

**EFFECT OF FINANCIAL INCLUSION PRACTICES ON FINANCIAL
PERFORMANCE OF DEPOSIT-TAKING SAVING AND CREDIT
COOPERATIVE SOCIETIES IN KENYA**

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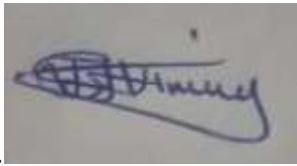
**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT
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2023

DECLARATION

Declaration by the Student

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DEDICATION

The great help my family has given me during the course of this research project is acknowledged in this research project.

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Sincere gratitude is due to God for blessing us with the excellent health, aptitude, and capacity to contribute to this endeavor. Furthermore, I'd want to express my gratitude to my superiors. I'd want to thank everyone who has been there for me and encouraged me along the way; without them, I never would have been able to see this project through to its completion. I would like to extend my sincere appreciation to all individuals, including both faculty members and students, affiliated with the University of Nairobi, whose valuable contributions have played a significant role in facilitating my achievements.

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ACRONYMS AND ABBREVIATIONS

ANOVA	Analysis of variance
ATM	Automated Teller Machines
CAMELS	Capital adequacy, assets quality, management capability, earnings, liquidity, and sensitivity
DFSP	Diversification of Financial Services
DTS	Digital transaction systems
DT-SACCOs	Deposit Taking Savings and Credit Cooperatives
FSD	Financial Services Deepening Kenya
IFSP	Innovation of Financial Services
Km	Kilometres
Kshs	Kenya shillings
MENAP	Middle East, North Africa, Afghanistan and Pakistan
MMTP	Mobile Money Transfer Practices
NIM	Net Interest Margin
ROA	Returns of Assets
ROE	Returns of Equity
SAP	SACCO Agency Practices
SASRA	SACCOs Societies Regulatory Authority
SDGs	Social Development Goals
SPSS	Statistical Package for the Social Sciences
SS	SACCO Size
TAM	Technology Acceptance Model
VIF	Variance Inflation Factors

ABSTRACT

Increased economic activity and decreased poverty are the results of the financial sector's growth, which makes it easier to get financing. The correlation between financial inclusion and performance of deposit-taking SACCOs financially remains inadequately comprehended, despite the extensive study dedicated to comprehending the theoretical and practical aspects of financial inclusion. The objective of this research was to investigate the extent to which DT-SACCOs in Kenya have enhanced economic outcomes after the implementation of financial inclusion strategies. The study was grounded on a comprehensive analysis of existing literature, which examined the fundamental principles of financial inclusion, agency, and the spread of innovation. The primary objective of the research was to ascertain a cause-and-effect connection between financial inclusion strategies and financial success, specifically in terms of return on assets. The user has shown an interest in learning more about the many types of financial services available, including mobile money transfer services, the breadth of services offered by SACCO organizations, and the uptake of innovative financial products and practices. This research used the DT-SACCO's total assets as the independent variable to characterize its size. This study used a descriptive correlational methodology to analyze data from a sample of 176 DT-SACCOs. A random sample was taken from each of the 122 DT-SACCOs, and for this purpose, only organizations that had full data were considered. We employed a straightforward random sample method by employing the Random function in Microsoft Excel as our random generator. Secondary data was collected from randomly selected businesses and SASRA using a data collecting form based on financial reports covering the years 2018 through 2022. During the course of the data analysis, the two types of statistical approaches were used, inference and descriptive. The statistics applications of the Social Science Statistical Software suite were used to analyze the data. The Durbin-Watson test, the Shapiro-Wilk test, and the F-test were among the diagnostic techniques used to examine the variables' normality, autocorrelation, and multicollinearity. Pearson's correlation coefficient was merely one of many regression models utilized. Pearson's correlation, one-way analysis of variance, and the Student's t-test were used to determine statistical significance. There was a strong correlation between people's level of financial involvement and their economic success. New service development, financial service diversity, and mobile money transfer tendencies were all considered. There was a favorable association between SACCO agency procedures and financial success, however it was not statistically significant. Financial inclusion policies were shown to affect DT-SACCOs' performance in Kenya, however the analyzed factors only explained 46.1% of the variance in DT-SACCOs' performance. The findings generally confirm previous studies that mainly focused on banking institutions. The study recommends the need to incorporate the findings into the public and corporate policy, such as expansion of asset portfolios and mobile and digital strategies. Given the limitations of the study, there is need for further research to cover other sector specific concerns, the potential of electronic and digital technologies, and inclusion of other variables.

CHAPTER ONE: INTRODUCTION

1.1: Background of the Study

Easy access to financing is facilitated by financial development, which in turn stimulates economic growth and mitigates poverty. A formal financial system offers regulated resources, preventing informal schemes like shylocks. It offers secure saving practices and access to various financial services (Rangarajan Committee Report, 2022). In the 1990s, the debt crisis led to financial services companies in Britain's impoverished areas to become risk-averse, thus shutting down underprivileged branches and made them to focus on middle-class clients (De Vries, Bekkers & Tummers, 2016). Credit redirection from poorer social groups to richer led was worsened by financial infrastructure withdrawal, resulting in reduced development and per capita income decline (Agumba, 2018). Initially coined by Leyshon and Thrift (1995), financial exclusion refers to the removal of banking services from low-income neighborhoods. In a broader sense, it clarifies why the convenience of being close to banks is so advantageous, and not simply for making withdrawals. According to Prabhakar's (2017) definition, financial inclusion pertains to the systematic provision of equitable access, fair treatment, and transparent services in the realm of financial services for those with lower incomes and vulnerable groups, including weaker portions of society.

According to Omwansa and Waema (2014), despite the fact that 46% of Kenyans are poor according to the Kenya Bankers Association, commercial banks and other formal financial institutions are not doing enough to address their requirements. Many Kenyans are left unserved by the country's other established banking institutions. SACCOs were established as a direct consequence of this realization in order to provide assistance to those who are economically disadvantaged and to help them in becoming productive members of society. Deposit taking SACCOs (DT-SACCOs) in Kenya provides financial inclusion services to low-income households, ensuring equal access to various financial services through various ways. This ensures equal access to financial services for financially disadvantaged individuals (Ndung'u, 2023). Recent statistics by the World Bank (2021) indicates that the percent of the total population of poor persons is at 36.1%.

1.1.1: Financial Inclusion Practices

Financial inclusion initiatives aim to reach individuals and communities who are neglected or overlooked by the conventional banking system. The policies and processes that make up these practices aim to increase access to various forms of financial support. According to Ahamed and Mallick (2019), the goal is to eradicate poverty, increase the financial stability of underprivileged people, and foster economic progress that benefits all segments of society. Market friction inhibits markets from serving the needs of the poor and disadvantaged. Reducing this friction is the purpose of these intervention measures, as stated by Aduda and Kalunda (2012). An effective technique for decreasing poverty, supporting equitable development, and reaching the Millennium Development Goals (SDGs) is financial inclusion, according to Chibba (2009).

Al-Eitan, Al-Own, and Bani-Khalid (2022) assert that the primary objective of the notion often referred to as "financial inclusion" is to enhance the accessibility of a wider range of financial services and products to people and communities experiencing economic adversity. Therefore, the practices provide acceptable methods of meeting the SDGs and combatting poverty while simultaneously creating financial inclusion. This is due of the method in which they work. Some actions that help bring about financial inclusion are advocating for a more robust financial framework, fostering the growth of agency banking, promoting a wide range of financial institutions, easing people's access to and use of technology, and investing in technology to achieve the most efficient distribution of resources. This might mean that people are more comfortable with managing their own money, have more access to credit, and are more knowledgeable about managing their finances in general (Ahamed & Mallick, 2019). Fanta and Mutsonziwa (2021) claim that a greater level of financial literacy among the target audiences is important for them to be able to recognize value-added services and products. In other words, financial inclusion is effective when groups have increased their financial literacy. People who are financially literate have a higher probability of being financially included because they have a better grasp of the financial products and services that they use (Murendo & Mutsonziwa, 2017). This is because those with financial literacy are more likely to make informed decisions when using financial products and services.

According to Jha, Bhawe, and Satish (2021), a socially scaled strategy would be for DT-SACCOs to extend the range of financial services and products they give to their consumers by diversifying the credit facilities they make accessible to them. This would allow the DT-

SACCOs to better meet the needs of their target demographic. The result is that financial institutions, such as DT-SACCOs, need to provide a number of different financial products that are geared toward those who are economically disadvantaged. To address the rising population that does not have access to a bank account, mobile money transfer services may be a good solution, as suggested by Klapper and Singer (2015). The adaptability of these services makes this a realistic possibility.

Mobile money increases the quality of financial services available to low-income people by boosting productivity, efficiency, and safety while simultaneously lowering the price of individual transactions. According to Ahmad, Green, and Jiang's research from 2020, financial inclusion is improved when there is an increased availability of and consumption of high-quality financial goods and services. The researcher investigated the relationship between institutional financial performance and topics such as mobile money transfer services, diversification of credit facility and financial literacy. These topics were chosen since DT-SACCOs are known for their widespread adoption of these practices.

1.1.2 Financial Performance

Performance in the financial markets should be considered an organization's overarching goal. This crucial objective is being worked towards by every strategy devised and course of action done in the organizations at the moment. This does not, however, mean that financial organizations such as SACCOs do not pursue any further goals. SACCOs may also have extra social and economic objectives (Al-Tamimi, 2020). There are a number of financial ratios that are used to assess the profitability of DT-SACCOs, but the three most important ones are ROA, ROE, and NIM (Murthy and Sree, 2013). According to Habbershon, Williams, and MacMillan (2003), performance is the result of the actions taken by an organization. A SACCO's financial performance is gauged by its capacity to satisfy the financial needs of its members while taking into account their socioeconomic circumstances. If a SACCO can punctually and appropriately finance the loans of its members, it is said to be doing well financially. The CAMELS approach uses sensitivity, liquidity, earnings, management capability, assets quality and capital adequacy as financial ratios to evaluate financial institutions' soundness, assessing elements within the framework and comparing them to industry benchmarks (Dang, 2011).

Wangombe and Kibati (2019) claim that a company's financial performance is what elucidates how it achieves success financially via things like profit maximization and

resource effectiveness. It is a sign that businesses are using their financial resources effectively to produce income. When a company is profitable, it may continue operating for an extended period of time. Therefore, financial performance often assesses how financially solid a firm is in contrast to other organizations in other sectors throughout a given time period. One indicator of a company's fiscal fitness is its ability to meet the monetary needs of its stakeholders (Bon, 2021).

Financial success may be attained by businesses that are creditworthy, liquid, and cost-effective, as stated by Mwangi and Murigu (2015). These types of businesses generate significant sales, profits, and sustainable management of their expenses. They have kept both their asset base and their liquidity position at healthy levels. A firm's financial health may be assessed with the use of financial ratios calculated from its own financial data that is accessible to the public. NIM, ROA and ROE are the most popular metrics, as stated by Eddine (2020). The profitability of the DT-SACCOs was evaluated via the lens of return on assets in this study. For example, ollakua and Aliub (2021) determined a company's return on average assets (ROA) by dividing its net profit by its average assets. The fact that the SACCOs Societies Regulatory Authority (SASRA) utilizes earning rating as a measurement of financial stability lends credence to the argument that this metric is appropriate.

1.1.3: Financial Inclusion Practices and Financial Performance

One of the primary goals of fostering financial inclusion is to enhance the quality of service provided by financial institutions. Alterations might be made to provide persons with lower incomes easier access to banking, credit, and insurance products. According to Dzombo, Kilika, and Maingi (2018), the objective is to improve the quality and timeliness of service delivery to all parties involved. The premise is that people's quality of life as a group will rise as a result of these services being made available to them, which in turn would spur economic development. One of the drawbacks of financial exclusion is that members of society, especially the most financially vulnerable, are unable to access adequate financial services. This makes it harder for them to support themselves and their families in the future (Alonso et al., 2022).

According to Shihadeh (2020), increased implementation of financial inclusion technologies guarantees reduced exposure to financial hazards. It follows that a firm's competitive edge increases in proportion to its financial health, which is quantified by its track record of reliably and persistently meeting its financial responsibilities and interests. It provides

compensation to the stockholders in return for their investment (Eddine, 2020). Therefore, methods of financial inclusion would increase and maximize shareholders' wealth, resulting in an improvement in the company's financial performance. This research examined the hypothesis that deposit-accepting SACCOs in Kenya with a focus on financial inclusion have better financial outcomes.

1.1.4 Deposit Taking Savings and Credit Co-operative Societies in Kenya

Members of a SACCO run the show, and the group's primary function is to pool members' financial resources so that they may lend to one another in a structured manner. SACCO's key goals are to encourage savings and to facilitate the saving process by providing loans and other services. They also encourage a culture of saving among members and contribute to the prudent management of cash in society via investing guidelines. SACCOs may be found in urban as well as rural locations to serve the specialized requirements of its members. According to Onduko (2013), SACCOs have been acknowledged as a viable route for the collection of savings and the distribution of loans.

Today, cooperatives play an important part in the economic strategy that the government has devised, which intends to offer chances for people to make a living, particularly in rural regions. The growth of the economy depends on the government's ability to effectively mobilize people and material resources, and cooperatives should be seen as key players in this process. The function of cooperatives in fostering economic growth is crucial. As a consequence of SACCOs' use of cutting-edge technology with the end aim in mind of achieving effective financial inclusion, SACCOs are currently locked in a fierce battle with commercial banks. They have shown a willingness to adopt new technologies by making use of debit cards, credit cards, cards for use in automated teller machines (ATMs), and the mobile money service M-Pesa. Because of this, they have become more competitive as a result of enhanced delivery of financial services. This most recent service innovation within SACCOs has resulted in enhanced access in a flexible, accessible, and cost-effective way (Mugane, 2015). As a consequence, innovative practices and financial inclusion have been made available to all members of society. DT-SACCOs, in particular, may benefit from the spread of financial inclusion since they inspire members to save money and connect them with investment options. There were 176 DT- SACCOs in Kenya as of December 31st, 2022 (SASRA, 2022).

Historically, banks have been unable to serve the unbanked since doing so would be too costly. SACCOs have been created as a result, which can successfully aid in the development and financial inclusion of low-income earners. Financial services promoting financial inclusion include pension, insurance, loans, savings, and payments. According to Ndung'u (2013), most SACCOs that take deposits do not provide these services on their own but in conjunction with other types of financial institutions. The fundamental objective of this study is to analyze how different financial inclusion initiatives affect the profitability of Kenyan DT-SACCOs.

1.2: Research Problem

Competition from banks and microfinance organizations, among others, has been a major problem for DT-SACCOs during the last decade. The failure to promote financial inclusion practices has hindered DT-SACCOs' ability to expand their clientele. The effectiveness of financial institutions is hampered by the correlation between financial exclusion and poverty (Oruo, 2013). By opening up new avenues of income, however, financial inclusion initiatives like agency banking, mobile money services, and lending facilities help banks function better (Mwaniki, 2014). Nonetheless, it seems that the majority of DT-SADT-SACCOs primarily operate in urban centres limiting access and cost effectiveness to formal financial services for rural adults (Otieno, 2016). It was found in a 2018 survey by FSD Kenya that the percentage of rural inhabitants who had access to formal banking services had increased from 14.9% in 2010 to 19.6% in 2018. This was in contrast to the growth of 31% to 40.3% in urban centres in 2020 (FSD, 2021). Residents in rural areas run the risk of being financially excluded, forcing them to depend on costly loan facilities offered by shylocks because of the excessive interest rates. This has resulted in a significant worsening of circumstances associated with poverty among rural dwellers (Ndegwa, 2019).

Empirical study on financial inclusion has been conducted by Isabwa (2021), Shihadeh (2020), Oyetoyan et al. (2021), and Ghaith et al. (2021), but in very different contexts. The adoption of mobile banking by Kenya's banking institutions has had a large and advantageous impact on the banking' performance financially, claims Isabwa (2021). In monetary terms, we have reached a stalemate. According to research by Oyetoyan, Ajiboye, and Popoola (2021), financial literacy programs only slightly improve the financial performance of certain organizations. Mobile banking, along with other forms of electronic and agency banking, was proposed as a potential mechanism for achieving this goal. According to Ghaith et al. (2021),

commercial banks have benefited from broad financial inclusion. The outcome of this investigation provide support to the idea that increasing the availability of financial services, and especially those offered by commercial banks, has a beneficial effect on the effectiveness and prosperity of the financial sector as a whole.

Since most studies have focused on commercial banks, there is a lack of background information. This is owing to the fact that the day-to-day operations of DT-SACCOs are very dissimilar to those of regular commercial banks. In spite of the contextual nature of Ndegwa and Koori's (2019) research, it was a case study that focused only on DT-SACCOs in Meru County. Oranga and Ondabu (2018) conducted Kenya-specific study, with a focus on publicly traded commercial banks. The aforementioned research provide an overview of contextual and conceptual gaps. The majority of the research concentrate on the policies and procedures that are followed by commercial banks. The fact of the matter is that the adaptability of DT-SACCOs ensures that they will be accepted by families with modest incomes. There is a lack of research that is contextual and focuses on DT-SACCOs. This is because the research that were discussed before concentrate on commercial banks. Despite the differences in environment, the emphasis of this research was on the same principles. In particular, innovative methods in the financial services industry, mobile money transfer, financial services via agencies, and service diversification were highlighted. This study's findings will illuminate the extent to which financial inclusion initiatives have contributed to the success of DT-SACCOs in Kenya.

1.3: Objective of the Study

The objective of the study was to establish the effect of financial inclusion practices on the performance of deposit taking Saving and Credit Cooperative Societies in Kenya financially.

1.4: Value of the Study

This research would be beneficial to both theoretical frameworks and practical applications. Academics would, in theory, be provided with a starting point from which to learn more about the basic obstacles that must be conquered in order to achieve the SDGs. Details on the methods used by DT-SACCOs and the many influencing factors in the realm of financial inclusion will be covered. The results of this study will be utilized to further our understanding of financial inclusion and related topics in order to inform future research.

It's possible that the research's results may be used to inform policy suggestions. The fact of the matter is that the majority of nations throughout the world place an emphasis on the need that their populations be financially inclusive. There is a growing worry and attention about the possibility of achieving sustainable development when individuals are financially empowered via inclusion, which may lead to enhanced equity in the distribution of income and a reduction in poverty. As a result, this calls for the establishment of policy rules that will encourage greater economic development. The research would be of equal use to policy makers in developing policy initiatives addressing the best ways to increase financial literacy. The findings of the research will also provide policy recommendations on growing problems associated with mobile and internet banking.

The conclusions of the research, if put into reality, would assist investors in the financial market in better understanding the investment possibilities afforded by financial inclusion. DT-SACCOs would also use the data to establish initiatives to enhance financial literacy, grow their operations, and improve their financial performance. The conclusions of the research would underline the need for DT-SACCOs to diversify the goods and services they provide in their organizations. In light of this, the research would provide their managers with some useful insights to help them embrace the exploitation of innovation as a foundation for attaining financial inclusion.

CHAPTER TWO: LITERATURE REVIEW

2.1: Introduction

This chapter takes a look at a theoretical framework consisting of concepts about how people's actions affect financial inclusion and the success of businesses. In addition, it gives a summary of research that has been done in the past. In the end, this chapter presents a conceptual framework that shows the connections between the studied factors.

2.2: Theoretical Review

A research study's theoretical framework is the overarching argument or hypotheses that guide the inquiry. In the theoretical review, a researcher would lay out and talk about the ideas that justify a study's focus. Varpio, Paradis, Uijtdehaage, and Young (2019) argue that theories play a crucial role in elucidating, forecasting, and comprehending phenomena. Additionally, theories challenge and expand existing knowledge by building upon assumptions that were grounded in prior research. The ideas under examination are financial inclusion theory, agency theory, and diffusion of innovation theory. The primary theoretical framework behind the concept of anchoring is the notion of financial inclusion.

2.2.1 Financial Inclusion Theory

According to Mises' theory of financial inclusion (1912), strategies aimed at promoting financial inclusion should prioritize marginalized groups such as the young, low-income families, women, and the elderly. This phenomenon may be attributed to the lack of preferential treatment towards certain groups inside established institutional programs pertaining to financial matters (Ozili, 2020). In this view, financial services like banking should be made available to all, without charge. The importance of financial inclusion to a country's economic growth is becoming more and more apparent. The major goal is to make affordable financial goods and services available to low-income families and to ease the distribution of such products and services to such households (Ozili, 2018). The term "financial inclusion" is used to describe the ease with which people of lower socioeconomic status may have access to low-cost financial services.

According to Kling, Pesque-Cela, Tian, and Luo (2020), ensuring that families have access to adequate financial goods and services may assist alleviate poverty, increase household capacity for saving and investment, and spur the creation of new enterprises. These outcomes

collectively contribute to bolstering household resilience (Vasile, Panait, and Apostu, 2021). However, there is a significant debate around this concept due to the argument that the formal financial sector tends to exclude persons who do not fall under the category of vulnerability. Similarly, according to Prabhakar (2019), the concept of financial inclusion has the potential to exacerbate social inequality by primarily targeting those who are financially insecure. This might potentially result in a redistribution of resources from the wealthy to the impoverished, therefore fostering the conditions for a socio-economic transformation over an extended duration. The idea has significance as it posits that the attainment of socio-economic empowerment is facilitated by financial inclusion, hence fostering economic progress. The DT-SACCOs possess a valuable chance to gain insights into enhancing the breadth of their operational activities.

2.2.2 Agency Theory

The concept of agency is said to have been first proposed by Smith (1776), but it was Jensen and Meckling (1976) who really took it to the next level. The major focus is on how different levels of management work together to complete a task. According to Akighir, Margaret, Tyagher, and Kpoghul (2022), the principal delegates part of the agent's responsibilities to the agent so that those responsibilities may be carried out more effectively and productively. For the relationship to work, there must be an environment of confidence in which the principal may confide in the agent with the knowledge that the agent will carry out the duties specified in the contract. Therefore, there are disagreements that occur in real life since principals and agents often have different goals.

When it comes to putting this research into practice, there is a pressing need to protect the financially disadvantaged populations. Utilizing the function of agents as a means to communicate with members of the general public on behalf of financial institutions, such as DT-SACCOs, is one option. Hence, in order to establish connections with financially marginalized communities, agents would get into contractual agreements with prominent financial institutions. Ogah, Okwe, and Adeoye (2015) argue that the use of agency banking exemplifies the actual implementation of the principal-agency relationship within the realm of financial inclusion. This diagram illustrates the delivery of financial services by traditional financial institutions. These services are provided via intermediaries. Agency banking facilitates a diverse range of financial operations, including cash deposits, cash withdrawals, money transfers, bill payments, bank account formation, and airtime purchases, according to

Ulokoaga (2020). The widespread DT-SACCOs may use agency theory by forming agency agreements with other organizations to broaden access to their financial services.

2.2.3 Diffusion of Innovation Theory

Rogers is the one who developed the notion of the diffusion of innovation in the year 1962. This theory proposes that businesses spread creative goods and ideas in order to better compete with one another, safeguard their markets, and provide high-quality services. This helps to explain why businesses are willing to adopt new ideas and put them into practice (Breugh, McBride, Kleinaltenkamp, & Hammerschmid, 2021). After then, those who utilize the innovation spread it even farther as they engage in various transactions in the market. DT-SACCOs may reduce the cost of providing their services, improve their ability to compete in the marketplace, and strengthen their ability to protect their market share by embracing innovation in both the goods and services they provide. Learning new innovations takes time and requires the organization to put them into practice. According to Nofal and Khalaf (2021), this guarantees a durable competitive edge.

According to De Vries, Bekkers, and Tummers (2016), the theory's justification is in the information it provides on how quickly new goods and services are adopted by consumers and other interested parties. The theory provides individuals with insights into the temporal dynamics of these processes. Hence, the theory elucidates the necessary measures for financial institutions, such as DT-SACCOs, to effectively incorporate and use technology with the aim of achieving financial inclusion. Utilizing digital platforms, digital agents, and mobile digital devices are the means by which innovation is accomplished. The financial industry has seen a significant transition due to technological improvements, enabling financial institutions to effectively target vulnerable groups and provide a diverse range of goods and services at an affordable cost (Kanga, Oughton, Harris, & Murinde, 2021). The concept has substantial importance since the goal of attaining financial inclusion may be effectively achieved by the adoption of various technologies within the financial sector, including mobile banking, agency banking, and their corresponding equivalents.

2.3: Empirical Literature

The idea put forward by Al-Eitan, Al-Own, and Bani-Khalid in 2022 suggests that as more people become part of the financial system, commercial banks' bottom lines will improve. Increased revenue is produced in part because financial inclusion encourages financial

institutions to grow and diversify their services. The policies of financial inclusion that are followed by DT-SACCOs require them to spend more resources so that they can communicate with members of financially excluded groups. According to Shihadeh, Azzam, Jian, Ihtisham, and Xiuhua (2018), this will, over the course of time, maximize financial performance, which will, in turn, increase profitability. Due to enhanced operational capacity and income creation, DT-SACCOs will be able to generate more profits whether they run agencies, install more automated teller machines, or deploy electronic platforms for expanded financial inclusion.

2.3.1: Diversification of Financial Services

According to the findings of Acharya, Hasan, and Saunders (2006) research on the topic of diversification in banks' credit portfolios, the industrial and zonal diversification tactics used by Italian banks resulted in decreased revenues and increased risky loans. Busch and Kick (2019) looked at methods of income diversification in the German banking business, whereas Kamal, Hussain, and Khan (2021) studied the literature from 1995 to 2020. The authors of the research found that commercial banks benefited greatly from financial inclusion. The research highlights that the potential credit risk associated with financial inclusion necessitates a corresponding enhancement in management efficiency to mitigate any negative impact on financial stability. In a recent study, Shihadeh (2020) undertook an investigation to assess the relationship between financial inclusion, bank performance, and risk exposure across the MENAP region. According to the findings, more financial inclusion was associated with higher productivity and decreased vulnerability. It was hypothesized that increased access to financial services would boost business results by spreading out credit and operational risks. Research by Cotugno and Stefanelli (2012) on regional diversification discovered a causal link between bank performance and product diversity.

Oyedijo (2012) found that firms in Nigeria fared better when they diversified in one of two ways: either by branching out into unrelated industries or by branching out into related industries. According to the findings of the research, a relevant diversification strategy and strong financial performance have a good association. In addition, unrelated and mixed diversifiers underperformed related diversifiers in terms of financial success. Related diversifiers, on the other hand, outperformed both. Findings suggest a tenuous link between wide, unrelated diversification and financial performance and rising sales for businesses. The survey found related diversification significantly impacts performance, while unrelated

diversification was insignificant and negatively affects sales growth and monetary performance. Elsewhere, a study found that penetration strategies greatly impacted Kenyan commercial banks' performance (Mutuma, 2013).

Ndegwa and Koori (2019) studied the impact of financial inclusion on the efficiency of DT-SACCOs in Meru County, Kenya. They looked at issues including agent banking, product variety, mobile money transfers, and the need of financial education. It was discovered that DT-SACCOs fared better when they implemented financial literacy campaigns, offered a wider variety of products and services, relied on mobile platforms to facilitate money transfers, and used agents to provide banking services. As a consequence of being included in the financial system, DT-SACCOs' overall financial performance increased dramatically.

2.3.2: Mobile Money Transfer Practices

Financial depth was the focus of study for Chan and Jia (2011), who found a positive association between mobile banking and customer deposits at 50 different Chinese commercial banks. According to a research on access to banks conducted by Njiru (2014), which made reference to a report from the Central Bank of Kenya, 76.7% of consumers in Kenya had access to a financial institution within a five-kilometre radius. This is in contrast to the results obtained in Uganda and Tanzania, which reported 42.7% and 31%, respectively. The results indicated that there has been a significant growth of access points as a result of technical advancements, improvements to the financial system and regulatory framework, and increasing market competitiveness. The study done by Isabwa (2021) investigated the influence of mobile digital banking on the level of financial inclusion among a sample of 43 randomly selected commercial banks in Kenya. The use of mobile devices for the purpose of sending and receiving monetary transactions has been empirically shown to significantly enhance individuals' accessibility to financial services. Dzombo, Kilika, and Maingi (2018) looked at how branchless banking methods of Kenya's commercial banks affected their bottom lines. It was shown that commercial banks' bottom lines benefit noticeably from working with intermediaries and digital marketplaces.

According to Soroor and Toosi (2005), the acceptance of mobile money transfer procedures in mcommerce was dependent on the cost-effectiveness that was brought to the conventional banking system. An incentive that was provided to mobile banking in order to attract clients and boost banks' profit margins via technology is the provision of decreased service costs in comparison to conventional banking. Mobile technology's repercussions often resulted in

reduced prices for customers, rather than financial profits. Mobile banking improves bank performance by reducing transaction, administration, and promotion costs. The study was however not replicated to DT-SACCOs which is the objective of this study.

When investigating what makes mobile banking so popular in Malaysia, Cheah, Teo, Sim, Oon, and Tan (2011) turned to the TAM. The rapid growth of mobile banking in Malaysia has prompted further development of the framework since then. The study's goal was to identify the elements, such as perceived value, ease of use, social norms, hazards, and novelty, that drive consumers to use mobile banking. The findings suggested that several factors influenced Malaysian mobile consumers' attitudes and intentions regarding mobile banking services. Considerations such as perceived utility, ease of use, incentives, hazards, and individual ingenuity all played a role. Conformity to social norms was given little weight.

The effect of electronic banking on the profitability of Kenyan commercial banks was also studied by Maiyo (2013). The findings suggest that commercial banks throughout the country were more efficient and productive as a direct consequence of adopting electronic banking. Mobile banking had a major impact on investment yields. Income from online banking (fees and commissions), together with investments in electronic banking infrastructure, staff training, and platform maintenance, had little or a limited influence on commercial banks' return on assets. Daud, Kassim, Said, and Noor (2011) used an updated version of the TAM to study what variables motivated Malaysian customers to start using phone banking. Users were more receptive to mobile banking when they perceived its usefulness, credibility, and the security of their financial transactions and personal information.

2.3.3: SACCO Agency Services

The effects of financial inclusion on commercially functioning banks in Nigeria were studied by Oyetoyan, Ajiboye, and Popoola (2021). Financial Inclusion is where you may read about their results. The three primary foci of this research were the expanding usage of automated teller machines (ATMs), the rising popularity of banking offices, and the rising use of mobile banking. The research found that when financial institutions used agency banking practices, their performance significantly improved. The rise in the number of ATMs, the popularity of using mobile platforms to conduct financial transactions, and the expansion of the banks' physical locations all had some effect on the banks' bottom lines, although it was very little. The overall finding was that commercial banks' bottom lines benefited greatly when financial inclusion was in place.

Scholars in Peru looked on the effectiveness of bank outreach via retail partnerships. To increase access to banking services, the government of Peru has instituted a system known as "agency banking," which partners financial institutions with other businesses including supermarkets and drugstores. According to the findings, twenty percent of the population utilized the services of agents, who were responsible for processing 48 million transactions each year. Automatic teller machines generated twice the total value from agents, with three times more transactions (Kentur, Nair, Parsons & Urdapilleta, 2013). In 2012, agents handled about 35% of transactions, automatic teller machines 20%, and traditional bank branches 45% (Consultative Group to Assist the Poor, 2013).

Oranga and Ondabu (2018) sought to analyze the impact of a number of variables on the profitability of Kenya's publicly traded commercial banks. These included initiatives to educate the public about money management, the proliferation of bank branches, ATMs, and mobile platforms, among other things. The findings suggest that the 11 commercial banks in Kenya that implemented elements of financial inclusion had improved equitable status as a consequence. Bongomin, Munene, and Yourougou (2020) investigated how FIs helped low-income rural Ugandan families participate in and improve their monetary literacy. Financial intermediaries have a substantial impact on individuals' financial literacy and economic involvement, the research found.

2.3.4: Innovation in Financial Services

There have been several investigations into financial innovation, both abroad and in the United States. Financial inclusion's impact on commercial banks' bottom lines in Jordan was studied by Al-Eitan, Al-Own, and Bani-Khalid (2022). They looked at gearing as a proxy for financial well-being in their research, which you can read about here. The investigation looked at a total of thirteen different financial institutions. The study's results show that the size of commercial banks' loan and deposit portfolios is inversely proportional to the profitability of such institutions. The result reached was that the amounts of profit earned by commercial banks were strongly impacted by financial inclusion.

Batiz-Lazo and Woldeesenbet (2016) highlighted the importance of distinguishing between product and process innovation in the United Kingdom banking industry, as each innovation type had unique characteristics and diversity of impacts on banking performance. Product innovations, on the other hand, tended to concentrate on the market and be effectiveness driven, while process innovations tended to concentrate on internal processes and be

efficiency driven. Product innovations aimed to fulfil the requirements of end-users, while process innovations seek to integrate novel components into the manufacturing or delivery of a company's goods or services. The firm has innovated its processes in an effort to make its operations more efficient. Malhotra and Singh concluded that internet banks were more efficient at running their businesses than traditional banks. However, they found that internet banks were correlated negatively with the risk levels at their own institutions.

In their study, Moki, Ndung'u, and Kinyua (2019) analyzed the forty DT-SACCOs registered in Nairobi City County to identify the financial innovation approach and its correlation to performance. These researchers discovered that DT-SACCOs benefited from financial innovation. Mobile banking reduced costs, increased efficiency, and improved customer service delivery, as shown in increased value of mobile transactions documented in annual financial statements and directors' reports.

According to study done by Mugane and Ondigo (2016), the association between product innovation and return on assets for Kenyan commercial banks is negative and statistically significant. Organizational innovation and return on investment are positively correlated. The correlation was highest for originality at work. Despite the time of increased innovation in the financial industry, the research revealed that the ROA of Kenya's commercial banks was very variable. The authors advised commercial banks to adopt product innovation initiatives to reduce operational risks and improve financial performance. Similar research was conducted by Okoth and Muia (2020), with the exception that they narrowed their emphasis to the Equity Bank of Kenya Ltd. This study looked at how a recent financial innovation affected the bottom lines of commercial banks over three years, focusing on their role as market leaders in the banking sector. The study's results suggested that commercial banks, in particular, would likely benefit from adopting creative financial strategies to increase their bottom line. This was backed by the widespread adoption of financial systems that are efficient as a replacement for conventional financial systems that are less efficient.

2.4: Summary of the Literature Review

The detected research holes may be broken down into three categories: context, topic, and technique. When research is conducted in a different sector, nation, or region, a contextual gap is created as a result. This study, in contrast to others (Mugane and Ondigo 2016, Moki, Ndung'u and Kinyua 2019, and Okoth and Muia 2020), focuses on DT-SACCOs rather than commercial banks. Okoth and Muia's research will be published in 2020. Some research,

such as those conducted by Shihadeh, (2020); Bongomin et al (2020); Oyetoyan et al (2021); and Al-Eitan et al. (2022), were based on the context of other nations. A conceptual gap exists when the ideas examined in one research vary from those examined in other studies. Rather than using prosperity as the dependent variable, Kamal, Hussain, and Khan's (2021) study examined the robustness of the financial system. As a result, both contextual and conceptual holes were found in the research that were evaluated.

The financial inclusion practices pertain to the financial performance of enterprises, particularly focusing on DT-SACCOs. According to the literature analysis, commercial banks have greatly benefited from the adoption of techniques like mobile funds transfer, which allows customers to deposit and withdraw cash via a mobile platform. Commercial bank performance was found to improve with the introduction of financial literacy programs, expansion of available credit services, distribution of such services via mobile platforms, and employment of agents. The major criteria that established the significance of financial inclusion strategies was the positive and substantial effect they had on the degree to which banks were able to produce improved financial performance. Also crucial was the fact that the institutions' bottom lines were directly affected by the strategies used. Financial inclusion was shown to have a detrimental effect on commercial bank stability, albeit the magnitude of this effect varied with management competence. This report uses previously collected data to analyze how different financial inclusion strategies affect the bottom lines of DT-SACCOs in Kenya.

2.5: Conceptual Framework

A conceptual framework is an analytical technique that is used to generate distinctions and arrange concepts in different job categories. It also provides an overall image, which makes it easier to grasp the bigger picture. According to Varpio, Paradis, Uijtdehaage, and Young (2019), powerful conceptual frameworks are able to encapsulate real-world ideas in a way that is simple to recall and use. To illustrate the relationship between the variables that are being predicted and those that are being predicted about, a conceptual framework is used. In this research, we selected ROA as our dependent variable to analyze its association with our independent factors. A company's financial performance (profitability) may be measured in part by its return on investment. The financial inclusion practices under study are being used as a predictor for the independent variables, which include the following: money transfer, SACCO agency services, diversity of financial services, and innovation of financial services.

As a control variable, the amount of DT-SACCOs was used, and its value was stated as the natural logarithm of total assets (Figure 2.1).

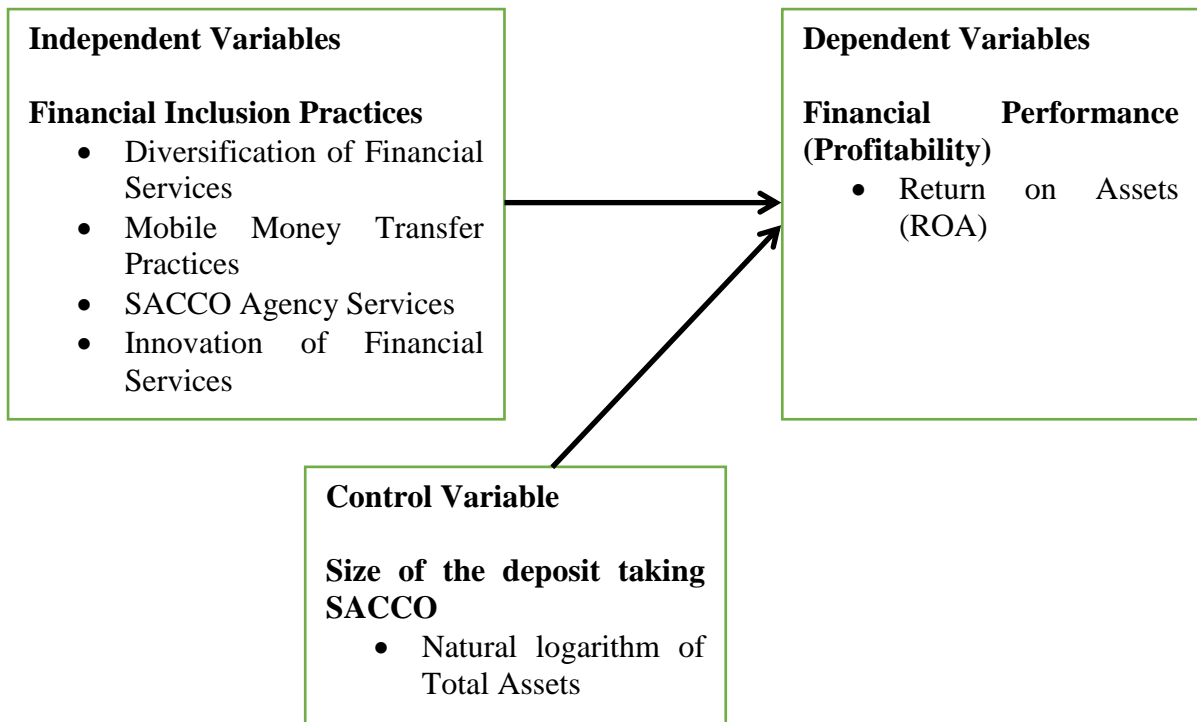


Figure 2.1: Conceptual Framework

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes research techniques, processes, and actions needed to address the study objective, focusing on various actions to effectively tackle the research challenge. Research methods, populations of interest, samples, sampling rates, instrument validity, and data processing strategies are also covered.

3.2 Research Design

Mugenda & Mugenda (2003) assert that the research design refers to the systematic approach or conceptual framework used in an investigation, with the objective of addressing research inquiries and presenting results in a comprehensible way. This definition was derived from Mugenda and Mugenda's (2003) definition. The examination was carried out using a descriptive correlational study strategy, which indicates that the characteristics of the population were recorded without any type of intervention being carried out. According to McCombes (2019), the most effective method for defining a phenomena is to address the "what," "how," "where," and "when" components of its occurrence. According to Saunders et al. (2003), the approach is credited with making it possible to investigate different factors and increasing the amount of resource flexibility.

3.3 Population

The term "population" refers to any group from which a representative sample is drawn for statistical analysis. According to Kombo and Tromp (2011), the term "target population" refers to persons, objects, or events that have similar observable characteristics. This provides researchers with the ability to generalize their study results. According to Mugenda (2008), it is the sum total of everything that meets the requirements of a certain specification. This study concentrated on SACCOs that are mandated by their registration with the government to take deposits from the general public. According to SASRA, 2022, there were 176 SACCOs in Kenya that were mandated to accept deposits (Appendix I).

3.4 Sampling Procedure and Sample Size

Sampling, as defined by Trochim (2005), involves selecting individuals or institutions from a larger population for the sake of extrapolating results to the whole population. Creswell and Poth (2017) provide a definition of sampling as the systematic procedure of selecting a

representative subset from a larger population to serve as a proxy for the whole group. The sample size of 122 was derived from a population of 176 using the sampling techniques outlined by Yamane (1967), with a confidence level of 95% and a margin of error of 0.05:

$$n = \frac{N}{1+N(e)^2}$$

Where:

n = Size of the sample

N = Size of the population and given as 176

e = Acceptable error and given as 0.05

Sample size (n)

$$n = 176 / 1 + 176(0.05)^2$$

$$n = 176 / 1 + 176(0.0025)$$

$$n = 176 / 1 + 0.44$$

$$n = 176 / 1.44$$

$$n = 122 \text{ Deposit taking SACCOS.}$$

The research sampled 176 DT-SACCOS in Kenya, selecting only those with full data for the years 2018-2022. The research found that 170 DT-SACCOS met the requirements for a full data set over the study period. After that, 122 DT-SACCOS were identified from a possible 170 using a simple random sample approach (Appendix II). This was done by employing random generator where the first 122 SACCOS were selected using Microsoft Excel Rand () function (Choi & Kim, 2010).

3.5 Data Collection

Methods for collecting secondary data were used in the research project. The financial records of the SACCOS that accept deposits were combed through to acquire secondary data. This data included net income, average total assets, total assets, total value of loan disbursed to members mobile account (Kshs billions), number of mobile phone deposits, number of agent outlets/branches other than the headquarter, operational scope (area in square kilometres depending on the number of the counties in operation), number of accounts opened, allocated funds on investments portfolio, savings and deposit mix, number of new banking products introduced, number of mobile apps adopted, number of electronic payments/transactions made and the number of digital customer on-boarding services. The data collection was done through a data collection form (Appendix III) which captures the above highlighted data requirements to enable collection of quantitative data that are needed

for analysis and drawing a conclusion from. Some of the data was directly extracted from the audited financial reports (marked in asterisk*), while others were sourced from the management of that the sampled organisations (marked in asterisks**).

3.6 Diagnostic Tests

Data from the data collection form underwent testing using various methods, including diagnostic tests to identify strengths and weaknesses of the results (Nanda, Gupta, Kharub & Singh, 2013). The tests included normality (Khatum, 2021), multicollinearity (Daoud, 2017), and Durbin Watson tests (Akter, 2014) and Kolmogorov-Smirnov test. A delve into each of these tests is illustrated in the subsections below.

The Fisher-Snedecor distribution, named after Ronald Fisher and George W. Snedecor, is the distribution that is used in an F-Test to test whether or not a model gives a better fit to a dataset than a model that does not include predictor variables (Sureiman & Mangera, 2020). As part of the linearity test, an F-test was used to check if the independent factors (diversification of financial services, mobile money transfer practices, SACCO agency services, innovation in financial services have any bearing on the dependant variable's relevance (financial performance). This study used a 95 percent confidence level to determine whether or not a variable was significant, and when it falls within that range, it was considered significant. The assumption of normality shows that the model's errors are evenly distributed. These residuals of errors would be overlaid on a normal distribution to see if the distribution is normal. This normality assumption would have been broken if the overlay residuals stray significantly first from normal distribution. In assessing whether the data was normally distributed, the study used a Shapiro Wilk test (Razali & Wah, 2011).

In many parametric statistical procedures, it is assumed that errors are independent of one another and therefore not correlated. In time-series research designs, when this assumption is not met errors are deemed auto-correlated or dependent (Huitema & Laraway, 2006). Autocorrelation analysis examines the relationship between observations, identifying patterns or trends over time series. The Durbin-Watson statistic tests autocorrelation in data using a software, with results ranging from 0 to 4, and is widely used in statistical analysis (Durbin & Watson, 1971). An outcome closely around 2 means very low autocorrelation, while 0 indicates stronger positive autocorrelation and 4 indicate stronger negative autocorrelation. The study used the Durbin Watson test in assessing serial correlation of the variables. Using the multicollinearity test, researchers can determine if two independent variables are

substantially connected (Shrestha, 2020). The correlation matrix and VIF) was used in this analysis. Two independent variables with a correlation of more than 0.70 are said to be multicollinear. When the VIF is 5 or higher, two independent variables have a high degree of correlation.

3.7 Data Analysis

Saunders et al. (2009) state that "data analysis" is the process of examining data in order to develop conclusions. Net income was then divided by total assets to determine the return on investment. Following a thorough check for accuracy, the data was arranged to allow for descriptive statistics, bivariate correlation, and multiple regression. Descriptive statistics were employed to summarize the results of the research, including means, standard deviations, and percentages. Tables and bar graphs were only two of the many images utilized to communicate the information. Researchers used a Pearson correlation analysis (Pearson, 1948) to look at the connections between independent and dependent variables. The study shed light on the correlation between financial service kinds, mobile money transfer procedures, SACCO agency service offerings, creative antecedents, and business success. Profitability of deposit-accepting SACCOs in Kenya was analyzed using regression to see whether and how much changes in SACCO agency procedures, mobile money transfer popularity, and the introduction of fresh financial service activities had influenced profitability.

The reduced regression model took the form of:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where:

Y = Financial performance (measured by ROA)

X₁ = SACCO Agency Practices

X₂ = Diversification of Financial Services Practices

X₃ = Innovation of Financial Services Practices

X₄ = Mobile Money Transfer Practices

X₅ = SACCO Size

β₀, β₁, β₂, β₃, β₄, β₅ = Regression coefficients

ε = Error term

The dependent, independent and moderating variables were operationalised as described in Table 3.1.

Table 3. 1: Operationalization of the Variables

Variable	Type	Scale	Operationalisation
Financial performance	Dependent	Ratio	Net profit/ Total Assets
Mobile Money Transfer Practices	Independent	Ratio	Average of (Total value of loan disbursed via mobile money and Total value of deposit via mobile money)
SACCO Practices	Agency Independent	Ratio	Average of (No of Agent outlets, Operational Scope and No of Accounts Opened)
Diversification of Financial Services	Independent	Ratio	Allocated funds on Investments portfolio (Savings Mix, Deposit Mix, Total Loans, Total Savings)
Innovation of Financial Services	Independent	Ratio	Average of (No of new SACCO products introduced, No of online SACCO platforms adopted, No of mobile apps adopted, No of electronic payments/transactions made and No of digital customer on-boarding services)
Firm size	Moderating	Ratio	Natural logarithm of total assets

3.8 Tests of Significance

Tests of significance assess statistical significance of observed effects or relationships in a data sample, determining whether they are due to chance or not. Such tests aid researchers in inferring population from sample data. The t-test, one-way ANOVA, and Pearson's correlation were all used in this investigation. Based on the data, theories concerning how financial inclusion strategies affect the bottom lines of Kenya's DT-SACCOs were either supported or refuted. The results of significance tests provided information to draw conclusions and make informed decisions based on the statistical evidence available from the sample data.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

The secondary data collected from SASRA and the annual reports of individual DT-SACCOs are analyzed and interpreted here. This study investigated how various financial inclusion strategies influenced the bottom lines of DT-SACCOs in Kenya. This research analyzed a range of variables to measure financial inclusion as a dependent variable, including the availability of SACCO agency services, the prevalence of mobile money transfer practices, and the amount of innovation in financial services. The control variable in this study was the natural logarithm of DT-SACCOs' total assets. ROA was used as the key metric to evaluate the financial outcomes. Regression analysis was used to establish a connection between the variables in service of the study's aims. The analytical model's fit to the data was evaluated using ANOVA. The information was compiled for ease of perusal.

4.2 Response Rate

The research targeted 176 DT-SACCOs in Kenya. Following sampling, secondary data was collected from 122 individual DT-SACCOs in Kenya between 2018 and 2022. This gives a total data points of 610. Additional information was collected from SASRA financial reports. Therefore, the response rate was 100.

4.3 Descriptive Statistics

Descriptive statistics gave the mean, minimum and maximum values plus their standard deviation of the variables under analysis. Analysis was done using SPSS for five years (2018 to 2022) per study variable.

4.3.1 Mobile Money Transfer Practices

One of the primary metrics used in assessing Mobile Money Transfer Practices was the total dollar amount of loans made available, while another was the total number of mobile phone deposits. Table 4.1 displays the findings. During the period spanning from 2018 to 2022, the aggregate amount of loan issued in billion Kenya shillings exhibited a range of values

between .004 and 15.07. The mean value of these dispensed loans was found to be 3.40, with a corresponding standard deviation of 6.35. This implies there is significant

Table 4. 2: Mobile Money Transfer Practices

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Total value of loan disbursed via Mobile Money (billion Kshs)	610	0.0400	15.0700	3.593820	6.3458244
Total value of deposit via mobile money (billion Kshs)	610	0.0060	4.1870	0.967190	1.7356640

Source: Research Findings (2023)

variation among the SACCOs in regard to mobile money transfer practices. Okinyi and Keiyoro (2019) indicated that mobile money is undoubtedly transforming the way SACCOs operate and interact with their members. As mobile money penetration continues to increase, SACCOs that effectively leverages this technology will be well-positioned to expand their reach, increase deposits, and enhance financial inclusion among Kenyans.

The total value deposit via mobile money, between 2018 and 2022, ranged from 0.01 and 4.19 billion shillings with 0.97 as the mean 1.74 as the standard deviation. Disbursing loans through mobile money applications represents a significant leap forward in the evolution of financial services. The advantages of this approach, including financial inclusion, accessibility, cost-effectiveness, efficiency, security, data-driven decision-making, and innovative loan products, collectively contribute to a more robust and responsive financial ecosystem. As technology continues to advance, the integration of mobile money in loan disbursement processes is poised to play a pivotal role in shaping the future of finance, fostering economic growth, and empowering individuals and businesses worldwide (Moki et al., 2019).

4.3.2 SACCO Agency Practices

SACCO agency practices were measured using the number of agent outlets/branch network, operational scope (Counties with operational office) and number of accounts opened via agent outlet annually between 2018 and 2022. The results are shown in Table 4.2.

Table 4. 3: SACCO Agency Practices

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Number of Agent outlets/branch network	122	1	27	5.959016	7.407164
Operational Scope (Counties with operational office)	122	1	16	3.217	2.2244
Number of Accounts Opened via Agent Outlet	610	89	1,006	248.37	97.866

Source: Research Findings (2023)

Between 2018 and 2022, the number of agent outlets/branch network of the SACCO ranged from 1 to 27 with an average rating of 6 and an S.D of 7. These meant some SACCOs have few agents which may limit their ability to realize financial inclusion. In regard to operational scope, this ranged from one county to 16 counties with an average rating of 3 counties and standard deviation 2 counties. This is an indication that some SACCOs have limited operational scope of operating in one county. Lastly, the average number of accounts opened via agents was between 89 to 1006 with an average rating of 248 accounts and standard deviation 98. SACCO agents act as catalysts for financial inclusion, particularly in underserved and remote areas. As they continue to play a crucial role in bridging the gap between financial institutions and communities, the impact of SACCO agent practices extends beyond mere transactional convenience to empowerment, trust-building, and economic development (Mwende et al., 2015). By fostering a financial ecosystem that is inclusive, flexible, and community-centric, SACCO agent practices contribute significantly to building a more resilient and prosperous society (Lotto, 2016).

4.3.3 Diversification of Financial Services Practices

Diversification of Financial Services Practices was measured in regard to allocated funds on investments portfolio namely savings mix, deposit mix, total loans and total savings annually between 2018 and 2022. The results are shown in Table 4.3. Between 2018 and 2022, amount allocated to saving mix ranged from .0038 to 8.99 billion shillings with an average rating of .61 and an S.D of 1.10. The savings mix represents the proportion of funds that

Table 4. 4: Diversification of Financial Services Practices

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Savings Mix (Kshs Billion)	610	0.0038	8.9851	0.616954	1.0992539
Deposit Mix (Kshs Billion)	610	0.0080	18.9160	1.289587	2.3142186
Total Loans (Kshs Billion)	610	0.0400	45.0700	3.593820	6.3458244
Total Savings (Kshs Billion)	610	0.0310	28.0500	1.078525	1.3495969

Source: Research Findings (2023)

SACCOs hold in savings accounts. This proportion typically ranges from 20% to 40% of total assets. The higher the proportion of funds held in savings accounts, the lower the risk of the SACCO's portfolio. However, this also means that the SACCO will earn lower returns on its investments (Zabala et al., 2020).

Amount allocated to deposit mix ranged from .01 to 18.92 billion shillings with an average rating of 1.29 and an S.D of 2.31. The deposit mix represents the proportion of funds that SACCOs hold in deposits. This proportion typically ranges from 30% to 50% of total assets. Deposits are a more secure form of investment than savings accounts, as they are typically guaranteed by the government. However, deposits also earn lower returns than savings accounts (Keswani et al., 2021).

Total loans ranged from 0.04 to 45.07 billion shillings with an average rating of 3.59 and an S.D of 6.35. Total loans show the percentage of cash that SACCOs lend to borrowers. 20–40% of total assets is a common range for this percentage. Loans have a higher degree of risk than deposits or savings accounts since borrowers may be unable to make their payments. However, loans can also earn higher returns than savings accounts or deposits (Senyo et al., 2015).

Total saving ranged from 0.03 to 28.05 billion shillings with an average rating of 1.08 and an S.D of 1.35. Total savings represent the total amount of funds that SACCOs hold in savings accounts, deposits, and loans. This amount typically ranges from 50% to 70% of total assets. SACCOs play a critical role in promoting financial inclusion in Kenya by strategically allocating funds across investment portfolios. Through a focus on savings, deposits, loans, and overall savings mobilization, SACCOs empower individuals and communities to participate in the formal financial system, enhance their financial literacy, and access opportunities for economic growth. By aligning their investment strategies with the principles

of financial inclusion, SACCOs can drive positive social and economic change, contributing to a more equitable and prosperous Kenya (Kinyagu, 2021).

The advantages of diversifying financial services practices among SACCOs in Kenya are far-reaching. From meeting diverse member needs to enhancing financial inclusion, mitigating risks, generating revenue, and contributing to economic development, the benefits are integral to the growth and sustainability of SACCOs. As SACCOs continue to evolve in response to changing member dynamics, economic landscapes, and technological advancements, diversification stands out as a strategic imperative that not only strengthens the financial institutions themselves but also uplifts the communities they serve. In the journey toward a financially inclusive and empowered Kenya, the diversified offerings of SACCOs play a crucial role in shaping a resilient and prosperous future (Jerono, 2016).

4.3.4 Innovation of Financial Services

Innovation of Financial Services Practices was measured in regard to the number of new SACCO products introduced, number of online SACCO platforms adopted, number of mobile apps adopted, number of electronic payments/transactions made and number of digital customers on-boarding services annually between 2018 and 2022. The results are shown in Table 4.4.

Table 4. 5: Innovation of Financial Services Practices

Variable	N	Minimum	Maximum	Mean	Std. Deviation
No of new SACCO products introduced	610	3	9	4.628	4.292
No of online SACCO platforms adopted	610	0	2	0.720	.468
No of mobile apps adopted	610	1	3	1.620	.534
No of electronic payments/transaction made	610	7,200	115,308	44,642.62	14,877.8
No of digital customer on-boarding services	610	160	2,178	543.61	281.6

Source: Research Findings (2023)

Between 2018 and 2022, the number of new SACCO products introduced ranged from 3 to 9 with an average rating of 5 and an S.D of 4. The high standard deviation implies that some SACCOs were introducing new banking products as compared to others due to various

reasons such as resource availability. The number of new banking products introduced among deposit-taking SACCOs in Kenya has been growing steadily in recent years. This growth is likely to continue in the coming years as SACCOs strive to meet the needs of their members (Sum & Memba, 2016).

The number of online SACCO platforms adopted ranged from 0 to 2 with an average rating of 1 and an S.D of 0.468. The adoption of online SACCO financial platforms among deposit-taking SACCOs in Kenya has been increasing in recent years, driven by the growing digital landscape and the demand for convenient and accessible financial services (Muteke, 2015). As of 2023, over 50% of DT_SACCOs in Kenya offer online SACCO financial platforms, providing their members with the ability to manage their accounts, transfer funds, and access financial services from anywhere with an internet connection.

The number of mobile apps adopted ranged from 1 to 3 with an average rating of 2 and an S.D of 1. This implies that at least, there is one mobile application among SACCO, although some few SACCOs have at most three. The most common is M-Pesa Integration, USSD code and SACCO customized mobile applications. The adoption of mobile apps among DT-SACCOs in Kenya has been growing steadily in recent years, driven by the increasing prevalence of smartphones and the demand for convenient and accessible financial services (Ouma, Omagwa & Ngaba, 2018). As of 2023, all DT-SACCOs in Kenya offer mobile apps, providing their members with the ability to manage their accounts, transfer funds, and access financial services from their mobile devices.

The number of electronic payments/transactions made ranged from 7,200 to 115,308 with an average rating of 44,642.62 and an S.D of 14,877.8. The number of electronic payments/transactions made among DT-SACCOs in Kenya has been steadily increasing in recent years, driven by the growing adoption of digital payment platforms and the increasing demand for convenient and secure financial services. As of 2023, all DT-SACCOs in Kenya were offering electronic payment options, and the volume of electronic transactions is growing at a double-digit rate. Electronic payments are playing an increasingly crucial role in promoting financial inclusion and economic growth in Kenya. By providing SACCO members with accessible and secure electronic payment options, SACCOs are empowering individuals to participate fully in the formal financial system, manage their finances effectively, and contribute to Kenya's economic development.

Lastly, number of digital customers' on-boarding services ranged from 160 to 2,178 with an average rating of 543.61 and standard deviation of 281.6. Digital customer onboarding services are transforming the way SACCOs in Kenya attract and interact with new members. By providing a convenient, efficient, and secure online account opening process, SACCOs are enhancing customer experience, improving operational efficiency, and promoting financial inclusion. SACCOs will need to adjust and improve their digital onboarding services to be competitive and satisfy the shifting demands of their members as digital technologies continue to advance. The importance of digital client onboarding services in fostering financial inclusion and economic progress in Kenya is growing in significance. More Kenyans are joining the official financial system, better managing their money, and contributing to Kenya's economic growth thanks to these services, which make opening SACCO accounts easy and accessible (Nekesa & Olweny, 2018).

4.3.5 Firm Size

Firm size was determined using total asset. Table 4.5 displays the findings.

Table 4. 6: Firm Size

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Total assets	610	0.0400	64.0600	4.692459	8.2651378

Source: Research Findings (2023)

Between 2018 and 2022, the total assets ranged from .0400 to 64.06 billion shillings with a mean 4.69 and standard deviation of 8.27. Total assets are used to categorize SACCOs. Financial inclusion and financial success are both significantly affected by the overall asset size of a SACCO. The larger the SACCO, the more people it can contact, the more goods and services it can provide, the better its risk management methods, and the cheaper its costs will be (Biwott & Macharia, 2018).

4.3.6 Financial Performance

Financial performance was measured using return on assets (ROA). The results are presented in Table 4.6.

Table 4. 7: Financial Performance

Variable	N	Minimum	Maximum	Mean	Std. Deviation
ROA	610	.01	.31	.1505	.04023

Source: Research Findings (2023)

The average return on assets was 15.05%, with an S.D of 4.00% and a range of 1.00% to 31.00%. This suggests that DT-SACCOs in Kenya exhibit widely varying levels of success. Even while some SACCOs are doing better than others, none of them are making a loss. Despite a slew of difficulties, DT-SACCOs in Kenya have shown steadily improving financial results over the last several years. This growth is attributed to factors such as increased membership, improved governance, and technological advancements (Wanjiru & Jagongo, 2022).

4.4 Diagnostic Tests

The gathered data underwent diagnostic examinations. The research used a 95% confidence interval or a 5% threshold of significance in order to draw inferences about the data under consideration. Diagnostic tests proved to be helpful in determining the accuracy or validity of the data. Hence, it may be inferred that the data used is considered to be more precise as the confidence interval approaches 100%. In this particular scenario, the performed tests included a normality test, a multicollinearity test, heteroskedasticity testing, and autocorrelation analysis. The examination included assessments for normalcy (Khatum, 2021), multicollinearity and the Durbin Watson test.

4.3.1 Normality Test

A normality test, the Kolmogorov-Smirnov test, was performed on the data. A cutoff of 0.05 was arbitrarily chosen. If the likelihood is higher than that, then the data most likely follows a normal distribution. Similarly, a p-value greater than 0.05 from the Shabiro-Wilk test indicates that the data follows a normal distribution. Table 4.5 displays the results.

Table 4. 8: Normality test

Variable	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Financial Performance	.273	610	.052	.809	610	.056
Mobile Money Transfer Practices	.186	610	.200*	.944	610	.621
SACCO Agency Practices	.236	610	.161	.907	610	.296
Diversification of Financial Services	.230	610	.186	.909	610	.310
Innovation of Financial Services	.236	610	.161	.907	610	.296
SACCO Size	.232	610	.176	.907	610	.299

Source: Research Findings (2023)

The aforementioned findings indicate that the data had a normal distribution, as shown by the p-values above 0.05. Consequently, the researcher has embraced the acceptance of the null hypothesis pertaining to normal distribution, signifying the absence of evidence to reject the null hypotheses.

4.3.2 Multicollinearity Test

According to Williams, Grajales & Kurkiewicz (2013), the feature in question is characterized by the presence of correlations among predictor variables. The property was examined by using VIF. According to Field (2009), VIF scores of over 10 suggest the existence of this characteristic. The data shown in Table 4.8 demonstrates that all of the VIF values were below 10, while the tolerance values were above 0.20. The presence of multicollinearity is indirectly suggested.

Table 4. 9: Multicollinearity Test

Variable	Tolerance	VIF
Mobile Money Transfer Practices	.620	1.612
Agency Banking Practices	.380	2.632
Diversification of Financial Services Practices	.602	1.661
Innovation of Financial Services Practices	.419	2.389
SACCO Size	.322	3.110

Source: Research Findings (2023)

4.3.3 Autocorrelation Test

The Durbin-Watson test was used to analyze the degree of similarity between the variants (methods of mobile money transfer, methods of SACCO agency services, methods of diversification of financial services, methods of innovation in financial services, and SACCO size), and the result was a statistic close to 2. The lack of serial correlation is shown by this value. With a value of $d = 1.843$, the Durbin-Watson statistic is within the valid range of $1.5 < d < 2.5$. This claim implies that the analyzed parameters do not show any observable similarities in their variations.

4.5 Correlation Analysis

The establishment of a link between two variables that is between the spectrum of a near-perfect positive correlation and a robust negative correlation has significant significance. Pearson correlation was useful in determining whether or not there was a connection between financial inclusion and DT-SACCOs' success. This investigation primarily focuses on mobile money transfer practices, SACCO agency practices, diversification of financial services practices, and innovation of financial services practices. Another factor that was included in was the SACCO's size, which served as a control variable.

You can see the variable correlation matrix in Table 4.7. Study results show a good link between DT-SACCOs' adoption of Mobile Money Transfer Practices and their financial success ($r = .601$, $p = .000$). The results also showed a positive correlation between SACCO agencies' practices and DT-SACCOs' performance ($r = 0.272$, $p = 0.031$). Findings indicate a good correlation between DT-SACCOs' financial success and their exposure to a variety of financial services ($r = .475$, $p = .000$). Finding a somewhat significant correlation between Financial Service Innovation and DT-SACCO Performance was another important finding of this study ($r = .376$, $p = .000$). Ultimately, the analysis revealed the presence of a moderate positive connection between the size of Savings and Credit Cooperative Organizations (SACCOs) and their financial success. This conclusion is supported by a correlation coefficient of $r = .543$, which is statistically significant with a p-value of $.000$.

Table 4. 7: Correlation Matrix

Variable		Mobile	SACCO	Diversification	Innovation	SACCO
		Money	Agency	of Financial	of	Size
		Transfer	Practices	Services	Financial	
		Practices	Practices	Services	Services	
Mobile Money	PC		1			
Transfer Practices	P(2t)					
(MMTP)	N	610				
SACCO Agency	PC	.507**	1			
Practices (SAP)	P(2t)	.000				
	N	610	610			
Diversification of	PC	.422**	.545**	1		
Financial Services	P(2t)	.000	.000			
(DFSP)	N	610	610	610		
Innovation of	PC	.395**	.403**	.533**	1	
Financial Services	P(2t)	.000	.000	.000		
Practices (IFSP)	N	610	610	610	610	
SACCO Size (SS)	PC	.514**	.299*	.516**	.718**	1
	P(2t)	.000	.023	.000	.000	
	N	610	610	610	610	610
Financial	PC	.601**	.272*	.475**	.376**	.543**
Performance	P(2t)	.000	.031	.000	.000	.000
	N	610	610	610	610	610

** .01 level of significant; * .05 level of significant
 N=610; PC=Pearson Correlation; P(2t) =Sig. (2-tailed)

Source: Research Findings (2023)

4.6 Regression Analysis

Regression analysis was used to look at the relationships between these five variables: mobile money transfer practices; SACCO agency practices; financial service diversity; financial service innovation; and SACCO size. The findings of the analysis are shown in the tables provided below. The regression analysis used a significance level of 5%. The provided dataset has a comprehensive model description, an ANOVA, and regression coefficients.

4.6.1 Model Summary

Based on the findings shown in Table 4.8, a significant correlation is seen between financial inclusion initiatives and the financial success of DT-SACCOs in Kenya. This is evidenced by the substantial correlation coefficient (R) of 0.678. According to these indicators, the

collaboration is successful. With an adjusted R2 of 0.461, we may infer that the technique and practices of financial inclusion utilized in this research may account for about 46.1% of the observed variance in financial success. This shows that the present model may be missing some significant factors that account for 53.9% of the variance in the financial performance of DT-SACCOs. But these factors are missing from the model.

Table 4. 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.678 ^a	.461	.458	.30141

a. Predictors: (Constant), Mobile Money Transfer Practices, Agency Banking Practices, Diversification of Financial Services Practices, Innovation of Financial Services Practices and SACCO Size
b. Dependent Variable: Financial Performance

Source: Research Findings (2023)

4.6.2 Analysis of Variance

The correlation between financial inclusion and economic performance is shown to be statistically significant ($p < 0.05$) in Table 4.9.

Table 4.9: ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	106.967	5	21.393	235.483	.000 ^b
	Residual	54.873	604	.091		
	Total	161.839	609			

a. Dependent Variable: Financial Performance
b. Predictors: (Constant), Agency Banking Practices, Diversification of Financial Services Practices, Innovation of Financial Services Practices and SACCO Size, Mobile Money Transfer Practices

Source: Research Findings (2023)

Predicting the growth of DT-SACCOs may become easier if better methods of mobile money transfer, SACCO agency services, financial service diversification, and financial service innovation are widely used. Table 4.9 displays the results, which include a F statistic of 235.483 with a p-value of 0.000. This provides support for a hypothesis that there is a correlation between DT-SACCOs' financial success and their use of financial inclusion initiatives in Kenya.

4.6.3 Regression Coefficients

The multiple regression model was performed, the results of which may be formulated as follows:

$$Y = 0.372 + 0.021X_1 + 0.181X_2 + 0.169X_3 + 0.408X_4 + 0.150X_5$$

Where:

Y = Financial performance (measured by ROA)

X₁ = SACCO Agency Practices

X₂ = Diversification of Financial Services Practices

X₃ = Innovation of Financial Services Practices

X₄ = Mobile Money Transfer Practices

X₅ = SACCO Size

Multiple regression analysis' beta coefficients in Table 4.10 illustrate the particular relationships between the independent components and the financial performance of DT-SACCOs.

Table 4. 10: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	.372	.122		3.049	.002
SACCO Agency Practices	.021	.040	.019	.529	.597
Diversification of Financial Services	.181	.023	.226	7.841	.000
Innovation of Financial Services Practices	.169	.035	.174	4.873	.000
Mobile Money Transfer Practices	.408	.038	.429	10.774	.000
SACCO Size	.150	.026	.174	5.762	.000

a. Dependent Variable: Financial Performance

There will be a detrimental effect on financial performance if financial inclusion strategies are not implemented. A coefficient of 0.372 and a p-value of 0.000 indicate the existence of a statistically significant relationship. The research found a correlation between SACCO agencies' practices and their financial health. A beta coefficient of 0.021 and a p-value greater than 0.05 indicate that this association is not statistically significant. Based on the research findings, a favorable correlation is shown between SACCO Agency Practices and financial

success, but with a minor size. To be more precise, a one-unit rise in SACCO Agency Practices is correlated with a 0.021-unit improvement in financial output. This correlation, however, lacks statistical significance. The beta coefficient of 0.181 (p less than 0.05) demonstrates that the diversification of financial services had an impact that was statistically significant on the financial performance of the organization. This finding suggests that a one-unit improvement in financial success is associated with a 0.181-unit gain in financial diversification. Similarly, the implementation of novel financial services shown a statistically significant impact on the financial performance. The statistical analysis revealed a beta coefficient of 0.169, which was found to be statistically significant at a significance level of $p < 0.05$. The selected significance threshold of $p < 0.05$ indicated that any p -value below this threshold would be deemed statistically significant. This finding implies that a little augmentation in the level of innovation within the financial services sector, equivalent to an increase of 1 unit, led to a corresponding enhancement in financial performance, which was 0.169 units greater than the previous level. In summary, the obtained beta coefficient of 0.408 (with a significance level of $p < 0.05$) indicates that the implementation of mobile money transfer processes had a positive and statistically significant influence on the company's overall financial performance. An increase of one unit in the utilization of mobile money transfer resulted in a direct consequence of a 0.408 unit gain in financial performance. The beta value of 0.150 ($p < 0.05$) indicates that the inclusion of the SACCO as a control variable has a statistically significant and favorable impact on the financial performance. This was shown by the observation that the impact had a statistically significant outcome. Ultimately, a 0.150-unit enhancement in financial performance was seen as a result of a one-unit augmentation in total assets. It was hypothesized that if financial inclusion were improved, economic outcomes would also improve. Increased usage of mobile money transfer services, expanded existing financial services, and the development of novel financial services are all avenues that might be pursued to this end. It has been shown that an increase in total assets correlates positively with improved financial success.

4.7 Discussion of Findings

The purpose of this research was to analyze whether and how DT-SACCOs in Kenya's financial success was affected by the adoption of financial inclusion methods. In this scenario, we studied financial inclusion as an independent variable via the lens of many distinct financial service-related activities, such as mobile money transfer methods, SACCO

agency practices, and novel financial service innovations. SACCO size was calculated using total assets as the independent variable. The return on assets was used as the dependent variable to assess the subsequent performance of SACCOs.

Descriptive results indicated an average rating of Kshs 3.59 billion was annually disbursed via mobile money and deposits via mobile money was Kshs 0.97 billion annually. Annually, each DT-SACCO was found to have an average of 6 Mobile Money Agents, and the operational scope of 3 counties in Kenya. The average number of accounts opened annually was via SACCO agency financial services was 248. The average saving mix annually was Kshs 0.616 billion, deposit Mix Kshs 1.29 billion, total loans was Kshs 3.59 billion and total saving was Kshs 1.079 billion. The mean number of new products introduced annually was 5 per SACCO, online SACCO financial platforms adopted annually was one per SACCO, number of mobile apps adopted was two per SACCO annually, number of electronic payments/transactions made was 44,642 and number of digital customers on-boarding services was 543.

Similar results were found by Ndegwa and Koori (2019), who concluded that enhancing financial literacy, diversifying product and service offerings, moving toward mobile platforms for money transfers, and recruiting agents to provide banking services all contribute to greater digital transaction system efficiency. Dzombo et al. (2018) came to similar conclusions, therefore this observation makes sense. After much deliberation, the authors concluded that the precursors of agency banking were the employment of agents and computerized platforms to facilitate financial activities. The findings align with the outcomes of a previous investigation conducted by Oyetoyan et al. (2021), wherein it was discovered that commercial banks have used measures such as financial literacy initiatives, agency banking, enhanced utilization of ATMs, and the utilization of mobile platforms to facilitate the delivery of banking services.

Financial success was shown to be significantly correlated with the use of mobile money transfer methods. This link was determined to be substantive and helpful. However, the research also found a shaky but favorable connection between the performance of DT-SACCOs and SACCO agency practices that included new financial services. Moreover, it was shown that the size of the business and the number of financial services offered both positively correlate with DT-SACCO's financial success. The research also found that the financial success of DT-SACCOs in Kenya was directly connected to the extent to which

they used financial inclusion strategies. The evaluated techniques for financial inclusion may explain for around 36.8% of the variance in economic performance, as evidenced by the results ($R^2 = 0.368$). Exactly 63.2% of the variance in DT-SACCOs' financial performance was found to be attributed to factors that were not investigated in this research. The 0.000 p-value (where p-values below 0.05 indicate statistical significance) also demonstrates the very high relevance of the link between financial inclusion indicators and economic performance. The findings demonstrate that the effectiveness of DT-SACCOs may be reliably measured by the expansion of existing financial service behaviors, the introduction of novel financial service practices, and the prevalence of mobile money transfer activities. The outcomes of our investigation align with the outcomes of Ndegwa and Koori (2019), proving that the incorporation of financial services has a substantial positive impact on the performance of DT-SACCOs in Meru County financially. Our results are consistent with those found by Al-Eitan et al. (2022), who looked at how expanding access to banking services affected the bottom line for commercial institutions. They found substantial evidence that this link is solid.

According to the findings about the regression coefficients, financial performance is positively impacted in a way that is statistically significant when diversity is practiced. The findings presented here are in line with the study that was carried out by Busch and Kick (2019), who investigated a variety of strategies that might be used by the banking industry in Germany to increase income diversity. In a similar vein, Kamal et al. (2021) carried out an exhaustive literature analysis that covered the period beginning in 1995 and ending in 2020. The authors of the research reached the determination that the implementation of financial inclusion had a substantial positive impact on the profitability and overall performance of commercial banks. In a recent scholarly study, Shihadeh (2020) conducted a comprehensive inquiry to analyze the correlation between financial inclusion, bank performance, and risk exposure throughout the MENAP areas. Based on the results of the investigation, a correlation has been established between heightened levels of financial inclusion and enhanced production, and a reduction in susceptibility. This was shown to be the case. The research that was carried out by Cotugno and Stefanelli (2012) investigated the phenomena of geographical diversity and the effect that it has on the performance of banks. The results of their investigation showed that there is a substantial causal connection between the amount of product diversity found inside banks and their overall performance.

The regression results indicate a favorable and statistically significant association between the use of mobile money transfer methods and the attainment of financial success. Isabwa (2021) conducted a meta-analysis to examine the effects of mobile digital banking on financial inclusion in Kenya, specifically focusing on 43 commercial banks. The findings of this study were consistent with previous research. A series of random samples were collected from a total of 43 distinct commercial banks in Kenya. The correlation between the broad use of mobile money transfers and the increased accessibility of financial services has been well-documented. Dzombo et al. (2018) conducted an investigation to look into the impact of branch-free banking on the performance of local commercial banks in Kenya financially.

The regression coefficient results show that the introduction of new financial services significantly improves financial outcomes. This result is based on the data that was analyzed. The findings are congruent with the conclusions of the study that was carried out by Al-Eitan et al. (2022). To measure economic performance, the authors of the research looked at gearing. According to the findings, commercial banks' bottom lines tend to go down in proportion to the sum of their deposits and loans. According to the findings, commercial banks' bottom lines are positively correlated with the extent to which their target populations have access to financial services. For their study, Moki et al. (2019) examined the forty registered DT-SACCOs in Nairobi City County and compared their financial innovation techniques and overall performance. A remarkable discovery has been revealed by a team of researchers located in Nairobi, which indicates that DT-SACCOs had beneficial results as a consequence of their participation in financial innovation. The use of mobile banking has resulted in decreased costs, increased efficiency, and improved customer service. Evidence of this may be seen in both the yearly financial statements and the reports of the directors, where the increasing value of mobile transactions is reported. The impact of new financial innovations on the bottom lines of Kenya's commercial banks was studied by Mugane and Ondigo (2016). The Kenyan financial sector was a particular target. A straightforward and highly probable unfavorable link between innovative products and ROA was identified.

The size of a SACCO, as measured by its total assets, has a significant bearing not only on the organization's ability to provide financial services but also on their overall performance. The regression model made this point very clear. A growth in the population's use of the financial system is facilitated by larger SACCOs with larger asset bases, since they can reach a bigger membership base and offer a greater range of financial services. In the same breath,

their size enables them to run their businesses more effectively, which in turn boosts their financial performance and gives them the capacity to weather economic turbulence.

In the evolving landscape of financial inclusion and SACCO operations in Kenya, the incorporation of SACCO size as a control variable proves instrumental in unravelling the intricate relationship between financial inclusion and financial performance (Moki et al., 2019). This nuanced approach acknowledges the diverse landscape of SACCOs, recognizing that one size does not fit all in the realm of cooperative finance. As researchers delve deeper into understanding the factors influencing the financial health of SACCOs, the inclusion of SACCO size as a control variable ensures that the resulting insights are not only accurate but also applicable across the diverse spectrum of cooperative institutions in Kenya.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a concise overview of the research findings, the methodology used in the study, and the researcher's suggested course of action. It provides an equitable analysis of the obstacles and constraints encountered.

5.2 Summary of Findings

This investigation looked at how different financial inclusion approaches have affected the bottom lines of DT-SACCOs in Kenya. 122 DT-SACCOs in Kenya were surveyed for secondary data between the years of 2018 and 2022. Overall, financial inclusion was shown to account for up to 46.1% of the variation in financial outcomes. Apart from SACCO agency practices, mobile money transfer practices, diversification of financial services practices and innovation of financial services practices exhibited substantial effect on the performance.

The outcomes of the investigation showed a favorable correlation between the financial success of DT-SACCOs and the degree to which they diversified their use of financial services. This implied that SACCOs which have an array of financial services are able to increase their financial performance while pursuing financial inclusion since they are able to serve various customers with different financial needs. The regression analysis showed that offering a variety of financial services has a favorable and statistically significant impact on profitability.

Similarly, the study showed that DT-SACCOs thrived when new forms of financial service were introduced. This postulated that SACCOs with adequate investment in innovation are able to realize superior performance through innovative financial services as compared to their competitors. This is key to financial inclusion. This was evident by the result of regression whereby innovation financial services resulted to positive and significant effect on financial performance.

The use of MMT was also shown to have a favorable correlation with the financial success of DT-SACCOs. Regression analysis results corroborated this finding, suggesting that more use

of mobile money transfer services will improve financial outcomes. As a result of the convenience and portability of mobile money transfer procedures, financial inclusion has been able to take a giant leap forward. However, there was no adequate evidence to link SACCO agency services with significant financial performance. The existing SACCO agency practices were found to not adequately support the assertion that increase in SACCO agency among DT-SACCOs would result to significant performance improvement, an area which DT-SACCOs need to invest. The number of agents and the area of operation of agents were limited resulting to inadequate number of accounts opened via SACCO agency service.

It was discovered that DT-SACCOs' financial results were significantly impacted by firm size as a control variable. According to the findings, big businesses gain more from financial inclusion than small businesses do since they have more capital to put into financial inclusion initiatives. Expanding access to financial services has the potential to greatly improve the bottom line for businesses of all sizes.

5.3 Conclusion of the Study

Based on the data obtained, this research finds that the success of financial inclusion techniques implemented by DT-SACCOs in Kenya is impacted by these tactics. The study found that several other factors, such as diversification, innovation, and mobile money transfer, all had a role in the success of DT-SACCOs in Kenya. It is feasible to conclude that these factors significantly affect performance based on the p-value shown in the ANOVA's executive summary.

It has been shown that DT-SACCOs' overall performance improves noticeably and favorably when they provide a wider range of financial services to their members. DT-SACCOs that offer a sufficient depth and breadth of financial services are better able to serve the different needs of their clients, which in turn increases the companies' financial performance. Further, since it allows clients the flexibility to purchase financial services within their means, diversity of financial services decreases the risk inherent in financial services, particularly credit concerns.

Research shows that DT-SACCOs as a whole benefit greatly when new types of financial services are introduced. Due to their innovative character, DT-SACCOs are able to devise financial services that broaden access to credit. Because of DT-SACCOs' creative spirit, its customers have access to a wide range of financial options. In addition, cutting-edge DT-

SACCOs may provide low-cost financial services to their clients without sacrificing efficiency.

The success of DT-SACCOs has been shown to increase in direct proportion to the number of transactions conducted using mobile money transfer services. This finding suggests that a rise in the use of mobile money transfer services would result in enhanced financial well-being for DT-SACCOs in the forthcoming period. Mobile money transfer activities not only allow customers to access financial services on their own time and from any location, but also allow DT-SACCOs to diversify their revenue streams beyond interest income by bringing in commission and service charge fees.

A positive correlation between firm size and financial performance has been shown via statistical analysis. This suggested that larger DT-SACCOs, in comparison to smaller SACCOs, are in a better position to invest extra liquid or capital to improve financial inclusion. Because funding were readily available, SACCOs were able to make investments not just in research and development but also in the SACCO agency services they provide.

Researchers in Kenya found that DT-SACCOs' financial performance did not improve as a result of SACCO agency procedures and recommended doing away with them. This was clearly shown by the low availability of agents and the high volume of new accounts created via mobile channels. As a result of this, the performance of DT-SACCOs from a financial standpoint was not substantially impacted by SACCO agency practices as a determinant on financial inclusion.

5.4 Recommendations of the Study

The use of mobile money, the provision of diverse financial services, and the adoption of financial innovation have all been shown to have a favorable influence on the financial performance of Kenya's DT-SACCOs. When formulating policies aimed at enhancing financial performance, it is advised that decision-makers accord a greater level of importance to the incorporation of these practices than they already do. It is prudent to propose to DT-SACCOs in Kenya, as well as their boards, that throughout the adoption of strategic management techniques, agency services should be taken into consideration. This would allow for improved performance.

The research indicates that the size of a DT-SACCO in Kenya has a significant bearing on the extent to which it is successful. Study results indicate that DT-SACCO management should

implement asset-growth plans in order to expand their organizations' financial footing. This is a tip worth considering since it would have a noticeable effect on the efficiency of the DT-SACCOs if implemented. The research found that DT-SACCOs with a larger asset base outperformed those with a smaller asset base. Therefore, it is recommended that businesses increase their asset bases to boost their overall performance.

If DT-SACCO management is serious about raising the bottom line, they need to look at a number of options. The objective may be accomplished by adopting more efficient approaches to enhance financial inclusion, with a specific focus on using mobile banking solutions and digital lending platforms. Considering the inherent limitations of this research in comprehensively examining the multitude of elements that can affect organizations' financial performance, it is essential for management to proactively partake in broad consultation and explore other variables that could have an effect on financial performance. Nevertheless, this study acknowledges that there are several possible factors that might impact an organization's financial performance, which are not within the purview of this research.

As per the outcomes of the investigation, management should investigate the possibility of using additional factors and determining their influence on performance. A limited amount of effort was put into the implementation of the various approaches for financial inclusion. The management of businesses should investigate several ways that might improve the factors that contribute to the long-term financial success of the company.

5.5 Limitations of the Study

The study duration included a period of five years, namely from 2018 to 2022. This observation does not provide conclusive evidence on the likelihood of obtaining comparable outcomes in the context of an extended duration of research. Furthermore, the generalizability of these results to the retrospective years from 2018 remains uncertain. A lengthier time frame might enhance the reliability of the research by including significant events that were not accounted for in the current analysis.

One of the drawbacks inherent in this research is to the quality of the data. The inquiry does not provide sufficient evidence to determine the accuracy of the conclusions pertaining to the scenario. It is presumed that the data provided is correct. There is a possibility that the readings will change from one year to the next based on the conditions that are present. In

contrast to the first-hand knowledge that is often associated with primary data, this research made use of secondary data, which was information that had been gathered in the past and was accessible to the general public. The study concentrated on a select number of variables rather than doing an exhaustive investigation into all of the elements that have an effect on the performance of DT-SACCOs in Kenya, in part because there was a lack of data.

The regression model was used for the purpose of data analysis. Due to the inherent constraints of the model, such as the potential for erroneous and misleading results in response to changes in performance, researcher is unable to confidently generalize the findings. The potential failure of the projected relationship between variables may occur as a result of incorporating more data into the model.

5.6 Suggestions for Further Study

In order to get a generalization that is more exhaustive, more study may be carried out to investigate other issues that are particular to the field. Additional study might concentrate on the many different types of financial institutions, such as mortgage companies, and the many methods that each one uses to encourage financial inclusion. In a similar vein, this research concentrated only on DT-SACCOs as its subject matter. Research of a similar kind might be carried out on commercial banks as well as other financial institutions.

In addition, one possible avenue for study would be to investigate the effect that the use of an electronic financial service model has on the cost effectiveness of DT-SACCOs. This is especially important to keep in mind in light of the fact that the digital platform plays a key part in expanding access to financial services. It is possible to do more study in order to investigate the potential financial effect of implementing technologies that are similar to those used in digital banks on the operational efficiency of DT-SACCOs. In conclusion, it is important to note that the scope of this research was restricted to the examination of just four precedents of financial inclusion methods. This restriction was made in order to keep the scope of the study manageable. As a result of this, it is strongly suggested that future study makes an effort to investigate different domains in order to provide a more thorough analysis.

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APPENDICES

Appendix I: List of Registered SACCOs in Kenya

Schedule I: Licensed SACCO Societies for Period Ending December 2022

No.	Name of Society	Postal Address
1.	2NK SACCO Society Ltd	P.O Box 12196-10100 Nyeri
2.	Afya SACCO Society Ltd	P.O.Box 11607 – 00400, Nairobi.
3.	Agro-Chem SACCO Society Ltd	P.O Box 94 - 40107, Muhoroni.
4.	All Churches SACCO Society Ltd	P.O Box 2036 - 01000, Thika.
5.	Ardhi SACCO Society Ltd	P.O. Box 28782 - 00200, Nairobi.
6.	Asili SACCO Society Ltd	P. O. Box 49064 – 00100, Nairobi.
7.	Bandari SACCO Society Ltd	P.O.Box95011– 80104, Mombasa.
8.	Baraka SACCO Society Ltd	P. O. Box 1548 – 10101, Karatina.
9.	Baraton University SACCO Society Ltd	P.O Box 2500-68100, Eldoret.
10.	Biashara SACCO Society Ltd	P. O. Box 1895 – 10100, Nyeri.
11.	Bingwa SACCO Society Ltd	P.O.Box 434 – 10680, Kerugoya.
12.	Boresha SACCO Society Ltd	P.O.Box80–20103, Eldama Ravine.
13.	Capital SACCO Society Ltd	P.O Box 1479-60200, Meru.
14.	Centenary SACCO Society Ltd	P.O.Box 1207 – 60200, Meru.
15.	Chai SACCO Society Ltd	P.O.Box 47815 – 00100, Nairobi.
16.	Chuna SACCO Society Ltd	P.O.Box 68197 – 00100, Nairobi.
17.	Cosmopolitan SACCO Society Ltd	P.O.Box 1931 – 20100, Nakuru.
18.	County SACCO Society Ltd	P.O.Box 21 – 60103, Runyenjes.
19.	Daima SACCO Society Ltd	P.O.Box 2032 – 60100, Embu.
20.	Dhabiti SACCO Society Ltd	P.O.Box 353 – 60600, Maua.
21.	Dimkes SACCO Society Ltd	P.O.Box 886 – 00900, Kiambu.
22.	Dumisha SACCO Society Ltd	P.O Box 84-20600, Mararal.
23.	Egerton SACCO Society Ltd	P.O.Box 178 – 20115, Egerton.
24.	Elgon Teachers SACCO Society Ltd	P.O Box 27-50203, Kapsokwony.
25.	Elimu SACCO Society Ltd	P.O Box 10073-00100, Nairobi.
26.	Enea SACCO Society Ltd	P.O.Box 1836 – 10101, Karatina.
27.	Faridi SACCO Society Ltd	P.O. Box 448-50400, Busia.

28.	Fariji SACCO Society Ltd	P.O.Box 589 – 00216, Githunguri.
29.	Fortune SACCO Society Ltd	P.O.Box 559 – 10680, Kerugoya.
68.	Fundilima SACCO Society Ltd	P.O.Box 62000 – 00200, Nairobi.
31.	Gastameco SACCO Society Ltd	P.O Box 189-60101, Manyatta.
32.	Githunguri Dairy & Community SACCO Society Ltd	P.O.Box896–00216, Guthunguri.
33.	Goodway SACCO Society Ltd	P.O Box 626-10680, Kerugoya.
34.	Gusii Mwalimu SACCO Society Ltd	P.O.Box 1335 – 40200, Kisii.
35.	Harambee SACCO Society Ltd	P.O.Box 47815 – 00100, Nairobi.
36.	Hazina SACCO Society Ltd	P.O.Box 59877 – 00200, Nairobi.
37.	Ig SACCO Society Ltd	P.O.Box 1150 –50100, Kakamega.
38.	Ilkisonko SACCO Society Ltd	P.O Box 91-00209, Loitokitok.
39.	Imarika SACCO Society Ltd	P.O.Box 712 – 80108, Kilifi.
40.	Imarisha SACCO Society Ltd	P.O.Box 682 – 20200, Kericho.
41.	Imenti SACCO Society Ltd	P.O.Box 3192 – 60200, Meru.
42.	Jacaranda SACCO Society Ltd	P.O. Box 176744-00232, Ruiru
43.	Jamii SACCO Society Ltd	P.O.Box 57929– 00200, Nairobi.
44.	Jitegemee SACCO Society Ltd	P.O. Box 86937 - 80100, Mombasa.
45.	Jumuika SACCO Society Ltd	P.O. Box 14-40112, Awasi.
46.	Kaimosi SACCO Society Ltd	P.O Box 153-50685, Sirwa.
47.	Kathera Rural SACCO Society Ltd	P.O Box 251-60202, Nkubu.
48.	Kenpipe SACCO Society Ltd	P.O.Box 314 – 00507, Nairobi.
49.	Kenversity SACCO Society Ltd	P.O.Box 10263 – 00100, Nairobi.
50.	Kenya Achievas SACCO Society Ltd	P.O. Box 6880-40200, Kisii.
51.	Kenya Bankers SACCO Society Ltd	P.O.Box 73236 – 00200, Nairobi.
52.	Kenya Canners SACCO Society Ltd	P.O.Box 1124 – 01000, Thika.
53.	Kenya Highlands SACCO Society Ltd	P.O.Box 2085 – 002000, Kericho.
54.	Kenya Midland SACCO Society Ltd	P.O Box 287-20400, Bomet.
55.	Kenya Police SACCO Society Ltd	P.O.Box 51042 – 00200, Nairobi.
56.	Joinas SACCO Society Ltd	P.O.Box 669 – 00219, Karuri.
57.	Kimbilio Daima SACCO Society Ltd	P.O. Box 81-20225, Kimulot.
58.	Kingdom SACCO Society Ltd	P.O.Box 8017 – 00680, Nairobi.
59.	Kipsigis Edis SACCO Society Ltd	P.O Box 228-20400, Bomet.
60.	Kite SACCO Society Ltd	P.O.Box 2073 – 40100, Kisumu.
61.	Kitui Teachers SACCO Society Ltd	P.O.Box 254 – 90200, Kitui.
62.	Kmfri SACCO Society Ltd	P.O.Box 80862, 80100 Mombasa.

63.	Kolenge Tea SACCO Society Ltd	P.O Box 291-68681, Nandi Hills.
64.	Konoin SACCO Society Ltd	P.O.Box 83 – 20403, Mogogosiek.
65.	Koru SACCO Society Ltd	P.O. Box Private Bag-40100, Koru
66.	Kwale Teachers SACCO Society Ltd	P.O. Box 123 - 80403, Kwale.
67.	Kwetu SACCO Society Ltd	P.O Box 818 - 90100, Machakos.
68.	K-Unity SACCO Society Ltd	P.O.Box 268 – 00900, Kiambu.
69.	Lamu Teachers SACCO Society Ltd	P.O. Box 110 - 80500, Lamu.
70.	Lainisha SACCO Society Ltd	P.O. Box 272 - 10683, Wang’uru.
71.	Lengo SACCO Society Ltd	P.O.Box 1005 – 80200, Malindi.
72.	Mafanikio SACCO Society Ltd	P.O Box 86515-80100, Mombasa.
73.	Magadi SACCO Society Ltd	P.O.Box 13 – 00205, Magadi.
74.	Magereza SACCO Society Ltd	P.O.Box 53131 – 00200, Nairobi.
75.	Maisha Bora SACCO Society Ltd	P.O.Box 68062 – 00100, Nairobi.
76.	Marsabit Teachers SACCO Society Ltd	P.O.Box 90 – 60500, Marsabit.
77.	Mentor SACCO Society Ltd	P.O.Box 789 – 10200, Murang’a.
78.	Metropolitan National SACCO Society Ltd	P.O.Box 871 – 00900, Kiambu
79.	Miliki SACCO Society Ltd	P.O.Box 43582 – 10100 Nairobi
80.	Mmh SACCO Society Ltd	P.O.Box 469 – 60600, Maua.
81.	Mombasa Port SACCO Society Ltd	P.O.Box 95372–80104, Mombasa.
82.	Mudete Tea Growers SACCO Society Ltd	P.O.Box 221 – 41053, Khayega.
83.	Ollin SACCO Society Ltd	P.O Box 83-10680, Kerugoya.
84.	Murata SACCO Society Ltd	P.O.Box 816 – 10200, Murang’a.
85.	Mwalimu National SACCO Society Ltd	P.O.Box 62641 – 00200, Nairobi.
86.	Mwietheri SACCO Society Ltd	P.O. Box 4085-060100, Embu.
87.	Mwingi Mwalimu SACCO Society Ltd	P.O Box 489-90400, Mwingi.
88.	Muki SACCO Society Ltd	P.O Box 398-20318, North Kinangop
89.	Mwito SACCO Society Ltd	P.O.Box 56763 – 00200, Nairobi.
90.	Nacico SACCO Society Ltd	P.O.Box 34525 – 00100, Nairobi.
91.	Nafaka SACCO Society Ltd	P.O.Box 68586 – 00100, Nairobi.
92.	Nandi Farmers SACCO Society Ltd	P.O Box 333-68681, Nandi Hills
93.	Nanyuki Equator SACCO Society Ltd	P.O Box 1098-Cx10400, Nanyuki
94.	Narok Teachers SACCO Society Ltd	P.O.Box 158 – 20500, Narok.
95.	Nassefu SACCO Society Ltd	P.O.Box 43338 – 00100, Narobi.
96.	Nation SACCO Society Ltd	P.O.Box 22022–00400, Nairobi.
97.	Nawiri SACCO Society Ltd	P.O Box 400-16100, Embu.
98.	Ndege Chai SACCO Society Ltd	P.O.Box 857 – 20200, Kericho.

99.	Ndosha SACCO Society Ltd	P.O.Box 532 – 60401, Chogoria – Maara.
100.	Ng’arisha SACCO Society Ltd	P.O.Box 1199 – 50200, Bungoma.
101.	Noble SACCO Society Ltd	P.O.Box 3466 – 68100, Eldoret.
102.	NRS SACCO Society Ltd	P. O Box 575-00902, Kikuyu.
103.	Nufaika SACCO Society Ltd	P.O Box 735-10680, Kerugoya.
104	Nyahururu Umoja SACCO Society Ltd	P.O Box 2183-20680, Nyahururu.
105	Nyala Vision SACCO Society Ltd	P.O Box 27-20686, Ndaragwa.
106	Nyambene Arimi SACCO Society Ltd	P.O.Box 493 – 60600, Maua.
107	Nyati SACCO Society Ltd	P.O. Box 7601 – 00200, Nairobi
108	New Forties SACCO Society Ltd	P.O.Box 1939 – 10100, Nyeri.
109	Orient SACCO Society Ltd	P.O.Box 1842 – 01000, Thika.
110	Patnas SACCO Society Ltd	P.O Box 601-20210, Litein.
111	Prime Time SACCO	P.O. Box 512–68700, Iten
112	Puan SACCO Society Ltd	P.O Box 404-20500, Narok.
113	Qwetu SACCO Society Ltd	P.O Box 1186-80684, Wundanyi
114	Rachuonyo Teachers SACCO Society Ltd	P.O. Box 147-40332, Kosele.
115	Safaricom SACCO Society Ltd	P.O.Box 66827 – 00800, Nairobi.
116	Sheria SACCO Society Ltd	P.O.Box 34390 – 00100, Nairobi.
117	Shirika SACCO Society Ltd	P.O Box 43429 - 00100, Nairobi.
118	Simba Chai SACCO Society Ltd	P.O.Box 977 – 20200, Kericho.
119	Siraji SACCO Society Ltd	P.O.Box Private Bag, Timau.
120	Skyline SACCO Society Ltd	P.O.Box 660 – 20103, Eldama Ravine.
121	Smart Champions SACCO Society Ltd	P.O Box 64-60205, Githingo
122	Smart Life SACCO Society Ltd	P.O Box 118-68705, Kapsowar.
123	Solution SACCO Society Ltd	P.O.Box 1694 – 60200, Meru.
124	Sotico SACCO Society Ltd	P.O.Box 959 – 20406, Sotik.
169	Southern Star SACCO Society Ltd	P.O Box 514 - 60400, Chuka
126	Shoppers SACCO Society Ltd	P.O. Box 16 – 00507, Nairobi
127	Stake Kenya SACCO Society Ltd	P.O.Box 208 – 40413, Kehancha.
128	Stima SACCO Society Ltd	P.O.Box 75629 – 00100, Nairobi.
129	Sukari SACCO Society Ltd	P.O Box 841-50102, Mumias
168	Suba Teachers SACCO Society Ltd	P.O. Box 237-40685, Mbita.
131	Supa SACCO Society Ltd	P.O.Box 271 – 20600, Maralal.
132	Tai SACCO Society Ltd	P.O.Box 718 – 00216, Githunguri.

133	Taifa SACCO Society Ltd	P.O.Box 1649 – 10100, Nyeri.
134	Taraji SACCO Society Ltd	P.O.Box 605 – 40600, Siaya.
135	Tembo SACCO Society Ltd	P.O.Box 91 – 00618, Ruaraka
136	Tenhos SACCO Society Ltd	P.O.Box 391 – 20400, Bomet.
137	Thamani SACCO Society Ltd	P.O.Box 467 – 60400, Chuka.
138	Transcounties SACCO Society Ltd	P.O. Box 2965 - 68200, Kitale.
139	Trans Nation SACCO Society Ltd	P.O.Box 15 – 60400, Chuka.
140	Times U SACCO Society Ltd	P.O.Box 310 – 60202, Nkubu.
141	Tower SACCO Society Ltd	P.O.Box 259 – 20683, Ol'kalou.
142	Trans- Elite County SACCO Society Ltd	P.O Box 547 - 68680, Kapsabet.
143	Ufanisi SACCO Society Ltd	P.O Box 2973 - 00200, Nairobi.
144	Uchongaji SACCO Society Ltd	P.O. Box 92503 - 80102, Mombasa.
145	Ukristo Na Ufanisi Wa Anglicana SACCO Society Ltd	P.O Box 872-00605, Nairobi.
150	Ukulima SACCO Society Ltd	P.O.Box 44071 – 00100, Nairobi.
147	Unaitas SACCO Society Ltd	P.O.Box 38791 – 00100, Nairobi.
148	Uni-County SACCO Society Ltd	P.O Box 10132 - 20100, Nakuru
149	United Nations SACCO Society Ltd P	P.O.Box 68552 – 00100, Nairobi.
150	Unison SACCO Society Ltd	P.O Box 414 -10400, Nanyuki.
151	Universal Traders SACCO Society Ltd P	P.O.Box 2119 – 90100, Machakos.
152	Vihiga County Farmers Society Ltd P	.O Box 689-50317, Chavakali
153	Vision Point SACCO Society Ltd	P.O.Box 42 – 40502, Nyansiongo.
154	Vision Africa SACCO Society Ltd	P.O Box 18263-20100, Nakuru.
155	Wakenya Pamoja SACCO Society Ltd	P.O.Box 829 – 40200, Kisii.
156	Wakulima Commercial Society Ltd	P.O.Box 232 – 10103, Mukurweni.
157	Wanaanga SACCO Society Ltd	P.O.Box 34680 – 00501, Nairobi.
158.	Wananchi SACCO Society Ltd	P.O.Box 910 – 10106, Othaya.
159	Wanandegge SACCO Society Ltd	P.O.Box 19074 - 00501, Nairobi.
160	Washa SACCO Society Ltd	P.O.Box 83256 – 80100, Mombasa.
161	Waumini SACCO Society Ltd	P.O.Box 66121 – 00800, Nairobi.
162	Wevarsity SACCO Society Ltd	P.O Box 873 - 50100, Kakamega
163	Winas SACCO Society Ltd	P.O.Box 696– 60100, Embu.
164	Yetu SACCO Society Ltd	P.O.Box 511 – 60202, Nkubu.

Schedule II: Restricted Licenses for the Period Ending June 2022

No	Name of Society	Postal Address
1	Nyamira	633 – 40500, Nyamira
2	Banana Hill	333 – 00219, Karuri
3	Nandi Hekima	211-68680, Kapsabet
4	Comoco	68135 – 100100, Nairobi
5	Telepost	49557 – 00100, Nairobi
6	Nitunze	295-50102, Mumias
7	Moi University	23 - 68107, Moi University
8	Eco-Pillar	48-68600, Kapenguria
9	Transnational Times	2274-68200, Kitale
10	Airports	19001-0051, Nairobi
11	Ainabkoi	120, Ainabkoi
12	Good Faith	224-00222, Uplands

Source: SACCO Societies Regulatory Authority (2022)

Appendix II: List of Sampled DT-SACCOs

1	2NK	41	Jitegemee
2	Acumen	42	Joinas
3	Afya	43	Kenversity
4	Airports	44	Kenya Achievas
5	Ardhi	45	Kenya Bankers
6	Asili	46	Kenya Highland
7	Azima	47	Kenya National Police
8	Bandari	48	Keystone
9	Baraka	49	Kimbilio Daima
10	Biashara	50	Kingdom
11	Bingwa	51	Kitui Teachers
12	Boresha	52	Lainisha
13	Capital	53	Lengo
14	Centenary	54	Magadi
15	Chai	55	Magereza
16	Chuna	56	Maisha Bora
17	Cosmopolitan	57	Mentor
18	County	58	Metropolitan
19	Daima	59	Mombasa Port
20	Dhabiti	60	Muki
21	Dimkes	61	Mwalimu National
22	Eco-Pillar	62	Mwietheri
23	Egerton University	63	Mwito
24	Elimu	64	Nafaka
25	Enea	65	Nation
26	Faridi	66	Nawiri
27	Fariji	67	Ndege Chai
28	Fortitude	68	Newfortis
29	Fortune	69	Ngarisha
30	Fundilima	70	NRS
31	GDC	71	NSSF
32	Goodfaith	72	Nufaika
33	Goodway	73	Nyambene Arimi
34	Gusii Mwalimu	74	Ollin
35	Harambee	75	Patnas
36	Hazina	76	Qwetu
37	Ilkisonko	77	Safaricom
38	Imarisha	78	Sheria
39	Invest and Grow (Ig)	79	Shirika
40	Jamii	80	Shoppers

81	Simba Chai	102	Trans Nation
82	Siraji	103	Trans National Times
83	Skyline	104	Ufanisi
84	Smart Champion	105	Ukristo Na Ufanisi
85	Smartlife	106	Ukulima
86	Solution	107	Unaitas
87	Southern Star	108	Unison
88	Stima	109	United Nations
89	Tabasamu	110	Universal Traders
90	Taifa	111	Viktas
91	Taqwa	112	Vision Afrika
92	Taraji	113	Vision Point
93	Telepost	114	Wakenya Pamoja
94	Tembo	115	Wakulima Commercial
95	Thamani	116	Wanaanga
96	The Apple	117	Wananchi
97	The Noble	118	Wanandege
98	Times U	119	Waumini
99	Tower	120	Wevarcity
100	Trans Counties	121	Winas
101	Trans Elite	122	Yetu

Appendix III: Data Collection Form

Name of Organisation:

Operation Areas:

Note: Variables marked with one asterisk (*) will be extracted directly from audited financial reports; those marked with two asterisks (**) will be provided by the management of sampled organisations.

1. Financial Performance

Variable	2018	2019	2020	2021	2022
Net Income*					
Average Total Assets*					
Net Sales*					
Total Assets*					

2. Financial Inclusion Practices

Variable	2018	2019	2020	2021	2022
Mobile Money Transfer Practices					
Total value of loan disbursed to mobile account **					
Total value of deposit via mobile money **					
SACCO Agency Practices					
Number of Agent outlets**					
Operational Scope (No					

of counties with operational office) **					
Number of Accounts Opened**					
Diversification of Financial Services Practices					
Allocated funds on Investments portfolio					
Savings Mix**					
Deposit Mix**					
Total Loans*					
Total Savings*					
Innovation of Financial Services Practices					
No of new SACCO products introduced**					
No of online SACCO platforms adopted**					
No of mobile apps adopted**					
No of electronic payments/transactions made**					
No of digital customer on-boarding services**					