THE EFFECTS OF FINANCIAL INCLUSION STRATEGIES ON FINANCIAL PERFORMANCE OF DEPOSIT TAKING SAVINGS AND CREDIT CO-OPERATIVES SOCIETIES (SACCOs) IN KENYA

BY

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DECLARATION

This research project is my original work and has not been submitted for the award of a degree in any other university.

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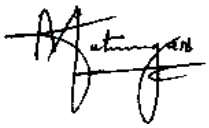
D61/75301/2014

This research project has been submitted with my approval as the University Supervisor.

Signed  …….Date…11/11/2022…….

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DEDICATION

For my beloved family members. I greatly admire your support this far.

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First, I give thanks to God for His kindness to throughout this project writing period, especially with respect to resources and time. Secondly, I tender my appreciation to my Supervisor, Dr. Onesmus Mutunga who took his precious time to guide me this far. God bless you abundantly. Thirdly, I appreciate the support of the University for this far. Equally, I salute those who responded to the questionnaires, for participating in the process. Finally, much appreciation to my family. May God bless you abundantly.

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LIST OF ABBREVIATIONS AND ACRONYMS

AT	Agency Theory
ATM	Automatic Teller Machines
DFS	Diversification of Financial Services
DIT	Diffusion of Innovation Theory
DTSs	Deposit Taking SACCOs
FIT	Financial Inclusion Theory
FLP	Financial Literacy Programs
KMO	Kaiser-Meyer-Olkin
MMTS	Mobile Money Transfer Services
NIM	Net Interest Margin
ROA	Return on Assets
ROE	Return on Equity
SDGs	Sustainable Development Goals
SACCOs	Savings and Credit Cooperative Societies
SASRA	Sacco Society Regulatory Authority

ABSTRACT

Financial inclusion strategies focus on ensuring that the entire society can acquire cheap financial products and services fairly and transparently. The focus of the research was to establish how financial inclusion strategies affect how deposit taking SACCOs in Kenya perform financially. It was grounded on Financial Inclusion Theory (FIT), Diffusion of Innovation Theory (DIT) and Agency Theory (AT). It employed descriptive cross sectional survey design, targeting all deposit taking SACCOs in Kenya. There were one hundred and seventy-six (176) deposit taking SACCOs as at 2021 SASRA report. Reliance was put-on first-hand data collected by the researcher and already published information. Collection of primary data on financial inclusion practices employed the use of structured questionnaire. The already existing data was put together from the yearly published reports regarding financial performance of DTSs. The study employed multiple regression analysis to find out how financial inclusion strategies influenced the extent to which deposit taking SACCOs in Kenya, performed financially. It was found out that DTSs adopted financial inclusion strategies to a moderate extent. This included financial literacy programs, diversification of financial services and mobile money transfer services. Further, it was established that financial literacy programs, diversification of financial services, mobile money services and financial performance were correlated moderately, positively and significantly. The findings also established a positive correlation between financial inclusion practices and how DTSs in Kenya perform financially. It was also determined that financial inclusion practices and performance financially are significantly associated at 0.000 ($p<0.05$). The findings on regression co-efficients established that financial literacy programs positively and significantly influence on performance, financially depicted by $\beta=.338$; $p<0.05$. Diversification of financial services and mobile money transfer services both have positive though insignificant influence on financial performance depicted by $\beta = 0.215$; $p>0.05$ and $\beta = 0.148$; $p>0.05$ discretely. Total assets however negatively and insignificantly affect financial performance. It concluded that, there is a positive and significant correlation among financial inclusion practices and financial performance. Further, financial inclusion practices affect financial performance of the DTSs. It was also concluded that, DTSs have implemented financial inclusion practices of financial literacy programs, diversification of financial services and mobile money transfer services to a moderate extent. The study recommended that management of DTSs should find ways of improving financial performance through improved financial inclusion practices, especially adoption of mobile banking and digital lending platforms.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Financial inclusion strategies are action plans aimed to ensure timely and adequate access to financial services, especially credit to financially disadvantaged sections of the society, including low-income households (Shihadeh, 2020). They ensure that the entire society can access financial products and services affordably, with observation of fairness and transparency. The emphasis on financial inclusion strategies is to ensure access financial services by all Kenyans, as provided by the mainstream financial institutions (Oyetoyan, Ajiboye, & Popoola, 2021). They help to achieve inclusivity by making finance available to disadvantaged sections of the society. Regarding performance of deposit taking SACCOs, financial inclusion strategies ensure easy access and without anybody being discriminated leading to improved customer base and subsequently financial performance. The reality is that financial inclusion strategies expand the operations of the institutions, leading to improved performance financially.

The research was anchored on Financial Inclusion Theory (FIT), Diffusion of Innovation Theory (DIT) and Agency Theory (AT). Financial Inclusion Theory by Mises (1912) posit that, financial institutions perform financial intermediation services. And this enhances financial literacy, leading to increased scope of financial inclusion. Diffusion of innovation theory by Rogers (1962) posit that technological advancements provides a framework that helps to introduce and diffuse a number of financial technologies that can enable financial sector transformation (Kanga, Oughton, Harris, & Murinde, 2021). Agency Theory by Jensen and Meckling (1976)

points out that agents can help to enhance financial inclusion, by helping to reach out to different low-income groups in the society.

There is an estimation that 46% of the society in Kenya are considered as low-income households, that are not effectively served by commercial banks and other formal financial institutions (Kenya Bankers Association, 2020). This led to the formation of Savings and Credit Cooperatives (SACCOs) to aid those who are financially disadvantaged and to bring into the financial fold. To ensure that the low-income households are brought into the financial fold, financial inclusion services are made available by the SACCOs. The deposit taking SACCOs in Kenya therefore offer varieties of financial services to financially disadvantaged to ensure that they equally access them through various mechanisms (Ndung'u, 2013).

1.1.1 Financial Inclusion Strategies

Financial inclusion focuses on enhancing financial products and services accessibility by the financially disadvantaged groups in the society and those not privileged to access formal financial services (Al-Eitan, Al-Own, & Bani-Khalid, 2022). The strategies therefore offer suitable mechanisms of dealing with poverty and hence promoting financial inclusivity and addressing Sustainable Development Goals (SDGs). Financial inclusion strategies include the need to foster diverse financial institutions, facilitate the use of technology, expand agency banking and invest in technology for optimal resource use and to encourage a strengthened financial framework for effective delivery of financial services (Ahamed, & Mallick, 2019). This may be seen on the basis of improving financial literacy, diversification of credit facilities and mobile money transfer services. Fanta and Mutsonziwa (2021) assert that, promotion of financial inclusion can effectively be successful when there is

increased financial literacy among the target groups. The argument is that, financial literacy enables appreciation of value-additional financial services and products. Financially literate people are highly financially included, due to their knowledge of their financial products and services (Murendo & Mutsonziwa, 2017).

Diversification of credit facilities socially scales strategy that widens financial products and services offered by the deposit taking SACCOs (Jha, Bhawe, & Satish, 2021). The implication is that, the financial institutions including deposit taking SACCOs, must develop different financial products that targets the financially disadvantaged. Mobile money transfers services have a higher versatility and can be used as a tool that simplify financial services and improve their access to a growing number of the unbanked (Klapper, & Singer, 2015). Mobile money equally extends financial services to the poor, through improved productivity, evidenced by increased efficiency and lower cost of transactions and improved security. The estimation of financial inclusion is based on accessing financial services and utilization of qualitative financial products and services (Ahmad, Green, & Jiang, 2020). The current study focused on financial literacy, diversification of credit facilities and the use of mobile money transfer services. These antecedents of financial inclusion were chosen for the study because they are the commonly adopted practices by the DT-SACCOs.

1.1.2 Financial Performance

Financial performance explains the process of high income making, profit generation and effective utilization of assets by companies (Wangombe & Kibati, 2019). It is an indication of effective use of financial resources by firms to generate incomes. When a company performs well on a financial basis, they can sustain their going concern in

a sustainable way. Financial performance therefore generally measures the extent to which companies are financially healthy over a given time period as compared to other companies in different sectors (Bon, 2021). A company's good financial status is indicated by the capability of organizations to financially satisfy the needs of its stakeholders. Financial performance is generally the need to minimize costs while at the same time maximize financial value to stakeholders.

There are many variables that indicate financial performance. Research by Mwangi and Murigu (2015) assert that companies that are creditworthy, liquid and cost-effective perform financially well. Such companies have succeeded in generation of high sales, profit making and management of expenses sustainably, as well as ensuring a good asset base and liquidity position. Companies ascertain their financial health at their internal capacity using financial ratios, as given in published financial information. The mostly adopted ratios include Return on Assets (ROA), Net Interest Margin (NIM) and Return on Equity (ROE) (Eddine, 2020). The current study focused on profitability as a measure of financial performance. Here, the research will use Return on Assets. This measure of profitability will be determined by Net profit/Average assets, as used by Çollakua and Aliub (2021). The justification of the measure is on the basis that earning rating is used as a financial stability indicator by the regulator, SASRA.

1.1.3 Financial Inclusion Strategies and Financial Performance

Financial inclusion strategies aim to improve services provided by the institutions including promotion of savings, access to credit and insurance services to financially vulnerable members of the society. The goal is to enhance adequacy and timeliness of the provision of the services to all (Dzombo, Kilika, & Maingi, 2018). It is based on

the premise that such services speed up economic development, due to improved welfare of the members of the society overtime. Financial exclusion limits the extent to which the members of the society, especially those financially vulnerable can access relevant financial services. This has a negative impact on their livelihood and sustainable financial welfare (Alonso, Jorge-Vazquez, Forradellas, & Dochado, 2022).

Shihadeh (2020) assert that, enhanced adoption of financial inclusion strategies ensure decreased financial risks. This implies therefore that financial performance defines how companies are able to compete, through fulfilment of their financial commitments and interests in a reliable and sustainable manner. It rewards the shareholders for their investment (Eddin, 2020). Financial inclusion strategies would therefore improve and maximize shareholders' wealth, hence improving performance financially.

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

SACCOs belongs to members with the intention to bring their financial resources together after which they can assist each other with loans in a formal way. The objective of SACCO focuses on savings and provision of loans and related facilities. They also promote members' saving culture and to help society manage cash properly through investment rules. SACCOs exist both in cities and rural areas to address the unique needs of members. SACCOs have been recognized as a practical channel for mobilizing savings and granting loans (Onduko, 2013). Cooperatives today play an essential role in the government's economic plan, which aims to create income opportunities, especially in rural areas. Cooperatives continue to be recognized as

important institutions for the government's way of mobilizing human and material resources, which is crucial for economic development.

Currently, SACCOs are fiercely competitive with commercial banks as they have introduced the latest innovations to achieve effective financial inclusion. They have embraced innovation through debit cards, credit cards, ATM cards and M-Pesa, that has improved their competitiveness, through improved financial service delivery. This latest service innovation within SACCO has resulted in financial inclusion and innovative services being provided to all members of the society, due to improved access in a flexible, convenient and affordable manner (Mugane, 2015). The deposit taking SACCOs in particular mobilize savings and facilitate investment on behalf of the members and would therefore benefit from financial inclusion. There are 176 registered DTSs as at 31st December 2021 (SASRA, 2021).

1.2 Research Problem

DTSs adopt financial inclusion strategies to enhance availability of improved and affordable financial products and services, especially among financially disadvantaged groups in the society. The strategies include financial literacy programs, diversified financial services and mobile banking services. Through these services, the financially vulnerable members of the society are in a position to transact, make payments, save and access credit and insurance products, like the other advantaged groups in the society (Shihadeh, Hannon, Guan, Haq, & Wang, 2018). Improving financial literacy, diversification of services financially and the use of mobile money services enhances adequacy and timeliness of the provision of the services to all (Dzombo, Kilika, & Maingi, 2018). Despite many studies focusing on the same financial inclusion variables, there has been operational changes brought

about by changing technology and competitive environment. The current study focuses on the possible conceptual variations especially caused by improved use of information communication technology and organizational need to survive the competition.

Contextually, DTSs in Kenya are faced with difficulties in provision of financial services to members due to cases of moral hazard and information asymmetry, as well as the fact that most of the members are not informed regarding the existing services (Agumba, 2008). The implication therefore is that, the success of SACCOs to meet the interest of customers and maximize value can majorly be achieved through financial inclusion that would improve performance financially. DTSs in Kenya have tried financial inclusion in a number of ways including, agency and mobile banking, as well as financial literacy programs, leading to improved revenue generation (Wanyama, Develtere, & Pollet, 2008). This would lead to improved efficiency and reduced transaction cost, leading to improved financial performance.

The reviewed studies give rise to contextual, conceptual and methodological gaps. The studies by Isabwa (2021); Shihadeh (2020); Oyetoyan, Ajiboye and Popoola (2021) and Ghaith, Al-Eitan, Al-Own, and Bani-Khalid (2021) deals with the same concept of financial inclusion, but under different contexts, hence contextual gap. Isabwa (2021) established that financial inclusion through mobile banking, significantly affect commercial banks' performance financially. It was contextualized in commercial banks within Kenya. Shihadeh (2020) investigated how financial inclusion elements relate with how the banks perform. The focus of the study was commercial banks in India. Oyetoyan, Ajiboye and Popoola (2021), also found out that financial literacy programs positively, though weakly affect performance

financially among selected banks. It opined that this can be achieved through the agency banking and mobile as well as electronic platforms. The current study focuses on the same concepts, despite the contextual gap. Ghaith, Al-Eitan, Al-Own, and Bani-Khalid (2021), equally established that, when there is adequacy in accessing financial services of commercial banks affect their profits generation significantly. This study has a methodological gap through the use of panel data, as well as contextual gap.

The aforementioned studies, clearly outlines how financial inclusion affect the extent of financial performance of financial institutions, including DTSs. Most of the studies focuses on commercial banks, hence contextual gap, since the operations of the DTSs are significantly different from those of commercial banks. The study by Ndegwa and Koori (2019) is contextual but was a case study, with a focus on only DTSs in Meru County. The study by Oranga and Ondabu (2018) was contextualized in Kenya, but focused on listed commercial banks.

The studies aforementioned, outlines contextual and conceptual gaps. Most of the studies focuses on financial inclusion strategies by commercial banks. The reality is that DTSs ensures acceptability among low-income households, since they are flexible. The research gap is contextual focusing on DTSs. This is because the aforementioned studies focus on commercial banks. The current study therefore focuses on answering the question, ‘What is the effect of financial inclusion strategies on the financial performance of deposit taking SACCOs in Kenya?’

1.3 Research Objective

The aim of the study was to establish the effect of financial inclusion strategies on the financial performance of deposit taking SACCOs in Kenya.

1.4 Value of the Study

This study would be valuable to theory, practice and policy. On theory, academicians are provided with a basis of understanding the core issues of financial inclusion to achieve Sustainable Development Goals (SDGs). It provides information on how DTSs do financial inclusion and the different related critical factors. The study outcome would be used to help understand the concept of financial inclusion and related areas for purposes of further research.

The study results would be useful when developing policy guidelines. The reality is that globally; most countries emphasize on the need for their people to be financially inclusive. There is an increase in concerns and the emphasis that when people are financially empowered through inclusion, sustained development can be achieved, leading to the equality in income distribution and reduced poverty. This requires therefore requires policy regulations to spur improved economic growth. The study would equally help policy makers to develop policy programs regarding how to improve financial literacy. The study result would also give policy guidelines on emerging issues of mobile and on-line banking.

In practice, the study findings would help investors in the financial market to understand, investment opportunities brought about by financial inclusion. DTSs would also apply the findings to launch financial literacy programs to expand their operations and improve financial performance. The study findings will outline the

need for DTSs to adopt diversification of their products and services. The study would therefore give insights to their managers to embrace utilization of innovation as a basis of achieving financial inclusion.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The section analyses a framework of theories about financial inclusion strategies and the extent to which organizations perform financially. It also outlines research work conducted in the past. The chapter finally presents a conceptual framework explaining how the variables studied relate. It further identifies research gaps that guided the current study.

2.2 Theoretical Review

It detailed the three theoretical foundations upon which the research was anchored. The theories included Financial Inclusion Theory (FIT), Diffusion of Innovation Theory (DIT) and Agency Theory (AT). The main anchoring theory is the Financial Inclusion Theory.

2.2.1 Financial Inclusion Theory

It was put forward by Mises (1912). The theory states that mechanisms to support financial inclusion should target the financially people, including the youth, low-income households, women and the older generation. This is because these groups are not favored by existing formal financially-related programs (Ozili, 2020). The theory asserts that all the groups should be enabled, without restrictions to enjoy financial services. It facilitates comprehension of the concept of financial inclusion and its significance in the context of financial performance. The emphasis is to provide and facilitate accessible financial goods and services, among the low-income households who may not easily access such services from the mainstream financial service providers (Ozili, 2018). It means delivering banking services affordably to especially the low-income households.

Kling, Pesque-Cela, Tian and Luo (2020), assert that promoting adequacy in accessing financial products and services through the relevant strategies lead to reduced risk of poverty, intensified process of saving and investing at the level of individuals, the possibility of setting up and financing businesses, leading to increased resilience of households (Vasile, Panait, & Apostu, 2021). The theory is however challenged, on the basis that there are some non-vulnerable people who are not within the formal financial sector. Equally, Prabhakar (2019), posit that financial inclusion may lead to increased possible social discrimination, being a focus on only financially vulnerable. This would be of advantage to the poor at the expense of the rich over a period of time, leading to a possible socio-economic revolution. The theory is relevant in that financial inclusion led to economic development through achievement of socio-economic empowerment. The DTSs have an opportunity to develop insights on how to improve the scope of their operations.

2.2.2 Diffusion of Innovation Theory

It was put forward by Rogers (1962). It posits that firms disseminate innovative products and ideas to be better competitors and protect their markets, as well as achieve high quality service provision. This explains why organizations accept and implement inventions (Breaugh, McBride, Kleinaltenkamp, & Hammerschmid, 2021). The clients using the invention can then partake of it and diffuse it further as transactions take place in the market place. The theory therefore indicates that by adopting innovation of products and services to achieve financial inclusion, DTSs realize cost minimization in service delivery, compete effectively and defend their markets well. According to the theory, innovations are learnt over time as the

organization apply them and enforce them as part of their operational activities. This ensures sustainable competitive advantage (Nofal, & Khalaf, 2021).

The rationale of the theory is that it enlightens people regarding how new goods and services are spread and adopted by the users and other stakeholders within a given time period (De Vries, Bekkers, & Tummers, 2016). The relevance of the theory is that it outlines the adoption and use of technology by financial institutions including DTSs in achieving financial inclusion. Innovation is achieved through the use of digital platforms, agents and mobile digital gadgets. The reality is that financial institutions have an opportunity through improved technology to reach out to financially vulnerable groups cheaply, and with a variety of goods and services. This has led to the transformation of the financial sector (Kanga, Oughton, Harris, & Murinde, 2021). The theory is relevant because, achievement of financial inclusion is easily achieved through financial innovations including mobile banking and agency banking.

2.2.3 Agency Theory

It was initially coined by Smith (1776), and later brought forward by Jensen and Meckling (1976). Its focus is to analyze how principals relate to agents in the process of overseeing a task or an operation. The emphasis is that the principal employs the agent to act on his/her behalf regarding an activity for mutual benefit. The principal therefore gives some duties to the agent to perform, leading to efficiency and productivity of the tasks performed (Akighir, Margaret, Tyagher, & Kpoghul, 2022). The relationship requires the need for a trustful environment, where the principal can assign some tasks to them and be sure that the assignment will be undertaken as per

the agreement. The reality therefore, is that conflicts occur when diverse goals between the principals and agents exist.

In its application to the current study, there is need to secure financially, the vulnerable groups. The role of agents can be exploited to reach out to people on behalf of the financial institutions including them the DTSs. Agents would therefore get into a contract with the principal financial institutions to reach out to the financially excluded groups. The practical use of principal-agency relationship in financial inclusion, is the use of agency banking (Ogah, Okwe, & Adeoye, 2015). Here, financial services are provided by agents on behalf of the mainstream financial institutions. Agency banking facilitate activities such as depositing of cash, withdrawing of cash, transferring funds, bill payments, bank accounts opening and purchasing of airtime (Ulokoaga, 2020). Agency theory is relevant on the basis that the main stream DTSs can form agency relationships with other institutions in order to increase their financial services coverage.

2.3 Determinants of Financial Performance of Deposit Taking SACCOs

Organizations need to financially perform well in order to sustain their operations. Financial performance is therefore a concern for all managers of the different organizations, despite a number of factors influencing it (Kim, Duvernay, & Thanh, 2021). It is determined by the following factors:

2.3.1 Financial Inclusion Strategies

Al-Eitan, Al-Own and Bani-Khalid (2022) posit that when people are financially included, there is enhanced commercial banks' financial performance. This is because financial institutions would widen their financial operation scope through financial

inclusion and subsequently increase revenue generation. Financial inclusion strategies adopted by deposit taking SACCOs equally make them to invest more resources to reach out to the financially excluded groups. This will optimize financial performance in the long run, thereby increasing profitability (Shihadeh, Azzam, Jian, Ihtisham, & Xiuhua, 2018). When DTSs operate agencies, install more ATMs or implement e-platforms for increased financial inclusion, they would realize more profits, due to increased operational capacity and revenue generation.

Diversification of credit facilities socially scales strategy that widens financial products and services offered by the deposit taking SACCOs (Jha, Bhawe, & Satish, 2021). The implication is that, the financial institutions including deposit taking SACCOs, must develop different financial products targeting financially disadvantaged groups. Mobile money transfers services have a higher versatility and can be used as a tool that simplify financial services and improve their access to a growing number of the unbanked (Klapper, & Singer, 2015). Mobile money equally extends financial services to the poor, through improved productivity, evidenced by increased efficiency and lower transacting costs, improved security, generating new job opportunities, and growing other businesses.

2.3.2 Size of the SACCO

The determination of size of the SACCO is based on the number of the members as well as the asset base, which affects the scale of doing business. Njihia and Muturi (2016) posit that an increase in membership of SACCOs would imply increase deposits, membership and subsequently the capacity to lend out loans, as well as improved capital base. SASRA (2022) also assert that SACCO membership is significant as it provides a source of business finance and hence economic viability of

the Sacco. Shibutse, Kalunda and Achoki (2019) established that size significantly affect how the DTSs perform financially, because it influences capital structure.

The study by Anaya and Otinga (2019) made a conclusion that loan portfolio positively and significantly affect how DTSs perform financially. The implication is that it has an effect on the size of the financial assets of the DTSs and subsequently financial performance. DTSs therefore need to effectively manage their loan portfolio to improve financial performance.

2.4 Empirical Literature Review

Isabwa (2021) established how digital banking on a mobile platform affect how the customers of commercial banks in Kenya are financially included. This research used a retroactive design due to the use of already collected data. The study targeted 43 banks in commercial business. Thirty-nine commercial banks were sampled and then a selection of ten done to be considered. The research used Pearson correlation and regression. It was found out that mobile funds transfer has a remarkable effect on how people are financially included.

Ndegwa and Koori (2019) conducted a study determining how financial inclusion affect how Deposit Taking Deposit Taking SACCOs in Meru County perform. The focus of the research was financial literacy, product and service diversification, transfer of money on mobile platform and the use of agents to provide banking services. The research was descriptive targeting 186 employees, who were top managers from ten DTSs in Meru County. The collection of data was done using questionnaires that were semi-formal. They were distributed through self-administration, through dropping and picking later. Data collected was described and

then inferred statistically by using SPSS. It was determined that financial literacy programs, diversification of products and services, the use of mobile platforms to support the transfer of money, and the use of agents to provide banking services positively affect how the DTSs perform. The determination was that financial inclusion significantly improved financial performance of DTSs.

Oranga and Ondabu (2018) determined how financial literacy services, agency banking, increase in branches and the use of ATMs and mobile platform to offer banking services affect how listed commercial banks in Kenya perform financially. It employed description of data, with a focus on managers and operational employees. The study targeted all 11 commercial banks quoted in Kenya, with collection of data through structured questions. The findings indicated that financial inclusion elements positively affect how banks perform financially on the basis of equity status.

Al-Eitan, Al-Own and Bani-Khalid (2022) focused on how financial inclusion affect the extent to which commercial banks in Jordan make profits. The focus was on gearing level as a proxy of performance financially. The study focused on thirteen commercial banks in Jordan. It relied on panel data for the period 2009 to 2019. It established that the number of loan accounts and deposit size and the extent of profit making among the commercial banks are negatively related. The conclusion was that financial inclusion significantly affect the profit levels of commercial banks.

Dzombo, Kilika and Maingi (2018) studied how financial inclusion relate to branchless banking strategy and subsequent effect to how commercial banks perform financially in Kenya. The study correlated the variables in order to arrive at the findings. Forty-two licensed commercial banks that operate in Kenya were surveyed.

The study used both originally generated and already existing data, regarding branchless banking and financial performance. The source of the data were the yearly publications reports on banks supervision. The extent of how the banks perform financially was given by Return on Assets (ROA), while extent of the use of agents and the use of electronic platform to support banking services were the antecedents of agency banking. SPSS and STATA statistical software were employed in analyzing the data. It was established that the use of agencies and electronic platform positively affect how commercial banks perform financially.

Kamal, Hussain and Khan (2021) reviewed literature for a period of 1995-2020. The outcome of the review was that financial inclusion positively affect the financial stability of commercial banks on a significant basis. The studies however indicated that, any expansion of scope of operations through financial inclusion, must be accompanied by effective management, else it may negatively affect financial stability due to exposure to credit risk.

Shihadeh (2020) investigated the extent to which financial inclusion factors relate to the performance of banks and risk-exposure among MENAP countries. It sampled 271 from twenty-four countries regionally. The study found out that enhanced financial inclusion led to increased performance and decreased exposure to risks. It that financial inclusion would help diversify credit and operational risks leading to improved financial performance.

Oyetoyan, Ajiboye and Popoola (2021) studied financial inclusion and how it affects banks that operate commercially in Nigeria. It focused on adoption of literacy programs in finance, agency banking, high usage of ATMs, and the use of mobile

platforms for banking services provision. The study employed the use of description of data as the design. The target correspondents included managers and operational employees from the five quoted commercial banks in Nigerian. It was census research, using first hand data, collected using questionnaires. SPSS was employed in analyzing data, including regression analysis. The presentation was done using tables. The study found out that agency banking positively and strongly affects how the banks perform. Growth of ATMs and the use of mobile platform to offer financial services as well as increased branches however have positive but weak effect on how they perform financially. The general conclusion was that financial inclusion positively and strongly affect how commercial banks perform financially.

Bongomin, Munene and Yourougou (2020) conducted a study to determine how financial intermediators mediate on how financial literacy relate to financial inclusion among low income earning households from rural Uganda. Analyzing of the data was done using Partial Least Square (PLS). It established that financial intermediaries significantly mediate the effect of how financial literacy relate to financial inclusion. The argument is that financial agents such as microfinance banks lead to enhanced financial literacy, which subsequently lead to increased scope of financial inclusion of the poor in rural Uganda.

2.5 Summary of Literature Review and Research Gap

Financial inclusion practices relate to how companies perform financially, especially among DTSs. The studies reviewed assert that practices such as mobile funds transfer, including cash withdrawal, via mobile platform significantly improves financial inclusion among commercial banks. The studies have also identified the need for financial literacy, increased diversification of credit services, using mobile platforms

to offer financial services and using agents because they positively affect performance of DT SACCOs. The significance of financial inclusion strategies is based on the review that they positively and strongly affect the extent to which the banks perform better financially. Equally, how banks perform financially relies on strategies adopted. The studies however established that financial inclusion negatively affect the extent to which commercial banks are stable, in case of ineffective management.

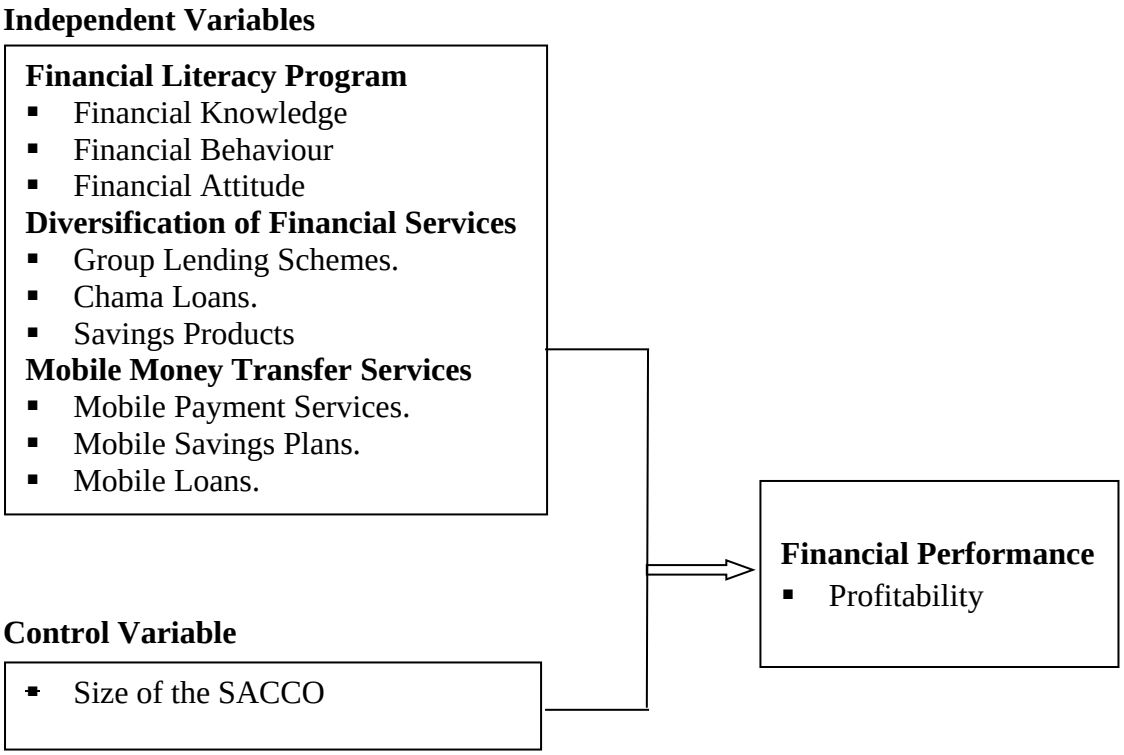
The research gaps identified were on the basis of context, concept and methodology. Contextual gap arises when research is done in another country, area or industry. Some of the studies were conducted about commercial banks, while the current study is based on DTSs. Equally some studies are based on the context of other countries such as the studies by Al-Eitan, Al-Own and Bani-Khalid (2022); Shihadeh (2020); Oyetoyan, Ajiboye and Popoola (2021) and Bongomin, Munene and Yourougou (2020). Conceptual gap exists when the concepts under the current study is different from the reviewed studies. The study by Kamal, Hussain and Khan (2021) equally focused on financial stability and not financial performance as the dependent variable. The studies reviewed therefore exhibit both contextual and conceptual gaps.

2.5 Conceptual Framework

It is a structure that guides one's research, and it is a product of the theoretical frameworks believe that conceptual framework provides the map on the literature composition within the study (Collins, & Stockton, 2018). The study explores how financial inclusion strategies affect performance of deposit taking SACCOs in Kenya, financially. Financial inclusion strategies are the repressors while financial performance is the regressed variable. The financial inclusion strategies studied include financial literacy programs, diversification of credit facilities and the use of

mobile money transfer services. Financial performance will be measured using total income. Control variable was the size of the SACCO that was determined through total assets. The conceptual framework is given in Figure 2.1.

Figure 2.1: Conceptual Framework



Source: Researcher (2022)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section includes a discourse on method used, population of target, design of sample used and sample size, how the data was collected, and analyzed. It also includes a summary of how the study variables was operationalized.

3.2 Research Design

It employed descriptive cross sectional survey design. This is the systematic collection of data in a standard way from a population that can be identified (Aggarwal, & Ranganathan, 2019). It describes how the variables are distributed non-hypothetically. A cross-sectional study on the other hand involves collection of data at a point in time from many correspondents. It is the observation of variables without influencing them (Zangirolami-Raimundo, Echeimberg, & Leone, 2018). The research design can be a census or focus on a representative sample.

The justification of the design was that it assists to establish how variables relate significantly at a point in time. The design would therefore help in explaining how financial inclusion influence the extent to which deposit taking SACCOs in Kenya perform financially. It also enabled the researcher to analyze, interpret and report the research outcomes accurately.

3.3 Population of the Study

This study's' target were all SACCOs that take deposit from the public as per their registration. These are Saccos that are licensed to accept deposits from the public. There were one hundred and seventy-six (176) SACCOs of this nature (SASRA, 2021).

3.4 Data Collection

There was reliance on first hand data collected using a formal questionnaire. There was also reliance on already published information, especially regarding financial performance. First hand data collection relied on finance managers through administration of questionnaires. A questionnaire is used in collecting data, through numerous questions on the subject matter, with a request for the respondents to give answers to the questions (Kothari, 2008). They are justified since they can collect reliable data, being that respondents give the answers on free will, anonymously.

The study used a structured questionnaire having three parts. Section A has bio data of the organizations; section B covers financial inclusion practices and Section C had the connection between the constructs. The questionnaires were dropped and picked. The study focused on SACCO finance and operational managers who are deemed to have adequate knowledge regarding financial inclusion strategies and how it influences how institutions perform financially. This research specifically targeted one respondent from each of the DTSs. This made a total of 175 informants. The questionnaire is given in the Appendix I. Secondary data was gathered focusing on total income, total assets and total loans. Published data was gathered from existing accounting information in the annual reports as obtained from financial statements submitted to the SACCOs regulator (SASRA) office. The data was gathered using the data collection sheet (Appendix II).

3.5 Reliability Test

Reliability measures the consistency of the outcome of research based on the tool when used consecutively (Mugenda & Mugenda, 2003). Cronbach's alpha coefficient was employed to determine the acceptability of the variables ranging between 0 and 1

(Mugenda & Mugenda, 2003). The suggestion by Nunnally (1978), is that values of not less than 0.7 are acceptable while Sekaran (2000) propagates for values between 0.5 and 0.8 as suitable for internally consistent. This research considered values of 0.6 and above.

3.6 Validity Test

Validity is the tools capability in measuring what it is supposed to measure. The questionnaire was tested to satisfy face and content validity by developing it through literature review and suggestions given by academicians in this area. The experts consist of two senior lecturers of finance from the Department of Business Administration, who are the Supervisor. A KMO test and Bartlett's Sphericity test was employed in assessing suitability of variables for factor analysis. All the constructs used in the questionnaire were expected to have KMO values above 0.7, with all their values of chi-square in Bartlett's Sphericity test being significant at a level less than 0.05. Construct validity refers to the ability of the scale adequately measures the construct that it is supposed to measure (Zeng et al., 2010). It was evaluated using EFA. The factor loadings were checked to determine whether the items loaded into factors strongly. The recommendable factor loading by Stevens (2002) was at least 0.4.

3.7 Diagnostic Tests

The confirmation of normality was done through the use of Shapiro-wilk Test, where the acceptable value was above 0.05. The extent to which the predictor variables are highly correlated was checked using VIF, with the maximum value accepted being 10. To check whether some antecedents had different variability from others, the researcher used the Koenker test that has acceptable values above 0.05. The testing of serial correlation between the parameters articulated through Durbin-Watson test,

with a statistic of around 2, being an indication of no serial correlation. Finally, the testing of linearity helped to find out the extent of relationship between the sub-variables as linear, with acceptable values being more than 0.05. In this test, when deviation from linearity is greater than 0.05, it indicates existence of linearity.

3.8 Operationalization of Study Variables

The constructs included financial inclusion practices that represent independent variable while financial performance represent dependent variable. The study variables were operationalized as follows:

Table 3.1: Operationalization of Study Variables

Variable	Sub-Variable	Indicators	Source
Independent Variable Financial Inclusion Practices	Financial Literacy Programs	▪ Credit-related Trainings ▪ Retirement Planning Education ▪ Investment Education and Products.	Ndegwa and Koori (2019)
	Diversification of Financial Services	▪ Credit services. ▪ Investment Services. ▪ Saving Schemes. ▪ Money Transfer Services.	Ndegwa and Koori (2019)
	Mobile Money Transfer Services	▪ Mobile Banking. ▪ ATMs. ▪ Account opening and deposits through mobile platform.	Ndegwa and Koori (2019)
Dependent Variable	Financial Performance	▪ Profitability	Wangombe and Kibati (2019)
Control Variables	▪ Size of the SACCO	▪ Total Assets	Shibutsea, Kalundab and Achokic (2019)

Source: Research Data (2022)

3.9 Data Analysis

The data collected was cleaned and possible editing was done to make it more exact, invariable and outright. SPSS was then be used in generating inferential statistics as well as measures of central tendency. The study then employed multiple regression analysis in determining how financial inclusion plans influence financial performance of deposit taking SACCOs in Kenya. This was concurrent with the following model:

$$\mathbf{FP = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon}$$

Where:

FP = Financial Performance (Dependent variable).

a = Constant

β= Coefficients

FLP_1= Financial Literacy Programs

DFS_2= Diversification of Financial Services

$MMTS_3$ = Mobile Money Transfer Services

SS_4= Size of the SACCO

ε = Error term.

3.10 Test of Significance

The extent to which each parameter was significant was established through using t-test. The extent of how suitable the regression model was checked using F-test. Pearson correlation coefficient was employed to ascertain the strength of correlation among the study parameters. Adjusted R^2 was employed to establish the extent to which imbalance in financial performance was brought about by imbalance in financial inclusion practices. The study employed a 5% level of significance.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

This section accords how data was analyzed, the findings, interpretations and conclusion reached. It also involves analyzing reliability and validity of collected data. Further, it includes the outcome of diagnostic tests undertaken. Descriptive statistics regarding extent of adoption of financial inclusion practices. Finally, it shows the outcome of how correlation and regression was analyzed.

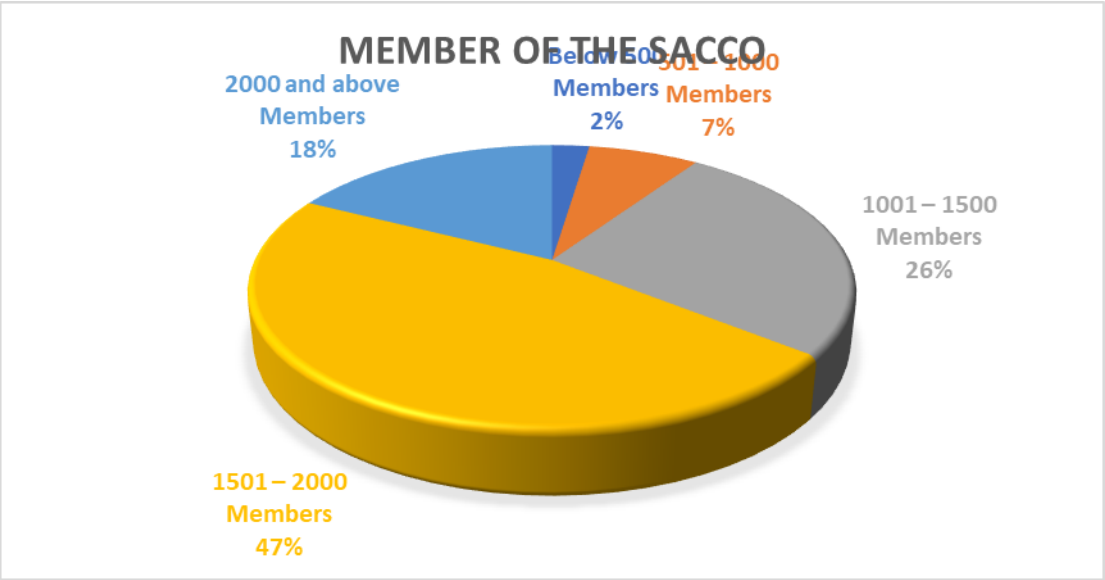
4.2 Response Rate

The research targeted 175 correspondents based on the questionnaires issued and 126 were received. This represents 72% response rate. Saunders, Lewis and Thornhill (2017) posit that, 30-40% of respondents is applicable. The response rate was therefore sufficient to ascertain consistency and reliability of the study findings.

4.3 Demographics of the DTSs

The researcher concentrated on the number of members of the DTSs as a determination of size from a primary data perspective. It was found that, majority of the DTSs studied, representing 65% had more than 1500 members. This implies that, their operations were stream lined enough to support the study on financial inclusion practices. The findings are indicated in Figure 4.1:

Figure 4.1 Membership of the SACCO



Source: Research Data (2022)

4.4 Extent of Adoption of Financial Inclusion Practices

The respondents indicated the degree of agreement with the level at which the DTSs adopted the financial inclusion practices. The analysis was based on the three practices as discussed below:

4.4.1 Financial Literacy Programs

The findings in Table 4.1 indicate that, DTSs adopted financial literacy programs as financial inclusion practices to a moderate extent given by an average mean of 3.31747; SD= 1.06402. Specifically, the DTSs undertook credit-related trainings to members, helped members to plan for their retirement and they have investment education and products to a moderately having an average of 3.6984; SD = 1.00614; 3.1984; SD = 1.08826 and 3.0556; SD = 1.09767 respectively. This was presented in Table 4.1:

Table 4.1: Financial Literacy Programs

Practices	N	Mean	Std. Deviation
The organization undertakes credit-related trainings to members.	126	3.6984	1.00614
The organization helps members with retirement planning education.	126	3.1984	1.08826
There is investment education and products for members.	126	3.0556	1.09767
Valid N (listwise)	126		
Average Score		**3.31747**	**1.06402**

Source: Research Data (2022)

4.4.2 Diversification of Financial Services

Table 4.2 shows the extent to which diversification of financial services were undertaken by the DTSs in attempt to improve financial inclusion. It was established that, the practice was endorsed moderately with an average of 3.656; SD= 1.00314. This was realized through provision of investment services and products to members, followed by increased availability of credit services and products and then the existent of saving schemes to cater for all levels of targeted and current members, moderately each with an average of 3.6005; SD=1.04432, 3.6905; SD=1.03123 and 3.6190; SD=1.01868 respectively. This is shown in Table 4.2:

Table 4.2: Diversification of Financial Services

Variables	N	Mean	Std. Deviation
There is availability of credit services and products.	126	3.6587	1.04432
The SACCO provides investment services and products to members.	126	3.6905	1.03123
There are saving schemes to cater for all levels of targeted and current members.	126	3.6190	1.01868
Valid N (listwise)	126		
Average Score		**3.656**	**1.00314**

Source: Research Data (2022)

This implies that, there was the practice of diversification of financial services, though at a moderate level, with the average standard deviation showing that significantly, no variation existed regarding responses by the informants on the variables under study.

4.4.3 Mobile Money Transfer Services

Table 4.3 shows the degree of adoption of how money was transferred through mobile platform by the DTSs in attempt to improve financial inclusion. It was established that, the practice was held moderately with an average of 3.7407; SD=1.04817. This was realized through provision of mobile banking services, availability of ATM services to facilitate access to cash by the members and the facilitation of account opening and deposits through mobile platform moderately with an average of 3.7778: SD=1.01105; 3.7381: SD=1.05965 and 3.7063: SD=1.07382 respectively. The implication was that, the DTSs implemented the use of mobile money transfer services to achieve financial inclusion to a moderate extent. This is as shown in Table 4.3:

Table 4.3: Mobile Money Transfer Services

Variable	N	Mean	Std. Deviation
The organization provides mobile banking services.	126	3.7778	1.01105
There are ATM services to facilitate access to cash by the members.	126	3.7381	1.05965
The organization facilitate account opening and deposits through mobile platform.	126	3.7063	1.07382
Valid N (listwise)	126		
Average Score		**3.7407**	**1.04817**

Source: Research Data (2022)

4.5 Financial Performance

The measurement of how the institutions perform financially was ascertained through the use of ROA. The collection of secondary data was done regarding the 126 DTSs whose correspondence was received in response to the questionnaire administered and their data was consistently available for the five years of study. Data was collected on total assets and net income, that was then used to compute ROA. The computed ROA is shown as Appendix II, with the descriptive statistics showing a mean of 14.8207; SD = 3.6235 as shown in Table 4.4:

Table 4.4 Return on Assets

	N	Mean	Std. Deviation
Return on Assets (ROA)	126	14.8207	3.62350
Valid N (listwise)	126		

Source: Research Data (2022)

4.6 Financial Inclusion Strategies and Financial Performance

Appendix II presents a summary of the predictor and predicted parameters under study. The predictor parameters include financial literacy program, diversification of financial services and mobile money transfer services while dependent variable consisted of ROA of the DTSs.

4.7 Reliability Test

Reliability measures the consistency of the outcome of research based on the tool when used consecutively (Mugenda & Mugenda, 2003). The acceptable parameters were considered to range between 0 and 1. This research considered values of 0.6 and above as a measure of reliability. The overall Cronbach's alpha coefficient was 0.663 indicating that, primary data collected was reliable for the study. The specific Cronbach's alpha coefficient for each independent variable is as shown in Table 4.4:

Table 4.4 Reliability Test

Variable	Cronbach's Alpha if Item Deleted
Financial Literacy Programs	.378
Diversification of Financial Products	.517
Mobile Money Transfer Services	.721

Source: Research Data (2022)

Table 4.1 establish the reliability of each of the independent variables under study. Data on mobile money transfer services was considered more reliable comparatively, though the data set was overally reliable for the study. The implication is that, the data helped to support the objective of the study.

4.8 Validity Test

Validity is the tools capability in measuring what it is supposed to measure. The questionnaire was tested to satisfy face and content validity by developing it through literature review and suggestions given by academicians in this area. The experts consisted of two senior lecturers of finance from the Department of Finance and Accounting, who are the Supervisors. A KMO test and Bartlett's Sphericity test was adopted in assessing if the items are favorable for factor analysis. Table 4.5 indicated that, all the parameters employed in the questionnaire had KMO values above 0.5, with all their values of chi-square in Bartlett's Sphericity test being significant at a level less than 0.05.

Table 4.5 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.583
Bartlett's Test of Sphericity	Approx. Chi-Square	64.953
	df	3
	Sig.	.000

Source: Research Data (2022)

4.9 Diagnostics Tests

The research performed the relevant diagnostic tests. The tests used were normality, heteroscedasticity, autocorrelation and multicollinearity tests, and the findings are as explained below:

4.9.1 Normality Test

Normality was ascertained through the use of Shapiro-wilk test. Table 4.6 indicate that, the data was normally distributed with Shapiro Wilk values over 0.05 for all the variables studied. The testing of normality was therefore done using Shapiro-wilk Test. Here, the acceptable statistics value was above 0.05, showing normal distribution of data.

Table 4.6: Normality Test

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
ROA	.073	126	.095	.954	126	.000
Total Assets	.285	126	.000	.540	126	.000
Financial Literacy Programs	.122	126	.000	.962	126	.001
Diversification of Financial Services	.137	126	.000	.969	126	.005
Mobile Money Services	.147	126	.000	.958	126	.001

a. Lilliefors Significance Correction

Source: Research Data (2022)

4.9.2 Multicollinearity Test

Evaluation of how the predictor variables were highly correlated was done using VIF and tolerance values, that should not be greater than 10 and less than 1 (O'Brien, 2007). The observations on Table 4.7 indicated that all the VIF values were lower than 10 with the tolerance values being more than 0.20. This implied lack of multicollinearity.

Table 4.7: Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	Total Assets	.972	1.029
	Financial Literacy Programs	.609	1.642
	Diversification of Financial Services	.670	1.492
	Mobile Money Service	.868	1.153

a. Dependent Variable: ROA

Source: Research Data (2022)

4.9.3 Heteroscedasticity Test

The testing of whether the data was heteroscedastic was done using Breusch-Pagan and Koenker test. The test involved a run matrix procedure as written by Ahmad Daryanto. Table 4.8 indicated that the p-Value of the Koenker test was more than 0.05 showing non-existence of heteroscedasticity.

Table 4.8: Breusch-Pagan and Koenker test

	LM	Sig.
Breusch-Pagan	16.442	.002
Koenker	5.139	.273

Source: Research Data (2022)

The conclusion was that, at a 0.05 level of significance, the data was found to be homoscedastic since the p-value is greater than 0.05 ($p>0.05$).

4.9.4 Autocorrelation Test

The testing of how similar the variations are was done through the use of Durbin-Watson test, with a statistic of around 2, being an indication of no serial correlation. Table 4.9 shows that Durbin-Watson value of $d = 1.985$ falls between acceptable range between $1.5 < d < 2.5$. This implied existence of no similarity of the variations in the parameters under study.

Table 4.9: Autocorrelation Test

Model	Durbin Watson Test
Size of the SACCO, Mobile Money Transfer Services, Financial Literacy Programs, Diversification of Financial Services and ROA	1.616

Source: Research Data (2022)

4.9.5 Linearity Test

This was done to establish the extent to which there is linearity between predictor and predicted variables. It was shown by values more than 0.05. Table 4.10 indicates that, the value significance deviation from linearity is greater than 0.05 thus showing that linearity exist.

Table 4.10: Linearity Test

Variable	Significance Level
ROA and Financial Literacy Programs	0.969
ROA and Diversion of Financial Services	0.000
ROA and Mobile Transfer Services	0.143
ROA and Total Assets	0.980

Source: Research Data (2022)

4.10 Correlation Analysis

The study involved computation of Pearson bivariate correlation coefficient to help in ascertaining how the parameters are correlated. The output are given in the Table 4.11:

Table 4.11 Correlation Matrix

		ROA	Total Assets	Financial Literacy Program	Diversification of Financial Services	Mobile Money Services
ROA	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	126				
Total Assets	Pearson Correlation	-.158	1			
	Sig. (2-tailed)	.077				
	N	126	126			
Financial Literacy Programs	Pearson Correlation	.489**	.123	1		
	Sig. (2-tailed)	.000	.168			
	N	126	126	126		
Diversification of Financial Services	Pearson Correlation	.446**	-.024	.566**	1	
	Sig. (2-tailed)	.000	.792	.000		
	N	126	126	126	126	
Mobile Money Services	Pearson Correlation	.315**	.036	.362**	.237**	1
	Sig. (2-tailed)	.000	.689	.000	.008	
	N	126	126	126	126	126

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Research Data (2022)

Table 4.11 indicates that, financial literacy programs, diversification of financial services and mobile money services and ROA are significantly related in a moderate and positive way as shown by r=.489, p<0.05; r=.446, p<0.05 and r=.315, p<0.05 discretely. This implied that, increased adoption of financial literacy programs, diversification of financial services and the use of mobile platform for financial transactions lead to improved financial performance as measured by ROA. Total

assets however have a low negative and insignificant correlation with ROA indicated by r=-.158, p>0.05. This implied that, when the size of the DTSs increase, it does not lead to increased financial performance, and would have an insignificant decrease in ROA. This may be due to the nature of the assets held, whether high yielding assets or not.

4.11 Model Summary

The finding in Table 4.12 indicates that R = 0.583 which implies that, financial inclusion practices and financial performance was positively correlated among DTSs in Kenya. The adjusted R^2 of 0.318 mean that only 31.8% of changes in financial performance was due to financial inclusion practices adopted in this research. This implies that, there are other factors causing 68.2% variations in financial performance of DTSs not studied in this current model.

Table 4.12 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.583[a]	.340	.318	2.99282

a. Predictors: (Constant), MMTS, Total Assets, DFS, FLP
Source: Research Data (2022)

4.12 Analysis of Variance

Table 4.13 indicate financial inclusion practices and financial performance are significantly related at 0.000 (p<0.05). This implies that improved adoption of financial literacy programs, diversification of financial services and mobile money transfer services reliably predicted how DTSs perform financially. The outcome in Table 4.13 also indicates F statistic of 15.558 that is significant at p = 0.000. This

implies a reliable prediction of how financial inclusion strategies and financial performance of DTSs in Kenya relate.

Table 1.13 Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	557.426	4	139.356	15.558	.000[b]
	Residual	1083.795	121	8.957		
	Total	1641.221	125			

a. Dependent Variable: ROA

b. Predictors: (Constant), MMTS, Total Assets, DFS, FLP

Source: Research Data (2022)

4.13 Regression Co-efficients

Table 4.14 shows individual relationship among the independent variables with how the firms perform financially, including beta coefficients. It was established that financial literacy programs positively and significantly influence financial performance indicated by β=.488; $p<0.05$. Diversification of financial services and mobile money transfer services both have positive though insignificant effect on financial performance given by $\beta = 0.506$; $p>0.05$ and $\beta = 0.538$; $p>0.05$ respectively. Lastly, total assets had a negative, though insignificant effect on financial performance. The beta coefficients implies that a unit change in independent variables is associated with an increase or decrease in financial performance of DTSs.

The unstandardized coefficient of the constant of the model explains a 28.4% change in financial performance associated with a unit change in financial inclusion. This means that for every 1-unit improvement in financial inclusion, financial performance improves by 28.4%. The findings also show that a 1 unit increase in financial literacy programs led to 1.746 units increase in financial performance. Further, regarding diversification of financial services, a 1 unit increase in financial diversification led to

1.206 unit increase in financial performance. It was also established that a 1 unit increase in the use of mobile money services led to 1.007 units improvement in financial performance. Finally, a 1 unit increase in total assets led to a 0.101 decrease in financial performance. The general implication was that the cost of improving financial inclusion through financial literacy programs, diversification of financial services and improved use of mobile money transfer services would yield improved performance, financially. Increased assets however would lead to reduced financial performance, possibly due to the quality of the assets. The multiple regression model can therefore be modelled as follows:

$$\mathbf{FP = .284 + 1.746X_1 + 1.206X_2 + 1.007X_3 - .101X_4 + \varepsilon}$$

Table 4.14 Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.284	2.290		.124	.902	-4.249	4.816
	Total Assets	-.101	.038	-.200	-2.669	.009	-.176	-.026
	FLP	1.746	.488	.338	3.573	.001	.778	2.713
	DFS	1.206	.506	.215	2.383	.019	.204	2.208
	MMTS	1.007	.538	.148	1.872	.064	-.058	2.072

a. Dependent Variable: ROA

Source: Research Data (2022)

4.14: Discussion of Findings

Regarding the extent of adoption of financial inclusion practices, the study found that, DTSs adopted financial literacy programs to a moderate extent given by an average mean of 3.31747; SD= 1.06402. Specifically, the DTSs undertook credit-related trainings to members, helped members to plan for their retirement and they have investment education and products moderately each with an average of 3.6984; SD =

1.00614; 3.1984; SD = 1.08826 and 3.0556; SD = 1.09767 respectively. Regarding diversification of financial services, it was established that, the practices were employed moderately with an average of 3.656; SD= 1.00314. This was realized through provision of investment services and products to members, followed by increased availability of credit services and products and then the existent of saving schemes to cater for all levels of targeted and current members, moderately with an average of 3.6005; SD=1.04432, 3.6905; SD=1.03123 and 3.6190; SD=1.01868 respectively.

Finally, it was established that, the DTSs implemented transactions on a mobile platform to a moderate extent in an attempt to improve financial inclusion. This was realized through provision of mobile banking services, availability of ATM services to facilitate access to cash by the members and the facilitation of account opening and deposits through mobile platform moderately with an average of 3.7778: SD=1.01105; 3.7381: SD=1.05965 and 3.7063: SD=1.07382 respectively. The implication was that, the DTSs implemented the use of mobile platforms for financial transactions to achieve financial inclusion to a moderate extent.

The findings are consistent with that of Ndegwa and Koori (2019) who found out that financial literacy programs, diversification of products and services, the use of mobile platforms to support the transfer of money, and the use of agents to provide banking services positively affecting how the DTSs perform. It was also consistent with the findings by Dzombo, Kilika and Maingi (2018) which stated that the use of agents and the use of electronic platform to support banking services were the antecedents of agency banking. The findings are also consistent with the works of Oyetoyan, Ajiboye and Popoola (2021) who established that, commercial banks adopted literacy

programs in finance, agency banking, high usage of ATMs, and the use of mobile platforms for banking services provision.

Regarding correlation, Pearson correlation established a moderate correlation of significance and positive between financial literacy programs, diversification of financial services and mobile money services and ROA given by $r=.489$, $p<0.05$; $r=.446$, $p<0.05$ and $r=.315$, $p<0.05$ discretely. This implied increased adoption of financial literacy programs, diversification of financial services and the use of digital platforms to support financial transactions led to improved financial performance as measured by ROA. Total assets however negatively and insignificantly correlated with ROA given by $r=-.158$, $p>0.05$. This implied that, when the size of the DTSs increase, it does not lead to increased financial performance, and would have an insignificant decrease in ROA.

The finding also established that, financial inclusion practices and financial performance was positively correlated among DTSs in Kenya. Adjusted R^2 of 0.318 implied that, 31.8% of changes in financial performance was due to financial inclusion practices studied here. This implied that there are other factors causing 68.2% variations in financial performance of DTSs not included in the current research. Further, the study established that, financial inclusion practices and financial performance are significantly related at 0.000 ($p<0.05$). It implied that, improved adoption of financial literacy programs, diversification of financial services and mobile money transfer services reliably predicted financial performance of DTSs. These findings were in line with the works by Ndegwa and Koori (2019) who found out that, financial inclusion have a significant improvement on financial performance of DTSs in Meru County. It was also consistent with the study by Al-Eitan, Al-Own

and Bani-Khalid (2022) who concluded that, there is significant effect of financial inclusion on profitability of commercial banks.

The findings on regression co-efficients established that, financial literacy programs positively and significantly influence financial performance indicated by β=.338; $p<0.05$. Diversification of financial services and mobile money transfer services both have positive though insignificant influence on financial performance indicated by $\beta = 0.215$; $p>0.05$ and $\beta = 0.148$; $p>0.05$ discretely. Lastly, total assets negatively and insignificantly affected how the firms performed financially. The conclusions are consistent with the works of Ndegwa and Koori (2019) who reached a conclusion that, financial inclusion significantly improved financial performance of DTSs. It was also in consistent with the study Shihadeh (2020) where the conclusion was that financial inclusion would help diversify credit and operational risks leading to improved financial performance. Finally, the conclusion was also consistent with the works of Oyetoyan, Ajiboye and Popoola (2021) who concluded that when people are financially included, commercial banks realize improved financial performance.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The section summarizes the research outcomes, how the study was concluded and the recommended actions by the researcher. It equally analyzes the challenges/limitations faced.

5.2 Summary of Findings

The findings were based on research objectives. The main focus was on how financial inclusion affect the extent to which deposit taking SACCOs in Kenya perform financially.

5.2.1 Extent of Adoption of Financial Inclusion Practices

The study found out the extent to which the DTSs implemented financial inclusion strategies. The study found that, DTSs adopted financial literacy programs as financial inclusion practices moderately given by an average mean of 3.31747; SD= 1.06402. Specifically, the DTSs undertook credit-related trainings to members, helped members to plan for their retirement and they have investment education and products moderately each with an average of 3.6984; SD = 1.00614; 3.1984; SD = 1.08826 and 3.0556; SD = 1.09767 respectively.

Regarding diversification of financial services, the study found that, the practices were adopted moderately having a mean of 3.656; SD= 1.00314. This was realized through provision of investment services and products to members, followed by increased availability of credit services and products and then the existent of saving schemes to cater for all levels of targeted and current members, moderately having a

mean of 3.6005; SD=1.04432, 3.6905; SD=1.03123 and 3.6190; SD=1.01868 respectively.

Finally, it was found out that, the DTSs implemented the use of a digital platform for money transfer services to a moderate extent in an attempt to improve financial inclusion. This was realized through provision of mobile banking services, availability of ATM services to facilitate access to cash by the members and the facilitation of account opening and deposits through mobile platform moderately having a mean of 3.7778: SD=1.01105; 3.7381: SD=1.05965 and 3.7063: SD=1.07382 respectively.

The outcomes are consistent with that of Ndegwa and Koori (2019) who found out that financial literacy programs, diversification of products and services, the use of mobile platforms to support the transfer of money, and the use of agents to provide banking services positively affecting how the DTSs perform. It was also consistent with the findings by Dzombo, Kilika and Maingi (2018) which stated that the use of agents and the use of electronic platform to support banking services were the antecedents of agency banking. The findings are also consistent with the works of Oyetoyan, Ajiboye and Popoola (2021) who established that, commercial banks adopted literacy programs in finance, agency banking, high usage of ATMs, and the use of mobile platforms for banking services provision.

5.2.2 Financial Inclusion Practices and Financial Performance

It focused on establishing how financial inclusion strategies affect financial performance of deposit taking SACCOs in Kenya. Pearson correlation established that, financial literacy programs, diversification of financial services and mobile money services and ROA are moderately, positively and significantly correlated given

by r=.489, p<0.05; r=.446, p<0.05 and r=.315, p<0.05 discretely. This implied that increased adoption of financial literacy programs, diversification of financial services and use of digital platform in supporting financial transactions led to improved financial performance as measured by ROA. Total assets however have a low negative and insignificant correlation with ROA having r=-.158, p>0.05. This implied that, when the size of the DTSs increase, it does not lead to increased financial performance, and would have an insignificant decrease in ROA.

The finding also established that, financial inclusion practices and financial performance have positive correlation between DTSs in Kenya. Adjusted R^2 of 0.318 meant that, only 31.8% of changes in financial performance resulting from financial inclusion practices studied in this research. The implication was that there are other factors causing 68.2% variations in financial performance of DTSs not forming part of this research. Further, it was established that financial inclusion practices and performance financially are significantly related at 0.000 (p<0.05). This implied that improved adoption of financial literacy programs, diversification of financial services and mobile money transfer services reliably predicted financial performance of DTSs. These findings were in line with the research by Ndegwa and Koori (2019) who concluded that financial inclusion significantly improved how DTS in Meru perform financially. It was also consistent with the study by Al-Eitan, Al-Own and Bani-Khalid (2022) who concluded that, when people are financially included, there is improved profitability of commercial banks.

The findings on regression co-efficients established that, financial literacy programs positively and significantly influence how the firms perform financially having β=.338; p<0.05. Diversification of financial services and mobile money transfer

services both have positive though insignificant influence on financial performance having $\beta = 0.215$; $p>0.05$ and $\beta = 0.148$; $p>0.05$ discretely. Lastly, total assets negatively, though insignificantly influence financial performance.

5.3 Conclusion of the Study

The study concluded that, there is a positive and significant correlation between financial inclusion practices and financial performance. Further, financial inclusion practices affect financial performance of the DTSs. This implied that improved practices of financial inclusion practices lead to improved financial performance of the DTSs. The DTSs implemented financial inclusion practices of financial literacy programs, diversification of financial services and mobile money transfer services moderately.

5.4 Recommendations of the Study

Management of DTSs should find ways of improving financial performance through improved financial inclusion practices, especially adoption of mobile banking and digital lending platforms. Since the study found that many factors that influence how firms perform financially not covered in this study, management must widely consult and establish the other variables that would affect financial performance.

The researcher also recommends that management must exploit the other factors and establish how performance would change. Regarding the financial inclusion practices, their adoption was done to a moderate extent. Management should find ways of improving factors that improve the extent to which the institutions perform financially over time.

5.5 Limitations of the Study

Many issues posed challenges to the research process. These included untimely response from the correspondents as some were suspicious, coupled with covid-19 situation that made it difficult to physically administer the questionnaires. This was solved by introducing oneself using a letter from the institution to convince the informants on how the outcome of the data and research work will be used. Further, the researcher mailed some questionnaires and once filled, they were scanned and sent back at the convenience of the respondent with minimal contact.

There was also the problem of focusing on a few correspondents per company for generalization purposes. Receiving response from one person per firm makes generalization limited. To deal with the issue, only strategic persons in credit department were focused on to acquire reliable data. Finally, the study was quantitatively approached focusing on how the parameters are related. Qualitatively, other insights would be made clearer especially other qualitative factors that affect financial performance. The researcher therefore gave the informants opportunity to comment on other issues of relevance.

5.6 Suggestions for Further Study

Future studies can be done to focus on other sectoral issues for an adequate generalization. Other studies would concentrate on other finance companies, including mortgage companies and their financial inclusion strategies. Equally, this research only concentrated on DTSs. Research of the same nature could be done on commercial banks and other financial institutions.

Secondly, the research could be undertaken in determining how electronic banking affect the cost efficiency of DTSs, owing to the fact that the digital platform is one of the driving factors in financial inclusion. Research could also be conducted to help in analyzing how banking on digital platforms would affect how the DTS perform financially. Lastly, since the study focused on only three antecedents of financial inclusion practices, future research can focus on other aspects for exhaustive consideration.

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APPENDICES

APPENDIX I: QUESTIONNAIRE

Date**...../...../2022**

PART A: BACKGROUND INFORMATION

NOTE: Please tick appropriately

Name of the SACCO_____

PART B: ADOPTION OF FINANCIAL INCLUSION PRACTICES

Please indicate the level of your agreement with these items						
		Very Low	**Low**	**Moderate**	**High**	**Extremely High**
		1	**2**	**3**	**4**	**5**
A	**Financial Literacy Programs**					
1	The organization undertakes credit-related trainings to members.					
2	The organization helps members with retirement planning education					
3	There is investment education and products for members.					
B	**Diversification of Financial Services**					
4	There is availability of credit services and products.					
5	The SACCO provides investment services and products to members.					
6	There are saving schemes to cater for all levels of targeted and current members.					
9	The SACCO offers money transfer services to facilitate transaction of members.					
C	**Mobile Money Transfer Services**					
10	The organization provides mobile banking services.					
11	There are ATM services to facilitate access to cash by the members.					

12	The organization facilitate account opening and deposits through mobile platform.					

APPENDIX II: RAW SECONDARY DATA

S.NO	Name of DTS	ROA	Total Assets	FLP	DFS	MMTS
1	MWALIMU NATIONAL	10.67	51.21	3.33	3	4
2	STIMA DT	14.65	36.98	4.33	4	4.33
3	KENYA NATIONAL POLICE	15.82	34.39	4.78	4.67	4.33
4	HARAMBEE	10.86	27.84	3.33	3.33	3.33
5	AFYA	12.47	17.84	3.67	4	4
6	UNAITAS	14.98	14.32	4	4.1	4.33
7	IMARISHA	15.54	12.24	4.67	5	4.33
8	TOWER	14.02	12.28	4.22	4.33	4.33
9	UNITED NATIONS	11.52	13	3.67	4	3.67
10	UKULIMA	13.17	11.55	4	4	4
11	INVEST AND GROW (IG)	14.71	9.52	4	4	3.67
12	GUSII MWALIMU	15.55	9.25	4.67	4	4
13	HAZINA	10.39	8.96	3.67	3.33	3.67
14	BANDARI	14.69	10.62	4.21	4	4.11
15	METROPOLITAN NATIONAL	12.65	12.55	3.87	3.23	3
16	IMARIKA DT	16.51	8.46	4.88	4.67	4
17	MENTOR	13.19	8.36	3.33	4	3.67
18	KENYA BANKERS	13.02	11.61	3	2.67	3
19	NEW FORTIS	14.11	7.28	3.67	3.33	4.67
20	BORESHA	15.4	7.33	4.43	3	3.67
21	SAFARICOM	10.35	6.77	3.33	4	3.33
22	WINAS	17.86	6.24	4.66	4.22	4
23	TRANSNATION	18.56	5.53	4.89	4.67	3.67
24	COSMOPOLITAN	13.49	6.21	3	3.33	3.67
25	KITUI TECHERS	18.13	5.68	4.67	4.87	4.65
26	SHERIA	12.21	6.1	3.33	3	3.33
27	MOMBASA PORT	13.52	5.98	3	3.67	4
28	SOLUTION	17.4	5.29	4.23	4.33	4.33
29	MAGEREZA	12.08	5.95	3.67	3.67	3.67
30	OLLIN	14.25	5.35	3.67	4.33	4
31	BINGWA	14.92	5.66	4.22	4.33	4
32	WAUMINI	12.19	4.82	3	4	4.33
33	UNISON	14.78	3.89	4.67	4.62	4
34	AMICA	17.6	4	4.34	4.84	3.67
35	NACICO	14.56	4.76	3.32	3.33	3.67
36	K-UNITY	16.32	4.14	4.21	4	4
37	JAMII	13.3	4.31	3.67	3.67	3.33
38	MAISHA BORA	12.35	3.77	3.23	3.67	3.67
39	KWETU	12.46	4.18	3.67	3.33	4
40	YETU	14.7	3.76	4.33	3.67	3.67
41	FORTUNE	15.97	3.55	3.67	2.67	3.33
42	CHAI	14.42	3.74	4	2.67	3.67

S.NO	Name of DTS	ROA	Total Assets	FLP	DFS	MMTS
43	TEMBO	13.39	3.09	3.67	3.33	4
44	NYATI	16.54	3.37	3.33	3	4
45	TAIFA	13.53	3.39	4	4.33	4
46	CAPITAL	17.08	3.63	4.43	3.67	4.67
47	SHIRIKA DT.	11.72	3.16	3.33	3.33	3.67
48	NDEGE CHAI	16.76	3.07	3	3	3.67
49	KENPIPE	13.63	3.01	3.33	2.67	4.33
50	TAI	15.89	2.77	2.67	3.33	4
51	KENYA HIGHLANDS	15.14	2.98	3.23	4	3
52	NG'ARISHA	21.38	2.65	4.67	4.33	4.87
53	KENVERSITY	14.22	2.79	2.67	3.33	3.33
54	THE NOBLE	17.21	2.29	2.33	3.67	4.33
55	NAWIRI	18.41	2.12	4.87	4.33	4
56	QWETU	17.42	2.16	4.54	4.67	4.33
57	ASILI	9.94	2.49	3.22	3.67	4.33
58	NSSF	14.45	2.13	4.33	4	4.33
59	NATION DT	12.96	2.01	3	3.67	3.67
60	BIASHARA	18.51	1.8	4.23	4.23	5
61	MWITO	13.68	1.91	3	3.67	4.67
62	ARDHI	12.07	1.92	2.67	4.67	4
63	DIMKES DT	13.65	1.73	3.67	3.67	3.67
64	SKYLINE	13.43	1.58	2.67	2.33	3.33
65	TRANS-NATIONAL TIMES	15.62	1.67	3.33	4	3.67
66	EGERTON UNIVERSITY	12.65	2.26	3	3.67	3
67	AZIMA	13.86	1.61	3.33	4	2.33
68	CHUNA	9.01	1.83	2.33	3.67	3.33
69	UKRISTO NA UFANISI	11.75	1.74	2.67	3.67	3.67
70	KINGDOM	12.2	1.43	2.33	2.67	4.67
71	SIMBA CHAI	13.24	1.4	2.33	2	4
72	FARIDI	21.69	1.18	4.67	4.67	4.67
73	WAKENYA PAMOJA	24.75	1.53	4.67	4.89	4.89
74	TAQWA	2.84	1.14	3	4.67	3
75	TRANS-ELITE COUNTY	12.59	1.28	4	4.33	3.33
76	DAIMA	18.71	1.14	4	4.56	3.33
77	SOUTHERN STAR	16.13	1.2	4.33	4	4.21
78	WANANDEGE	13.52	1.4	3.33	3.33	2.33
79	UNIVERSAL TRADERS	16.57	1.14	4.23	5	3.33
80	WANANCHI	16.67	1.29	4	4.33	4
81	SMARTLIFE	10.52	1.16	2.67	3.33	4.67
82	WANA-ANGA	14.31	1.25	3.67	3.67	3.67
83	ELIMU	17.02	1.18	4.67	4.18	4.34
84	CENTENARY	13.13	1.02	4	3.33	4
85	ECO-PILLAR	11.73	1.09	3.33	4.33	3.33

S.NO	Name of DTS	ROA	Total Assets	FLP	DFS	MMTS
86	KEYSTONE (KITE)	12.75	1.03	3.67	4.33	4
87	MAFANIKIO	16.99	0.92	3.33	3	3
88	MUKI	17.99	0.81	4.65	4.54	4
89	TELEPOST	13.8	1.11	2.67	3	4.33
90	FUNDILIMA	13.43	0.96	2.67	3	4
91	TABASAMU	15.53	0.77	4	4.33	4.67
92	TIMES U	18.44	0.72	4.67	4	4.33
93	2NK	10.62	0.82	3.33	3.33	3.33
94	PRIME TIME	12.62	0.75	4	4.33	4.67
95	MAGADI	17.39	0.66	3.67	3.67	3.33
96	K-PILLAR	17.14	0.65	4	3.67	4.33
97	GOOD HOPE	5.62	0.76	3.67	2.67	4
98	TARAJI	11.18	0.6	3.33	3.33	3.33
99	ORIENT	4.35	0.74	4	3.33	4.67
100	COUNTY	19.66	0.52	4.76	4.33	4.33
101	WAKULIMA COMMERCIAL	14.4	0.53	4	4.67	4.33
102	DHABITI	19.9	0.64	4	4	4.67
103	NYALA VISION	16.13	0.53	3	3.33	3.33
104	THAMANI	14.95	0.59	2.33	4	3.33
105	NAFAKA DT	16.91	0.55	2	3	4
106	KIMBILIO DAIMA	14.64	0.61	2.67	4.33	3.33
107	SHOPPERS	12.36	1.15	2.67	4	3.33
108	BI-HIGH	9.88	0.59	2.67	3	4
109	SUPA	11.23	0.46	4	2.33	3.67
110	VISIONPOINT	21.34	0.55	4.67	4.89	4
111	NRS	14.01	0.44	3.33	4	3.67
112	LAINISHA	12.95	0.43	4	4	4.67
113	VISION AFRIKA	15.6	0.35	3.67	4	3.67
114	JITEGEMEE	9.78	0.55	2.33	3.67	3
115	SIRAJI	17.1	0.44	4.32	4.33	4.67
116	PATNAS	24.19	0.46	4	4.98	4.67
117	FARIJI	21.18	0.33	4.33	4.67	4.33
118	WEVARSITY	16.52	0.4	3.33	3	4.33
119	KENYA ACHIEVAS	29.57	0.39	4	4.8	4.33
120	LENGO	21.21	0.26	4.33	4.32	4
121	MUDETE FACTORY TEA GROWERS	17.94	0.3	4.67	4.33	3.33
122	BARAKA	16.31	0.35	3.89	4.33	3.67
123	SMART CHAMPIONS	18.03	0.3	3.67	3.67	3
124	UFANISI	15.44	0.29	4	3.33	4
125	VIKTAS	18.03	0.3	4.21	4	4.11
126	TENHOS	15.44	0.29	3.32	3.67	3