	69.0	69.0	100.0
Total	29	100.0	100.0	

After being asked to identify whether they had encountered external constraints, the respondents provided the following information. Of the total number of respondents (N=29), 20 (or 69% of the total) reported never having encountered it, whereas 9 (31.0%) reported having done so. In the sections that follow, the results of the survey indicate the researcher's ongoing examination of the study variables' underlying structures.

4.4 Effect of liquidity Risk Management

Table 4. 4

Liquidity Risk Management on the Financial Performance

Liquidity Risk Management	Mean	Std. Dev
The significance of all risks impacting financial success.	4.9038	0.53033
Preeminent among all hazards impacting financial performance.	4.4688	0.50701
Established a management policy addressing the risks associated with loans.	3.3438	0.65300
Stakeholders involved in the development of suitable credit policies.	3.4688	0.50701
Effective elimination of liquidity risk is challenging.	3. 7188	0.72887
Continuously evaluate ICT to improve the administration of their loan portfolio.	3.4062	0.71208
A potential outcome is a deterioration in the creditworthiness of a debtor of the bond or stock issuer.	3.3437	0.54532
Elevated liquidity risk heightens the likelihood of default.	3.6250	0.79312
Subject to liquidity risk if it engages in a loan arrangement with a third party.	3.4062	0.71208
Deviates from the anticipated value of the SACCO and impacts the performance of the portfolio.	3.5625	0.80071
Measurement of the impact of liquidity risk management on financial performance.	3.6563	0.74528

As delineated in Table 4.4, the preeminent financial risks exhibit a mean value of 4.9038 with a corresponding std of 0.53033, whereas the subordinate financial risks manifest a mean value of 4.4688 accompanied by a std of 0.50701. The mean expenditure associated with the implementation of a loan risk management policy was observed to be \$3.3438, accompanied by a std of 0.65300. During the process of establishing suitable credit regulations, the concerned stakeholders exhibited a mean value of 3.4688 and a std of 0.50701. The challenge of mitigating liquidity risk was observed to be arduous, as evidenced by a mean value of 3.7188 and a std of 0.72887.

The ongoing assessment of ICT for the purpose of enhancing loan investment portfolios exhibits a mean value of 3.4062, accompanied by a std of 0.71208. The observed data exhibits a mean value of 3.3437 and a standard deviation of 0.54532. It is plausible that such data could potentially lead to a decline in the creditworthiness of an underwriter associated with the issuer of a bond or stock. Based on the statistical parameters provided, namely a mean of 3.6250 and a std of 0.79312, it can be inferred that the presence of liquidity risk has a discernible impact on the probability of default. Having a mean value of 3.4062 and a std of 0.71208, the entity in question becomes susceptible to financial risk as it proceeds to enter into a loan agreement with a third party. The investment returns from the expected value of the SACCO exhibited a mean of 3.5625 and a std of 0.80071. The mean score pertaining to the degree of impact that credit management exerts on financial performance was observed to be 3.6563, accompanied by a std of 0.74528.

Saccos that accept deposits in Nairobi County are the focus of the aforementioned research by Song'e (2022), which looks at how liquidity management affects their bottom lines. The Sacco Society Regulatory Authority licensed 27 deposit-taking saccos, and we surveyed several of them. The financial accounts that these Saccos made public between 2010 and 2014 were the primary source of secondary data used in the study. SASRA. Descriptive statistics, regression analysis, and estimate of correlation coefficients were among the statistical methods used by the researcher. We ran a regression analysis with total profit before tax to total assets as the dependent variable to look at that association we discussed before. This research took operational efficiency, financing liquidity risk, liquidity, and the logarithm of the quick ratio of total assets as independent variables. Liquidity, operational efficiency, financing liquidity risk, the quick ratio, and the logarithm of total assets are some of the variables that show a positive link with financial success, as measured by the ratio of profit before tax to total assets. So, this study suggests that Saccos (savings and credit cooperatives) that accept deposits could improve their financial performance by using optimum liquidity management measures.

In line with previous research, this study examines the effect of liquidity on the financial performance of deposit-taking microfinance organizations in Kenya. Mwandia (2014) found similar results. This research looks at the financial health and liquidity of Kenyan deposit-taking microfinance organizations from 2009 to 2013. For this study, the data was taken from the following sources: the institution's published annual audit reports, reports from the Association of Micro Finance Institutions (AMFI), and the CBK's annual reports on bank supervision for the five years that were studied. The present study used inferential statistics to quantitatively explain the basic features of a dataset, and it analyzed the data using correlation and linear regression tests. The return on assets metric, which measures the profitability and efficiency of an entity's asset use, was used to do the financial performance evaluation. Alternatively, DTMFIs' liquidity was assessed by determining their total average assets divided by cash and cash equivalents; this revealed information about their capacity to satisfy short-term commitments. The research shows that there is a favorable and statistically significant relationship between liquidity and financial success. As evidence, consider the coefficient of determination, which came out to 0.910. This means that liquidity is the true cause of financial performance volatility, explaining around 91% of it. Data analysis revealed a notable correlation of 0.941, which was determined to be statistically significant at the 5% level. Adopting ways to increase microfinance institutions' (MFIs) liquidity is at the heart of the proposed interventions. Furthermore, there is an argument for making asset expansion a top priority in order to boost financial performance and encourage competition. And it's said that new operational tactics and the use of cutting-edge technologies can boost operational efficiency.

4.5 Effect of Asset Quality

Table 4.5

Effect of Asset

Effective management of asset quality impacts the financial performance of the SACCO.	3.5625	0.75935
Inadequate asset quality hinders the recruitment and retention of skilled personnel, resulting in a significant rate of employee turnover.	3.5312	0.91526
Self-administered credit cooperatives (SACCOs) have cash flow challenges due to insufficient margin of safety to cover expected costs.	3.4688	0.80259
Should SACCOs allocate a significant amount of funds towards fixed assets, they may encounter a financial pressure that impacts their operational expenses.	3.5	0.87988
Effective management of cash flow is essential for the sustainability of SACCOs.	3.5625	0.80071
Adequate asset quality facilitates the acquisition of loans by SACCOs.	3.5625	0.84003
Effective cash management operations enable SACCOs to sustain a sufficient amount of working capital even during periods of financial difficulty.	3.5938	0.75602
Strategic Asset Credit Cooperative Organizations (SACCOs) address cash flow issues by delaying capital spending, therefore alleviating liquidity shortages.	3.5625	0.80071
Cash flow management refers to the degree of operational liquidity of a SACCO.	3.5938	0.75602
Degree to which the management of cash flow impacts financial performance.	3.6875	0.69270

Asset quality management has a mean of 3.5625 and a standard deviation of 0.75935, which affect the financial performance of the SACCO. Staff turnover is high (mean = 3.5312, standard deviation = 0.91526) due to the difficulty in attracting and retaining top talent caused by insufficient funding. Due to an absence of a buffer against anticipated expenditures, SACCOs experience difficulties with cash flow (mean = 3.4688, std = 0.80259). With an average of 3.5 and a std of 0.87988, SACCOs' operating expenses are affected by the amount of money spent on fixed assets, which can lead to a liquidity restriction.

With a mean of 3.5625 and 0.80071, SACCOs rely on asset quality management to stay afloat. With good liquidity management, SACCOs may easily get loans (mean of 3.5625%, standard deviation of 0.84003%). With sound cash management strategies, SACCOs may maintain a certain amount of working capital (mean = 3.5938, std = 0.75602). By putting off capital expenditures, SACCOs help with cash shortages; the standard deviation is 0.80071 and the mean is 3.5625. With a mean of 3.5938 and 0.75602, liquidity management measures the level of liquidity of a SACCO. An average of 3.6875 and a std of 0.69270 were the effects of flow cash management strategies on financial performance.

Said and Tumin (2012) asserts that a liquidity crisis develops when asset quality is low because defaulted loans increase. The valuation of assets and income are inflated as a result. Due to insufficient capital to meet daily withdrawal demand, there is a risk of liquidity crisis since customer savings are not secured. A combination of adequate loan provision, rigorous loan appraisal procedures, and successive recovery mechanisms can be used to manage loan assets and restore the optimal liquidity equilibrium. Legislation states that SACCO performance is heavily dependent on asset quality due to the fact that it affects interest income and reduces the cost of managing non-performing loans.

Shah (2016) investigated the relationship between the quality of assets and the performance of banks in India. The research concluded that a bank has to be more attentive to asset quality processes if its procedures are inadequate if it wants to justify the construction of a comprehensive banking system. The analysis found that banks with high-quality assets outperformed those with low-quality assets. The study's author

concluded that long-term securities were the best bet for financial institutions seeking high-quality assets.

4.6 Effect of Capital Adequacy

Table 4. 6

Capital Adequacy Management on Financial Performance

Capital adequacy	Mean	Std. Dev
The SACCO organization has implemented a formal capital adequacy plan.	3.6563	0.74528
An effective capital strategy enables my SACCO to precisely outline solutions for resolving liquidity deficiencies under emergency circumstances.	3.5625	0.80071
Periodic testing is conducted on the capital adequacy plan in my SACCO to verify its operational soundness.	3.4375	0.94826
The senior management team is responsible for coordinating strategy for managing liquidity risk.	3.4375	0.94826
An essential objective of a capital adequacy strategy is to provide a structured approach for evaluating a liquidity crisis scenario.	3.6875	0.73780
State-owned banks and credit cooperatives (SACCOs) develop strategies to effectively handle various challenging financial situations in the present or future.	3.5312	0.84183
Financial performance is influenced by the degree of financing management.	3.6563	0.70066

The meticulously planned and executed contingency funding strategy of SACCO is supported by their records, with a mean value of 3.6563 and a std of 0.74528. With a mean of 3.5625 and a std of 0.80071, the finance plan helps the SACCO to successfully manage liquidity deficits in unexpected situations. In order to determine the strategic soundness of the SACCO, its capital adequacy is regularly assessed. The mean and standard deviation were found to be 3.4375 and 0.94826, respectively, according to the

statistics. With a std of 0.94826, the senior leadership team in charge of coordinating liquidity risk plans had an average value of 3.4375. SACCO has painstakingly put in place a thorough contingency financing strategy, as shown by its documented structure, with an average value of 3.6563 and a std of 0.74528. With an average score of 3.5625 and a std of 0.80071, the finance plan helps the SACCO to outline comprehensive methods to deal with cash shortages in unexpected situations. In order to determine the strategic soundness of the SACCO, its capital adequacy is regularly assessed. For this evaluation, the statistical measurements of standard deviation were found to be 0.94826 and the mean to be 3.4375. The liquidity risk plans of the senior leadership team had an average value of 3.4375 and a std of 0.94826.

The findings corroborate those of Agbada and Osuji (2013), who argue that deposit-taking SACCOs and other financial institutions with demand deposits, like banks, need a certain amount of capital to effectively manage risk. This is demonstrated by the SACCO Act of 2008, whose structure is very similar to Basel's. To further protect against capital loss, the Act allows SACCOs to set aside a portion of their profits in a risk reserve. Capital sufficiency boosts public trust and gives creditors (including depositors) peace of mind about an institution's financial stability.

4.7 Financial Performance of SACCOs

Table 4. 7

Financial Performance of SACCOs

Financial Performance	Mean	Std Dev
Maximum returns on the capital employed in the business	3.5938	0.7562
Expansion of the asset portfolio of the SACCOs.	3.6563	0.7878
Enhancement of the loan book performance	3.4688	0.9156
High returns on investment	3.75	0.7182

The following statistical characteristics define the upper bounds of the company's returns on invested capital: With a std of 0.7562, the mean value is 3.5938. At 3.6563 with a std of 0.7878, the asset base of the SACCO increased. With a mean of 3.4688 and a std of

0.9156, the SACCO loan portfolio clearly performed better than any other. With a std of 0.7182, the average ROI was found to be 3.75.

The present study's findings are consistent with those of Ngeche (2017), who investigated the connection between DT-SACCOS's financial performance and the expansion of loans in Kenya. Finding out how DT-SACCOS's bottom lines fared as a result of increased credit was the driving force for this study. The research indicated that credit risks were prevalent in the diverse DT-SACCOS environment. We set out to find out two things: first, how effective credit term limits are in lowering liquidity worries; and second, whether or not they affect financial performance generally. In light of the fact that the DT-SACCO regulator is present, it is imperative that IFRS be adhered to in order to provide consistent and standardized financial reporting. The standardization also makes it easier for different DT-SACCOS to streamline their loan monitoring processes. Finding that substantial loans have a positive effect on DT-SACCOS's financial performance is the study's main contribution. Financial Opportunity Savings and Loans Association (FOSA) product funding. In order to determine how revenue profits affect the financial performance of DT-SACCOS in Kenya, Mathuva (2016) undertook an empirical analysis. Profitability and its effect on DT-SACCOS's bottom line were the foci of this research. The research yielded results indicating that financial institutions, specifically DT-SACCOS, would benefit from enhancing their revenue generation capabilities in order to achieve optimal financial performance. Additionally, it has been determined that the financial performance of an organization is intrinsically impacted by the trajectory of revenue earnings. The suboptimal generation of revenue may potentially serve as a contributing factor to the underperformance exhibited by a majority of DT-SACCOS. Nevertheless, a notable lacuna in the existing body of research pertains to the extent to which FOSA (Financially Oriented Savings Association) products have the capacity to optimize revenue generation and thereby enhance their overall financial performance. The study's pertinence becomes apparent as FOSA products exhibit a positive impact on revenue optimization within the context of DT-SACCOS. It can be posited that an escalation in charges stemming from FOSA

(Financial Organization for Savings and Advances) merchandise would yield a commensurate augmentation in financial performance.

4.8 Diagnostic Tests

Multicollinearity, autocorrelation, and normalcy tests were run before the researcher regressed liquidity management against the financial performance of SPCOs. The findings are detailed in the sections that follow.

4.8.1 Multicollinearity Tests

Multicollinearity refers to a state characterized by pronounced intercorrelations or inter-associations among independent variables. This phenomenon can be regarded as a form of disturbance within the dataset. Consequently, the presence of multicollinearity may compromise the reliability of statistical inferences drawn from the data. There might be difficulties in fitting the model and interpreting the findings when the level of correlation between the variables reaches a specific threshold. According to Kothari (2004), multiple regression analysis becomes more complicated when there are strong correlations among the predictor variables, a phenomenon known as multicollinearity. This phenomenon hinders the straightforward identification of the unique association between each predictor variable and the dependent variable. The phenomenon in question arises when there is an overlap between two or more explanatory variables, thereby rendering the methods of analysis incapable of differentiating between the explanatory factors or isolating their independent influence. When multicollinearity is present, the estimation of the impact of a single variable on the dependent variable, while accounting for the influence of other variables, tends to exhibit reduced precision compared to scenarios where the predictors are uncorrelated with each other.

In a multiple regression model, multicollinearity happens when two or more predictor variables are highly correlated with one another. In this case, the substantial correlations between the independent variables indicate a problematic situation. Perfect multicollinearity is defined as the presence of one or more precise linear connections among a subset of the variables in a collection. The utilization of the VIF was employed as a means to identify the presence of multicollinearity within the given dataset. The results are delineated in Table 4.8.

Table 4. 8*Multicollinearity Test*

	Collinearity Statistics	
	Tolerance	VIF
Asset Quality	.903	1.108
Capital Adequacy	.086	11.624
Capital Leverage	.084	11.849

Three metrics were measured by VIFs: asset quality (1.108), capital sufficiency (11.624), and capital leverage (11.849). Values between 1 and 10 for the VIF show that there is no multicollinearity, but values below 1 or above 10 usually indicate multicollinearity. Cash flow analysis and contingency financing were shown to have a small but substantial link with financial performance, which was disregarded, whereas asset quality showed little to no connection.

4.8.2 Autocorrelation Test

The main reason for autocorrelation is because relevant variables are left out of the model. The residual term incorporates the effect of a critical independent variable's exclusion from the model on the dependent variable. If the missing variable has a positive or negative correlation with the dependent variable, then the error terms are likely to be positively or negatively linked. In order to determine if the dataset had any autocorrelation, the researcher employed the Durbin-Watson statistic. The results are shown in Table 4.9.

Table 4. 9*Autocorrelation Test*

Model	Durbin-Watson
1	1.792

A value of 1.792 was recorded by Durbin Watson Statistics in Table 4.9. Values between 0 and 4 are common for Durbin Watson. A number of 0 indicates no autocorrelation, whereas a value of 4 indicates negative autocorrelation. Autocorrelation

does not exist when the Durbin Watson statistic returns a value of 2. The presence of autocorrelation in the data set was confirmed by the value, which is around 2.

4.8.3 Normality Test

From an empirical standpoint, it is worth noting that whilst normality is one of the assumptions of ordinary least regression, it is not necessary to do such modeling. Normalcy is unquestionably a requirement for conducting significance tests and constructing confidence interval estimations for the parameters. This is due to the fact that, for hypothesis testing, the t-tests and F-tests typically assume that the underlying distributions follow the normal distribution. Whether the data were normally distributed was checked using the skewness/kurtosis test of normality, or Sktest, in this study.

The concept of skewness pertains to the quantification of the extent of asymmetry exhibited by a distribution in relation to its central tendency, specifically the mean. A distribution exhibiting positive skewness is characterized by an asymmetric tail that extends towards values of greater positivity. Negative skewness is indicative of a distribution that exhibits an asymmetrical tail that extends towards values that are positioned in the negative range. Kurtosis is a statistical measure that quantifies the extent to which a given distribution deviates from the bell-shaped curve of a normal distribution, indicating the degree of peakedness or flatness. A distribution exhibiting positive kurtosis is indicative of a relatively heightened level of peakedness. A negative value for kurtosis denotes a distribution that exhibits a relatively flattened shape. The utilization of skewness and kurtosis as statistical measures allows for the assessment of the symmetry and peakedness, respectively, of a given distribution. Acceptable values for asymmetry and kurtosis within the range of -2 to +2 are commonly employed as evidence of a normal univariate distribution. The observed skewness and kurtosis values fall within the anticipated ranges of chance variations in the respective statistic (i.e., $\pm$ standard error of skewness and $\pm$ standard error of kurtosis). This suggests that the distribution does not exhibit any noteworthy issues with skewness or kurtosis. The assessment of normality was conducted utilizing the statistical measures of skewness and kurtosis, as presented in Table 4.10.

Table 4.10*Normality Test*

	N	Skewness		Kurtosis	
	<u>Statistic</u>	<u>Statistic</u>	<u>Std. Error</u>	<u>Statistic</u>	<u>Std. Error</u>
Asset Quality	30	.276	.415	-.576	.709
Capital Quality	30	.272	.415	-.176	.709
Capital Leverage	30	.294	.415	.237	.709
Financial performance	30	.286	.415	.165	.709

Data showed that asset quality was 0.276 with a kurtosis of -0.576, capital quality was 0.272 with a kurtosis of -0.176, capital leverage was 0.297 with a skewness of 0.237, and financial performance was 0.238 with a skewness of 0.199. Data analysis can commence if, as per Kothari (2019), the Kurtosis and Skewness values fall between the range of +286 and -165. Consequently, regressing was made practicable since the data set followed a normal distribution.

4.9 Regression Analysis

To investigate the connection between the independent variables and the SACCO's performance, a multivariate linear regression analysis was used. To determine if the fit was enough, we used the R-squared value, which is a product of the linear regression analysis; a value higher than 0.7 indicates a very good match. Using t-test P-values, we were able to determine which independent variables in the regression model were statistically significant. The results are detailed in the sections that follow.

The three factors proposed in this theoretical framework are clearly not the only ones that can be used to predict how well savings and credit cooperative societies in Meru County would do financially. The adjusted R square value must not be less than 0.10 for it to be considered satisfactory in the field of social science. Asset quality, capital quality, and capital leverage are the three discovered characteristics that appear to account for a considerable percentage, 76.8% to be exact, of the connection. We can ascribe the remaining 0.1% to other factors that were not considered in the model. A

linear relationship between variables is shown by a R value of 0.924 in the model summary results. Also, the independent variable explains a fraction of the dependent variable's variance (R squared), which is 0.999. Finally, after accounting for the total number of predictors in the model, the corrected R square value comes out to be 0.910. The study's independent variables account for a large amount, precisely 99.9 percent, of the SACCOs' performance, according to the data.

4.9.1 Model Summary

Table 4.11

Model Summary

R	R²	Adjusted R²	Std. Error of the Est.
.924	.999	.910	.65259

a. Predictors: (Constant), Asset Quality, Capital Quality, Capital Leverage

4.9.2 ANOVA

The regression and residual components' sum of squares is shown in the analysis of variance (ANOVA) result. Furthermore, the significance level and F ratio value are provided. An indicator of the regression model's relevance or fitness, the letter "F" stands for it. What this statement shows is how good the predictors are in predicting the dependent variable's values. The results of the statistical analysis demonstrate the significance of the regression model (F = 249.100, p = 0.000). Only regression models with p-values of 0.05 or below are deemed statistically significant. The results of the regression model are shown in Table 4.12, and the p-value is 0.000. The p-value is less than the significance level of 0.05. The statistical significance of the regression model's ability to predict how liquidity-risk management methods will impact the financial performance of savings and credit cooperatives in Meru County is demonstrated by the statement above. Previous studies have shown that savings and credit cooperative societies in Meru County are significantly impacted by asset quality, capital quality, and capital leverage on their financial performance.

The computed F statistic is 289.100, while the critical value of F at a significance level of 5% is determined to be 2.65, as per the ANOVA analysis conducted on the processed

data. The observation that the calculated F value (289.100) surpasses the critical F value (2.65) suggests that the model as a whole is accurately specified.

Table 4.12

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	349.951	3	116.650	289.100	.001 ^b
Residual	11.924	28	0.426		
Total	361.875	31			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Asset Quality, Capital Quality, Capital Leverage

4.8.3 Regression Coefficients

The results of the regression analysis show that the predicted value of the coefficient for the asset quality variable is 0.018. This data reveals that there is a correlation between a 0.018 rise in financial performance and a marginal increase of one unit in asset quality. However, the results of the empirical research showed that asset quality did not have a significant influence on the financial performance of SACCOs ($\beta = 0.018$; $t = 0.231$; $p > 0.05$). Capital adequacy is projected to have a coefficient of 0.113 according to the results of the regression study. This data implies that there is a correlation between a one-unit rise in capital adequacy and a 0.135 point improvement in financial performance. It has been shown that SACCOs' financial performance is significantly affected by their degree of capital adequacy ($\beta = 0.113$; $t = 2.156$; $p < 0.05$). The regression analysis shows that capital leverage management is projected to have a coefficient of 0.576. Based on these results, it seems that financial performance would improve by 0.576 percentage points for every one unit rise in capital leverage. Capital leverage has now been found to have a substantial effect on SACCOs' financial performance ($\beta = 0.576$; $t = 6.289$; $p < 0.05$).

Table 4.13*Coefficients*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.189	1.57		.129	.916
Asset Quality	.018	.047	.019	.231	.819
Capital Adequacy	.133	.0661	.2643	2.1564	.040
Capital Leverage	.576	.094	.797	6.289	.000

a. Dependent Variable: Financial Performance of SACCOs

$$Y = 0.177 + 0.008X_1 + 0.252X_2 + 0.737X_3 + \varepsilon$$

Whereby: Y = Financial Performance of SACCOs X_1 = Asset Quality, X_2 = Capital Adequacy, X_3 = Capital Leverage

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter encompasses the presentation of the study's summary, discussion, conclusion, and suggestion. The primary objective of this research endeavor was to meticulously examine the intricate dynamics of liquidity management and financial performance within the context of Kenyan savings and credit cooperatives. Specifically, the study focused on conducting a comprehensive survey of SACCOs situated in Meru County, thereby shedding light on the pertinent aspects of this domain. The findings are presented in the subsequent sections.

5.2 Summary of the Findings

5.2.1 Asset Quality

It was determined through the evaluation of asset quality that there was a reasonable level of explanatory power in connection to the performance of the financial sector. In addition, the data suggest that the quality of assets displayed a strong potential to anticipate the performance of the financial sector. Statistical significance in the relationship between asset quality and financial performance was not found to exist, according to the results of the regression analysis of the coefficient.

5.2.2 Capital Adequacy

According to the findings of the investigation, the amount of explanatory power that capital adequacy displayed in terms of clarifying financial performance shown a good level. Furthermore, the data demonstrated that there was a significant association between the degree of capital adequacy and the financial performance of the organization concerned. Through the examination of the regression coefficient, it was discovered that there is a correlation that is both statistically significant and positive between adequate capital and financial performance. The idea behind this argument is that an increase in the adequate amount of capital will result in a corresponding improvement in the financial performance of the organization.

5.2.3 Capital Leverage

The adequacy of capital leverage in elucidating financial performance was ascertained. Moreover, the findings indicated that the utilization of capital leverage exhibited a significant correlation with financial performance. The regression analysis demonstrated a statistically significant positive association between capital leverage and financial performance. This observation suggests that an enhancement in the utilization of capital leverage is associated with a corresponding enhancement in financial performance.

5.3 Conclusions

5.3.1 Asset Quality

Quality of assets refers to the overall risk that comes with a company's various assets. It is common practice for DT SACCOs to apply this idea when calculating the value of assets at risk and the amount to set aside in the event of a forfeiture. The quality of a financial institution's loans and progresses, which are considered common assets, needs thorough evaluation. The income, liquidity, and creditworthiness of DT SACCO are all affected by the operating success, which in turn is affected by non-performing assets. Profits from bank loans can be increased and failure costs can be decreased by enhancing loan quality. The capacity of DT SACCOs to foresee, mitigate, and identify risks and therefore, to account for losses incurred as a result of those risks is crucial to their financial success. So, while deciding how to distribute funds across their assets, DT SACCOs should think about how much risk there is.

5.3.2 Capital Adequacy

The potential hindrance of the DTS's ability to actively pursue a savings mobilization strategy lies in the core capital to total deposit requirements. Upon reaching the minimum threshold of 8%, it is of utmost importance that any further savings are accompanied by a commensurate augmentation in the levels of core capital, in order to ensure continued adherence to the DTS compliance. Despite the potential drawbacks of high capital costs in relation to expected returns, it is noteworthy that financial institutions possessing significant capital reserves exhibit a reduced susceptibility to bankruptcy and are less inclined to seek external funding, particularly in the context of emerging economies where borrowing opportunities are limited. As a corollary, it can be

observed that financial institutions endowed with ample capital tend to accrue greater advantages compared to their counterparts characterized by insufficient capital. The degree of capital adequacy plays a pivotal role in determining the ability of Savings and Credit Cooperative Organizations (SACCOs) to effectively navigate and mitigate the impact of balance-sheet shocks.

5.3.3 Capital Leverage

When debt levels grow, capital leverage also rises. Managers would rather employ equity funding, which carries less risk, than debt financing. Using leverage can increase an investor's earnings, but it also increases their risk of losing money if the endeavor doesn't do well, which would mean paying back the loan plus interest. Financial institutions frequently employ capital leverage as a means to augment their fixed-charge fund returns relative to expenditures. Financial institutions are more vulnerable when their debt levels are high since they are liable for paying interest, which leads to substantial outlays of capital. An asset-to-debt ratio of 25% is a requirement of SASRA for all SACCOs.

5.4 Recommendations

1. To manage losses from defaulted loans, SACCOs should have money available for withdrawal. The lower the asset quality, the higher the non-performing loan ratio to gross/net assets, indicating a negative trade-off between asset quality and performance. In addition, to attain excellent asset quality, the researcher recommended banks to invest in long-term securities.
2. The SACCO regulatory body should make sure their organizations have enough capital, according to this report. They might then use this main funding into expanding their SACCOs' deposit-taking capabilities, which would allow them to lend more money. This, in turn, would boost their profits. To make sure SACCOs can stay competitive and have enough space to expand, the government and SACCO governing bodies should regularly assess the SACCOs' operating environment and change regulations as needed.

3. In order to increase the earnings from their fixed-charge funds above their costs, DT SACCOS should employ capital leverage. Problems arise more frequently for financial institutions with high amounts of debt since paying interest is their responsibility and consumes a lot of money. A debt-to-asset ratio of not more than twenty-five percent should be imposed on all SACCOs by SASRA. It becomes increasingly challenging for the SACCO to raise funds from deposits as the ratio increases. Borrowing money is necessary for the SACCO to make up for the low deposit-to-asset ratio. Spending more money means taking on more debt, which means fewer earnings and a liquidity crisis.

5.6 Recommendation for Further Research

The primary focus of this study centers around three key components, namely asset quality, capital adequacy, and capital leverage, which play a significant role in shaping the liquidity risk management practices employed by SACCOs. These practices, in turn, have a direct impact on the overall financial performance of these institutions. If the application of such research methodologies were extended to other sectors within the economy, it is highly probable that the banking industry as a collective entity would experience substantial gains. The study encompassed a cohort of companies spanning a period of three years. Consequently, it would be advantageous for the banking sector to undertake investigations at different developmental stages.

REFERENCES

- Abbas, F., Iqbal, S., & Aziz, B. (2019). The impact of bank capital, bank liquidity and credit risk on profitability in postcrisis period: A comparative study of US and Asia. *Cogent Economics & Finance*, 7, 1605683. <https://doi.org/10.1080/23322039.2019.1605683>.
- Abbot, M. L., & McKinney, J. (2013). *Understanding and applying research design* (1st ed.). John Wiley & Sons, Inc.
- Ahmad, R. (2016). A Study of Relationship between Liquidity and Profitability of Standard Chartered Bank Pakistan: Analysis of Financial Statement Approach. *Global journal of management and business*, 16(1), 77-82. <https://journalofbusiness.org/index.php/GJMBR/article/view/1927>.
- Aldrich, H. E., & Auster, E. (2016). Even dwarfs started small: Liability of age and size and their strategic implications. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior* (Vol. 8, pp. 165–198). JAI Press.
- Alukwe, G. H., Ngugi, P. K., Ogollah, K., & Orwa, G. (2015). Corporate governance challenge to regulation compliance by deposit taking savings and credit co-operative societies in Kenya. *International Journal of Academic Research in Business and Social Sciences*, 5(3), 179–193. <https://ideas.repec.org/a/hur/ijarbs/v5y2015i3p179-193.html>
- Amoa-Gyarteng, K. (2023) *Overcoming Financial Challenges for Small and Medium Enterprises: Strategies for Entrepreneurial Success*, ZBW – Leibniz Information Centre for Economics.
- Andersen, H. & Enger, R. (2024) Optimal capital adequacy ratios for banks. *Latin American Journal of Central Banking*, 5(2). 100107. <https://doi.org/10.1016/j.latcb.2023.100107>.
- Barako, D.G. & Brown, A.M. (2008) Corporate Social Reporting and Board Representation: Evidence from the Kenyan Banking Sector. *Journal of*

Management & Governance, 12, 309.-401. <https://doi.org/10.1007/s10997-008-9053-x>

Burton, M & Brown, B (2014). *The Financial System and the Economy Principles of Money and Banking*. (5th ed) Routledge
DOI<https://doi.org/10.4324/9781315699776>

Cooper, D. & Schindler, P. (2011) *Business Research Methods*. (11th ed). McGraw Hill

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approach* (3rd ed.). Sage Publications.

Cronbach, L. J. (1951) Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334. <https://doi.org/10.1007/BF02310555>.

Dang, H. T. (2020). Determinants of Liquidity of Listed Enterprises: Evidence from Vietnam. *Journal of Asian Finance, Economics and Business*, 7(11), 067-073.
<https://doi.org/10.13106/jafeb.2020.vol7.no11.067>.

Das, G., & Silva. (2017). *Testing statistical assumptions*. Statistical Publishing Associates.

Dawson-Rose, C., Gutin, S. A., Hunguana, E., Mudender, F., & Kevany, S. (2020). Capacity building, local ownership and implementation of a multi-level HIV/AIDS positive health, dignity, and prevention initiative in Mozambique: approach, challenges and lessons learned. *Global Health Action*, 13(1).1-12.
<http://doi.10.1080/16549716.2020.1769900>

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report*, 8(4), 597-607.
<https://www.scirp.org/reference/referencespapers?referenceid=2496845>

Gołaś, Z. (2020). Impact of working capital management on business profitability: Evidence from the Polish dairy industry. *Agricultural Economics – Czech*, 66(6), 278–285. <https://doi.org/10.17221/335/2019-AGRICECON>.

- Gumbo, M. T., & V. Gasa. (2023). "Postgraduate Supervision Support in Open Distance and E-Learning: Supervisors' and Key stakeholders' Views". *South African Journal of Higher Education* 37 (4), 123-40. <https://doi.org/10.20853/37-4-5318>
- Hossain, I., & Alam, J. (2019). The Relationship between Liquidity and Profitability in Emerging Countries: Evidence from Bangladesh. *Journal of Finance and Accounting*, 7, 22-27. <https://www.semanticscholar.org/paper/>
- Iqbal ,H. & Jahangir ,A. (2019) The Relationship between Liquidity and Profitability in Emerging Countries: Evidence from Bangladesh. *Journal of Finance and Accounting*.7(1)22-27. doi: 10.12691/jfa-7-1-4.
- Jacob, M. (2014). *The effect of funding structure and liquidity on financial performance of savings and credit cooperative societies in Murang'a county* [Unpublished master's thesis]. University of Nairobi.
- Kanyi, A.M., Kimani E. Maina, E & Kariuki, S.(2018) Corporate Governance and Financial Performance of Savings and Credit Co-Operatives in Embu County, Kenya. *International Journal of Finance, Accounting and Economics (IJFAE)* 1 (2) 1-11, www.oircjournals.org
- Kariuki, W. (2018) *Factors Influencing Performance of Micro And Small Enterprises In Kenya: a Case of Kiambu County, Kenya* [Doctoral Dissertation, KCA University]<http://41.89.49.13:8080/xmlui/bitstream/handle/123456789/1448/>
- Kimari, F. (2013). *Effectiveness of risk management on financial performance of deposit-taking savings and credit cooperative societies in Kenya* [Unpublished master's thesis]. University of Nairobi.
- Kiyotaki, N., & Moore, J. (2018). *Liquidity, business cycles and monetary policy*. Princeton University Press.
- Kombo, D. K., & Tromp, D. L. (2006). *Proposal and thesis writing: An introduction*. Paulines Publications Africa.

- Kothari, C. R. (2019). *Research Methodology: Methods and Techniques* (4th ed.) New Age International Limited.
- Kwamboka, M. (2021) *Effect of non-performing loans on performance of Savings and credit cooperatives in private Universities in Kenya*. [Master's thesis, United States International University Africa. <https://erepo.usiu.ac.ke/bitstream/handle/11732/7207/>]
- Laisi, T (2016) *Pecking Order Theory in A Bank-Centered Lendingenvironment – Evidence from North European Economies*. [Master's Thesis, University of VAASA] https://osuva.uwasa.fi/bitstream/handle/10024/2378/osuva_6865.pdf?sequence=1&isAllowed=y
- Leon, A. C., Davis, L., & Kraemer, H. C. (2011). The role and interpretation of pilot studies in clinical research. *Journal of Psychiatric Research*, 45(5), 626–629. <http://doi:10.1016/j.jpsychires.2010.10.008>
- Maheshkar , C. & Sharma, V. (2023) *Handbook of Research on Cross-culture Business and Management*. Vernon Press
- Maina S.N. (2020). *The Relationship between Liquidity and Profitability in Emerging Countries: Evidence from Bangladesh*. [Master's Thesis, University of Nairobi] <http://erepository.uonbi.ac.ke/bitstream/handle/11295/103313/>
- Makori, D. M., & Jagongo, A. (2013). Working capital management and firm profitability: Empirical evidence from manufacturing and construction firms listed on Nairobi Securities Exchange, Kenya. *International Journal of Accounting and Taxation*, 1(1), 1–14. <https://www.scirp.org/reference/referencespapers?referenceid=3789522>
- Mathuva, D. (2016) Revenue Diversification and Financial Performance of Savings and Credit Co-Operatives in Kenya. *Journal of Co-Operative Organization and Management*, 4(1), 1-12. <https://doi.org/10.1016/j.jcom.2015.11.001>

- McNabb, D. E. (2014). *Nonsampling error in social surveys*. SAGE Publications, Inc., <https://doi.org/10.4135/9781483352923>
- Mueller, R. O., & Knapp, T. R. (2019). Reliability and validity. In G. R. Hancock, L. M. Stapleton, & R. O. Mueller (Eds.), *The reviewer's guide to quantitative methods in the social sciences* (pp. 397–401). Routledge.
- Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative and qualitative approaches*. Acts Press.
- Mumanyi, E. A. L. (2014). Challenges and opportunities facing SACCOs in the current devolved system of government of Kenya: A case study of Mombasa County. *International Journal of Social Sciences and Entrepreneurship*, 1 (9), 288-314. https://www.ijssse.org/articles/ijssse_v1_i9_288_314.pdf
- Mwandia, J. M. (2014). *The effect of funding structure and liquidity on financial performance of savings and credit cooperative societies in Murang'a County* [Unpublished master's thesis]. University of Nairobi.
- Ndumia, I. M., & Omagwa, J. (2019). Working Capital Management and Profitability of Firms Listed Under Manufacturing and Allied Sector at the Nairobi Securities Exchange, Kenya. *IOSR Journal of Economics and Finance*, 10(6), 23-37. DOI: 10.9790/5933-1006032337.
- Ng'aari, E. W. (2016). *effect of risk management practices on the profitability of Listed Commercial Banks in Kenya* [Doctoral dissertation, KCA University]. <https://repository.kcau.ac.ke/handle/123456789/158>
- Ngeche, J. (2017). *Internal Factors Influencing Strategy Implementation in the Banking Sector: A Case Study of the Chase Bank* [Unpublished Doctoral dissertation, United States International University-Africa].
- Nguyen, A. H., Pham, H. T., & Nguyen, H. T. (2020). Impact of Working Capital Management on Firm's Profitability: Empirical Evidence from Vietnam. *Journal*

of *Asian Finance, Economics and Business*, 7(3), 115-125.
doi:10.13106/jafeb.2020.vol7.no3.115.

Nguyen, L. T., & Nguyen, C. (2020). The Determinants of Profitability in Listed Enterprises: A Study from Vietnamese Stock Exchange. *The Journal of Asian Finance, Economics and Business*, 7(1), 47-58.
<https://doi.org/10.13106/jafeb.2020.vol7.no1.47>.

Nobanee, H. (2017) Efficiency of Working Capital Management and Profitability of UAE Construction Companies: Size and Crisis Effects. *SSRN Electronic Journal*, 1-6. DOI: 10.2139/ssrn.2971477.

Nyanyuki, M. N., Nyanga'u, A., Onwonga, M. (2022) Evaluation of the effects of capital adequacy on financial performance of commercial banks in Kenya. *International Academic Journal of Economics and Finance*, 3(7), 113-126.
https://iajournals.org/articles/iajef_v3_i7_113_126.pdf

Odero, J. A., Egessa, R. & Oseno, B. (2019) Effect of Innovation on Performance of Deposit Taking Saccos in Kenya *International Journal of Management and Commerce Innovations*. 7(1) .776-787 <http://www.researchpublish.com/>

Oladipupo, F. O., Adekanbi, J. A., & Oluwadare, O. E. (2019). Working Capital Management and Firms' Profitability: Evidence from Quoted Firms on the Nigerian Stock Exchange. *Intelligent Information Management*, 11(3), 43-60.
DOI: 10.4236/iim.2019.113005.

Olando, C., Jagongo, A., & Martin, O. (2020). The Contribution of SACCO Financial Stewardship to Growth of SACCOS in Kenya. *International Journal of Humanities and Social Science*, 3(17), 112-137.
<https://www.semanticscholar.org/paper/>

Ongore, V.O. & Kusa, G.B. (2013). Determinants of Financial Performance of Commercial Banks in Kenya. *International Journal of Economics and Financial Issues*, 3(1), 237- 252. cirp.org/reference/referencespapers?referenceid=2170436

- Osoro, E. M. & Muturi, W. (2015). Effects of liquidity-risk management practices on the financial performance of savings and credit co-operative societies in Kisii County, Kenya. *International Academic Journal of Information Sciences and Project Management*, 1 (4), 68-85 : http://www.iajournals.org/articles/iajispm_v1_i4_68_85.pdf
- Paul, S. C., Rahman, M. A., & Jiasmin. (2021, 8 9). Current Assets, Current Liabilities and Profitability: A Cross Industry Analysis. *Journal of Asian Business Strategy*, 11(1), 55-68. <https://doi.org/10.18488/journal.1006.2021.111.55.68>.
- Pham, K. X., Nguyen, Q. N., & Nguyen, C. V. (2020). Effect of Working Capital Management on the Profitability of Steel Companies on Vietnam Stock Exchanges. *The Journal of Asian Finance, Economics and Business*, 7(10), 741-750. <https://doi.org/10.13106/jafeb.2020.vol7.n10.741>.
- Ratemo, F. A. (2018). *A study of the corporate governance practices and performance: the case of the banking industry in Kenya* (Unpublished MBA Thesis Kenyatta university).
- Ratten, V. (2023) Entrepreneurship: Definitions, opportunities, challenges, and future directions. *Global business and Organization Excellence*. 42(5) 79-90. <https://doi.org/10.1002/joe.22217>
- Reilly, K., & Norton, E. (2016). *Investments* (7th ed.). Thomas South-Western.
- Roy, S., Misra, A. K., Padhan, P. C., & Rahman, M. R. (2019). Interrelationship among Liquidity, Regulatory Capital and Profitability- A Study on Indian Banks. *Cogent Economics & Finance*, 7(1), 1664845. <https://doi.org/10.1080/23322039.2019.1664845>.
- Saleh, I., & Afifa, M. A. (2020). The effect of credit risk, liquidity risk and bank capital on bank profitability: Evidence from an emerging market. *Cogent Economics & Finance*, 8, 1814509 <https://doi.org/10.1080/23322039.2020.1814509>.

- Sany, S., & Yonatan, N. (2023). Liquidity and Profitability of Retail Companies: Evidence from Indonesia. *International Journal of Organizational Behavior and Policy*, 2(2), 77-86. <https://doi.org/10.9744/ijobp.2.2.77-86>
- Scherer, F. M. (2011). *Changing perspectives on the firm size problem: innovation and technological change*. Harvester Wheatsheaf.
- Schumpeter, J. A. (2014). *The theory of economic development* (5th ed.). Harvard University Press.
- Shah, N. (2016). Impact of Working Capital Management on Firms Profitability in Different Business Cycles: Evidence from Pakistan. *Journal of Finance & Economics Research*, 1(1), 58-70. DOI 10.20547/jfer1601106.
- Simon, S., Sawandi, N., & Abdul-Hamid, M. A. (2018). A reassessment of the relationship between working capital management and firm performance: evidence from non-financial companies in Nigeria. *Investment Management and Financial Innovations*, 15(3), 249-266. doi:10.21511/imfi.15(3).2018.21.
- Sujan, C. P. & Probir, K.B & Mehbuba, N. F. (2021). "Impact of Liquidity on Profitability: A Study on the Commercial Banks in Bangladesh," *Advances in Management and Applied Economics*. *SCIENPRESS* 11(1), 1-4. https://ideas.repec.org/a/spt/admaec/v11y2021i1f11_1_4.html
- Taufiq, M. (2024). Analysis of Financial Ratios and Company Size as Determining Factors for Islamic Social Reporting Disclosure in Sharia Banks in Indonesia *Economics, Business and Management Science Journal*. 8(1) 76-87. DOI:10.61306/ijmea.v1i2.29
- United Nations Industrial Development Organization (UNIDO). (2012). *Stimulating SME environment*. <http://www.unido.org>
- Von Pischke, J. D. (2011). *Finance at the frontier: Debt capacity and the role of credit in the private economy*. World Bank Economic Development Institute.

Waithera, I. W. (2013). *Strategic management practices and organizational culture at the Family Bank Limited, Kenya*. [Doctoral dissertation, School of Business, University of Nairobi]. <http://erepository.uonbi.ac.ke/handle/11295/94972>

APPENDICES

Appendix I: Letter of Introduction

Dear Respondent

RE: REQUEST FOR FILLING QUESTIONNAIRES

I am a Master's student pursuing Business Administration at Kenya Methodist University. I would want to perform a study called "Effects of Liquidity-Risk Management Practices on the Financial Performance of Deposit-Taking SACCOs in Meru County."

The present study has devised two distinct questionnaires, which shall be employed as instruments for the purpose of collecting pertinent data that aligns with the research objectives outlined in the report. The purpose of this communication is to humbly request your permission to rectify the information pertaining to this crucial subject matter, as provided by selected Finance officers and organizational managers.

Kindly be advised that the forthcoming analysis shall be conducted as an intellectual inquiry endeavor, wherein all provided materials shall be treated with utmost confidentiality.

The study will adhere to rigorous ethical principles to ensure the preservation of anonymity, thereby safeguarding the identities of all participants. Consequently, the findings and reports arising from this research endeavor will refrain from any form of individual identification.

I kindly request your esteemed approval.

Bashir Haji Abdullah

MBA Student

0722288859

Appendix II: RESEARCH QUESTIONNAIRE

The below questionnaire has five sections. Kindly fill each section to the best of your knowledge. Kindly tick where necessary and where an explanation is needed kindly explain to your level best.

CONFIDENTIALITY CLAUSE:

The responses you provide will be used for academic research purposes, will be strictly confidential and will be handled ethically.

SECTION ONE: GENERAL INFORMATION

- [illegible]

SECTION TWO: STUDY VARIABLES

- a. How many years has your institution been in active operations.....in years?
- b. Does your SACCO have ever experienced constrains from external financial engagement Yes [] No []
- c. If you answered yes above, rate to what extent.
 - i. Very high constrain
 - 1. Averagely constrains
 - 2. Very minimal constrains
- d. Does your SACCO have ever experienced constrains from Internal financial engagement Yes [] No []
- e. If you answered yes above, rate to what extent.
- f. Very high constrain []
- g. Averagely constrains []
- h. Very minimal constrains []

In this section, please rate how you best agree with the following statement relating to Liquidity-Risk Management Practices on performance of your SACCO financially using the 5-points Likert-Scale.

SA- ‘Strongly Agree’

A- ‘Agree’

N- ‘Not Sure’

D- ‘Disagree’

SD- ‘Strongly Disagree’

(tick whichever best apply)

ITEM	STATEMENT	SA	A	N	D	SD
1	Liquidity Risks are the major threat to SACCOs sub-sector					
2	Liquidity risk management practices are spirited on performance of finances of SACCOs					
3	Proper training on liquidity risk management practices is vital to financial managers					
4	The laws/ policies on liquidity from SASRA greatly affects the SACCOs Financial performance					
5	Optimal liquidity is well maintained on an appropriate Risk Identification					
6	computerization of SACCOs' Operations has greatly improved Good liquidity management					
7	Efficiency of debt management advances the liquidity position of the SACCO.					
8	Efficient assets management convalesces the liquidity position of the SACCO.					
9	Efficient liabilities management progresses the liquidity position of the SACCO.					
10	Efficient equity management recuperates the liquidity position of the SACCO.					
	Liquidity ratios significantly help the SACCOs in liquidity position tracking					

FINANCIAL PERFORMANCE OF SACCOS

Please indicate whether the following indicators of performance has increased, average or decreased over the period of five years.

1. Increased
2. Average
3. Decreased

FINANCIAL PERFORMANCE OF THE SACCO	2016	2017	2018	2019	2020
Net Income/benefits					
Cost of investment/costs					
Return on Asset					

APPENDIX III: SECONDARY DATA COLLECTION SHEET

ASSETS QUALITY INDICATORS*00	2016	2017	2018	2019	2020
TOTAL LOAN					
AVERAGE TOTAL ASSETS					
TOTAL DEBTS					

CAPITAL ADEQUACY INDICATORS*00	2016	2017	2018	2019	2020
TOTAL DEPOSITS					
AVERAGE TOTAL ASSETS					
AVERAGE CORE CAPITAL					
SACCO/INSTITUTIONAL CAPITAL					

CAPITAL LEVERAGE INDICATORS*00	2016	2017	2018	2019	2020
TOTAL ASSETS					
AVERAGE TOTAL LIABILITIES					
INTEREST EXPENSES					
NET PROFITS					
TOTAL EQUITY					

Appendix III: List of Deposit-Taking Saccos in Meru County As At 31st December,2020

1	CAPITA SACCO	BOX 1479-60200	MERU
2	CENTENARY SACCO	BOX 1207-60200	MERU
3	DHABITI SACCO	BOX 353-60600	MAUA
4	IMENTI SACCO	BOX 3192-60200	MERU
5	KATHERA RURAL SACCO	BOX 251-60202	NKUBU
6	GOLDEN PILLAR SACCO	BOX 192-60200	MERU
7	NYAMBENE ARIMI SACCO	BOX 493-60600	MAUA
8	SIRAJI SACCO	BOX PRIVATE BAG	TIMAU
9	SMART CHAMPIONS SACCO	BOX 64-60205	GITHONGO
10	SOLUTION SACCO	BOX 1694-60200	MERU
11	TIMES U SACCO	BOX 310-60202	NKUBU
12	YETU SACCO	BOX 11-60202	NKUBU
13	MMH SACCO	BOX 469-60600	MAUA

00

KENYA METHODIST UNIVERSITY

P. O. Box 267 Meru - 60200, Kenya
Tel: 254-064-30301/31229/30367/31171

Fax: 254-64-30162
Email: info@kemu.ac.ke

Our ref: NAC/ MBA/1/2021/14

27th AUGUST 2021

Commission Secretary,
National Commission for Science, Technology and Innovations,
P.O. Box 30623-00100,
NAIROBI.

Dear Sir/ Madam,

BASHIR HAJI ABDULLAH BUS-3-0837-2/2020

This is to confirm that the above named is a bona fide student of Kenya Methodist University, undertaking masters in Business Administration. He is conducting a research titled: EFFECTS OF LIQUIDITY- RISK MANAGEMENT PRACTICES ON FINANCIAL PERFORMANCE OF SAVINGS AND CREDIT COOPERATIVES SOCIETIES IN MERU COUNTY.

We confirm that this thesis proposal has been defended and approved by the university.

In this regard, we are requesting your office to issue a permit to enable him collect data for his masters dissertation.

Any assistance accorded to him will be appreciated.

Yours faithfully,

PROF. Evangeline Gichunge, PhD.
ASS DIRECTOR POSTGRADUATE STUDIES

Appendix IV: NACOSTI Research Permit

	
REPUBLIC OF KENYA	NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 301791	Date of Issue: 01/March/2022
RESEARCH LICENSE	
	
This is to Certify that Mr., bashir abdulahi hajji of Kenya Methodist University, has been licensed to conduct research in Meru on the topic: EFFECTS OF LIQUIDITY-RISK MANAGEMENT PRACTICES ON FINANCIAL PERFORMANCE OF SAVINGS AND CREDIT COOPERATIVES SOCIETIES IN MERU for the period ending : 01/March/2023.	
License No: NACOSTI/P/22/16108	
301791	
Applicant Identification Number	Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Verification QR Code	
	
NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.	