CORPORATE GOVERNANCE PRACTICES, TECHNOLOGICAL RESOURCES AND PERFORMANCE OF DEPOSIT TAKING SACCOS IN SOUTH RIFT REGION, KENYA

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2025

DECLARATION

This thesis is my original work prepared with no other than the indicated sources and support and has not been presented elsewhere for a degree or any other award.

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DEDICATION

I dedicate this work to my family; My Dear Wife RCO Caroline Rotich, Sons Abel Cheruiyot, Emmanuel Kiprono, Daughters Jael Cherono and Mitchelle Chepkirui for their unwavering support and encouragement that they have given me since the beginning of this study. My mum, Gladys Birir also encouraged me a lot during the study.

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ABSTRACT

This study investigates the influence of corporate governance practices and technological resources on the performance of Deposit-Taking SACCOs (DT-SACCOs) in the South Rift Region of Kenya, based on the OECD Guidelines for Corporate Governance of State-Owned Enterprises. These guidelines provide international benchmarks for best practices which are vital for the SACCO sector in Kenya. The research examines how board competence, shareholder involvement and accountability impact SACCO performance and assesses the moderating role of technological resources in these relationships. A descriptive survey research design was employed, targeting all ten DT-SACCOs in the region with a population of 96 respondents. The study employed Census method and data was collected was using structured questionnaires. The validity and reliability of the instruments were ensured using content and construct validity and Cronbach's alpha coefficient with a pilot study conducted in Nandi County. Data was analysed using SPSS version 23, applying both descriptive statistics (percentages, frequencies, means and standard deviations) and inferential statistics (Pearson correlation, simple linear regression, multiple regression and hierarchical regression analysis).The results show that board competence (B=2.001, p=0.001) and accountability (B=1.529, p=0.000) all have significant positive effects on the performance of DT-SACCOs while shareholder involvement (B=0.965, p=1.109) was insignificant, with accountability showing the strongest influence. Technological resources were found to moderate these relationships, enhancing the positive effects of board competence, shareholder involvement and accountability on performance. Specifically, the interaction of technological resources with board competence, shareholder involvement and accountability though not statistically significant, further amplified their positive influence on SACCO performance. The general model accounted 50.8 percent of the variance on SACCO performance. The findings will be informative to the shareholders, policymakers and researchers in terms of comprehending the challenge of governance and devising ways to capitalize on the technology to enhance the performance of SACCO.

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ABBREVIATIONS AND ACRONYMS

ANOVA- Analysis of Variance

ATM- Automated Teller Machine

BOD- Board of Directors

CAK- Cooperative Alliance of Kenya

CBK- Central Bank of Kenya

CEO-Chief Executive Officer

CPA- Certified Public Accountant

CRM-Customer Relationship Management

DT-SACCOS-Deposit Taking Savings and Credit Cooperative Organizations

ICPAK- Institute of Certified Public Accountants of Kenya

KUSCCO- Kenya Union of Savings and Credit Cooperative Organization

MIS-Management Information Systems

NACOSTI- National Commission for Science, Technology and Innovation

OECD- Organization for Economic Co-operation and Development

SACCO-Savings and Credit Cooperative Organization

SASRA-SACCO Societies Regulatory Authority

SPSS- Statistical Package for Social Sciences Software

WOCCU-World Organization of Cooperative Credit Unions

OPERATIONAL DEFINITION OF TERMS

Accountability	is an assurance that an individual or organization is evaluated on its performance or behavior related to something for which it is responsible
Board competence	Ability of the elected board members to perform the roles for which they were elected for on the board of management of the DT-SACCOs due to their experience and professional qualification
Corporate Governance Practices	Corporate governance are mechanisms, processes and relations by which saccos are controlled and operated and includes board competence, shareholder involvement and accountability
Organizational performance	Organizational performance refers to the measurement and evaluation of how effectively and efficiently an organization achieves its goals and objectives measured using asset base, deposit Base, customer Satisfaction and market Share
Shareholder Involvement	Incorporating the various Shareholders of the organization in the process of decision making through meetings or consulting their representatives.
Technological Resources	The technology that used in Saccos such as computers, internet systems, printers, mobile devices and software applications that help them organize and prioritize work and entails Capacity of MIS Used, e-Payments Channels and automated Responses

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Savings and Credit Cooperative Society (SACCOs) have existed for years in the world and have a pivotal function in the modern economy. The historical review of SACCOs and cooperatives shows that they were formed to provide relief from poverty among the poorer economic classes in Europe, United Stated, India, among other countries. They seamlessly enable members to come together and mobilize scarce resources for ease of credit accessibility and or dispose their farm produce (Mbugua & Kinyua, 2020). However, governance challenges face most of these SACCOs as those charged with the day-to-day operations of the SACCO struggle to keep them afloat. Currently, the SACCOs are managed in accordance with set standards which include democratic management, democratic membership, member economic engagement, self-determination, and liberty as dictated by the various governance structures.

India, with its extensive SACCO network, uses cooperatives to address business needs and improve community welfare. Despite their focus on member benefit rather than profit, challenges such as fraud, low capital, and poor management compromise their competitiveness (Yegon, 2021). On the same note, federal credit unions that are similar to SACCOs in the United States have been receiving greater regulatory attention in the post-2008 financial crisis. The failures of governance, particularly in smaller credit unions have led to policy changes to enhance the risk control, transparency and the competence of boards. Taking into account that poor management can destroy confidence and sustainability of members, the National Credit Union Administration (NCUA) has outlined tightened regulation to reporting and capital adequacy. An example of successful cooperative governance is cooperative banks in Germany, including Volksbanken and

Raiffeisenbanken (Biasin, 2021). The good internal governing, professional board, and embracing of digital banking systems have enabled them to attain high financial performance. As the German experience demonstrates, strategic innovation and a strong accountability system can help to increase the sustainability and competitiveness of the member-owned financial institutions across the world (Poli, 2019).

The same thing can be said about the Philippines. An analysis of financial performance of the different DT-SACCOs and cooperatives indicated that their liquidity and leverage position is not healthy enough and all the cooperatives are at high financial risk as most of them were externally sourced (Chungyas and Rinidad, 2021). These cooperatives must also endeavor to reduce their debt by first using their equity completely before they use credit. The multi-purpose cooperatives in the Philippines in most cases make low profits and this implies that the cooperatives need to raise the level of their profits through reducing their operating and administrative expenses.

The country of Nepal too has had its problems with its cooperatives. The general activities of the cooperative and the comparison of the social and economic state of the women in such spheres as social aspect, caste and ethnicity, religion, education, economic aspects, occupation, decision making process, health status possible issues of women (Tamang, 2019). As an example, Ksheshwor Women Saving and Credit Cooperative. With women involvement in saving and credit cooperative activities, increments in societal and economic status in terms of decision making had been brought to take part in social role. The women can contribute to household income on monthly basis which was not possible before. The SACCOs in Nepal do serve the benefit of their households and the national economy as well.

Corporate governance constitutes checks and balances that constitute a framework that enables organizations to establish their objectives and develop appropriate policies to attain the objectives

and control organizational performance (Solomon, 2020). Aluchna and Khan, (2024) argue that good corporate governance allows the companies to maintain sustainability regardless of the relatively long period of time and attract interest of the shareholders. Going by the context of the present study, corporate governance entails the processes and structures established in cooperative control and guidance and the management of business among the managers, the shareholders and the board members and maintenance and encouragement of transparency. Most of the Deposit Taking SACCOs (DT-SACCOs) experience different problems, which threaten their survival and functional performance in the long term. These are liquidity, interest, operational and credit (Biwott & Macharia, 2018). The results of a research in Zambia and Tanzania showed that these obstacles do not allow the SACCOs to reach their potential (Mwila, 2020). During the study in Rwanda, it was found that DT-SACCOs have been in the news over mismanagement incidents and that majority of them are liquidated.

Research by Tabassum and Singh (2020) has established that that board size, number of board committees and ownership concentration have a positive association with organization performance but board independence and CEO duality have negative one and that ownership concentration moderates the negative association between the number of board committees and performance of an organization. The cooperatives in Africa increased when farmers encouraged and registered cooperatives in 1950s to safeguard the interests of for cash crop farmers of pyrethrum and coffee. To cite an example, in Tanzania SACCOs attract membership of the local community or a similar employer where the members share a geographical location, a community, an employer or other affiliations. The beneficiaries are the members of the cooperatives, and these are the savers and decision-makers (Nshimiyimana, 2022).

Although various cooperatives in South Africa have been experiencing operational difficulties, some have been very successful especially the financial services cooperatives which have adopted good governance practices. A few of these SACCOs have, in particular those that are in urban and peri-urban locations, shown very high growth and sustainability. Professional management, application of digital financial services and high regulatory measures given by Co-operative Banks Development Agency (CBDA) have greatly contributed to their success. These SACCOs have embraced the distinct lines between governance and management responsibilities, increased board competence by training regularly, and transparency by regular financial reporting. As Muloongo and Ramashala, (2021) indicate, these cooperatives have witnessed an increment in membership, enhancement in asset bases and high rates of loan recoveries. They have also been instrumental in creating financial inclusion especially to women and youth and have also contributed positively in the local economic development.

Equally, there are cases of outstanding success of some SACCOs in Nigeria, particularly those established in employee based organisations and religious institutions. Such cooperatives are defined by a well-organised leadership, a clearly defined role of governance and internal accountability systems. They have developed strong credit appraisal systems that have aided in reducing the loan defaults as well as enhancing financial performance. Moreover, these SACCOs have ensured high degree of transparency and confidence of their members by focusing more on financial literacy of their members and rigid internal controls. As Olayemi and Adesina (2020) note, cooperative thrift and credit societies in federal institutions have always seen savings and loan disbursements grow annually, in addition to saving high retention rates and low cases of frauds among the members. The above results have not only provided financial security to individual members, but also offered stability in the household and economic growth in the area..

The SACCOs are not an exception that is exempted of the challenges that are experienced by SACCOs in Tanzania. They experience issues of poor management, embezzlement, no working capital, bad business practices and high rates of loan delinquency (Maghimbi, 2020). Through the SACCO movement, the members of the SACCO have enhanced their earnings, investments, spending on education, improved housing and minimal spending on health care. The thriving nature of SACCOs in Uganda is realised since the start of the government program called Bonna Baga ggawale (Prosperity for all) which is designed to solve the poor access to financial services of the Ugandans. The program will be modeled to employ a SACCO per-sub county approach to offer financial loans at subsidized market rates to borrowers in either capital nature or tools and equipment (Maghimbi, 2020).

In Kenya, 20 percent of the entire savings of the country comprise the SACCO movement (Maosa, 2020) that demonstrates the importance of this movement to the economy and empowerment of its members. SACCOs have been a part of the Kenyan financial environment and there is always an assurance of the availability of key financial services to the people and the society. In the recent past, there has been a cause of concern where the number of members leaving SACCOs countrywide has been on an upward trend. This paper will set out to discuss the main contributing factors towards this phenomenon, providing an insight into the problems SACCOs have to deal with and possible solutions to the problems. Various reasons have been discussed which span between competence of board, deficiency of transparency and accountability, technological obstacles among other reasons.

The SACCOs employed qualified staff and boards of management that were able to handle its affairs and enhance already achieved growth. The dilemma was that since the SACCOs were managed democratically, the members were likely to end up electing management committees

which might be incompetent, because of other interests hence mismanaging the SACCOs. Nevertheless, Njuguna (2021) argues that these co-operative agents are the guardians, trustees and custodians of the societies and, therefore, are responsible and answerable to SACCO members. They are therefore anticipated to be efficient, effective, responsible, responsive, honest, faithful, hardworking and prudent in all their transactions in the affairs of SACCO, particularly where the member funds are concerned. During the management of co-operatives an overlap of responsibilities between the management that is carried out by the management committee and the management carried out by the management staff has been experienced. This led to bad leadership and non-observation of the good management practices as the members wanted.

Mwende, (2023) argues that mismanagement, fraud, corrupt activities and innovative accounting methods to conceal poor performance led to poor performance in SACCOs in Kenya, which in turn led to a number of hard measures being taken, not just the revocation of licenses, deregulation of the SACCO or placement on a watchlist. SASRA has embraced CAMEL (Capital adequacy, Asset quality, Management capacity, Earnings, and Liquidity) evaluation framework tool that was applied in the measurement and monitoring of the financial viability of the deposit taking SACCO society. CAMEL is a standard rating methodology which is applied by the Central Bank of Kenya on commercial banks and deposit taking micro-finance institutions. The government of Kenya is well aware of the fact that the main business of SACCO is mobilization of member savings and credit services. Through good credit management process that SACCOs have established, they have great likelihood of flourishing and fulfilling the requirements of the members.

In regards to technology, it was one of the major issues regarding the performance of the DT-SACCOs. The modern business environment is driving business towards adoption of modern technology in order to gain competitive edge. Khan et al., (2019) have concluded that the

relationship between corporate governance and organizational performance was greatly mediated by technological innovation. In the same manner, Ahmad and Khattak, (2023) were able to determine that innovation was also a significant mediator between corporate governance and organizational performance.

Mostly, various definitions have been applied as regards organizational performance. Kaplan and Norton (2001) defined it as the ability of the organization to achieve its objectives efficiently using the available human and physical resources. This definition provides the rationale of organizations to possess objective performance standards in measuring the performance, particularly in respect to work-based performance. The studies conducted in various organizations have established that various organizations define performance differently with most of them concentrating on financial profitability and growth. Customer satisfaction was one of the measures of organizational performance that was incorporated in this study, having asset base, deposit base and market share. Although the literature has determined that the control systems or regulatory framework was important in the operation of the SACCOs (Kiruru, 2022) limited studies have evaluated the impact of board competence, financial disclosure, shareholder involvement, accountability, technological resources and financial performance of the DT-SACCOs in Kenya. This was what the study aimed to accomplish.

1.1.1 SACCO's in Kenya

The SACCOs are self help, democratic and unique member driven financial co-operatives that are formed, owned, governed, and managed by the same members who have the same common bond that brings them together. The kinship is due to employment with the same employer, the same church or labour union, social group or same produce producing and marketing in the community. The DT-SACCOs are open membership, meaning that all persons who are members of the group

are welcome irrespective of race, religion, colour, creed, tribe and gender or the job status. These members will concur to pool their savings in the SACCO and make loans to one another at fair rates of interest. The interest is paid on loans in order to cover the interest cost of savings and the administration cost. The owners are its members and the decision on how their money was spent to benefit one another is made by the members. The SACCOs are democratic in nature and decisions are arrived at in a democratic structured manner. The members choose a board that regulates the activities of the SACCOs.

Sacco's in Kenya face weak corporate governance, fraud and mismanagement of funds due to poor internal controls. Many struggle with regulatory compliance, especially smaller SACCOs that find it difficult to meet capital and reporting requirements set by SASRA (SASRA report 2023).High loan default rates, limited adoption of technology and inadequate credit risk management further strain the operation (Maghimbi, 2020).The South Rift region covers the Kericho and Bomet counties and has ten DT-SACCOs which include the following: Kenya Highlands SACCO, Ndege Chai SACCO, CHASSCO Sacco, Patnas SACCO, Kimbilio Daima SACCO, K-Pillar SACCO, Kenya Midland SACCO, Stegro SACCO, Tenhos SACCO and Edis SACCO.

1.2 Statement of the Problem

Best corporate governance practice and technological resources play a significant role in maximizing the performance of Deposit-Taking SACCOs (DT-SACCOs). Ideally, the management structures and strategic supervision of the various work of the DT-SACCOs should be defined as discussed by Agutu, (2022). These practices guarantee openness, responsibility and fair treatment of the stakeholders, which eventually brings about sound financial well being and sustainable development. Proper governance in Kenya where SACCOs have a large share in the financial industry translates into increased satisfaction among the members, financial stability, and

a general positive influence on socio-economic development (Kibue and Mang'ana, 2022). In addition, the incorporation of technological resources in the operations of SACCO should, in the best scenario, simplify operations and enhance service delivery, as well as facilitate decision-making.

Though the ideal practices have been set, the reality that prevails in DT-SACCOs in Kenya has many flaws. Some of the issues present in the sector include the loss of deposits, decreasing market share, and a loss of the status of a number of SACCOs, which jeopardize their stability in operations (Gitonga & Miano, 2020). Moreover, poor financial control, capital inadequacy and high employee turnover has added to these problems leading to low asset bases and dissatisfaction by the members. Despite the requirement by Kenya SACCO Society Regulatory Authority (SASRA) that the regulations are adhered to such as the three-year business plan, there is a lack of consistency in the enforcement and implementation of the regulations. This causes inability to deal with inherent problems.

The current studies have largely concentrated on the financial performance of SACCOs and have not considered the overall implications of corporate governance and technological resources on organizational performance (Kiswili, 2021). Although research has been implemented in some settings, such as China and India, as well as different industries, a significant research gap exists in the specific way of exploring how technological resources can be moderated to affect the performance of DT-SACCOs in Kenya (Yangd, 2020 & Milan, 2021). This gap in knowledge justifies the necessity of the research that will examine the relationship between practices of corporate governance and technological advancements and how these two factors interact to affect the performance of DT-SACCOs. This gap was also useful in developing strategies that are not only compliant to the standards of governance but also exploits the aspect of technology to improve

SACCO performance, thus putting the sector on the path towards the desired scenario of strong and sustainable operations.

1.3 Research Objectives

This study was guided by the general and specific objectives.

1.3.1 General Objective

To examine the effect of corporate governance practices and technological resources on performance of Deposit Taking Sacco's in South rift region, Kenya

1.3.2 Specific objectives

i. To determine the effect of Board Competence on the performance of SACCOs in South Rift Region, Kenya.
ii. To evaluate the effect of Shareholder Involvement on the performance of SACCOs in South Rift Region, Kenya.
iii. To examine the effect of Accountability on the performance of SACCOs in South Rift Region, Kenya.
iv. To assess the moderating effect of technological resources on the relationship between Corporate Governance and performance of SACCOs in South Rift Region, Kenya.

1.4 Hypotheses

i. $H0_{1;}$ Board Competence has no significant effect on the performance of DT SACCOs in South Rift Region, Kenya.

ii. $H02_{;}$ Shareholder Involvement has no significant effect on the performance of DT SACCOs in South Rift Region, Kenya.

iii. $H0_3$: Accountability has no significant effect on the performance of DT SACCOs in South Rift Region, Kenya.

iv. $H0_4$: Technological Resources have no significant moderating effect on the relationship between Corporate Governance and performance of DT SACCOs in South Rift Region, Kenya.

1.5 Scope of Study

The research evaluated the effects of a number of corporate governance practices, such as competence of boards, financial disclosures, shareholder participation and responsibility on the organizational performance of Deposit-Taking SACCOs (DT-SACCOs) in the South Rift Region of Kenya in Kericho County and Bomet County. Also, the research assessed the moderating role of technological resources on the relationship between corporate governance practices and performance outcomes. The study was carried out in a period of two months between June and July 2024. This is a period that was meant to enable ample data gathering, analysis and reporting. The sample size of the study consisted of 10 DT-SACCOs that were functioning within these counties and this would guarantee an inquiry into the practices and results that would be relevant to these institutions.

1.6 Significance of Study

This thesis investigated the relationship between corporate governance practices and the organizational performance of the DT SACCOs South Rift Region. The study findings was valuable to the Government especially SASRA in Policy formulation and development in order to improve on the corporate Governance Practices of SACCOs in Kenya. Sacco management may gain insights on how various aspects of corporate governance practices affect the operations of SACCO societies in South Rift Region as well as to determine the extent to which technological

resources affect operations of other SACCOs in South Rift Region. Sacco management can also identify the impediments that face SACCO societies in approaching Financial Disclosures and Accountability practices that affect their organizational performance. The study provides information to potential and current scholars with regard to the relationship between corporate governance, technological resources and organizational performance in DT-SACCOs.

1.7 Limitations of the Study

The limitation of access to the facility and information from people befall the researcher due to apathy. However, the researcher obtained a letter of introduction from the university and a permit for data collection from NACOSTI. The researcher used self-administered questionnaires. This posed a challenge of respondents misinterpreting the questions while filling or answering. This was resolved by the researcher engaging one research assistants who was available for simplifying the research questions or for any kind of enquiry. Finally, the respondents shied away from giving sensitive information due to fear of exposure but the researcher assured them of confidentiality of the information collected.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed literature related to corporate governance, technological resources and organizational performance of deposit taking SACCOs in Southern Region of Kenya. It was deal with theoretical, conceptual, and empirical literature reviews, summary and research gaps which were identified after a critical literature review and a conceptual framework.

2.2 Theoretical Review

This research was anchored on the following two theories: agency theory and resource-based view theory.

2.2.1 Agency Theory

The research evaluated the effects of a number of corporate governance practices such as board competence, financial disclosures, shareholder involvement and accountability on organizational performance of the Deposit-Taking SACCOs (DT-SACCOs) in the South Rift Region of Kenya, which is in Kericho and Bomet Counties. Also, the research determined the moderating role of technological resources to the association of corporate governance practices and performance results. The study was carried out between June and July 2024, which is a two-month period. This was a period that was set aside to facilitate a comprehensive data collection, analysis and reporting. A total of 10 DT-SACCOs in these counties were included in the study to make sure that the detailed study of the practices and outcomes specific to these institutions would be conducted.

2.2.2 Resource Based View Theory

Resource-Based View (RBV) of the firm, which was firstly introduced by Wernerfelt (1984) and subsequently developed by Barney (1991, 2002), is the idea according to which the performance of any organization is strictly pre-determined by the resources and capabilities the organization has. According to the theory, when they are valuable, rare, inimitable, and non-substitutable (VRIN), internal resources both tangible and intangible underlie sustainability of competitive advantage of a firm (Barney, 2002; Collins and Montgomery, 2008; Pearce and Robinson, 2008). RBV says that organizations vary in their resource endowments and the variations are what cause differences in performance and positioning of competitors.

In the case of DT-SACCOs in the South Rift Region of Kenya, the RBV can be a valuable approach to the study of how the performance of internal competencies like board expertise and technological resources are affected. Strategic supervision, experience and enforcement of accountability of board members are areas that help in making operations more effective. Equally, the use of technology resources like modern information systems, automated financial reporting mechanisms and mobile platforms enhance transparency, communication with shareholders and real time decision making, hence leading to high performance and governance performance.

Although the RBV is strong, it has had a number of criticisms. First, researchers claim that it provides a static perspective of organizational resources, which is based on the assumption that valuable resources are a source of advantage in the long term, and in the real sense, technological and market change can destroy the advantage easily (Priem and Butler, 2001). Second, the theory comes with no explicit operational instructions on the means through which firms can obtain, create or maintain these strategic resources thus cannot be empirically applied, particularly in

dynamic industry like financial cooperative industry (Kraaijenbrink, Spender, and Groen, 2010). Third, opponents argue that RBV is prone to ignore external conditions like regulation, competition and institutional environment- which can have a great influence on performance even in situations where internal resources are good (Peteraf and Barney, 2003). This constraint applies to the example of DT-SACCOs since its performance is also determined by regulatory frameworks, market competition, and member participation, and not the internal resources only.

2.3 Conceptual Review

2.3.1 Board Competence

According to Wu, (2008), board competence refers to the capacity of the board of directors to undertake its strategic functions with the help of deep knowledge and experience in order to develop a competitive edge. A board of directors is the ruling body of a given organization whose members are democratically elected by the shareholders to determine the strategy, manage the organization and guard the interests of the Shareholders. An effective Board of Directors and managers, who should be competent, diverse and qualified person capable of making sound and independent judgement on the activities of the corporation, should lead the DT-SACCOs.

Special consideration was given to the capacity of the individual member to value the dynamics of the dynamic business environment, and deliver leadership where required. Thus, caution was observed to ensure that the members of the board were endowed with knowledge of the organizations technology, knowledge of financial markets, knowledge of corporate governance structure, and international business and financial trends (Ouko, 2019).

Various variables have been used to investigate board competence by different scholars. Education background and finance experience and management experience are some examples, as used by Jin and Mamatzakis (2018). Yoo and Kim (2012) concentrated on the capacity of the board

members to develop external linkages in the determination of board competence. This demonstrates that there is no standardized gauge on job competence. Nonetheless, to be able to enjoy unquestionable industry-specific reputation, the board members ought to be capable of establishing personal networks within the industry, wielding power and intellectual autonomy to allow them to effectively oversee managerial performance and sanction decisions. Unless the boards are constituted appropriately and appointed depending on their political or ethnic grounds, they might not be objective and independent in decision making on critical matters related to the organizations.

This consequently implies that, managers and board of directors in DT-SACCO are required to exercise a high level of skill and care; within the knowledge and experience that they possess and can not be held accountable to honest errors of judgment. Nevertheless, there was a necessity to elevate such a standard and not only play at a bare minimum. This research however, evaluates the board competence based on their experience and professional qualification.

2.3.2 Shareholder Involvement

Shareholder involvement is the procedure that organizations use in an attempt to listen, collaborate, or inform parties with regards to the organization by identifying, mapping and prioritizing shareholders in an attempt to decide the most effective tactics to use during effective communication as well as making the best use of the available resources (Pollock, Campbell and Struthers, 2019). As Mlanya (2015) argues, shareholders are allowed to give their own ideas in the running of the organization, and joint decisions are made. The problem is that shareholders are not engaged in the running of the organization, be it in terms of strategy development, execution, and appraisal. Shareholder involvement has been also measured by other studies using such indicators as attendance at annual general meetings, voting rights, access to organizational information, and

involvement in strategic planning processes (Ochieng, 2017; Kamau, 2020). In this research, the shareholder participation was quantified with regard to the capacity of the DT-SACCOS to hold the general meeting and election.

2.3.3 Accountability

Accountability in management has been defined as being owed to others in the organization. Such commitments entail particular tasks that he or she must accomplish to become a manager and a member (Choi and Chun, 2021). The majority of the definitions are individual level accountability. The definition of accountability that is adopted, however, in the public administration area, and in this study, is the tool through which the various expectations created both within an organization and outside it are handled (Romzek and Dubnick, 1987).

It is also notable that the organizations put in place the various tools to gauge accountability that is commensurable with the legal entities, citizens, top management and the organizational members. Other researches have taken special interest in the functions of the accountability mechanism, i.e. the institutional arrangements or structures that impose accountability on the bureaucrats, regarding their position in the policymaking process (Hong, 2016). Previous studies have also found several ways through which accountability can enhance the performance of the public organizations. Responsibility might enhance personal performance in context-related duties such as responsibilities in a nonprofit organization or the accuracy of performance appraisal (Kim and Lee, 2010). It may as well enhance organizational performance in areas like sound budgetary choices or policy execution like in performance-based budgeting (Gilmour and Lewis, 2006), school funding policy (Rabovsky, 2012), or contracting out (Amirkhanyan, 2011). Nevertheless, too much accountability can have a negative impact on individual and organizational performance.

According to Mwaura (2018), the board of directors is not only supposed to ensure that affairs of an organization are properly managed but should also be held accountable of the funds, as well as also concerned with the financial business and the management of the organizations on which they are in charge. This implies that the organizations and the boards are independent and thus must be efficient and autonomous. In the classical separation of ownership and control view, a majority of preferred or dominant shareholder has not only the incentive, but the capacity of monitoring the management, so that the firm is operated in a way that its activities are oriented towards profits maximization.

Though diffused ownership is a common feature in modern organizations, the managers cannot always indulge in unethical discretionary activity due to board of directors monitoring and control functions, internal and external restrictions. The constraints that are internal to a large extent are those that are exercised by the Board of Directors on behalf of the shareholders (owners). These limitations are the make up and authority of the Board such as the effortlessness with which shareholders may add or displace the Board individuals and the regulations governing the voting. Instead, external constraints deal with the aspect of markets in checking and punishing managers. Managerial labor market, product markets and financial markets are the primary constraints mostly observed in the market (Ongore & K'Obonyo, 2011).

Other studies had various variables to measure the accountability among them: hierarchical accountability, or even the political accountability (Han and Hong, 2016) but in this study accountability was measured by the compliance with the service charter and regulations of the board.

2.3.4 Technological Resources

According to Kozma (2011), with inclusion of ICT in the society, the society can restructure the organization, facilitate collaboration, enhance the involvement of citizens to participate in and make education more accessible to the rest of the population. The further development of ICT allows the organization members to access and learn a lot, best practices and experience at the touch of a button in the comfort of their offices or houses.

Moturi (2013) believes that technology determines how an organization puts forward to operate and optimize its technological resources to support its present and future business requirements. Technological plan is necessary in order to be able to accomplish both internal and external strategy of the organization. This is to make sure that there is harmony of all the technological activities and investments with the corporate strategic objectives and aligned with the standards and policies laid down within the organization. It follows that organizations must keep up with the emerging technologies in order to achieve sustained competitive advantage in the existing markets since the typical causes of failures realized in executing technology-based strategies in organizations are technology characteristics and organizational traits. The indicators placed in this research as the measure of technological resources as a moderating factor were the capacity of MIS used, E-payments channels and automated responses.

2.3.5 Organizational Performance

The survival of a firm is based on its organizational performance. It is known as the key outcome variable of interest of all organizational departments, human resources, marketing, operations management, and others (Singh, Darwish, Potocnic, 2015). But the organization has been viewed in diverse ways by various scholars. Morrow and Finch (2015) were interested in financial measures; Collins and Clark (2003) in sales growth and stock growth; Camps and Luna (2012) in

measuring performance in terms of cost, quality, delivery, flexibility and speed of new product introduction; Rizov and Croucher (2009) measured it in terms of service quality, level of productivity, profitability, product-to-market time and rate of innovation Roldan and Leal (2014) measured both objective and subjective performance of the organization.

The scholars have long been interested in organizational performance. Due to this, there has been a debate among management practitioners and scholars that has been based on the definition of organizational performance. Despite organizational performance concept being traditionally defined in terms of financial aspects, it has recently been broadened by non-financial aspects (Dimba et al., 2008). According to scholars, performance of the organization must not only be limited to financial performance but also incorporate the interest that the organizations demonstrates toward customers, internal business processes and the way it deals with learning and growth prospective. In this study, the organization performance was determined by asset base, deposit base, customer satisfaction and market share of the SACCOs.

2.4 Empirical Literature Review

This section reviews previous studies conducted by other researchers, covering the areas of board competence, shareholder involvement, accountability, technological resources and organizational performance.

2.4.1 Board Competence and Organizational Performance

Board competence has been one of the key areas in research on corporate governance. Previous experience in finance or accounting, as well as the necessary professional qualifications are also important predictors of the financial performance and financial wellbeing of the firm. Tabassum and Singh (2020) state that the performance of the firm is positively influenced by the board members who have a financial background. The same perspective is supported by Alodat, Salleh,

Hashim and Sulong (2022), who show that the association of high quality earnings of firms with high financial expertise is common in boards. Kateb and Belgacem (2024) also discover that board qualifications are also critical as far as the return on equity and the return on assets are concerned and the issue of financial competence among boards is confirmed. In a less obvious observation, McLaughlin, Armstrong, Moustafa and Elamer, (2021) allude to the fact that the effects of board financial expertise on performance may be complicated, although the degree of influence may vary based on the context Morehead Dworkin and Schipani, (2018) indicate the critical importance of financial expertise in board committees, stating that boards with established financial expertise are more influential in the financial reporting process. Nevertheless Shan, George and Mclver (2011) that determined that the experience of board was not a powerful factor that influenced corporate financial performance in China.

Sohail, Wang and Raza (2023) surveyed non-financial listed companies in Pakistan to determine the impact of Board experience on firm performance. The research concluded that a strong relationship exists between the Board working Experience (BWE) and Firm Performance. Darmadi (2013) examined the relationship between the educational qualification of board and CEO and the financial performance of the Indonesian listed firms (Tobin Q and ROA). This research determined that education qualification was important.

On the other hand, other studies have different findings on whether the direct influence of board financial expertise has a direct effect on performance. As an example, the report by Alcaide Ruiz, (2022) shows that market positively responded to appointment of financial experts into board committees whereas Agyemang, (2020) report indicates that experience of audit committee members is positively correlated with the support of the managerial discussions. The argument by Kiplangat, (2021) is that financial literacy is critical in the process of the effective control and

reporting of financial management, but the literature appears to be mixed. The present research is based on these findings and concentrates on the impact of the competence of the board especially the financial expertise on the performance of Deposit-taking SACCOs (DT-SACCOs) in South Rift Region of Kenya.

In their research, Borlea, Achim and Mare, (2017), note that strong directors in the area of finance and business have a positive impact on financial performance. Research by Hashim, (2022) conducted in Malaysia established financial competencies as the key to board effectiveness, whereas Heraniah, (2022) discovered that professional qualification and higher education of board members have a positive influence on business performance. Wahid, Welch and Maber, (2019) have highlighted the significance of accounting and finance skills among directors and the results indicated that the share price responses were sensitive to the professionalism of directors.

Another study by Johl et al. (2015) in Malaysia supported the results with a positive correlation between board accounting/financial expertise and firm performance, which is the return on assets (ROA). In the emerging markets, a study by Borlea, Achim and Mare, (2017) in Taiwan found some mixed results of the effects of the board training on financial performance. Although Liang, Kuo, Chan and Chen, (2020), did not identify any significant relationships, Achim (2017) established that the board training positively influenced the accounting-based performance indicators.

Ingari (2017) analyzed the impact of experience and qualification of the board members on performance of an organization. Descriptive and inferential statistics were used in conducting the study and data was collected through questionnaires. The paper established that board members who have high experience in different industries have a wider knowledge base about the industry.

Board competence particularly financial expertise in the context of Deposit-Taking SACCOs can be seen as one of the important aspects in determining the performance of the organization. The literature available supports the significance of a board of financial competence in terms of having healthy governance and performance. The aim of the study was to fill the gap in the literature by empirically assessing the influence of board competence on performance of DT-SACCO in Kenya with specific emphasis to the relevance of board financial expertise.

2.4.2 Shareholder Involvement and Organizational Performance

Shareholder involvement is one of the most important aspects of corporate governance that have major impacts on corporate performance of organizations including Deposit-Taking SACCOs (DT-SACCOs). This review is a synthesis of empirical research studies on the effect of shareholder involvement on organization performance based on their applicability to DT-SACCOs. The success and sustainability of cooperatives is mainly based on member participation. Singh, (2021), emphasize that the cooperatives are dependent on a robust membership base to grow and perform. Martial, (2020), aligns with this opinion saying that active membership plays an important role in cooperative performance. Group cohesiveness also has a relationship with increased organizational performance as it creates a feeling of community and commonality among the individuals. Aini et al. (2022) also highlight that involvement of the members in the management process is crucial to the growth and success of the cooperatives, although they may not be directly engaged in management.

Osterberg and Nilsson (2019) investigate the connection between member commitment, trust, and cooperative governance participation. In their work, they have found that the degree of commitment and trust is greatly dependent on the level of satisfaction that the members have with the profitability of cooperative operations coupled with the fact that they are able to have a

democratic control. Participatory democracy is associated with cooperative principles, which imply that in the case when the members feel that they have a say in the governing, they would be more inclined to agree with the decisions of the board and take an active part. Ishak, Omar, Sum, Othman, Jaafar, (2020), show that efficient governance cannot be realized without efforts of member participation which is also imperative to the success of cooperation. Their study reveals that the success of their annual general meetings is more likely to make the members contribute to the share increments, and their cooperative performance increases. The paper highlights the importance of active involvement in facilitating group cohesiveness and realization of cooperative goals.

Chibanda, Ortmann, and Lyne (2019) also explore how governance factors can lead to cooperative performance and conclude that the effects of institutional and governance concerns such as member participation are significant in determining the performance outcomes. In their study, Barraud et al., (2012) analyse the mediating role of affective commitment between the relationships between trust and member participation in French agricultural cooperatives. The results of their findings show that the level of trust of the members with the cooperative influences their participation in the form of affective commitment. The relevance of this mediator effect is that trust should be established to increase the level of participation and engagement by the members, which subsequently affects organizational performance. According to Amini and Ramezani (2018), the impact of medium-level participation of members on the success of cooperation is positive. Age, education, level and the perceived usefulness of the cooperative are also cited as factors that have an impact on the participation of the member in the study. Zheng et al. (2012) further note that the participation behaviour of the farmers greatly

depends on the perception of the cooperatives by the farmers on the professionalism of the cooperative and the educational attainment of the farmers has a major influence on the level of participation.

The study by Wangui (2019) was focused on the impact of Corporate Governance on the performance of SACCO. Board structure, the effect of board committees and board members participation on SACCO performance were the study areas that the research exclusively paid attention to. The results showed that performance was affected by Corporate Governance.

According to a research study by Odero (2022) that was carried out in Kenyan Deposit Taking saccos, Nairobi county, it was determined that Shareholders rights that was conceptualized as, right to participate in decision making, right to equitable treatment and right to access information affected Sacco performance.

This literature highlights how influential the shareholder involvement is in the performance of an organization in the case of cooperatives. Participation of the members based on trust, commitment and perceived benefits leads to positive result in cooperation. This literature is very applicable to the Deposit-Taking SACCOs because it implies that they can promote shareholder participation and guarantee effective engagement that can make them more efficient and long-term. The reviewed studies offer a solid framework in the interpretation of the relationship between shareholder engagement in performance, and it has good insights to inform the enhancement of governance in DT-SACCOs.

2.4.3 Accountability and Organizational Performance

A study by Christensen, Kent, Routledge and Stewart, (2015) in Australia has explored the hypothesis of whether corporate governance recommendation and compliance enhanced their performance and earnings quality. The findings indicated that the earnings were significantly

improved when there is accountability to the management of corporations to their decisions. This therefore implies that audit committees should be established by organizations that constantly monitor the performances of the managers and their boards. The same should be researched among the DT-SACCOs in South Rift area of Kenya in order to determine the effect of accountability. Rossi, Ulf and Tremblay (2015) carried a research on corporate governance and accountability amongst state-owned enterprises. In their research, they have determined that corporate governance, accounting and accountability of state-owned corporations are critical emerging issues in public management, as well as other research fields. Powerful governance and management of the state-owned corporations are essential to achieve an effective and efficient provision of the public services and budget consolidation. Nevertheless, the corporate governance issues and the major gaps in the empirical research are enormous in comparison with other domains. This is why the study in the DT-SACCOs in the South Rift Region of Kenya is important to determine the impacts of accountability on their performance.

To evaluate the accountability and the performance of organizations in Korea, Choi and Chun (2020) carried out a study in Korea. The findings indicated that increased accountability produced more desirable results of organizations. Legal accountability was one of the accountability measures that were positively correlated with majority of performance variables in the institutions of higher learning. The second measure which was hierarchical accountability was always and positively related with student satisfaction in the organizations. The third accountability measure was political accountability which had a significant relationship with student satisfaction in the higher learning institutions. At the last, increased political accountability in making external policies was positively correlated with student satisfaction, and increased political accountability on internal management was negatively correlated with student satisfaction. The present research

discussed various accountability measures as illustrated in the conceptual framework and was carried out in the DT-SACCOs in Kenya.

Kimani, Ullah, Kadwani and Khtor (2021) analyzed the practices of corporate governance and corporate accountability within the African setting, with Kenya being the case. The research found out that reforms in corporate governance and accountability of the West, which are supposed to be limited or derailed by an active neo-patrimonial regime are despite the Kenyan corporate domain having clear legal-rational models such as a comprehensive system of corporate sector regulators, practitioners (such as accountants and auditors) and corporate boardrooms. The results also set that the informal networks and patronage come in the way of nomination and work of non-executive board members, thus affecting the prospect of having the executive management monitored by an independent body. The regulatory framework is conflictual and under-resourced, and rather symbolic than functioning as an effective way to enforce the practice of corporate governance and accountability. The results also confirmed an existence of a large-scale culture of rent-seeking which is a strong impediment to the practice of corporate accountability. Moreover, the independence of external auditors poses an issue of conflict of interest and reliance of the auditors on advisory fees hence the auditor prefers a clientelist relationship with auditee firms. In general, the results showed that the corporate governance and accountability practices, despite their apparent existence in Kenya, are mostly ineffective because of the impact of neo-patrimonial reality on the mind-set and behavior of corporate participants. This provokes the necessity to determine whether the same case is witnessed among the DT-SACCOs in the South Rift Region of Kenya.

In a study examining the role of the strategic leadership practices in service delivery in the county governments in Kenya, Shimengah (2018) investigated the core competencies and unethical

practices on service delivery and accountability is one of the measures of strategic leadership. The researchers have discovered that strategic leadership activity is capable of improving service delivery. By electing and appointing professionally qualified and possessing of the much needed leadership characteristics, county leaders can hasten the achievement of the devolution objectives due to improved management of resources, incorporation of the citizenry and minimization of bureaucracy. The research was carried out among county governments in Kenya hence, there is a need to determine how accountability influences the performance of DT-SACCOs in South Rift region in Kenya.

The article by Kobuthi, K'Obonyo and Ogutu (2018) is an examination on corporate governance and performance of companies listed at the Nairobi Securities Exchange. The author developed the corporate governance index as proxy of corporate governance using seven attributes of amended Code of corporate governance practices of the draft code of corporate governance practices of public listed companies in Kenya of the Capital Markets Authority. The guidelines contain board operations and control, shareholders rights, shareholder relations, ethics and social responsibilities, accountability, risk management and internal audit, transparency and disclosure and oversight and enforcement. The main method of collecting data was the implementation of the survey questionnaire that was distributed to 56 CEOs and secretaries of the corporations. The response rate was 87.5%. The CGI score of the each of the organizations was computed as annual reports of the years 2015. The study indicated that the corporate governance and the non-financial performance of the firms that were listed in the Nairobi Securities Exchange was statistically significant proving that there are features of good corporate governance that are applicable in enhancing the performance of an organization. Since accountability measure was based on the

listed companies in the NSE, there is a need to ascertain how accountability affects DT-SACCOs in South Rift region in Kenya..

2.4.4 Moderating Effect of Technological Resources on the Relationship between Corporate Governance and Performance

Technology has a close connection with performance at organizations (Navimipour, 2018). A research conducted by Soltani, Zareie, Milani and Navimipour (2018) portrayed the role of technology in implementation of Customer Relationship Management (CRM) strategy. The research reached a conclusion that CRM strategy implementation in the organization and technology are strongly positively related. Improper fit between technology and business strategy is therefore a major issue of concern that organizations should focus on as a way of achieving competitive advantage. Smoothing of the current study was also done to determine the moderating effect of technological resources on the relationship between DT-SACCOs and performance in South Rift Region in Kenya.

The Malit and Muendo (2017) conducted a research to establish the impact of the implementation of the information communication technology strategy on the performance of organizations in the insurance industry in Kenya. The research advised that the insurance firms ought to consider allocating a significant portion of their financial resources towards their budget on ICT involvement with the aim of gaining a competitive edge. Even DT-SACCOs are not exempted of technological resource issues as they struggle to gain a competitive edge against other similar organizations. It is therefore potential to define how this is done by the DT-SACCOs in the South Rift Region of Kenya.

Another study that was conducted by Kihara, Bwisa and Kihoro (2016) saw the authors look into the association between technology, strategy implementation and the performance of

manufacturing small and Medium (SME) in Thika, Kenya. The researchers found that the relationship between focus on technological requirements in strategy implementation process and the performance of SME manufacturing firms is strong and significant. There is the need to examine whether the same case is applicable with DT-SACCOs in South Rift Region in Kenya.

In evaluating the issues that influence the implementation of strategy in deposit taking SACCOs, Rotich, Senanji and Were (2017) determined that although not all the organizations were actually utilizing the latest technology in its operation, it was agreed by the respondent that they used technology to streamline its activities and that Research and Development was used in coming up with technologies to the organizations. The proposed study aims at determining the impact of the corporate governance and technology on the performance of DT-SACCOs.

A research undertaken by Nawabga, (2012) in Uganda determined that the SACCOs needed to invest in technology. The reason here is that the majority of the SACCOs were not familiar with the prevailing information technology. The research results also indicated that the SACCOs had to invest in technology particularly loan tracking technology or system which can allow the SACCOs to know when a member is due to repay the loan. This does not then imply that market needs should not be the primary focus of SACCO in its quest to embrace new technology to provide rural financial services.

The primary aim of the study by Boussenna and Kharazz, (2021) was to confirm that the Information Technology moderating relationship between knowledge management implementation and organizational performance in the study setting of a university with a hypothetical-deductive reasoning logic and a quantitative working methodology. The findings of the Hierarchical regression confirmed the moderating and positive nature of the Information technology on the strength of the relationship between the use of the KM and (Training, Research,

Publication and governance) as the organizational performance indicators. It is thus necessary to determine the impact of technological resources on the performance of DT-SACCOs in South Rift Region of Kenya.

A research conducted by Nyambura (2018) in Kenya had the aim of determining the moderating role of information communication technology on supply chain risks and firm performance among the manufacturing companies in Kenya. The research developed a direct relationship between the variables with ICT significantly contributing to the performance of the supply chain unit in the organizations. Because the organizations of interest were manufacturing companies, there is a necessity to determine the influence of the same technological resources on the performance of the DT-SACCOs in the South Rift region of Kenya.

In the study, Seline, Henry and Dina (2023) focused on determining the moderating effect of technology on the relationship between strategic training and performance of State Ministries, which was carried out in Kenya. The research found that human resource managers working in the Kenyan government ministries contracted human resource consultants outside to assist in prediction of nature of knowledge, skills and technological resources needed by them to enable them work powerfully. This makes it important to have a technology that contributed to the realization of the organization goals. Technology is another moderating variable that was used in the current study to determine to what extent technology influences the relationship between corporate governance practices and performance of the DT_SACCOs in the South Rift Region of Kenya.

Owuori, Ngala and Obwatho (2021) conducted a research to explore the moderating role of the use of governance principles and the mediation role of technological capability in the water provision services in Kenya. A positive relationship was established. It is important to state that

the fast pace in technology, growing globalization and heightened regulatory control are converging to produce major transformations in businesses in Kenya. Therefore, there is need to determine the effect of the moderating role of technological resources on the performance of the DT-SACCOs in South Rift Region of Kenya.

2.5 Summary Literature Review and Research Gap

Having conducted the empirical literature review covering the concept of corporate governance and performance of DT-SACCOs, the researcher has established that conceptual and methodological gaps exist in the areas reviewed. The current study delves into these areas so as to fill the knowledge gaps that exist.

Table 1: Summary of Literature Review and Research Gap

Author	Title	Research Design	Finding	Research Gaps	Focus of the current study
Aluchna, Roszkowska-Menkes, & Khan, (2024).	Corporate Social Responsibility and Environmental Management	Descriptive research	From the study results, it was revealed that organizational performance was significantly influenced by board independence while other board characteristics such as expertise of the board were found to be statistically insignificant.	Conducted on NSE listed companies	Focused on DT_SACCOOs in South Rift region of Kenya. used case study method
Kanakriyah, 2021	Impact of board of directors characteristics on firm performance: a case study of Jordan	Descriptive study	Results showed education level (BOD members) have a negative effect on performance.	Used panel data and focused on companies in Jordan listed on the Amman Stock Exchange	focused on DT-SACCOs
KIPLANGAT, B. L. (2021).	Internal Audit Practices and Financial Performance of Deposit Taking Savings and Credit Co-Operative Societies in Kericho County, Kenya	descriptive research design	The findings showed that internal audit practices significantly affected financial performance of the DT-SACCOs in Kericho County	Focus on internal audit practices and financial performance of the deposit-taking SACCOs	Focused on DT_SACCOOs in South Rift region of Kenya. used case study method
McLaughlin, Armstrong, Moustafa, & Elamer, (2021).	Audit committee diversity and corporate scandals	descriptive research design	Results based on the logit regression suggest that audit member tenure and audit committee meeting frequency both have positive associations to the likelihood of corporate scandal	Focus on associations of corporate financial measures	Focused on both objective and subjective measures of performance.

Author	Title	Research Design	Finding	Research Gaps	Focus of the current study
Nshimiyimana (2022).	Effect of Strategic Alliances on The Performance of Microfinance Institutions in Rwanda	census	To improve organizations performance thus the formulation of strategic alliance is indispensable in the business world context	contribute highly to a total effect of the technology, marketing of products and services	Was establish the contribution of shareholder contribution.
Kurniawan, & Saragih, (2024)	The Influence of Self Efficacy and Job Satisfaction on Employee Performance in HR Management PT Mitra Adiperkasa	descriptive research design	Employee performance is partly influenced by the self-efficacy variable, according to this study's findings.	Focused on firms listed on NSE	used case study and be conducted in DT-SACCOs in South Rift of Kenya
Rejeb, & Missaoui, 2019	Effect of the corporate governance mechanism on corporate financial performance in Tunisia	Survey	Found no significant relationship between ownership concentration and ROE, and no significant liking between ownership concentration and EPS. Also, CEO duality and ROE have a significant and positive relationship.	Focused majorly on financial measures of performance.	Focused on both objective and subjective measures of performance.
Korir & Cheruiyot, 2017	Effects of corporate governance on firm performance among companies listed in NSE from 2006 to 2015	Causal study design	Board independence had a positive and significant relationship with firm performance measured as return on assets and return on equity	Used a causal design relying on secondary data	Census research

Author	Title	Research Design	Finding	Research Gaps	Focus of the current study
Oyugi, Mwangi, Onsomu &Odock (2023)	The relationship between Board Practices and Organizational Performance by Government Owned Entities in Kenya.	Census	Boards have a crucial role of good board practices in enhancing organizational performance in government owned entities.	Study was conducted in government owned entities	Study to be conducted in DT-SACCOs
Waweru, & Prot, 2018	Effect of compliance with corporate governance requirement on earnings management for companies listed in Kenya and Tanzania	Panel data of listed firms	Discretionary accruals average about 11.3 per cent, whereas audit quality is negatively and significantly related to discretionary accruals	Used financial measures of organizational performance	Use financial measures, but both objective and subjective mesures.
Almagtome, Akeel and Once (2020)	Impact of Shareholder involvement on organizational performance of Turkish listed companies.	Survey research	Company size and corporate governance rating are positively correlated with sustainability reporting Scores disclosed by the Turkish companies.	Relied on secondary data	Was collected primary data using questionnaires and interview schedules
Choi, (2023).	Problems and alternatives of testing significance using null hypothesis and P-value in food research	Survey design	statistics can complement or replace traditional statistical tests in food research by replacing the use of NHST and P-value	Focus on the analysis that will be used in the study	was conducted in DT-SACCOs
Choi and Chun (2020)	Assessment of accountability and organizational performance in Korea	Descriptive research design	Accountability generally improved performance of organizations.	Used subjective measures of accountability	Was used objective measures of accountability?

Kimani, Ullah, Kadwani and Akhtor (2021)	Corporate governance and corporate accountability practices in the African context	Descriptive research design	Overall, the findings revealed that corporate governance and accountability practices, while ostensibly present in Kenya, are largely ineffective due to the influence of neo-patrimonial realities on the mind-set and actions of corporate actors.	Generalized the approach to corporate governance	Focused on three key areas: board competence and accountability being key.
Malit and Muendo (2017)	Effect of information communication technology strategy implementation on organizational performance of insurance sector in Kenya	Descriptive research	The study recommended that insurance companies should invest considerable amount of resources in their budget for ICT investment purposes so as to achieve a competitive advantage.	Study done in the insurance sector	Current study to be done in the DT-SACCOs.
Carletto,Dillon, & Zezza, (2021).	Agricultural data collection to minimize measurement error and maximize coverage	survey design	focusing on the scalable data innovations of greatest potential impact for empirical methods and research	Focused on professors in management	Focuses on all cadres of academic attainment
Rotich, Senanji, and Were (2017)	Factors affecting strategy implementation in deposit taking SACCOs	Survey research	Some of the organizations had not implemented the latest technology in its operations, respondents agreed that they used technology to efficiently run their activities and that Research.	Focused on research and development in DT-SACCOs	focused on corporate governance and technological resources.

Source: Researcher's Review, (2025)

2.6 Conceptual Framework

The conceptual framework shows the relationship between the various figures using a diagrammatic representation, as illustrated in Figure 1.1. The independent variable is corporate governance practices which is made up of board competence, shareholder involvement and accountability. The dependent variable is performance of the DT-SACCOs which is measured in terms of asset base, deposit base. The moderating variable is technological resources. This is depicted in Figure 2.1.

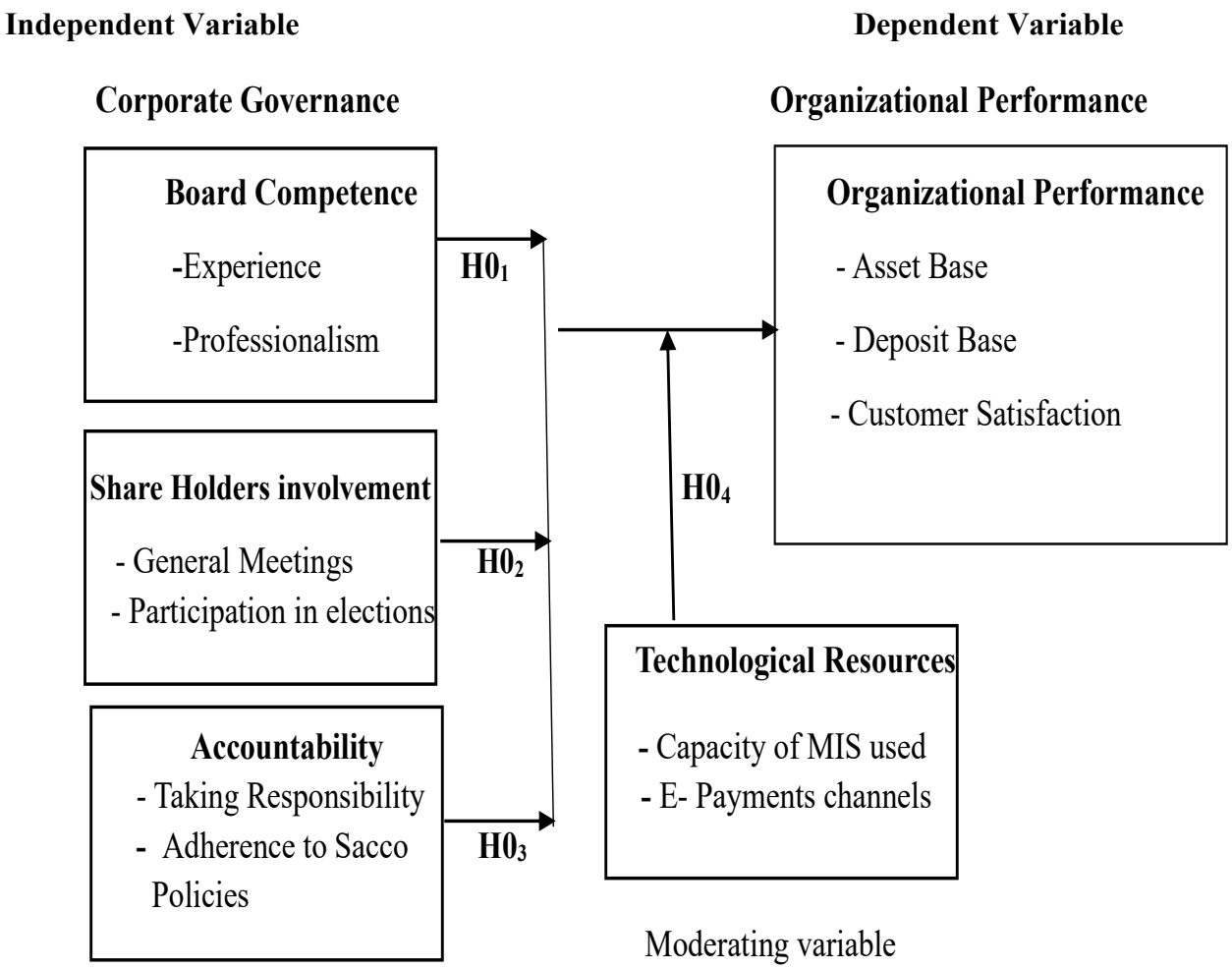


Figure 1.1: Conceptual Framework

Source: Adapted from other studies (Oyugi, Mwangi, Onsomu &Odock 2023; Almagtome, Akeel & Once 2020; Choi & Chun 2020; Kihara, Bwisa, & Kihoro 2016; Malit & Muendo 2017).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on the design and methodology, describing the study settings, the population, sample size and sampling procedures, tools for data collection and data analysis.

3.2 Study Area

The research was carried out at the South Rift Region in Kenya and specifically the counties of Bomet and Kericho. The geographical structure of this region is very varied and consists of the highlands and lowlands and covers the Great Rift valley. The Uganda border exists at the west, central highlands to the north and the Maasai Mara area to the south, with the semi-arid and the fertile areas. The demographics of this region are characterized by a combination of urban centres like Nakuru and Kericho as well as a host of rural communities who compete in different economic activities including agriculture and small businesses. Kericho and Bomet had the 901,777 and 875,689 population respectively according to census conducted in 2019. Such diversity gives a wide perspective in the way the performance of Deposit-Taking SACCOs (DT-SACCOs) is evaluated with regards to corporate governance practices and technological resource.

The choice of the South Rift Region to be used in the study was warranted by its representative nature in terms of socio-economic and geographic features, which presents a comprehensive picture of the impact of governance and technology on the performance of SACCOs in various settings. The diverse economic pursuits and the rate at which the people in the region have embraced technology make it a perfect place to determine the effectiveness of the corporate governance practices. Also, the fact that the South Rift plays a major role in agricultural industry of Kenya, underscores the need to improve the performance of SACCO in order to promote local

development and economic growth in Kenya. Through this diversified and economically important area, the study sought to make very useful contributions that can be utilized in policies and strategies to enhance the performance and operation of SACCO in the whole of Kenya.

3.3 Research Design

Research design is an organized system of gathering and interpreting data of the pertinent sources in order to answer particular research questions. It gives the framework and guidelines required in the conduct of a study in a systematic manner. Kaliisa, Jivet and Prinsloo (2023) state that research design is a detailed strategy of information collection and analysis designed to fulfill the study requirements. According to Sileyew (2019), selecting a research design is a significant approach to the research that must be a methodological decision before ethics review and collection.

The descriptive survey research design was used in the study which was aimed at finding out the impact of corporate governance practice and technological resources on the performance of Deposit-Taking SACCOs (DT-SACCOs) in South Rift Region in Kenya. It was all about establishing the degree and type of these connections and how they affected the work of DT-SACCOs. Moreover, the descriptive survey research design allows collecting data in a systematic manner by using structured questionnaires. Such approach makes it possible to describe variables like board competence, involvement of shareholders, accountability and technological resources accurately. The descriptive design is appropriate to describe the specifics of the current situation in the field of corporate governance and technology use within SACCOs and how it affects performance.

3.4 Target Population

This research will target all the Deposit-Taking Savings and credit Cooperative Societies (DT-SACCOs) that are operatives of the South Rift Region of Kenya. This involves all those who are

instrumental in the management and running of such institutions like Chief Executive Officers (CEOs), accountants, credit managers, and members of the executive board.

The respondents of the study were selected purposely within ten chosen DT-SACCOs in the region out of this population. The potential number of respondents was 96 (10 CEOs, 46 accountants, 10 credit managers, and 30 executive board members). This stratification was designed to ensure that the perspectives were elicited on important types of management and governance hence giving all-round information on how the practices of corporate governance and technological resources shape the performance of SACCO in South Rift Region.

Table 2: List of Active Registered Sacco's within South Rift Region

	Sacco Name	CEO	Accountants	Credit Manager	Executive Board Member	Total Respondents
1	The Kenya Highlands Sacco	1	6	1	3	11
2	Ndege Chai Sacco	1	4	1	3	9
3	Chassco Sacco	1	4	1	3	9
4	Patnas Sacco	1	5	1	3	10
5	Kimbilio Daima Sacco	1	4	1	3	9
6	K-Pillar Sacco	1	4	1	3	9
7	Kenya Midland Sacco	1	5	1	3	10
8	Stegro Sacco	1	5	1	3	10
9	Tenhos Sacco	1	5	1	3	10
10	Edis Sacco	1	4	1	3	9
	Total	**10**	**46**	**10**	**30**	**96**

Source: SASRA Report 2023

3.5 Sampling Technique

Considering the nature of the population targeted in the study, which was a relatively small and well-defined group of major stakeholders in Deposit-Taking SACCOs (DT-SACCOs) in the South Rift Region of Kenya, a census was used to conduct the study. The census was conducted in all ten DT-SACCOs and all persons occupying managerial or governance positions that is, Chief Executive Officers (CEOs), accountants, credit managers, and executive board members amounting to 96 respondents.

The application of a census was explained by the convenient large number of the target population and the necessity to receive the full and representative data on all the categories of the personnel involved. This strategy helped the study to capture the entire scope of corporate governance practices and use of technological resources in all DT-SACCOs in the region. Additionally, the use of census eradicated the possibility of sampling bias and increased the reliability and validity of the results, which made the overall conclusion of the research strengthened in the South Rift Region.

3.6 Data Collection Instruments

Primary data was employed in the study and structured questionnaire was taken as the primary research instrument. The majority of the questions were phrased on a continuum of agreement based on a five-point Likert type scale, was used to gauge the level of agreement and disagreement of the respondents. The questionnaire will contain six major sections of the dependent, moderating and independent variables. Part A of the questionnaire produces demographic information of the respondents. Sections A, B C, D and E produce data regarding Board competence, shareholder involvement, accountability and technological resources and performance of DT-SACCOS. Any survey is composed of questionnaire, which is the foundation of any survey and the success of the survey depends on the designing of a questionnaire. A questionnaire allows the quantitative data to be obtained in a standard manner in order to ensure the data is internally consistent and aligned to be analyzed (Brooke, 2023).

3.7 Data Collection Procedure

To enhance the response rate, the rate the questionnaires were given to the respondents by one of the trained research assistants using a drop and pick approach. The respondents were given a letter of introduction by MMUST and NACOSTI about the objective of the exercise and the

confidentiality of the data obtained. The research assistants collected the questionnaires when the research was completed.

3.7.1 Pilot Study

Carletto, Dillon, and Zezza, (2021) note that the role of a pilot test is to find the weaknesses in the design and instrumentation, and to provide proxy data upon which the selection of the probability sample can be performed. The pilot was done among three deposit taking SACCOS in Nandi County. This is due to the fact that Nandi County shares almost similar characteristics of the study population in South Rift Region. The pilot study was conducted on a sample of 10 respondents who work at two Nandi based DT-SACCOs. According to Gamboa, (2023), pilot study must be conducted on 10 percent of the sample size. The pilot study outcomes proved helpful in the enhancement of data collection tools; e.g., the information that was mistakenly excluded was added. The flaws of the study instruments were eliminated using the results of the pilot study. Following the pilot study, the supervisors were then discussed about making appropriate changes to the instruments regarding reliability and validity. This was accomplished by determining the relevancy of how the respondents responded to the questions in the instruments of data collection before the actual main study.

3.8 Reliability and Validity of the Instruments

3.8.1 Validity of the Research Instruments.

Validity of research instrument determines the measure the research instrument is intended to measure, and the results obtained are precise and trustworthy. The questionnaire should be able to capture the concepts of study in a proper manner (Sürücü and Maslakci, 2021). Content and Construct Validity were used in this research. Content Validity was also used to ensure the questionnaire contains a complete set of items that cover the full concept under research. To make

this possible the supervisors and SACCO managers were evaluating the content validity of the instrument. Construct Validity, however, is interested in the theoretical correlation of a variable, e.g., a score in a given scale, to other variables. It is a degree of how much the instrument may reflect the construct it is meant to measure in comparison to measures in other constructs which have been established. Construct Validity was also measured through factor analysis which aids in confirming the structure of the data behind them as well as in ensuring that the items on the questionnaire are well clustered under the right constructs. Factor loading threshold is usually set at 0.4 and above which implies that the items are strongly linked to the underlying construct and there is a high contribution towards the validity of the measurement tool.

3.8.2 Reliability

Reliability can be explained as the amount of consistency between two measurements of things which are alike (Schaufeli, Desart, and De Witte, 2020). Some measures of reliability are test-retest reliability, alternate measures, split-halves, inter-rater reliability and internal consistency. Internal consistency was the method of measuring reliability due to the character of the study (Kothari and Garg, 2014).

Cronbach alpha formula was used to compute internal consistency reliability (Hajjar, 2018). A minimum alpha value of 0.7 was taken in this study as recommended by Gupta (2020). The aim of this study was to ensure that the measurements that were made using the data collection tools were accurate (valid) and consistent (reliable) in multiple applications. Data that were created in the pilot study under the SPSS statistical program were used to analyze the reliability of the instrument. Previously, researchers have believed in a reliability coefficient of 0.7 or greater (Carmines and Zeller, 2017), whereas currently, researchers have established the threshold of 0.7.

3.9 Data Analysis and Presentation

The field returned questionnaires were coded, edited and entered into the computer to support statistical analysis. The version of statistical package of social sciences was 23 (SPSS).

It was in the computation of mean, standard deviation, percentages and frequency which involves descriptive statistics. They were inferential statistics, Pearson correlation, simple linear regression, multiple regression and hierarchical regression. The strength and direction of the linear relationship between the variables were measured by the Pearson correlation that enabled the research to establish the level of closeness between the various aspects of corporate governance practices and Technological resources when it comes to their relationship with SACCO performance. The effects of independent variables (competence of the board, shareholder involvement and accountability) on the dependent variable (SACCO performance) were determined and estimated through regression analysis, which included simple linear regression and multiple regression analysis. The hierarchical regression also enable establishment of moderating effect of technological resource on these relationships which offers more knowledge on how governance practices and technology interact to drive the performance of SACCO.

ANOVA and multiple linear regression analysis were also undertaken to determine the statistical significance of the respective hypotheses, which is suitable at 95 per cent confidence level (0=0.05). The goodness of fit of the various models was determined using coefficient of determination (R2), which showed whether the fraction of performance of DT-SACCOS can be explained by all the joint predictor variables, surpasses or falls short of the population of each of the predictor variables.

Hierarchy regression analysis was used in testing the moderating effect of technological resources (H04) on the relationship between corporate governance practices and performance deposit taking SACCOS.

3.9.1 Model Specification

For the purposes of this study, the following linear regression model were used

$Y=\beta o+\beta_1 X_1+\varepsilon$……. …. **Model 1**

$Y=\beta o+\beta_2 X_2+\varepsilon$……. …. **Model 2**

$Y=\beta o+\beta_3 X_3+\varepsilon$……. …. **Model 3**

$Y= \beta o+ \beta_1 X_1+ \beta_2 X_2 + \beta_3 X_3$ …..……**Model 4**

Model 5: Moderating effect of technological resources on the relationship between corporate governance practices and performance of DT-SACCOS.

$Y= \beta_0+ \beta_1 X_1+ \beta_2 X_2 + \beta_3 X_3 + Z+ \beta_1 X_1 *Z + \beta_2 X_2 *Z + \beta_3 X_3 *Z$ ..……**Model 5**

Y= Aggregate mean score of performance of DT-SACCOS

β_0 = y-intercept/constant

β_1 = Least squares estimate of the population regression coefficient for X

X= Degree of the individual independent variable

Z= A hypothesized grouping moderator technological resources

β_2 = Least squares estimate of the regression coefficient for Z

X*Z= the product between the predictors (Independent variable*Moderator)

β_3 = the sample base least squares estimate of the population regression coefficient for the product term

ε =error term-random variation due to other unmeasured factors

3.10 Diagnostic Tests

The following diagnostic tests were performed before completing the regression analysis in order to reduce the possibility of bias introduced by the gathered data. The study conducted the following tests:

3.10.1Multicollinearity

There is a close association between the independent variables and the independent variable is said to be multicollinear. Multicollinearity is the situation when the correlation between independent variables is very strong (r= 0.8 and more). This is very critical to multiple regressions. Komape, (2019) recommend that one should be careful in combining analysis when the bivariate correlation is 0.7 or above between variables. Multicollinearity makes it harder to identify the exact effects of a particular independent variable on the dependent one, and consequently the standard errors of the independent variables are overstated (Williams, Grajales & Kurkiewicz, 2019) to remove the multicollinearity, an independent variable is removed from the regression model.

3.10.2 Normality

Linear regression model assumptions assume that both the data of independent and dependent variables should be normally distributed; therefore, a normality test was used in this paper to guarantee the same (Knief and Forstmeier, 2021). Moreover, parametric tests presuppose sample data to belong to regularly distributed populations. The data in SPSS Version 23 were analyzed using the Kolmogorov-Smirnov test and the Shapiro-wilk test to test whether the data was normal.

3.10.3 Homoscedasticity

Linear regression model requires that the homoscedasticity assumption should be the case. Homoscedasticity is the distribution in which the values are evenly distributed about a mean line. This test is intended to remove the risk of bias in the final results due to a wrong modelling.

However, heteroscedasticity exists when the error component is not the same when the independent variables take their values. The extent of the impact of violation of the assumption of homoscedasticity on the results depends on the extent of heteroscedasticity (Gelfand, 2018). Cohen, West, and Aiken (2020) state that heteroscedasticity happens when the responses are not normally distributed and that the error term variance is not a constant. In order to test the heteroscedasticity among the independent variables, P-P plot of the residuals and graphical method were used. It was predicted that the scores have the same residuals and the same residual variance (homoscedasticity) and the P-P plot must take the shape of a rectangle with scores concentrated around the zero line (Gibson, 2017).

3.10.4 Linearity

In this research, the bi-variate correlational analysis was applied to determine the strength and direction of the relationship between the variables. Janse, Hoekstra,Jager, Zoccali, Tripepi, Dekker, and van Diepen (2021) state that when the significance level is very small (such as less than 0.05) then the correlation is significant and the two variables are linearly related and when the level of significance is relatively large, such as, 0.50 or above, then the correlation is not significant and the two variables are not linearly related.

In order to perform the linear regression, the two variables (independent and dependent) have to be linear. Given that linear regression is so susceptible to outlier effects, it is particularly necessary to test the presence of outliers.

3.10.5 Hypothesis Testing

Since all the hypotheses are based on a single variable of response that is linearly related to a group of predictor variables, they were assessed using a multiple regression model. The null hypothesis or H0 is the beginning of any hypothesis test (Kurniawan and Saragih, 2024). The hypotheses were

tested by the use of the T-test and the F-test. Scientific research traditions have it as customary to employ the null hypotheses that are formulated as the negation of the working hypothesis. Alternative hypotheses are defined as the acceptance of the null hypothesis and the introduction of alternative hypothesis (Choi, 2023).

3.11 Ethical Consideration.

The research ethics are the critical points that involve the proper conduct and standards of the researcher when conducting research. It entails the parties in the research process, and how this process can affect them. The researcher in this study guarantees the participants with the utmost confidentiality and anonymity through the entire data collection process, data analysis and presentation described in the introduction letter (Appendix I). Mutai (2000) notes that the introduction letter gives the relevance of the researcher indicating the intended purpose of the research and being objective in the research. The researcher noted research code according to the research permit hence information collected by the respondents was handled with utmost confidentiality. The respondents were also informed about the consent. The respondents were not requested to provide any personal information.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter consists of the demographic background analysis of the respondents and the descriptive statistics and inferential statistics analysis. The analysis and interpretation of the study findings was done as per the objectives of the study.

4.2 Response Rate

There were 96 questionnaires that were deployed and 90 returned. This was a response rate of 93.75 percent and non-response rate of 6.25 percentage that has a sum of 6 questionnaires. This confirms the claims of Zhao and Fils-Aime, (2022), who suggested that a 70 per cent and above response rate is suitable to a successful data analysis and presentation. The response rate results and the results are reflected as in table 4.1.

Table 4.1: Response Rate

Questionnaires	Frequencies	Percentages
Returned	90	93.75%
Not Returned	6	6.25%
Total	**96**	**100%**

Source: **Field Data, (2024)**

4.3. Reliability Test Results

Internal consistency of reliability was tested in the research by use of Cronbach Alpha. Cronbachs Alpha formula was adopted in the reliability of the data collection tool as it is effective in estimating internal consistency. According to Nawi et al. (2021), scales that have coefficient alpha scores of 0.7 are fair reliability and scales with Cronbach alpha score of more than 0.7 are regarded as sufficient to establish reliability. The research gave it an Alpha value of 0.750. The findings of the reliability test are given as indicated in Table 4.2.

Table 4.2 Reliability Test

Item Statistics

Variables	items	Cronbach Alpha Results	Remarks
Board Competence	5	.705	Accepted
Shareholder Involvement	6	.707	Accepted
Accountability	5	.718	Accepted
Technological Resources	6	.715	Accepted
Performance Of Dt-Saccos	4	. 743	Accepted

Source: Field Data, 2024

Therefore, a pilot study finding found that the questionnaire would give the same results under the same methodology and therefore, the data collection tool was considered to be reliable. Thus, as shown in Table 4.2 the reliability of the scores was evident by strong Cronbach's alpha coefficients for all variables, which used as independent and dependent variables of the study. The Cronbach's alpha ranged from 0.705 to 0.743, indicating that items are highly reliable to measure the variables they are expected to measure.

4.4. Validity Test

The content validity is the extent to which a measure portrays all aspects of a certain social construct. The researcher used the review and recommendation of the faculties of the School of Business and Economics to test the content validity of the questionnaires by subjecting the research instrument to the critiques and guidance of the members. Validity testing was primarily done to ensure that the research tool did not go off course and was on track with the study goals. When the statements or questions were ambiguous, the statements were restated or removed by the professional review and critique to facilitate clarity. This was to allow standardization of all questions that could be analyzed effectively on the research data.

4.5 Demographic Analysis

The study sought to determine the demographic profile of the respondents based on gender, age, and level of education, length of services, current level of work and county of origin. The results are shown below;

Table 4. 3 Distribution of respondent's Demographic characteristics

Demographics	**Frequency**	**Percentage**
Gender of the Respondents	**Frequency**	**Percent**
Male	29	32.2
Female	61	67.8
Total	**90**	**100**
Age of the respondents	**Frequency**	**Percent**
Below 25 years	15	16.7
25-34 years	54	60.0
35-44 years	7	7.8
45-54 years	14	15.6
55 years and above	0	0.0
Total	**90**	**100**
Education of the Respondents	**Frequency**	**Percent**
Certificate	15	16.7
Diploma	30	33.3
Bachelor Degree	45	50.0
Post Graduate	0	0.0
Total	**90**	**100**
Length of SACCO Existence of the Respondents	**Frequency**	**Percent**
1-5 years	54	60
6-10 years	8	8.9
11-20 years	7	7.8
Over 20 years	21	23.3
Total	**90**	**100**
Length of Service in the SACCO of the Respondents	**Frequency**	**Percent**
Less than 1 year	0	0.0
1-5 years	23	25.6
6-10 years	31	34.4
More than 10 years	36	40.0
Total	**90**	**100**
Position hold in the SACCO by the Respondents	**Frequency**	**Percent**
CEO	23	25.6
Accountant	22	24.4
Credit Manager	22	24.4
Executive Board Member	23	25.6
Total	**90**	**100**

Source: **Field Data, (2024)**

The results of the gender of the respondents shows that the Female gender formed the greatest percentage of 67.8 and the male gender was 32.2. This means that there is an even representation of both genders in this research. The research determined that 60.0% of the surveyed were in the age brackets of 25-34 years, 16.7% in the age brackets of below 25 years, 15.6% in the age bracket of between 45-54 years, 7.8% in the age bracket of between 35-44 years and finally the sample of 55 years and above contributed 0.0%. These findings suggest that the study was able to collect data of all the ranges of ages of the respondents. This was essential since younger and older employees contribute to better problem-solving skills and have a diverse resource of knowledge, thereby, allowing the researcher to understand information in every perspective. Due to the area where the study has been conducted it is crucial that age factor comes into consideration as it dictates family arrangements and duties of employees. Moreover, majority of the respondents were found to be at the Bachelor Degree level 50.0% then Diploma level (33.3%), Certificate level (16.7%), and finally no post graduate level level had been interviewed at all comprising 0.0%. This means that the research was able to gather information among the normal educated respondents. These individuals had information on the research and thus assisted the researcher to acquire an informative information on corporate governance practices, technological resources and performance of deposit taking SACCOS in the South Rift region, Kenya.

The research proved that 60.0% of the respondents had worked in the Sacco existed between 1-5 years, 23.3% had worked in Sacco existed more than 20 years, 8.9% was between the length of Sacco existence 6-10 years and lastly Sacco existed between 11-20 years 7.8%. The results indicate that 40.0 percent of the respondents have worked more than 10 years and 34.4 percent had worked between 6-10 years, 25.6 percent had worked between 1-5 years and finally 0.0 percent had no less than 1 year. The results showed that most of the respondents were a CEO and the executive

board member who contributed 25.6 and lastly the accountant and credit manager who contributed 24.4. These results imply that the sample of the current study possessed invaluable knowledge that is necessary to solidify knowledge on the corporate governance practice, technological resources and performance of deposit taking SACCOS in South Rift region Kenya.

4.6 Results of Descriptive Analysis

The data collected from the respective employees of performance of deposit taking SACCOS in South Rift region Kenya using interview schedules and questionnaires respectively were subjected to descriptive analysis with the aid of the Statistical Package for Social Sciences (SPSS, Version 23.0). The results are displayed in line with the study objectives.

4.6.1 Descriptive Analysis of Board competence

The study sought to establish respondents level of agreement on statements on corporate governance practices of deposit taking SACCOS in South Rift region Kenya. The study relied on a Likert Scale where **1**-Strongly Disagree, **2**-Disagree, **3**- Fairly Agree, **4** Agree and **5-** Strongly Agree. Table 4.9 below represents a summary of the responses from the participants for each questionnaire item.

Table 4.4 Descriptive results of Board competence

Corporate Governance Practices	5	4	3	2	1	M	S. D
Board competence							
Board members have experience in management	52 (57.8%)	30 (33.3%)	8 (8.9%)	0 (0.0%)	0 (0.0%)	4.49	0.658
Board members use their previous experience in solving SACCO issues	44 (44.8)	23 (25.6%)	23 (25.6%)	0 (0.0%)	0 (0.0%)	4.23	.835
Board members are well equipped with the requisite managerial skills, competencies and expertise needed in discharging their mandate	38 (42.2%)	52 (57.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4.42	.497
Board members have acquired requisite professional qualification	29 (32.2%)	16 (17.8%)	37 (41.1%)	8 (8.9%)	0 (0.0%)	3.73	1.015
Board members are continuously trained on Sacco governance and trends	21 (23.3%)	46 (51.1%)	23 (25.6%)	0 (0.0%)	0 (0.0%)	3.98	.703

Source: Field Data (2024)

The descriptive analysis of board competence highlights the fact that corporate governance practices have a great impact on the performance of deposit taking SACCOs in south rift region of Kenya. The study findings suggest that there is an overall perception of the competence of the board members, who are viewed to agree on various issues about their skills and qualifications by a certain level. To start with, a significant portion of the respondents (57.8) strongly agree, and 33.3% agree that the board members are of significant management experience, as shown by the high mean score of 4.49. This implies that SACCOs enjoy board members who have ample leadership and management experience that positively influence the decision-making process and generally the governance. The standard deviation value of 0.658 is low, indicating the existence

of a high level of agreement between the respondents on the management expertise of the board. Secondly, there is also an opinion among the respondents that board members are using their past experience in solving SACCO problems with a mean of 4.23. In this case, 44.8 percent strongly agree, and 25.6 percent agree and this shows that the practical experience contributes to improving the problem-solving ability of the board. The standard deviation (0.835) is a little bigger, though it is still showing some variation in the responses but overall, the perception is positive, which supports the notion that previous board experiences are an asset to governance.

On competency, skills and expertise in management, 42.2 and 57.8 percent of respondents strongly agree and agree respectively that the board members are well-equipped to effectively perform their responsibilities. The average value of 4.42 with the low standard deviation of 0.497 indicates a high and consistent belief that the members of the board have the required skills to perform their duties. This is perceived as a crucial competence of the board, whereby the board must be able to go through intricate governance dilemmas. But the board member professional qualification analysis poses a more varied response group. Although 32.2% of the respondents strongly agree, and 41.1% fairly agree that the board members have gained the required qualifications, the mean rating is less at 3.73, with a standard deviation of 1.015. This implies that the amount of agreement on whether all board members have the desired qualification is lower, which is an area that might be improved. Professional qualification might also be increased to boost the general board competence.

Finally, the continuous training on the governance and trends at the SACCO is considered to be significant, with 23.3% strongly agreeing and 51.1% agreeing that board members receive regular training. The average of 3.98 is an indication that the perceived assessment of the training activities

is mostly positive but the standard deviation of 0.703 indicates that there is a variation in the opinion as to whether these training programs are consistent or sufficient. It is also important to have continuous and quality training to keep the board members updated on the quality of governance and developments in the industry, which may also work towards improving SACCO performance. Finally, the findings demonstrate that the performance of the deposit-taking SACCOs largely depends on board competence as a factor in corporate governance. Although most board members are considered to be experienced and well-skilled, the aspect that concerns the accessibility of all members to regular training and having professional qualifications that they should possess can be improved. Further improvements of these areas would boost the practices of governance enhancement, which would result in the better performance of SACCOs in the area.

4.6.2 Descriptive Analysis of Shareholder Involvement

Table 4.5 Descriptive results of Shareholder Involvement

The study relied on a Likert Scale whereby 1 represented Strongly Disagree, 2 Disagree, 3 fairly agree, 4 agree and 5 strongly agree. Table 4.5 below represents a summary of the responses from the participants for each questionnaire item

Table 4.5 Descriptive results of Shareholder Involvement

Corporate Governance practices	5	4	3	2	1	M	S. D
Shareholder Involvement							
Sacco members are normally invited to attend general meetings when scheduled	37 (41.1%)	30 (33.3%)	0 (0.0%)	23 (25.6%)	0 (0.0%)	3.90	1.200
SACCO members opinions are sought in running the SACCO	14 (15.6%)	60 (66.7%)	8 (8.9%)	8 (8.9%)	0 (0.0%)	3.89	.771
SACCO members participate in Elections of SACCO officials	7 (7.8%)	68 (75.6%)	15 (16.7%)	0 (0.0%)	0 (0.0%)	3.91	.489
Elections of the SACCO officials are held regularly	0 (0.0%)	30 (33.3%)	52 (57.8%)	8 (8.9%)	0 (0.0%)	3.24	.605
The SACCO ensures that elections of Sacco management is free and fair	0 (0.0%)	30 (33.3%)	52 (57.8%)	8 (8.9%)	0 (0.0%)	3.24	.605
In my Sacco shareholder can freely access information regarding the Sacco	0 (0.0%)	45 (50.0%)	45 (50.0%)	0 (0.0%)	0 (0.0%)	3.50	.0.503

Source: Field Data (2024)

Descriptive analysis of shareholder involvement shows that the practices of corporate governance play an important role in the performance of deposit taking SACCOs in the South Rift of Kenya. The research involved major elements of shareholder participation especially taking part in shareholder meetings, elections, and information avenues. Generally, the results indicate that there is a concomitant consistency of respondents regarding the effectiveness of SACCOs in their interactions with their members, though some respondents have different answers concerning the regularity and equity of interactions.

To begin with, the attendance of SACCO members in general meetings had a mean of 3.90 where 41.1% of the respondents strongly concurred that members are usually invited to attend these meetings and 33.3% agreed. Nevertheless, only 25.6% of them agreed meaning that most SACCOs seem to interact with their members in a structured manner, marked with scheduled meetings, but many respondents also appear to see a loophole in such interaction. This variance of opinions can be seen in the relatively large standard deviation of 1.200, which holds that there is some inconsistency in the cases where SACCOs invite members to these critical governance forums. Secondly, when the opinions of SACCO members were consulted in the running of SACCO garnered an average score of 3.89. The majority of the respondents (66.7) and 15.6 highly concur that their views are factored into the management of SACCOs. This means that there is a fairly positive attitude towards participatory governance but there is a standard deviation of 0.771 implying that the degree to which the views of members are consulted can differ among various SACCOs.

Regarding the involvement of the SACCO members in the elections of the SACCO officials, the mean score is 3.91 and 75.6 percent of the respondents agreed and 7.8 percent strongly agreed. This is a high degree of agreement, which implies that most members participate in the election of officials, which strengthens the democratic governance process in SACCOs. There is a high level of agreement on this, which is manifested by the low standard deviation of 0.489. But, in the study, there is a reduced amount of agreement concerning regularity of SACCO elections and fairness of these elections whereby both items have a mean of 3.24 and SD of 0.605. This shows that in as far as SACCO members take part in elections, there is less confidence regarding the frequency of such elections and their conduct in a free and fair way. The most acceptable and agreeable competency of elections being conducted on a regular basis and being free and fair is only 33.3 and 57.8 percent

respectively, which implies that the transparency and frequency of the SACCO elections would need improvement in order to increase the confidence of the members in the governance process.

Lastly, the belief of the sharing capacity of the shareholders on the information about SACCO operations depicts a more balanced picture with the 50% and 50% of the respondents respectively being in agreement and fairly agreeing that they can easily get access to SACCO information. The average score of 3.50 and the comparatively low standard deviation of 0.503 indicate that the availability of information tends to be open, although it is possible to improve the level of transparency and the availability of critical data about governance to the members of SACCO. To sum up, the findings of this research on shareholder Involvement show that although SACCOs of the South Rift area present opportunities in which members may engage in the governance, there are some areas that can be enhanced. Continuous and transparent elections, regular participation of the members and better access of information are the main areas which should be considered by the SACCOs to enhance the corporate governance practices. This further can boost the trust and involvement of the members, which would play positively to the overall performance of the deposit taking SACCOs in the region.

4.6.3 Descriptive Analysis of Accountability

Table 4.6 Descriptive results for Accountability

The study relied on a Likert Scale whereby 1 represented Strongly Disagree, 2 Disagree, 3 fairly agree, 4 agree and 5 strongly agree. Table 4.5 below represents a summary of the responses from the participants for accountability questionnaire item.

Table 4.6 Descriptive results for Accountability

Corporate Governance Practices	5	4	3	2	1	M	S. D
Accountability							
Managers take responsibility for their decisions in running the SACCO	29 (32.2%)	38 (42.2%)	23 (25.6%)	0 (0.0%)	0 (0.0%)	4.07	.761
In my Sacco the managements performance is normally scrutinized	37 (41.1%)	23 (25.6%)	30 (33.3%)	0 (0.0%)	0 (0.0%)	4.08	.861
In my Sacco the management stick to laid down rules and procedures in the Sacco operations	38 (42.2%)	52 (57.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4.42	.497
Disciplinary actions are usually undertaken to those who fail to adhere to Sacco rules and regulations	29 (32.2%)	16 (17.8%)	37 (41.1%)	8 (8.9%)	0 (0.0%)	3.73	1.015
The Sacco has an ethics code that is usually enforced	28 (31.1%)	31 (34.4%)	31 (34.4%)	0 (0.0%)	0 (0.0%)	3.97	.814

Source: Field Data (2024)

Description of accountability offers information about the other vital area of corporate governance in the environment of deposit taking SACCOs in South Rift of Kenya. Just like board competence, accountability is a crucial factor in determining SACCO performance where the respondents were divided on the compliance levels of the SACCOs in responsible and transparent management practices.

Firstly, the findings reveal that a substantial number of respondents (32.2% strongly agree and 42.2% agree) think that managers are accountable to their actions in operating the SACCO with a mean of 4.07. This shows that there is a general agreement that accountability is exercised at the managerial level as it has a positive impact on corporate governance. The standard deviation of 0.761 gives the variability of responses as medium, yet on the whole, the perception of managerial

accountability is quite high. Secondly, the performance of the management is also enforced by accountability with 41.1% strongly agreeing and 25.6% agreeing giving a mean score of 4.08. This demonstrates that the SACCO management performance is periodically reviewed which is an imperative exercise in ensuring transparency and enhancing the performance. The standard deviation of 0.861, however, means a certain variety in the opinions of the respondents, which allows assuming that not every SACCO can adhere to this practice on a regular basis.

Besides, there is also a high degree of consistency in terms of compliance with the laid-down rules and procedures, with 42.2% strongly agreeing and 57.8% agreeing. This is shown in the high mean score of 4.42 with a low standard deviation of 0.497, meaning that the majority of respondents feel that SACCO management adheres to operational guidelines of SACCO strictly. This is a critical aspect of accountability that is vital in ensuring that there is a congruence in the governance practices with the regulatory and organizational standards which improve the SACCO performance. However, the disciplinary action findings have a more different response with 32.2 percent of the respondents strongly agreeing, 17.8 percent agreeing and 41.1 percent fairly agreeing. With the mean score of 3.73, it is possible to assume that although there are disciplinary measures, they are not always present in all SACCOs. This variability is depicted in the higher standard deviation of 1.015 and there is a need to improve enforcement of rules and regulations in a uniform manner.

Finally, the implementation of an ethics code among SACCOs is considered to be significant, and 31.1% of participants strongly agree, 34.4% agree and fairly, agree and fairly. The average of 3.97 means that people are not always in agreement on whether an ethics code exists but the rate at which it is enforced might not always be the same, an aspect that is expressed by the standard

deviation of 0.814. The implementation of a culture of accountability and trust in SACCOs is essential because of ensuring that there is strict adherence to ethical standards. Conclusively, the findings of this research reveal that accountability which is a fundamental element of corporate governance is a vital element in the performance of deposit taking saccoes. Although SACCO management is usually seen as responsible and submissive to the rules and procedures, there are areas which should be improved, and this includes the discipline of discipline and codes of ethics. By reinforcing these accountability structures, this may result in improved governance and hence performance of SACCOs in the region. This is in line with the aforementioned results on the topic of the competence of boards where it was revealed that governance practices directly affect SACCO performance. These aspects of governance when combined emphasize the role of effective leadership and accountable management to the success of SACCO.

4.6.4 Descriptive Analysis of Technological Resources

Table 4.7 Descriptive results for Technological Resources

The study relied on a Likert Scale whereby 1 represented Strongly Disagree, 2 Disagree, 3 Fairly Agree, 4 Agree and 5 Strongly Agree. Table 4.7 below represents a summary of the responses from the participants for Technological Resources questionnaire item.

	5	4	3	2	1	M	S. D
Technological Resources							
The Sacco's capacity to respond and adapt to technological changes has improved significantly	30 (33.3%)	30 (33.3%)	7 (7.8%)	23 (25.6%)	0 (0.0%)	3.74	1.176
The SACCO has embraced modern technology in majority of its operations	29 (32.2%)	16 (17.8%)	37 (41.1%)	8 (8.9%)	0 (0.0%)	3.73	1.015
The Sacco has adopted e payment channels	7 (7.8%)	53 (58.9%)	30 (33.3%)	0 (0.0%)	0 (0.0%)	3.74	0.591
SACCO members are able to received automated responses to their concerns promptly	14 (15.6%)	52 (57.8%)	16 (17.8%)	8 (8.9%)	0 (0.0%)	3.80	.810
SACCO members can access most of the Sacco services using their phones	0 (0.0%)	60 (66.7%)	22 (24.4%)	8 (8.9%)	0 (0.0%)	3.58	.653
The SACCO uses less paperwork in its operations	14 (15.6%)	54 (60.0%)	14 (15.6%)	8 (8.9%)	0 (0.0%)	3.82	.801

Source: Field Data (2024

Analytical description of the technological resources underscores the impact of the technological resource on the performance of the deposit-taking SACCOs, just as the discussion of the competency of the board. The use of technological resources is critical to the enhancement of efficiency, service provision, and flexibility of operations in SACCOs. The results indicate that SACCOs have gone a step forward in adopting technology, albeit there are some areas in which enhancement is required.

To begin with, the capacity of the SACCOs to respond and adapt to technological changes is viewed in a positive manner as 33.3% of the respondents strongly agree and 33.3% agree giving a mean score of 3.74. This means that although SACCOs are trying to adapt to changes in

technology, the standard deviation of 1.176 is very high indicating that there are respondents who believe that SACCOs should be doing more in this aspect. In the same manner, the use of modern technology in the operations of the SACCOs was rated at 3.73 with 32.2% strongly agreeing and 17.8 agreeing. Nevertheless, the range of response as indicated by a standard deviation of 1.015 indicates that some of the SACCOs are even more advanced in adopting technology than others. This is similar to the study of board competence in which qualifications themselves were perceived to be skewed implying that not all SACCOs are equally skillful in modernizing their operations.

The implementation of e-payment channels, which is a significant technological asset to expand financial transactions, is more accepted. The mean score of 3.74 with a low standard deviation of 0.591 and 58.9 percent agreeing and 33.3 percent fairly agreeing that SACCOs have implemented the e-payment systems effectively shows that majority of respondents agree with this assumption. Such technological development is essential in enhancing the financial performance and service delivery, as is the case of management experience in board competence. The other technological development of automated responses to member concerns scored an average of 3.80. Most of the respondents (57.8) concur with the view that SACCOs have automated their customer service and this is demonstrated by the low standard deviation of 0.810. Although this is an indicator that the efficiency of the provided services is on the right path, the inconsistency of the responses suggests that not every SACCO has maximized this technology.

Additionally, the possibility of SACCO members obtaining services through mobile phones had a low score of 3.58 as the mean. In this case, 66.7 percent of the respondents said that they have mobile access, and the standard deviation of 0.653 is higher, which indicates that SACCOs have a variance in the mobile service provision. This points out a possible place where SACCOs may

continue to exploit technology to make the accessibility and service delivery more accessible. Finally, the positive feedback of the shift in less paperwork in SACCO operations has made the 60 percent of agreeing and 15.6 percent strongly agreeing produce an average score of 3.82. The low standard deviation value of 0.801 means that the majority of the respondents think that SACCOs are heading towards more digital and paperless operations, which is in line with the current trends and practices of governance. To sum up, the technological resources analysis shows that SACCOs in the South Rift area have achieved significant advancement in incorporating technology to their operations as competent is the governance of boards in the area. Nonetheless, the fluctuation in the responses especially in the technological adaptability and accessibility of mobile services area implies that an additional Involvement in technology may be beneficial to overall performance. The further enforcement of these technological tools, as well as the continuous enhancement of the board competence, may result in a significant contribution to the efficiency, responsiveness, and service delivery of the SACCOs, which will eventually result in the better organizational performance in the region.

4.6.5 Descriptive Analysis of Performance of DT-SACCOS

Table 4.8 Descriptive results for Performance of DT-SACCOS

The study relied on a Likert Scale whereby 1 represented Strongly Disagree, 2 Disagree, 3 fairly Agree, 4 Agree and 5 Strongly Agree. Table 4.5 below represents a summary of the responses from the participants for Performance of DT-SACCOS questionnaire item.

	5	4	3	2	1	M	S. D
Performance of DT-SACCOS							
There has been an increase in asset base in the last three years	7 (7.8%)	53 (58.9%)	30 (33.3%)	0 (0.0%)	0 (0.0%)	3.74	.591
In my Sacco the deposit base has increased in the last three years	14 (15.6%)	45 (50.0%)	16 (17.8%)	15 (16.7%)	0 (0.0%)	3.64	.940
In my Sacco customers are satisfied with the service offered	0 (0.0%)	60 (66.7%)	22 (24.4%)	8 (8.9%)	0 (0.0%)	3.58	.653
There has been an increase in the market share in my Sacco in the last three years	7 (7.8%)	54 (60.0%)	14 (15.6%)	15 (16.7%)	0 (0.0%)	3.59	.860

Source: Field Data (2024)

The descriptive performance analysis of deposit-taking SACCOs (DT-SACCOS) gives an insight on the effects of corporate governance practices on the performance of SACCOs. The answers are based on how the participants perceive the key performance indicators (asset base, deposit base, customer satisfaction and market share) which are the important measures that can be used to gauge the success of these SACCOs.

First, the evidence shows that most of the people surveyed (58.9) concur, with 7.8% strongly agreeing that the asset base of their SACCOs has been on the rise in the past three years. The score of 3.74 indicates that there was a positive perception of asset growth, however, the standard deviation is quite low, considering 0.591, which indicates that the perception of asset growth is rather consistent. The result is in line with the previous discussion of competence in the board, the experience and managerial skills of the board members are perceived to make them effective decision-makers, whose decisions can directly influence the growth of the financial. Secondly,

another relevant measure is the growth in the deposit base, as 50.0% said they agree and 15.6% strongly agreed that the deposit base had increased over the past three years. The average of 3.64 indicates that satisfaction with this growth is moderate, but the standard deviation of 0.940 is greater which indicates that the perception is more varied. This diversity could be because of the differences in the growth rate of the SACCOs; this could be affected by the competence of the boards and board practices in corporate governance. Well furnished experienced boards are likely to have strategies that will boost the member deposits, which will increase financial stability.

Regarding customer satisfaction, 66.7% of the respondents say that the customers satisfy themselves with the services offered by their SACCOs with an average of 3.58. Though none of the respondents strongly agreed, this comparatively high rate of satisfaction indicates the significance of good corporate governance in the provision of quality services. The small standard deviation of 0.653 indicates a similarity in the opinions of respondents and this indicates the fact that competent boards are an important factor in the maintenance of high standards of service. It is possible that this customer satisfaction was achieved because boards applied their experience and skills towards overcoming challenges in SACCOs. Another important critical performance indicator is the market share, where 60.0% responded that their SACCOs have increased their market share in the past three years. The average mean of 3.59 reflects that although market share has increased, it is not as immense compared to other performance indicators. The standard deviation of 0.860 points indicates that there is a degree of variation in these responses and so the various SACCOs might be enjoying different degrees of success in the market expansion. These disparities could be corrected by effective board governance that involves the unceasing training on the new trends in the market since it provides boards with the tools to exploit the market opportunities.

In general, the findings indicate that despite positive growth in asset base, deposit base, customer satisfaction and market share, there could be further improvement in the deposit-taking SACCOs in the south Rift region Kenya. The correlation between corporate governance practices and SACCO performance is obvious, it can be said that boards of directors with high management experience, relevant skills, and training are in a better position to improve such performance metrics. The differences in the responses, especially with regard to the deposit growth and market share, however, show that the enhancement of the board competence and governance practice may further enhance the performance of SACCO during the region. The boards of SACCO can push more stable expansion and achievement in their operations by concentrating on operational areas such as professional qualification and continuous training.

4.7 Diagnostic Test

Prior to the process of further inferential analysis of data different diagnostic tests were conducted so that the data could be deemed fit to undergo inferential tests. Such tests are normality, multicollinearity, homoscedasticity and linearity.

4.7.1. Normality Test

Normality is a hypothesis, which states that the sampling distribution of the mean is normal or means across the samples belong to a normal curve (Horváth et al., 2020). In effect, the assumption means that in a population that a researcher gathers numerous random samples which are independent, the distribution of their means would create an ideal bell-shaped curve. The KolmogorovSmirnov test and the ShapiroWilk test were applied to determine the normality used in this study as they recommend normality test sizes of 50 to 2000. The significance of value above 0.05 is normal distribution and that of value below 0.05 is not normal distribution.

As shown in Table 4.9, all variables recorded significance values above 0.05 under both tests, except for Shareholder Involvement, which yielded significance values of 0.000 for both Kolmogorov–Smirnov and Shapiro–Wilk tests. This indicates that the variable violated the assumption of normality. According to Field (2018) and Pallant (2020), such deviations are common in social science research, especially where data are collected from heterogeneous respondents. Furthermore, McShane et al., (2023) emphasize that larger samples often produce significant results in normality tests even when the deviation is not practically severe.

Given that the study's sample size was relatively large (n = 90), and parametric methods such as regression are generally robust to mild deviations from normality (Tabachnick & Fidell, 2019), the variable was retained without transformation. Therefore, the analysis proceeded using the original data, as the violation was not expected to substantially affect the validity or reliability of the inferential results.

Table 4. 9 Normality tests

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Board C	.051	90	.200*	.989	90	.686
Shareholder	.175	90	.000	.882	90	.000
Accountability	.069	90	.200*	.972	90	.048
Technological	.044	90	.200*	.994	90	.965
Performance	.045	90	.200*	.990	90	.750

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Source: Field Date 2024

4.7.2 Multicollinearity Test

Multicollinearity results when there is high correlation between the independent variables. It complicates the use of regression analysis as the model might not be a correct relationship that would explain the variance in the dependent variable and therefore result in incorrect inferences (Sarstedt et al., 2023). There are two major ways of testing multicollinearity. The former is the application of Pearson correlation coefficient in which case the independent variables are entered into a correlation table. The rule of thumb here is that when the coefficients are above 0.80 they are quite correlated.

The results of the multicollinearity correlation tests will be shown in table 4.10 below. Pearson coefficient of each of the variables is less than 0.80. Correlation coefficients of the predictors are 0.337 and 0.633 none of them exceeds 0.80 which means that there is no multicollinearity between the predictors hence making the data fit during the regression analysis. There is a positive and significant correlation between board competence(0.337) and accountability(0.633) and performance.

Correlations

		Board C	Shareholder	Accountability	Perfomance
Board C	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	90			
Shareholder	Pearson Correlation	-.092	1		
	Sig. (2-tailed)	.388			
	N	90	90		
Accountability	Pearson Correlation	.098	.034	1	
	Sig. (2-tailed)	.358	.751		
	N	90	90	90	
Performance	Pearson Correlation	.337**	.170	.633**	1

Sig. (2-tailed)	.001	.109	.000	
N	90	90	90	90

**. Correlation is significant at the 0.05 level (2-tailed).

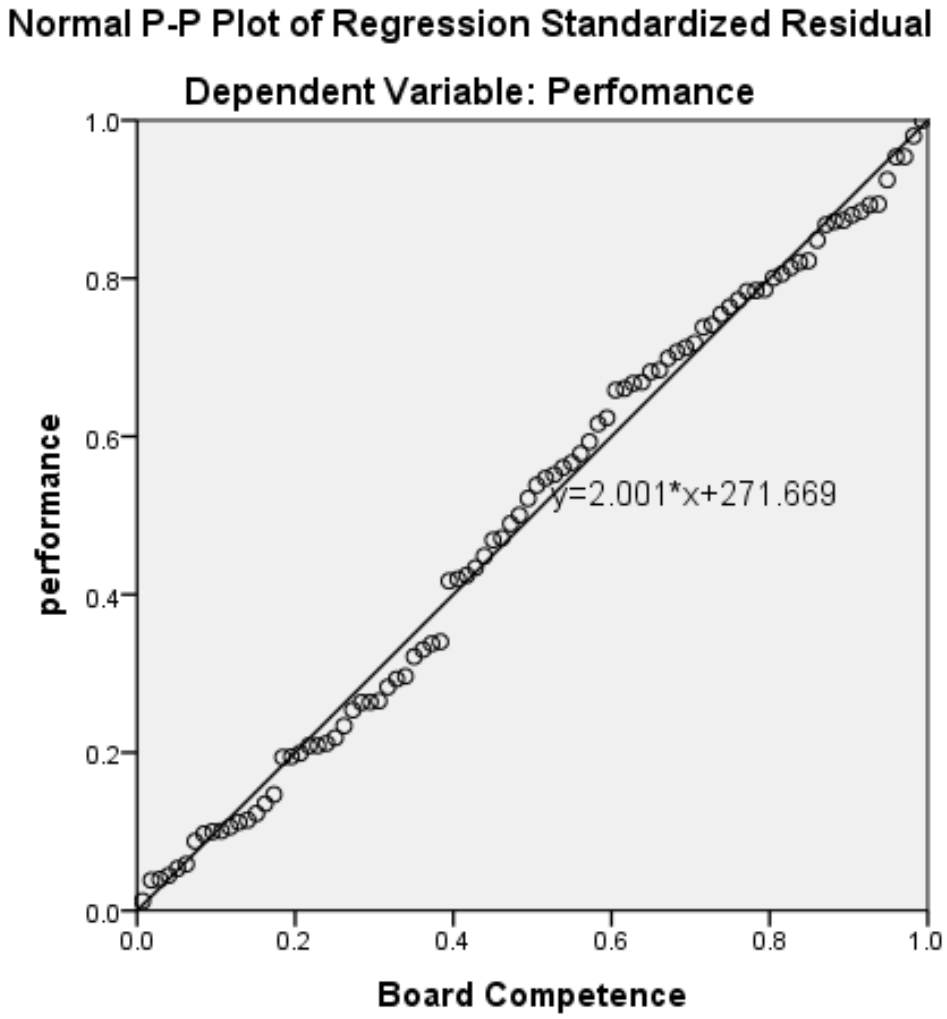
Source: **Field Data 2024**

4.7.3 Homoscedasticity Test

One of the assumptions that are central to the regression based on the problem of variance in the data set is homoscedasticity. In the case of a linear regression model, it is assumed that the error term, the difference between the actual relationship between the predictor and dependent variables and the model, is constant and the same at all the values of the predictor variables (Humberg and Grund 2022) The reverse, which is heteroscedasticity in a situation where homoscedasticity is not met, is that the error term varies at the different values of the predictor variables. Test of homoscedasticity is done through P-P plot.

a) Homoscedasticity between Board Competence and Performance of DT-SACCOs

The pp graph on figure 4.1 indicated that the relationship between theBoard Competence and Performance of DT-Saccos among the corporate governance practices on the performance of DT-Saccos in South Rift region Kenya was homoscedastic. It is possible to fit the line of best fit along the data values and observe how the observation is distributed along the linear line using the ppplot. Based on the figure 4.1, all the points were more near the linear line that stated that the assumption of homoscedasticity was not breached. The line slope is 2.001X and the intercept constant was 271.669 based on sum scores of the variables This means that there was no violation of this assumption..



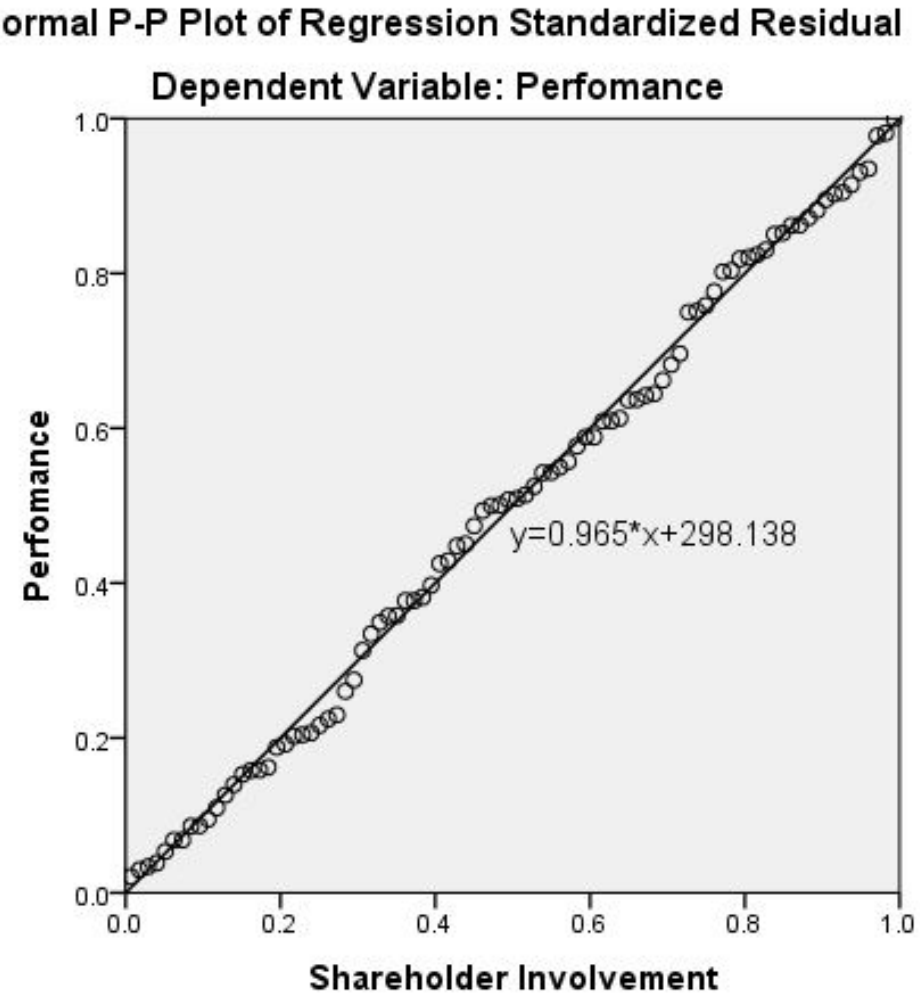
Source: Filed data 2024

Figure 4.1

b) Homoscedasticity between Shareholder Involvement and Performance of DT-SACCOs

The pp graph in figure 4.2 indicated that, the correlation between shareholder participation and Performance of DT-Saccos in the same way was homoscedastic amongst the corporate governance practices on performance of DT-Saccos in South Rift region Kenya. The P-P plot will enable the line of best fit to be approximated on the data values and the distribution of the observation on the linear line to be seen. Based on the figure 4.2, it was clear that all the points were near the linear

line hence no violation of the assumption of homoscedasticity was made. The slope of the line is 0.965X and the intercept constant was 298.138 basing on the sum scores of the variables This means that this assumption was not breached.



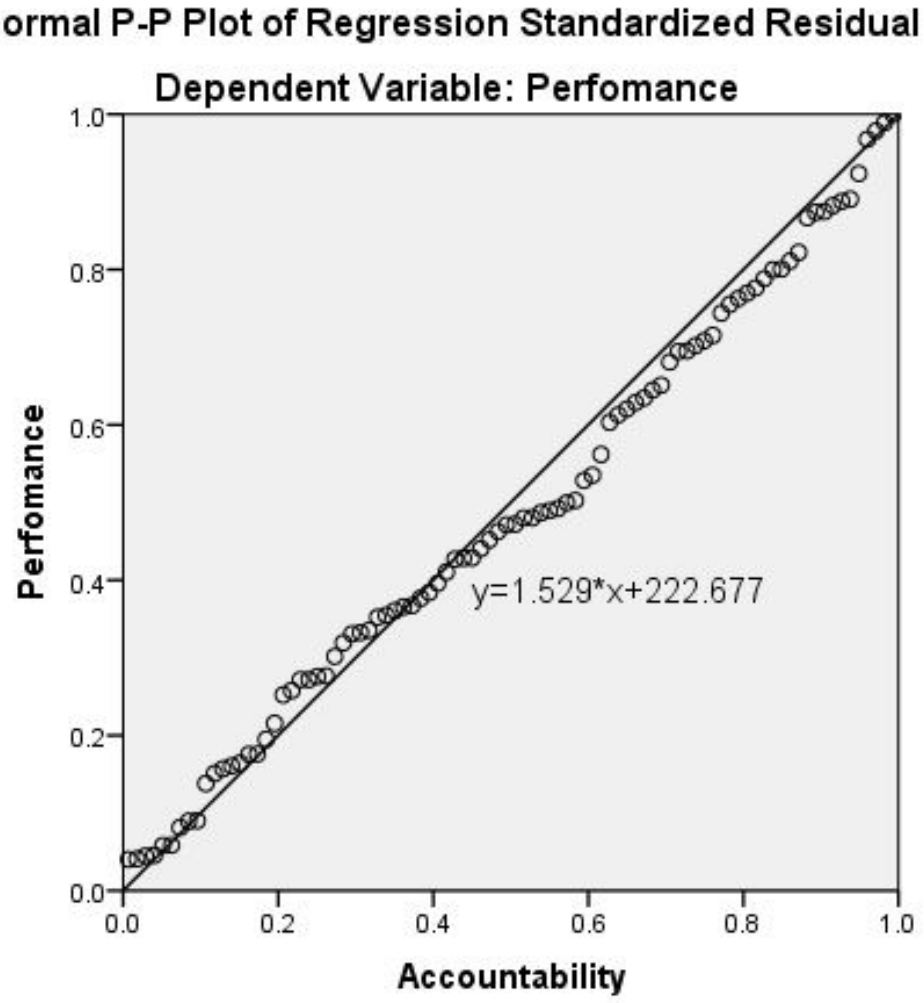
Source: Filed data 2024

Figure 4.2

c) Homoscedasticity between Accountability and Performance of DT-Saccos

The pp graph at figure 4.3 indicated that accountability performance of DT-Saccos was a homoscedastic relationship between corporate governance practices on performance of DT-Saccos

in South Rift region Kenya. The P-P plot enables the line of best fit to be fitted to the values of data and the distribution of the observation along the linear line to be observed. Based on the figure 4.3, all the points were nearer to the linear line which showed that the assumption of the homoscedasticity was not breached. The slope of the line is 1.529X and the intercept constant was 222.677 basing on the sum scores of the variables This means that there was no violation of this assumption.



Source: Filed data 2024

Figure 4.3

4.7.4 Linearity Test

The assumption of linearity also assumes that there is a linear relationship between the independent and dependent values in a study (Mardiatmoko, 2024). To test this assumption, the researcher employed Analysis of Variance to draw the inferences as to whether there is a linear relationship between all the independent variables used in the study (Board competence, shareholder involvement and Accountability) and the dependent variable (Performance of DT-SACCOs)..

a) Linearity between Board competence and Performance of DT-SACCOs

From the ANOVA table 4.11, the linearity test has a significance value smaller than 0.05, indicating a linear relationship between Board competence and Performance of DT-SACCOs. This is indication that the assumption of linearity was also not violated.

Table 4. 11 Linearity for Board competence and Performance of DT-SACCOs

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Performance * Board Competence	Between Groups	(Combined)	98622.555	11	8965.687	.555	.859
		Linearity	31509.018	1	31509.018	1.950	.167
		Deviation from Linearity	67113.537	10	6711.354	.415	.935
	Within Groups		1260162.589	78	16155.931		
	Total		1358785.143	89			

b) Linearity between Shareholder involvement and Performance of DT-SACCOs

From the ANOVA table 4.12, the linearity test has a significance value smaller than 0.05, indicating a linear relationship between Shareholder involvement and Performance of DT-SACCOs. This is indication that the assumption of linearity was also not violated.

Table 4. 12 Linearity for Shareholder involvement and Performance of DT-SACCOs

			Sum of Squares	df	Mean Square	F	Sig.
Performance * Shareholder	Between Groups	(Combined)	44581.645	11	4052.877	1.381	.199
		Linearity	7903.248	1	7903.248	2.692	.105
		Deviation from Linearity	36678.396	10	3667.840	1.249	.274
	Within Groups		228976.289	78	2935.593		
	Total		273557.934	89			

Source: Field Data 2024

c) Linearity between Accountability and Performance of DT-SACCOs

From the ANOVA table 4.13, the linearity test has a significance value smaller than 0.05, indicating a linear relationship between accountability and Performance of DT-SACCOs. This is indication that the assumption of linearity was also not violated.

Table 4. 13 Linearity for Accountability and Performance of DT-SACCOs

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Performance * Accountability	Between Groups	(Combined)	88004.784	30	2933.493	.933	.573
		Linearity	4346.855	1	4346.855	1.382	.244
		Deviation from Linearity	83657.929	29	2884.756	.917	.591
	Within Groups		185553.150	59	3144.969		
	Total		273557.934	89			

Source: Field Data (2024)

4.8 Regression Analysis

In addition, the study performed a regression analysis of the data, through the use of linear regression models between the various independent variables and the dependent variable of the research. Regression analysis was applied to estimate the impact that each of the independent

variables of the study had on the outcome variable (Performance DT-SACCOs). The analysis was critical in establishing the efficiency of the corporate governance practices and technological resources on the Performance DT-SACCOs in South Rift region Kenya.

4.8.1 Regression Analysis for Board Competence and Performance DT-SACCOs

Table 4. 14 Simple Regression Model Summary for Board Competence and Performance DT-SACCOs

Model Summary [b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.337[a]	.114	.104	52.486	.114	11.305	1	88	.001

a. Predictors: (Constant), Board C
b. Dependent Variable: Performance

Source: Field Data (2024)

The findings of the study displayed in table 4.14 demonstrate that the value of R-square is 0. 114. This value implies that, 11.4% of variation of Performance of DT-SACCOs was explained by Board Competence.

Table 4. 15 ANOVA Results for Board Competence.

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	31141.011	1	31141.011	11.305	.001[b]
	Residual	242416.923	88	2754.738		
	Total	273557.934	89			

a. Dependent Variable: Performance
b. Predictors: (Constant), Board C

Source: Field Data 2024

The ANOVA results are pointed out in Table 4.15 above. The results show that the independent variable in the model; Board Competence plays a significant role in determining of Performance

of DT-SACCOs as revealed by F value of 11.305 and significance value of .001 a value that falls below the level of significance.

Table 4. 16 Regression Coefficients for Board Competence

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	271.669	29.685		9.152	.000
	Board C	2.001	.595	.337	3.362	.001

a. Dependent Variable: Performance

Source: Field Data (2024)

According to the regression findings, the Board Competence plays a positive role in the performance of DT-SACCOs that is significant. The unstandardized coefficient (B = 2.001) indicates that the performance of a company increases by 2.001 units given all other factors remain constant as the Board Competence increases by one unit. This is found to be statistically significant with the p-value 0.001 less than the 0.05 level of significance. Therefore, the null hypothesis, which posits that Board Competence does not influence performance, is rejected. Thus the equation $Y=\beta o+\beta_1 X_1+\varepsilon$ becomes $Y= 271.669 +2.001\ X_1$

The relationship highlights the need of the board members having the required skills, knowledge and experience to help guide the SACCOs in the right direction. Effective boards are in a better position to sail through challenges, adopt best practices and innovations all which are driving forces of performance in competitive financial industry (Gross et al.2021). Thus, the research endorses the position that effective governance that fosters a Board Competence is a vital factor of the success and survivability of DT-SACCOs that concurs with the current literature that board quality is a key outcome of high organizational performance. Also, the findings confirm a previous empirical study on the relationship between board quality and an enhanced organizational

performance. As an illustration, Alodat, Salleh, Hashim, and Sulong (2022) establish that companies that have board members who have good financial knowledge are more likely to record better quality earnings. On the same note, Kateb and Belgacem (2024) observe a notable correlation between board qualification and measures of key performance like return on equity and return on assets, which bolsters the strategic relevance of the financial literacy and financial governance ability on the board. The authors that are much more subtle in their arguments, McLaughlin et al., (2021) state that the impact of board financial expertise on performance can differ based on organizational traits and external factors and propose that the power of the board depends on the situation. Moreover, Morehead Dworkin and Schipani (2018) emphasize that the financial skills in board committees add to the board oversight of financial reporting procedures which in turn leads to transparency and responsibility. Nevertheless they do not coincide with those of Shan, George and Mclver (2011) who discovered that the skill of board was not a major predictor of corporate financial performance in China.

Overall, the study will add to the accumulating literature to the fact that Board Competence is a crucial source of institutional success. It strengthens the claim that the increase in the board capacity due to the specific recruitment and constant training might result in the visible performance improvement, especially in the regulated financial institutions, including DT-SACCOs.

4.8.2 Regression Analysis for Shareholder Involvement and Performance DT-SACCOs

Table 4. 17 Simple Regression Model Summary for Shareholder Involvement and Performance DT-SACCOs

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change

1	.170[a]	.029	.018	54.944	.029	2.618	1	88	.109

a. Predictors: (Constant), Shareholder
b. Dependent Variable: Performance

The findings of the study displayed in table 4.17 demonstrate that the value of R-square is 0. 029. This value implies that, 2.9% of variation of Performance of DT-SACCOs was explained by Shareholder involvement.

Table 4. 18 ANOVA Results for Shareholder Involvement

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7903.248	1	7903.248	2.618	.109[b]
	Residual	265654.686	88	3018.803		
	Total	273557.934	89			

a. Dependent Variable: Performance
b. Predictors: (Constant), Shareholder

Source: Field Data (2024)

It is depicted in Table 4.17 that the shareholder involvement explains 2.9 (R 2 = 0.029) percent of the changes in the performance of DT-SACCOs in the South Rift Region. Though, this illustrates a positive relationship (R = 0.170), the effect is not statistically significant (p = 0.109), according to the result of ANOVA in Table 4.18. This means that the role of shareholders is not a critical factor in the performance of SACCO in the context of the study.

Field (2018) explains that the insignificant relationship implies that although there is some level of association, the relationship is not so strong that it can be statistically generalised. This may be due to either contextual or behavioral issues like a low level of shareholder involvement in strategic decision-making, low understanding of the role of governance or power concentration in the management boards. Mulyungi (2019) further states that within cooperative institutions, the shareholder engagement is usually nominal but not functional, and therefore, it does not have a significant effect on the performance outcomes, which can be measured.

Moreover, McShane et al. (2023) argue that non-significant results obtained in social and organizational studies are useful because they reveal the points of theory-practice discrepancies. The low p-value, in this instance, implies that shareholder involvement is not the sole factor occurring in the improvement of performance in the DT-SACCOs but rather one among other aspects of governance which include board competence, accountability arrangements, and technological capacity.

Thus, the insignificant and statistically inconsequential effect of shareholder involvement on the performance of SACCO can be explained by the fact that although shareholders are the most important stakeholders, their direct impact on the performance of the organization is frequently mediated by the management decisions and governance structures and not by their levels of participation on the operations and financial performance..

Table 4. 19 Regression factor Coefficients for Shareholder Involvement

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	298.138	44.622		6.681	.000
	Shareholder	.965	.596	.170	1.618	.109

a. Dependent Variable: Performance

Source: Field Data (2024)

The regression findings have shown that the performance of DT-SACCOs is weakly positively affected by Shareholder Involvement but not significantly. The unstandardized coefficient (B = 0.965) indicates that a one unit increase in Shareholder Involvement increases the performance by 0.965 units, but the p-value is 0.109, which is greater than the traditional significance level of 0.05. This implies that albeit there is a positive relationship that is slight, it is not possible to determine

the effect of shareholder involvement on performance based on the data. Also, the standardized coefficient (Beta = 0.170) indicates that the influence prevalence (which this factor has) is not that significant as compared to other influences. On the whole, the results indicate that the Shareholder Involvement is not a substantial contributor to the performance of DT-SACCOs, and other governance factors, including the Board Competence, should have a more significant influence on enhancing organizational performance. Thus the equation $Y=\beta o+\beta_2 X_2+\varepsilon$ becomes $Y = 298.138 + 0.965\ X_2$ and the hypothesis is accepted since p value is greater than 0.05. Although the statistical significance of the finding is low, indicating that Shareholder Involvement may not be a significant predictor of SACCO performance on its own, the positive nature of the correlation is corroborated by the theoretical arguments and previous studies that highlight the importance of member involvement in cooperative governance. In one example, Osterberg and Nilsson, (2019) highlight the role played by democratic control and the satisfaction of the members in determining the trust and commitment in cooperatives. They maintain that when members are given a sense of power to affect the governance processes, there is likelihood that they will be able to support the strategic decisions and lead to organizational cohesion.

Equally, Ishak et al., (2020) point out that the active membership participation, especially attending the annual general meetings and making more share contribution is a prerequisite in improving cooperative performance. According to their findings, the engagement mechanisms are potentially useful in achieving efficiency in governance and goal congruence in the SACCOs. These advantages may however be conditional depending on the quality of involvement and institutional structures that exist to guild the member input.

The same confirms Chibanda, Ortmann, and Lyne, (2019), that institutional governance in which member participation is one of the major elements comes into play to have critical influence on

cooperative performance outcomes, but that the degree of impact and its uniformity depend on the context. In addition, Barraud et al., (2012) offer an insight with respect to showing the mediating effect of affective commitment between trust and participation of members. It means that their results suggest that trust and emotional commitment should be fostered among members to change the involvement into meaningful contributions to organizational success.

Combined, although the present research fails to establish statistically significant relationships between Shareholder Involvement and DT-SACCO performance, the indicated positive trend helps to substantiate the existing literature that considers the importance of participatory governance as a significant, but perhaps indirect, determinant of cooperative success. The results indicate that the impact of shareholder involvement can be contingent on the ways of participation organization and their coexistence with trust, transparency and responsive governance systems. Further studies can be improved by breaking down these dimensions of involvement (voting, giving money, sitting on a committee, etc) to reveal more specific ways in which shareholder involvement influences performance.

4.8.3 Regression Analysis for Accountability and Performance DT-SACCOs

Table 4. 20 Simple Regression Model Summary for Accountability and Performance DT-SACCOs

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.633[a]	.401	.394	43.151	.401	58.912	1	88	.000

a. Predictors: (Constant), Accountability
b. Dependent Variable: Performance

Source: Field Data (2024)

The findings of the study displayed in table 4.20 demonstrate that the value of R-square is 0. 401. This value implies that, 40.1% of variation of Performance of DT-SACCOs was explained by Accountability.

Table 4. 21 ANOVA Results for Accountability.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	109697.538	1	109697.538	58.912	.000[b]
	Residual	163860.396	88	1862.050		
	Total	273557.934	89			

a. Dependent Variable: Performance
b. Predictors: (Constant), Accountability

Source: Field Data (2024)

Table 4.21 above highlights the ANOVA results. The findings demonstrate that in the model, the independent variable of study; Accountability was important in predicting of Performance of DT-SACCOs as indicated by an F value of 58.912 and significance value of .000, a value that is less than 0.05 significance level.

Table 4. 22 Regression Coefficients for Accountability

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	222.677	19.691		11.308	.000
	Accountability	1.529	.199	.633	7.675	.000

a. Dependent Variable: Performance

Source: Field Data (2024)

The findings of the regression indicate that accountability has a strong positive association with the performance of DT-SACCOs. The unstandardized coefficient (B = 1.529) shows that an increase in accountability by one unit will lead to an increase in performance by 1.529 units, other things held constant. Accountability presents a statistically significant effect on performance with a p-value of 0.000 and this rejects the null hypothesis. The standardized coefficient (Beta = 0.633) also indicates that accountability is a significant factor of predicting performance. These results can be aligned with the corporate governance theory, which states that accountability is a key factor in maintaining transparency, building trust, and improving decision making in financial institutions (Akuffo, 2021). With an increase in accountability, the DT-SACCOs will be in a better position to adopt effective governance practices, which will result in an increase in performance. Thus, high standards of accountability are the key to the long-term success of DT-SACCO. Thus the equation $Y=\beta o+\beta_3 X_3+\varepsilon$ becomes $Y=222.677+1.529\ X_3$ and the null hypothesis is rejected since p value is less 0.05. These results harmonize with the theory of corporate governance that has accountability as one of its principles of a good governance system. Akuffo (2021) argues that accountability improves transparency, builds stakeholder trust, and facilitates informed decision-making, which are among the critical success factors in high performance in financial institutions, including SACCOs. Here, DT-SACCOs with good accountability structures would be in a better position to oversee and control the executive activities, as well as instill compliance and address the needs of members, which are essential to sustainable performance performance.

This point of view is supported by empirical evidence in other settings. In a case example, Choi and Chun (2020) conducted a study of institutions of higher education in Korea and discovered that various aspects of accountability, including legal, hierarchical, and political, have a positive relationship with such indicators of organizational performance as student satisfaction. According to their findings, performance among these institutions is enhanced when accountability and responsibility are incorporated in varying levels of governance. Although the scenario is changed, the principle remains the same: strong accountability frameworks are the way to achieve the desirable results.

Kimani, Ullah, Kadwani, and Khtor (2021) offer a more fine-tuned perspective as they study the corporate governance and accountability in a neo-patrimonial setting. Their results emphasize that even with formal regulatory systems and professional oversight systems accountability is usually compromised by informal networks, patronage networks and weak enforcement systems. In particular, they point to such issues like undermined independence of the board, rent-seeking, and undermining the independence of auditors. Such organizational barriers undermine the implementation of accountability principles in most Kenyan organizations.

4.9 Multiple Regression Analysis – Corporate governance practices and performance of DT-SACCOs

The study carried out a multiple regression by regressing the dependent variable performance of DT-SACCOs on multiple independent variables (Board competence, shareholder involvement and accountability). The regression results are displayed in Table 4.22 below. The model was found to be a good fit with adjusted R^2 value of 0.508 or 50.8%. These findings imply that the combined effect of the Corporate governance practices explain 50.8 percent of the variation in performance of DT-SACCOs in South Rift region, Kenya.

Table 4. 23 Corporate governance practices and performance of DT-SACCOs

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.713[a]	.508	.491	39.540	.508	29.658	3	86	.000

a. Predictors: (Constant), Accountability, Shareholder, Board C

b. Dependent Variable: Performance

Source: Field Data (2023)

The table 4.23 above illustrates that there is observed change in the dependent variable (performance of DT-SACCOs) to the independent variables (Board competence, shareholder involvement and accountability). The multiple regression resulted in the R value of 0.713 and the R2 of 0.508, which shows that 50.8 percent of the observed performances change in the case of DT-SACCOs can be attributed to the practices of corporate governance. Also, the adjusted R squared (.491) attempts to be more truthful in estimating the value of the R squared to the whole population of the study at 49.1.

Table 4. 24 ANOVA Statistics for Corporate governance practices and performance of DT-SACCOs

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	139102.655	3	46367.552	29.658	.000[b]
	Residual	134455.278	86	1563.433		
	Total	273557.934	89			

a. Dependent Variable: Performance

b. Predictors: (Constant), Accountability, Shareholder, Board C

Source: Field Data (2024)

The summary (ANOVA) of the multiple regression model is given in table 4.24 above. The findings indicate that the model is justifiable and applicable in the explanation of the performance of DT-SACCOs of South Rift region, Kenya (P=0.000). These values are sufficient enough to show that the model fits well in explaining the variations in the dependent variable (performance of DT-SACCOs) due to the changes of the predictor variable (Corporate governance practices).

Table 4. 25 Coefficients for Multiple Regression

Coefficients[a]

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	70.553	43.049		1.639	.105
	Board C	1.750	.453	.295	3.866	.000
	Shareholder	1.004	.431	.177	2.327	.022
	Accountability	1.444	.184	.598	7.869	.000

a. Dependent Variable: performance

Source: Field Data (2024)

Results of the multiple regression indicate that there is a significant relationship between corporate governance practices particularly Board Competence, Shareholder Involvement and Accountability and the performance of DT-SACCOs. The unstandardized Board Competence coefficient (B = 1.750, p = 0.000) shows that a one-unit increase in board competence increases the performance by 1.750 units, and this explains why board members with the required skills are very crucial in influencing organizational success. Strategic decision making, risk management and the best practices have to be undertaken to facilitate the best performance outcomes and this can only happen with competent boards. This observation is in line with other studies conducted in the past by Karuu, (2024), who highlights the positive relationship between the competence of the board and organizational effectiveness. Moreover, the Shareholder Involvement coefficient (B = 1.004, p = 0.022) implies that increased involvement of shareholders is also a positive factor in performance. Engaged shareholders are able to impact management decisions keep leaders accountable and keep them in line with organizational objectives as a representation of the ideas of the stakeholder theory presented by Barakat et al. (2020). These findings highlight the significance of an effective board and shareholders who are involved in a company to create a form of governance that facilitates high performance.

The most important prediction of performance with the coefficient of 1.444 (p = 0.000) is accountability. The high correlation factor signifies that the increase in accountability in DT-SACCOs results in significant performance improvement. Transparent reporting, regular auditing

and strong oversight are some of the accountability mechanisms that support trust among the stakeholders and encourage responsible decision making. This is in accordance with the governance theory according to which accountability is one of the pillars of effective corporate governance (Karuu, (2024), the standardised coefficients further depict the relative significance of these variables with Accountability (Beta = 0.598) having the largest impact, having the next impact is the Board Competence (Beta = 0.295) and Shareholder Involvement (Beta = 0.177). All these findings are indicative that the better performance is likely to be attained by DT-SACCOs that place significant emphasis on good governance practices by having competent boards, active shareholders and strict accountability provisions. In this way, the idea that successful corporate governance is a key to achieving success and survival of DT-SACCOs on the competitive financial environment can be strengthened.

The generic multiple regression equation model given was as shown:

$$Y = \beta_O + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

$$Y=70.553 + 1.750 X_1 + 1.004 X_2 + 1.444 X_3$$

4.10 Hierarchical Regression for Moderation Relationship

Testing for a moderating relationship in multiple linear regression involves examining how the interaction between a predictor variable and a potential moderator affects the outcome variable. This step is crucial because there is a need to control corporate governance practices and its effect on performance to DT-SACCOs.

Table 4. 26 Hierarchical Regression Model Summary

Model Summary[d]

Model	R	R Square	Change Statistics

			Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.713[a]	.508	.491	39.540	.508	29.658	3	86	.000
2	.817[b]	.668	.653	32.674	.160	40.943	1	85	.000
3	.821[c]	.673	.646	33.008	.005	.430	3	82	.732

a. Predictors: (Constant), Accountability, Shareholder, Board C
b. Predictors: (Constant), Accountability, Shareholder, Board C, Technological
c. Predictors: (Constant), Accountability, Shareholder, Board C, Technological, Board C and TECHNOLOGICAL RESOURCES, Accountability and TECHNOLOGICAL RESOURCES, Shareholder and TECHNOLOGICAL RESOURCES
d. Dependent Variable: Performance

Source: Field Data (2024)

The Model Summary is used to show the performance of several regression analyses done to determine the effect of different predictors Accountability, Shareholder Involvement, Board Competence, and Technological Resources on the performance of DT-SACCOs. The correlation coefficient (R = 0.713), and the value of R-squared (R 2 = 0.508) in the first model implies that about 50.8 percent of an individual performance variance can be attributed to the simultaneous impact of the three predictors: Accountability, Shareholder Involvement and Board Competence. This conclusion is further supported by the adjusted R-squared of 0.491 which is the number of the predictors in the model. The F-change value of 29.658 (p = 0.000) verifies the importance of the model by stating that the predictors, as a combined effect, have a statistically significant impact on performance.

The second model where Technological Resources are included as a predictor has a larger R-squared value of 0.668 indicating that it is now possible to explain 66.8 percent of the variation in the performance of the four predictors. This improvement in the percentage of the variance

explaining is 16% and the F-change value is 40.943 (p = 0.000) and it further supports the predictive power of the model. The third model presents the terms of interaction, namely, considering the joint action of the predictors, though the corresponding increase in the R-squared (0.673) was insignificant, and this point reflects only a minor strengthening of the explanatory force of the model. The F-change value of 0.430 (p = 0.732) of this model is however not significant enough which implies that the extra predictive power that the interaction terms are able to offer is not significant. On the whole, these findings highlight the significance of appropriate governance practices and technological resources in stimulating the work of DT-SACCOs, which is in line with what other scholars have found about the importance of these issues to organizational performance (Barakat et al., 2020).

Table 4. 27 ANOVA Table for the Hierarchical regression (with Moderator)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	139102.655	3	46367.552	29.658	.000[b]
	Residual	134455.278	86	1563.433		
	Total	273557.934	89			
2	Regression	182813.040	4	45703.260	42.810	.000[c]
	Residual	90744.894	85	1067.587		
	Total	273557.934	89			
3	Regression	184217.252	7	26316.750	24.154	.732 [d]
	Residual	89340.682	82	1089.521		
	Total	273557.934	89			

a. Dependent Variable: Perfomance
b. Predictors: (Constant), Accountability, Shareholder, Board C
c. Predictors: (Constant), Accountability, Shareholder, Board C, Technological
d. Predictors: (Constant), Accountability, Shareholder, Board C, Technological, Board C and TECHNOLOGICAL RESOURCES, Accountability and TECHNOLOGICAL RESOURCES, Shareholder and TECHNOLOGICAL RESOURCES

Source: Field Data (2024)

The ANOVA table gives us a statistical test of overall significance of regression models that are undertaken to predict performance of DT-SACCOs according to different predictors. Model 1, The

F-statistic of the corresponding model is 29.658 and the p-value of this model is 0.000, which means that the corresponding model is significant. It implies that the jointness of these three predictors has a noticeable impact on the variance in performance that has confirmed that good governance practices can improve organizational performance (Field, 2013).

In Model 2, the Technological Resources are introduced. The F-statistical model is 42.810 whose p-value is 0.000 which once again validate that the model is statistically significant. This is to mean that the addition of technological resources enhances the capacity of the model to explain deviations in performance which inevitably underscores the need to integrate technological potentials in governance set-ups. Model 3 builds on this by adding the terms of interaction between the predictors, the F-statistic of this model is 24.154 (p = 0. 0.732). Though this model is not significant, the small value of F over the last model indicates that the terms of interaction do not make a significant contribution to the explanatory power of a model. In general, the results of the ANOVA demonstrate the significance of governance practices and technological resources in improving the performance of the DT-SACCOs, which proves the idea that good governance and adequate resource use are the key to organizational success (Barakat et al. (2020).

Table 4. 28 Standardized and Unstandardized Coefficients for Hierarchical Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	70.553	43.049		1.639	.105
	Board C	1.750	.453	.295	3.866	.000
	Shareholder	1.004	.431	.177	2.327	.022
	Accountability	1.444	.184	.598	7.869	.000
2	(Constant)	-66.106	41.492		-1.593	.115
	Board C	1.739	.374	.293	4.649	.000
	Shareholder	.951	.357	.168	2.668	.009
	Accountability	1.476	.152	.611	9.724	.000
	Technological	1.819	.284	.400	6.399	.000

	(Constant)	102.856	237.674		.433	.666
	Board C	3.027	2.629	.511	1.152	.253
	Shareholder	-1.690	2.840	-.298	-.595	.553
	Accountability	1.105	1.221	.458	.905	.368
	Technological	-.510	3.251	-.112	-.157	.876
3	Board C And Technological Resources	-.016	.035	-.269	-.470	.639
	Shareholder And Technological Resources	.036	.038	.758	.940	.350
	Accountability And Technological Resources	.005	.016	.175	.294	.769

a. Dependent Variable: Perfomance

Source: Field Data (2024)

The results that are given show the values of coefficient and significance of different predictors and their combinations regarding the performance of DT-SACCOs. The constant value (102.856) and the non-significant p-value (0.666) indicate that the constant does not play a significant role in the model which implies that the baseline performance is not a sure way of determining the actual performance outcomes.

Board Competence has the coefficient of 3.027 with the significance of 0.253 which means that is not statistically significant in predicting performance. This implies that although positive relationships between board competence and performance do not reliably relate into this model. Likewise, the Shareholder Involvement is also negatively correlated with the performance (0.553, -1.690 not statistically significant).

Accountability has a positive coefficient of 1.105 with a p-value of 0.368, which further highlights that though it could be creating a positive impact on the performance, it is not significant. The relationship between Technological Resources and the performance displays a negative coefficient of = -0.510 and a p-value = 0.876 and has no significant impact on performance. Other terms of interaction, such as the Board Competence and Technological Resources (-0.016, p = 0.639), Shareholder and Technological Resources (0.036, p = 0.350) and Accountability and

Technological Resources (0.005, p = 0.769) also have no significant values that imply that the interactions between these variables do not contribute to predictability of performance.

Thus, table 4.29 above gives the results resulting in a hierarchical regression model that can be represented in the following form:

$$Y = 102.586 + 3.027X_1 - 1.690X_2 + 1.105X_3 - 0.510X_4 - 0.016X_1 * Z + 0.036X_2 * Z + 0.005X_3 * Z$$

The results show that all predictors, as well as the interaction of predictors, do not significantly affect the performance of DT-SACCOs in this model, which is inconsistent with the earlier research pointing to the fact that good governance practices and technological integration have a tendency to positively affect performance (Barakat et al., 2020). This can be an indication of further research on more variables or other models that may better reveal the dynamics at work in the performance of DT-SACCOs.

Table 4.29 Summary of Hypothesis Testing

	Hypothesis		Decision
$H0_1$:	Board competence has no significant effect on the performance of DT SACCOs in South Rift region Kenya.	$H0_1 = \mu_1$	Rejected
$H0_2$:	Shareholder Involvement has no significant effect on the performance of DT SACCOs in South Rift region Kenya	$H0_2 : = \mu_2$	Fail to reject
$H0_3$:	Accountability has no significant effect on the performance of DT SACCOs in South Rift region Kenya	$H0_3 : = \mu_3$	Rejected

H04:	Technological resources has no significant moderating effect on the relationship between corporate governance practices and performance of DT SACCOs in South Rift region Kenya.	H04: = μ4	Fail to reject

Source: Field Data (2024)

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Summary of Findings

The research aimed at coming up with a model of the performance of DT SACCOs in South Rift Region Kenya based on corporate governance practices. Nonetheless, some studies indicate that performance of DT SACCOs allow corporates to adjust swiftly to changes in their environment, nevertheless, there is no agreement on the actual impact performance of DT SACCOs may exert on corporates in the public sector, particularly in South Rift Region Kenya.

The study results are aimed at retrogressively performance of DT SACCOs on board competence, shareholder involvement and accountability. Also, a moderating variable was brought in the study to examine its influence on the relationship between the corporate governance practices and performance of the DT SACCOs.

The demographic data presented in chapter four revealed that the results of the gender of the respondents revealed that Female gender was the most predominant at 67.8 against the male gender at 32.2. It was also determined that 60.0 percent of the respondents had between 25-34 years with 16.7 percent below 25 years, 7.8 percent between 35-44 years and the remainder who were older than 55 years was 0.0 percent. Moreover, the result showed that most of the respondents 50.0% had received Bachelor Degree, then Diploma (33.3%), certificate (16.7%) and finally no post graduate level was interviewed accounts to 0.0%. This means that the research was able to gather data among the respondents who had standard education. Once again the research determined that 60.0% of the participants had worked in the Sacco that existed between 1-5 years and 23.3% had worked in Sacco that existed in between 20-8.9 years and finally Sacco that existed in between 11-20 years was 7.8%. The outcomes reveal that the 40.0 percent of the respondents served over 10

years, 34.4 percent served between 6-10 years, 25.6 percent served between 1-5 years and finally 0.0 percent had no respondents served less than 1 year. The results revealed that most of the respondents were both CEO and executive board member that contributed 25.6% and finally the accountant and credit manager at 24.4%.

The findings of the study were guided by the objectives of the study and summarized as below:

5.1.1 Effect of Board competence on Performance of DT SACCOs in South Rift region Kenya

The respondents agreed about the fact that the board members possessed experience in the field of management and this contributed to good performance of the SACCOs as evidenced by the coefficient of correlation of r =0.337. The coefficient represents the fact that the relationship between the two variables is extremely significant and, therefore, rather practical.

The analysis indicates that the board competence with a B= 2.001 and a p-value= 0.001 positively and significantly influence the performance of SACCOs in South Rift in Kenya. This finding suggests that board competence is a factor and their impact is strong to be regarded as a key cause of performance of DT SACCOs.

5.1.2 Effect of Shareholder Involvement on Performance of DT SACCOs in South Rift region Kenya

Based on the findings, the respondents are neutral on the participation of the SACCO members in the elections of the SACCO officials and shareholders to freely access the information of the SACCOs. Shareholders intervention was much related to performance, as seen in the coefficient of r =0.170. This coefficient represents that the relationship between the two variables is extremely and therefore, practically significant.

The shareholder participation presents a non significant positive impact on the performance of the DT SACCOs with a coefficient of B=0.965 and a p-value of 0.109. This result brings to the fore the fact that good shareholder conditions and stability are favorable to performance of DT SACCOs in South Rift region. The positive coefficient is an indication that the more the Shareholders are involved, the better the performance of DT SACCOs would be. This finding highlights the value of engagement and conducive corporate governance in enabling performance of DT SACCOs to be effective.

5.1.3 Effect of Accountability on Performance of DT SACCOs in South Rift region Kenya

The positive influence of the accountability on the performance of the DT SACCOs is also significant and the coefficient of B=1.529 and the p-value= 0.000. This conclusion shows that responsibility towards employees is important in enhancing performance results. The positive relationship implies that the performance of Sacco that provide explicit accountability and transparency will improve.

Compared to the multiple regression model used in this study, the Governance practices of corporations had 50.8% of variance in the performance of DT SACCOs. In the case of multiple regression the results were that Board competence, shareholder involvement and accountability were all positive and significant on performance.

5.1.4 Effect of Technological Resources on the Relationship between Corporate Governance Practices and Performance of DT SACCOs in South Rift region Kenya.

In the study of corporate governance practices, technological resources and performance of DT SACCOs in South Rift region Kenya, the findings reveal an interplay between technological resources and the various corporate governance practices. Results revealed that R^2 increased. The

interaction of technological resources with shareholder involvement and accountability was positive though insignificant while for board competence was negative and insignificant.

5.2 Conclusion

This study aimed at investigating the role of corporate governance practices in the performance of Deposit-Taking SACCOs (DT-SACCOs) in the South Rift Region, Kenya. In particular, the authors conducted a research on the impact of board competence, shareholder participation, and responsibility, and the impact of technological resources moderating performance. Due to the findings, the following conclusions can be made:

The research concludes that board competence is a major boost to the performance of DT-SACCOs. This means that SACCOs that have well qualified, knowledgeable and skilled board members are in a stronger position to offer strategic control, make sound decisions and come up with prudent financial management. This observation is in line with the results carried out by Kyereboah-Coleman and Osei (2008) and Mugambi and Karagu (2017), who concluded that competent boards have a positive impact on organizational performance by overseeing and providing strategic direction. Thus, unremitting capacity building, governance training and professional development of board members is crucial in ensuring the continuation of SACCO performance.

The research also finds that shareholder participation positively but statistically nonsignificantly impacted the performance of DT-SACCOs. It implies that although involving shareholders in decision making may bring about inclusiveness and transparency, this in itself does not ensure that

the financial or operational performance will be enhanced. Ongore (2011) and Mulili and Wong (2011) also reported similar findings, stating that the participation of shareholders should be organized and informed in a way that will produce clear performance results. This highlights the necessity of SACCOs to improve communication channels and give proper financial literacy training to members so as to improve meaningful engagement.

The systems of accountability were determined to exert positive and significant effect on the performance of DT-SACCO. This shows how open reporting, evaluation and compliance with ethical standards lead to trust and efficiency in operations. This finding will be in line with Eisenhardt (1989) and Bai et al. (2004) who posit that effective accountability systems reduce agency problems, and increase organizational credibility. Thus, the accountability frameworks need to be implemented in the system of SACCO governance to provide financial sustainability and confidence to the members.

The research discovered that technological resources did not have significant moderating effects on the relationship between the corporate governance practices and performance. This implies that as much as technology uptake is inevitable to achieve efficiency and transparency, their success is determined by the ability of users to adopt the technology and how well the systems integrate with the functionalities of governance. This observation is similar to that by Baporikar (2021) and Kuria and Muathe (2022), who reported that the transformative power of technology in governance is constrained without proper training, infrastructure, and policy congruency. Therefore, to ensure

that digital systems are not obtained but also technical capacities are developed among personnel and board of directors, SACCOs are forced to invest in both of them.

5.3 Recommendations

According to the study findings, in line with the OECD Guidelines on Corporate Governance of State-Owned enterprises (SOEs), a number of recommendations are presented to improve the performance of DT SACCOs in South Rift region of Kenya.

First, it was found that board competence has a positive influence on SACCO performance with a significant positive impact (B=2.001 and a p-value of 0.001). Related to the focus of the OECD on the role of boards, DT SACCOs are expected to focus on the selection of the board members that possess the pertinent knowledge in the financial field, the governance of an organization, and risk management. Moreover, there should be continuous training and capacity-building interventions that will keep the board members updated and competent enough to provide strategic leadership and oversight. Effective and independent board is the main pillar to accountability, sound judgment and overall success of an institution.

The positive and inconsequential relationship was also observed in the shareholder involvement and performance, with the B=0.965 and p-value of 0.109 (Kim, 2010). As per OECD principle of the state or in this case the shareholder becoming an informed and responsible owner, SACCOs must encourage the increased participation of the members in governance. This will be through the establishment of open lines of communications, transparency in financial and operations and active attendance in Annual General Meetings (AGMs). By so doing, members will be able to exercise their rights fairly and play significant roles in the strategic direction of the SACCO.

Another important force of performance was accountability (B=1.529, p-value=0.000). Sacco managers ought to do what they think is right, Sacco ought to carry out regular performance reviews, Sacco management ought to follow laid down rules and procedures, disciplinary action normally followed on those who do not follow Sacco rules and regulations and management ought to ensure that Sacco ethics code is mostly adhered to.

Despite the fact that the study has determined that the interaction between the technological resources and governance practices is statistically insignificant, the overall effect of technology is positive. To facilitate the better and more efficient operations of the SACCOs, there should be further investment in digital solutions which will improve the efficiency of operations and governance in the broader context of the call of modernization by the OECD. Such tools might involve online communication of the board, shareholders, financial reporting, and audit procedures. Technology also has the ability to enhance access to real time information and thus make better decisions and enhance transparency.

5.4 Implication of the Study

The study underscores the critical role of corporate governance in driving the performance of DT SACCOs in the South Rift region of Kenya. It reveals that board competence, shareholder involvement and accountability in combination all have significant positive effect on SACCO performance, with accountability showing the strongest effect. These findings imply that SACCOs should prioritize recruiting skilled board members, fostering active shareholder participation and establishing transparent accountability mechanisms. Additionally, the integration of technological resources further enhances the positive influence of these governance practices, suggesting that Involvement in modern technology is vital for improving operational efficiency and decision

making. The study highlights the need for both SACCO leadership and policymakers to strengthen corporate governance frameworks to ensure the sector's sustainable growth and effectiveness.

5.6 Areas for Further Studies

Future research could explore other corporate governance practices such as board diversity and board independence and their impacts on SACCO performance, as well as conduct longitudinal studies to assess the long-term effects of corporate Governance practices on SACCO performance. Investigating the effectiveness of different accountability mechanisms would provide insights into which models deliver the best performance outcomes. Additionally, further studies could focus on the role of emerging technologies like AI and blockchain in enhancing SACCO governance, while also examining how corporate governance contributes to SACCO resilience during economic downturns. Comparative studies across different regions or countries could reveal region-specific governance best practices.

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APPENDICES

Appendix I: Introductory Letter

CPA ROTICH ROBERT
M.M.U.S.T
P.O. BOX 190-50100
KAKAMEGA

Dear Sir/Madam,

RE: REQUEST FOR DATA COLLECTION

I am studying for an MBA degree at Masinde Muliro University of Science and Technology (MMUST) and in partial fulfillment of the course I am required to write a research project. The subject of my research is '**CORPORATE GOVERNANCE PRACTICES, TECHNOLOGICAL RESOURCES AND PERFORMANCE OF DEPOSIT TAKING SACCOS IN SOUTH RIFT REGION, KENYA'**.

You have been selected to participate in this study/survey and I would kindly request for your assistance in filling the attached questionnaire.

The information provided is strictly for academic purpose and was handled with strict confidence.

Your assistance and co-operation was highly appreciated.

A copy of the research report would be availed to you upon request.

Yours Sincerely,

CPA Rotich Robert

Appendix II: QUESTIONNAIRE

Instruction:

This questionnaire is intended to collect data on '**CORPORATE GOVERNANCE PRACTICES, TECHNOLOGICAL RESOURCES AND PERFORMANCE OF DEPOSIT TAKING SACCOS IN SOUTH RIFT REGION, KENYA'**.

PART A: GENERAL INFORMATION

1.What position do you hold in the SACCO (optional)…….…….....

2. Age of the respondents

Below 25 years

25-34 years

35-44 years

45-54 years

55 years and above

3.What is your highest level of education? .....

Certificate……. Diploma …… Degree…… Post Graduate……

4. How long has the SACCO been in existence? …….....

1-5 years 6-10 years 11-20 years Over 20 years

5. Please indicate the period you have been with your current SACCO

Less than 1 Year [ ] 1 -5 Years [ ] 6-10 years [ ] More than 10 years

PART B: CORPORATE GOVERNANCE PRACTICES

SECTION A: BOARD COMPETENCE

To what extent do you agree or disagree with the following statements on board competence? Where; 5 strongly agree, 4 agree, 3 fairly agree 2 disagree, 1 strongly disagree.

	BOARD COMPETENCE	5	4	3	2	1
1	Board members have experience in management					
2	Board members use their previous experience in solving SACCO issues					
3	Board members are well equipped with the requisite managerial skills, competencies and expertise needed in discharging their mandate					
4	Board members have acquired requisite professional qualifications.					
5	Board members are continuously trained on Sacco governance and trends					

SECTION B: SHAREHOLDER INVOLVEMENT

To what extent do you agree or disagree with the following statements on shareholder involvement? Where; 5 strongly agree, 4 agree, 3 neutral 2 disagree, 1 strongly disagree.

	SHAREHOLDER INVOLVEMENT	5	4	3	2	1
1	SACCO members are normally invited to attend General meetings when scheduled.					
2	SACCO members opinions are sought in running the SACCO					
3	SACCO Members participate in Elections of the SACCO officials					
4	Elections of the SACCO officials are held regularly					
5	The SACCO ensures that elections of Sacco management is free and fair					
6	In my Sacco shareholder can freely access information regarding the Sacco					

SECTION C: ACCOUNTABILITY

To what extent do you agree or disagree with the following statements on accountability? Where;

5 strongly agree, 4 agree, 3 fairly agree 2 disagree, 1 strongly disagree.

	ACCOUNTABILITY	5	4	3	2	1
1	Managers take responsibility for their decisions in running the SACCO					
2	In my Sacco the managements performance is normally scrutinized					
3	In my Sacco the management stick to laid down rules and procedures in the Sacco operations					
4	Disciplinary actions are usually undertaken to those who fail to adhere to Sacco rules and regulations					
5	The Sacco has an ethics code that is usually enforced					

PART C: TECHNOLOGICAL RESOURCES

To what extent do you agree or disagree with the following statements on technological resources?

Where; 5 strongly agree, 4 agree, 3 fairly agree 2 disagree, 1 strongly disagree.

	TECHNOLOGICAL RESOURCES	5	4	3	2	1
1	The Sacco's capacity to respond and adapt to technological changes has improved significantly					
2	The SACCO has embraced modern technology in majority of its operations					
3	The Sacco has adopted e payment channels					
4	SACCO members are able to received automated responses to their concerns promptly					
5	SACCO members can access most of the Sacco services using their phones					
6	The SACCO uses less paperwork in its operations					

PART D: PERFORMANCE OF DT-SACCOS

To what extent do you agree or disagree with the following statements on performance? Where; 5 strongly agree, 4 agree, 3 fairly agree 2 disagree, 1 strongly disagree.

	Performance of the SACCOs	5	4	3	2	1
1	There has been an increase in asset base in the last three years					
2	In my Sacco the deposit base has increased in the last three years					
3	In my Sacco customers are satisfied with the service offered					
4	There has been an increase in the market share in my Sacco in the last three years					

APPENDIX III: MAP OF SOUTH RIFT REGION OF KENYA

