

**EFFECT OF CORPORATE GOVERNANCE ON FINANCIAL PERFORMANCE OF
SAVINGS AND CREDIT COOPERATIVES IN NAIROBI COUNTY**

FAITH M. MUSAU

MASTER OF SCIENCE IN COMMERCE (FINANCE AND INVESTMENT)

KCA UNIVERSITY

2020

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF MASTER OF SCIENCE IN COMMERCE
(FINANCE AND INVESTMENT) IN THE SCHOOL OF BUSINESS AND PUBLIC
MANAGEMENT AT KCA UNIVERSITY**

OCTOBER, 2020

DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this contains no material written or published by other people except where due reference is made, and author duly acknowledged.

Student Name: **Faith M. Musau**

Reg. No.: **KCA/18/06617**

Sign: _____

Date: _____

I do hereby confirm that I have examined the master's dissertation of Faith M. Musau and have certified that all revisions that the dissertation panel and examiners recommended have been adequately addressed

Sign: _____

Date: _____

Dr. Michael Njogo

Dissertation Supervisor

ABSTRACT

An organization's economic success does not only depend on quality management, innovation and efficiency, but also on the capacity of the organization to observe corporate governance principles. The purpose of this study was to establish the influence of corporate governance on financial performance of SACCOs in Nairobi County. The specific objectives were to establish the influence of board meetings attendance, board committees, board diversity and board size on financial performance of SACCOs in Nairobi County. This study is anchored on stewardship theory, resource dependence theory and agency theory. Descriptive research design was applied in the study and the target population was all the 41-deposit taking SACCOs in Nairobi County that were licensed by SASRA. The study utilized secondary data that was collected from the deposit taking SACCOs. Five years (2015 – 2019) data from the 41-deposit taking SACCOs was analysed using panel data regression analysis. Hausman test was conducted to establish which among the panel regression models (random effects model and fixed effects model) was suitable for the data. Other diagnostic tests were conducted to test for multi-collinearity, heteroscedasticity, serial correlation and normality of residuals. The results of the model for the study was presented in tabular form. The study findings showed that board size and board committees had a significant positive effect on ROA. However, board gender diversity and board meeting attendance did not have a significant effect on ROA. Based on the study findings, the study makes the following recommendations. First, SACCOs with fewer board members should consider increasing the number of board members to be sufficient enough to provide the requisite oversight and governance of the SACCO. Besides, SACCO boards of directors should form several committees to oversee critical functional areas of the SACCOs.

Key words: Board size, Board committees, Board meetings, Board diversity, financial performance, SACCO.

ACKNOWLEDGEMENT

First, I acknowledge and recognize the Almighty God for His grace which has kept me moving throughout my master's programme and in my dissertation. I would also express my appreciation to my supervisor Dr. Michael Njogo who has supported and directed me throughout the dissertation. Lastly, I thank my family for their emotional encouragement and support towards the pursuit of my goals.

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DEDICATION

I dedicate my dissertation work to my spouse, Musa and our son Zawadi. A special sense of gratefulness to my great parents, Josiah and Winfred and my brother Samson who have supported me throughout the process.

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ACRONYMS AND ABBREVIATIONS

| | |
|--------|--|
| 2SLS | Two-Stage Least Squares |
| ASE | Australian Stock Exchange |
| BPLM | Breusch-Pagan Lagrange Multiplier |
| CEO | Chief Executive Officer |
| EACC | Ethics and Anticorruption Commission |
| ECCOS | Ethics Commission for Co-operative Societies |
| FMCG | Fast Moving Consumer Goods |
| GSE | Ghana Stock Exchange |
| KES | Kenya Shilling |
| KUSCCO | Kenya Union of Savings and Credit Cooperatives |
| MFI | Microfinance Institutions |
| OSS | Operational Self-Sufficiency |
| POLS | Pooled Ordinary Least Squares |
| RDT | Resource dependence theory |
| ROA | Return on Assets |
| ROCE | Return on Capital Employed |
| ROE | Return on Equity |
| SACCO | Savings and Credit Cooperative Society |
| SASRA | Sacco Societies Regulatory Authority |
| SOX | Sarbanes Oxley (SOX) |
| UK | United Kingdom |
| US | United States |
| VIF | Variance Inflation Factor |

OPERATIONAL DEFINITION OF TERMS

Board committee – A group consisting of both executive and nonexecutive directors established to advise, review, and approve management strategic plans, principles, controls, decisions, and actions to improve leadership, controls and efficiency of the organization (Mohan & Chandramohan, 2018).

Board diversity - Variety in the boardroom regarding to gender, member background, age, experience, skills, ethnicity and such other demographic, social and professional aspects (Arora & Sharma, 2016).

Board meetings attendance - The proportion of meetings that a board member is present in relation to the total number of meetings that the member is eligible to attend in a year (Slama et al., 2019).

Board size – The total number of directors on the board of the organization which includes both executive and non-executive members (Vo & Nguyen, 2014).

Corporate Governance – System of processes, practices and rules that that are used to direct and control an organization in order to balance the interests of its various stakeholders (Khalifa & Abdulfattah, 2018).

Financial Performance - A subjective measure of how well a firm can use assets from its primary mode of business and generate revenues and profits (Palaniappan, 2017).

Savings and credit cooperative - A financial organization owned and operated by and for its members, according to democratic principles, for the purpose of encouraging savings, using pooled funds to extend loans to members at reasonable rates of interest and providing retailed financial services to members (Gijselinckx & Bussels, 2017).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

An organization's economic success does not only depend on efficiency, innovation and quality management, but it also depends on the capacity of the firm to comply with corporate governance principles (Sayari & Marcum, 2018). Application of corporate governance values may improve the financial performance of a firm as well as positively impact on the internal efficiency of the firm (Arilyn & Kharismar, 2018). Poor disclosure practices and lack of transparency reduces efficacy of corporate governance mechanisms and this adversely affect efficiency, prudent management of resources, financial performance and sustainability of the firm, including that of savings and credit cooperative societies (SACCOs) around the world (Kimenju, 2016). According to Arilyn and Kharismar (2018), major global corporate scandals emanate from poor corporate governance structures.

In the past, there was no legal requirements that mandated good governance which left corporations to determine voluntarily whether to adhere to good governance. However, the emergence of notable corporate failures due to top management's and leadership's unethical practices, most jurisdictions introduced compulsory guidelines and norms to reinforce corporate governance mechanisms in corporations (Goel, 2018). Most notable events that have greatly influenced corporate governance in the world include the United States' (US) Sarbanes Oxley (SOX) Act in 2002 and the United Kingdom's (UK) Cadbury Committee report in 1992. These were later followed by regulations and codes on corporate governance in various countries around the globe (Sayari & Marcum, 2018). These frameworks, regulations and codes have become a key aspect in putting pressure on various entities in a country.

The fundamental of corporate governance is the identification of the critical role played by auditors and corporate board of directors towards shareholders in particular and other stakeholders in general. For shareholders, the significance of corporate governance is in enhancing their confidence in the company to cater for their commercial interests and hence assuring them of a commensurate return on investment for their investments(Ogoti & Olweny, 2016). Corporate governance is also essential for other stakeholders such as customers, lenders, the community, the environment and suppliers as it assures them that the company will conduct its operations responsibly towards the environment and society (Muiru et al., 2018).

Corporate governance, therefore, does not only focus on the accountability of the board but it also focusses on environment and social responsibility and financial reporting, (Ndungu, 2016). Globally, SACCOs empower members to engage their numbers to pool resources and engage in competitive bargaining with bigger financial institutions including commercial banks. This enables members to be able to engage in economic activities, provide for their families and gain access to sustainable financial services which they could not otherwise have access to. Moreover, SACCOs provide members with reasonably priced saving and credit facilities for their economic advancement. Due to their critical roles in the economy, corporate governance, financial performance and sustainability of SACCOs is of utmost importance (SASRA, 2019).

Corporate governance has an added significance in emerging and developing economies as they enable good governance and thus enhancing efficiency in allocation of limited resources. For instance, India has experienced a series of corporate governance reforms in its cooperative movement. Amongst the various reforms is introduction of revised guidelines on good governance from SACCOs in 2013 (Goel, 2018). These guidelines outline corporate governance mechanisms for SACCOs in India. It has led to substantial reforms aimed at making audit

committees more influential, enhancing independence of directors in SACCO boards and improving disclosure requirements amongst other improvements on corporate governance (Arilyn & Kharismar, 2018). According to Goel (2018), the major challenges come from poor relationship between boards and management, lack of independence of board members, poor financial reporting and inexperience amongst members of the board.

In Asia and Latin America, there is little focus on corporate governance in SACCOs with much focus being on their contributions towards economic and social development (Vásquez-León, 2018). Most focus is on SACCOs in South Asia, and mostly India. However, issues of corporate governance are less compared to Africa and Latin America due to high government involvement. However, SACCOs in Asia in countries such as Bangladesh, Vietnam, Cambodia, India and Nepal among others face governance and accountability challenges that influence success and attainment of their objectives (Medina, 2019). However, this is contrary to the SACCOs in the Organisation for Economic Co-operation and Development (OECD) countries where there is emphasis on the significance of good corporate governance practices in enabling commercial sustainability of SACCOs (Gijssels & Bussels, 2017). This is credited to a better educated membership and election of skilled and competent directors.

In Africa, most of the scholarly focus is on the contribution of SACCOs towards social protection, poverty reduction, employment creation and representation rather than on corporate governance issues (Shaw, 2019). This is despite cooperatives in countries such as Egypt, Nigeria, Ghana, Uganda, Ethiopia and Cameroon facing serious corporate governance issues that risk their sustainability (Semaw, 2019). In countries such as Cape Verde and Uganda, the government rarely interferes even when there are allegations or cases of impropriety or fraud in SACCOs. However, governments in Egypt and Nigeria have interfered in most cases of bad governance or

impropriety in SACCOs and have in some instances updated rules and structures to influence corporate governance in SACCOs. Besides, countries such as Rwanda, Ghana and South Africa have instituted various measures to liberalize the SACCOs sector and enhance corporate governance.

In Uganda, Ssekiziyivu, Mwesigwa, Bananuka and Namusobya (2018) indicates that despite presence of legal documents and policies on corporate governance in SACCOs, the country still reports various scandals in various entities. The increase in the documented scandals have occasioned increasing requests for enhancement of corporate governance mechanisms due to the increase in insolvency, reduced financial performance and fraud in SACCOs. SACCOs are essential in the economy of Uganda though their role is challenged significantly by poor corporate governance structures that hinder their financial performance, growth and sustainability.

In Tanzania, Olomy (2015) notes that the application of good corporate governance practices has proved to be critical for the growth and sustainability of SACCOs. Over the years, cases of fraud, misappropriation of funds and creative accounting in SACCOs have been few in Tanzania. In the country, people rarely become members of SACCOs, where corporate governance is weak. The values of good corporate governance advocated for in the country include meritocracy in selecting the CEO, role separation between SACCO CEO and chairman of board of directors, board diversity, having board of directors in all SACCOs, accountability and protection of the rights of the shareholders.

In Kenya, the co-operative movement is considered to be one of the most progressive in Africa with above 22,000 registered SACCOs. These SACCOs directly employ more than 500,000 people and 1.5 million people indirectly. The savings and deposits by these SACCOs

are 30 percent of the national savings at KES 732 billion, further, the cooperative movement in Kenya has an asset base of KES 1.1 trillion and a loan portfolio of KES 700 billion (SASRA, 2019). SACCOs in Kenya have contributed immensely to financial deepening, social and economic development (Muiru et al., 2018). To enable SACCOs to play their role properly, they are regulated by the division of cooperatives in the Ministry of Trade, Industry and Cooperatives and by the SACCO Societies Regulatory Authority (SASRA). All SACCOs are regulated by the commissioner of cooperatives in the Ministry of Trade Industry and Cooperatives. SASRA on the other hand was formed to regulate deposit taking SACCOs.

1.1.1 Financial Performance of SACCOs

Financial performance entails the attainment of economic objectives by an organization measured against pre-set standards or against comparable entities (Fatihudin et al., 2018). Financial performance assesses the capability of the firm to attain its monetary objectives based on its past operations and policies. It examines the general financial strength of the firm over a certain time period through monetary indicators (Abbas et al., 2013). According to Ali, Danish and Asrar-ul-Haq (2019), measures of financial performance can be applied to relate the present performance of the firm with its past performance to assess progress or to compare the performance of the company with other companies in the industry.

According to Naz, Ijaz and Naqvi (2016) financial performance measures are categorized into five group; profitability, solvency, liquidity, financial efficiency and market performance. Profitability assesses the capacity of the organisation to generate income from its labour, capital and management (Crane, 2018). Key measures of profitability include net profit margin, return on equity (ROE), return on capital employed (ROCE), gross profit margin and return on assets

(ROA). Solvency compares the level of borrowed capital used in the firm relative to shareholder's equity (Fatihudin et al., 2018). Key solvency indicators comprise equity-to-asset ratio, debt-to-asset ratio and debt-to-equity ratio. Liquidity assesses the capacity of the firm to cater for its financial commitments when they mature without unsettling the ongoing normal operations of the firm (Egbunike & Okerekeoti, 2018). Measures of liquidity include current ratio, quick ratio and working capital. Financial efficiency measures the proficiency of the firm in using its capital, management and labour. Measures of financial efficiency include interest expense ratio, asset turnover ratio, operating expense ratio and depreciation expense ratio. Market performance assesses the firm's standing in the securities market (Hartono & Tanasal, 2017). The current study used return on assets as a measure of financial performance of SACCOs in Nairobi County.

1.1.2 Corporate Governance

Corporate governance is the different relations, processes and mechanisms which are used to operate, monitor and control corporations (Akdogan & Boyacioglu, 2017). Corporate governance has two mechanisms of: external and internal corporate governance. External corporate governance is the monitoring and control of the behaviours of management by forces and regulations in the market through parties such as professional institutions, lenders, capital market authorities, securities markets, suppliers, lawyers, accountants and professional organizations (Wu et al., 2017).

On the other hand, internal corporate governance mostly caters for shareholders' interests and involve board of directors monitoring top management of an organization on behalf of the shareholders (Ali et al., 2019). Mostly, external corporate governance is common for the entities

in a certain jurisdiction whereas internal corporate governance is specific for a particular entity (Vo & Nguyen, 2014). Internal corporate governance is mostly the one that explains differences in performance of organizations in the same industry, sector or jurisdiction (Mohan & Chandramohan, 2018).

Components of internal corporate governance include board composition, board gender diversity, Chief Executive Officer (CEO) duality, board size, insider ownership, board committees, board independence and board meetings. Board size is the number of members in the board (Akdogan & Boyacioglu, 2017). Board composition relates to the range of professional competencies, education qualifications, experiences and characteristics of the members. Board independence relates to the number of executive members in the board in relation to the board size. Board gender diversity relates to the balance of the different gender in the board (Ali et al., 2019). CEO duality is when the CEO also takes the role of the chairman of the board, while insider ownership is the proportion of the entity that is owned by the members of the board. Wu et al. (2017) observe that the board forms several committees to assist it to monitor and control operations of the organization while it has meetings to deliberate on key matters pertaining to the entity.

1.1.3 SACCOs in Nairobi County

One hundred and seventy-four (174) SACCOs with 3.6 million members and holding KES 305.3 billion in deposits are under the regulation of SASRA in Kenya. Of these, 41 are in Nairobi County. The list of SACCOs in Nairobi County is presented in Appendix 1. The formation of SASRA to provide oversight and police deposit taking SACCOs has not fully deterred fraud and

mismanagement. For instance, there have been an increasing number of cases of bad loans, fraud and mismanagement in SACCOs at Nairobi County (Munyasia, 2016).

Some of the prominent fraud cases include those that were reported at Mwalimu SACCO (KUSCCO, 2018), Ekeza SACCO (Mburu, 2019) and Stima Investment SACCO (SASRA, 2019) in Nairobi County. This has led the State Department of Co-operatives to assemble a distinct unit, the Ethics Commission for Co-operative Societies (ECCOS), whose purpose is to monitor and investigate cases of fraud in SACCOs. Moreover, ECCOS has linked with SASRA and EACC to investigate and prosecute cases of fraud in an effort to protect member savings and investments (SASRA, 2019).

1.2 Statement of the Problem

In 2019, the state department of cooperatives and SASRA called upon the ethics and anticorruption commission (EACC) to investigate fraud, mismanagement and bad loans that had plagued the SACCO sector (SASRA, 2019). The state department of cooperatives indicated that poor financial performance of SACCOs in Nairobi County between 2015 and 2019 was as a result of fraud and weak corporate governance. Stima Investment SACCO, Mwalimu SACCO and Ekeza SACCO were mentioned by SASRA and department of cooperatives as among the SACCOs in Nairobi County whose members had lost in excess of KES 3.6 billion through fraud and mismanagement by SACCO officials (SASRA, 2019).

If not checked, lack of effective corporate governance mechanisms can lead to SACCO members to lose their savings, reduced financial performance in the SACCOs and affect sustainability of the SACCOs in the long term (Muiru et al., 2018). Moreover, reduced financial

performance in SACCOs makes them unable to fulfil their objectives of improving the economic and social conditions of their members.

The subject area of corporate governance and its influence on financial performance of SACCOs has been of interest to many scholars, policy makers and researchers. Arilyn and Kharismar (2018) established that board oversight, independence of board committees and adherence to financial reporting standards were significant in affecting financial performance of SACCOs in India. A study by Muiru et al. (2018) noted that board roles, ethics based culture, full disclosure and observance of shareholders rights positively influenced performance of SACCOs in Nairobi County, Kenya. Further, Ndungu (2016) determined that the size of the board and CEO duality significantly and negatively influence performance whereas board composition, and institutional ownership had a positive influence on financial performance of SACCOs in Nairobi County.

Though there are many studies that have focussed on the role of corporate governance on financial performance, there are few studies that focus on SACCOs. Most of the studies are in the mainstream commercial, manufacturing and financial profit-making sectors of the economy. Sectors. Moreover, most of the studies on SACCOs such as Semaw (2019), Vásquez-León (2018) and Gijselinckx and Bussels (2017) focus on the role played by the SACCOs in the economic and social development rather than on the role of corporate governance on the SACCOs. This study sought to fill these gaps by establishing the influence of board diversity, board committees, board meetings attendance and board size on financial performance of SACCOs in Nairobi County.

1.3 Research Objectives

1.3.1 General Objective

To establish the effect of corporate governance on financial performance of SACCOs in Nairobi County.

1.3.2 Specific Objectives

- i) To determine the effect of board size on financial performance of SACCOs in Nairobi County.
- ii) To evaluate the effect of board committees on financial performance of SACCOs in Nairobi County.
- iii) To establish the effect of board diversity on financial performance of SACCOs in Nairobi County.
- iv) To determine the effect of board meetings attendance on financial performance of SACCOs in Nairobi County.

1.4 Research Questions

- i) What is the effect of board size on financial performance of SACCOs in Nairobi County?
- ii) How does board committees affect financial performance of SACCOs in Nairobi County?
- iii) What is the effect of board diversity on financial performance of SACCOs in Nairobi County?
- iv) What effect does board meetings attendance have on financial performance of SACCOs in Nairobi County?

1.5 Justification of the Study

In Kenya, SACCOs manage in excess of KES 732 billion in deposits that belongs to 14 million members. Moreover, these SACCOs have assets that are valued at over KES 1.1 trillion and a loan portfolio of KES 700 billion. SACCOs in Kenya control over 43 percent of the country GDP and provides direct employment to more than half a million people in Kenya (SASRA, 2019). SACCOs have contributed greatly to financial deepening, financial intermediation and in economic and social development in Kenya (Mwangi et al., 2015). Therefore, healthy financial performance of the SACCOs is critical to enable the SACCOs to continue playing their critical roles.

Despite formation of SASRA to ensure observance of corporate governance and financial health of SACCOs, the sector continues to grapple with fraud, poor corporate governance and mismanagement which can adversely affect the financial performance and sustainability of the SACCOs (SASRA, 2019). An investigation on the role of corporate governance on financial performance of SACCOs is therefore justified so as to inform interventions, policy and practice.

The study findings will be significant to policy makers, SACCO management, SACCO members and other stakeholders in the sector such as financial institutions like cooperative bank and Cooperative Insurance Company, scholars, researchers, the public and the media. The policymakers such as SASRA and Ministry of Industry, Trade and Cooperatives could use the findings to determine the influence of the various corporate governance mechanisms on financial performance in the SACCO sector. They can use the findings as input into their policies and interventions to ensure adherence to corporate governance practices and to enhance financial performance of SACCOs.

Leaders and managers of SACCOs can use the findings to enhance adherence to corporate governance aspects that were established as critical in this study. Members of SACCOs can also use the findings to advocate for observance of corporate governance practices that are considered in the study as having an influence on financial performance. Academicians can use the findings as empirical evidence on how corporate governance can affect financial performance of SACCOs in Kenya. The study provides suggestions for further research which future researchers can address.

1.6 Scope of the Study

This study focused on the effect of corporate governance on financial performance of SASRA regulated SACCOs in Nairobi County. There are many corporate governance aspects, but the study focussed on the effect of board meetings attendance, board committees, board diversity and board size on financial performance of SASRA regulated SACCOs in Nairobi County. The study focussed only on SASRA regulated SACCOs in Nairobi County. Secondary data for five years (2015 – 2019) was used in the study. This study was conducted from January to October 2020.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides a review of literature on the influence of corporate governance on financial performance. Comprised in the chapter is theoretical review, empirical review, research gaps, conceptual framework and operationalization and measurement of variables. The theoretical review provides the three theories that were used to anchor the study. The empirical review provided a review of previous studies on the effect of board meeting attendance, board diversity, board committees and board size on company performance. The research gaps that are identified from the empirical review are also presented in this chapter. Additionally, the conceptual framework that provides the hypothesized association between the study variables is presented herein. Lastly, the chapter provides operationalization of the study variables and the measures that were used for all the variables.

2.2 Theoretical Review

The theories that were used in this study are presented and discussed in this section. These theories include agency theory, resource dependence theory and stewardship theory.

2.2.1 Agency theory

Agency theory by Jensen and Meckling (1976) hypothesizes that agency relationship between principals and agents breed conflict where the agents could cater for their self-regard relatively more than catering for the interests of their principals. This happens when there is a separation of control and ownership. Principal owns the entity while the power to control the entity is delegated to the agent. Principals in an entity are the shareholders whereas the agents are the

management. In some cases, management caters for their selfish interests rather than catering for the shareholders' interests (Kandukuri et al., 2015). This generates into an agency conflict. This conflict can be managed by providing monitoring mechanisms such as the board of directors. Board of directors are elected by the shareholders so that they can monitor the actions of management on the shareholders' behalf (Arora & Sharma, 2016).

Agency theory has been applied effectively in various empirical studies on corporate governance and the board characteristics that influence board effectiveness. Among these studies include Oseit and Ntim (2011), Chou, Chung and Yin (2013), Puni (2015), Ogada, Achoki and Njuguna (2016), Mohan and Chandramohan (2018) and Buchdadi, Ulupui, Dalimunthe, Pamungkas and Fauziyyah (2019). However, despite its various application in empirical studies, the theory has received much criticism. For instance, Chou et al. (2013) has indicated that the theory concentrates too much on the agent side of the relationship and little on the principal side. Moreover, Paul (2017) indicates that the theory presumes incompatibility of the interests of the agent and principal. Besides the theory presumes that problems can only rise from the agents and not the principals.

Agency theory was applied in the current study to clarify the expected effect of board committees and attendance of board meetings on financial performance of SACCOs. When the board of a SACCO creates committees to cater for the different operations and interests, this can improve the financial performance of the SACCO (Vo & Nguyen, 2014). A SACCO with many committees is expected to cater efficiently to the different operations of the SACCO and thus enhancing the effectiveness of the SACCOs strategies, policies and operations. This in turn is expected to lead to improved performance. Besides, attendance of meetings by the directors is expected to relate to financial performance. High attendance rate of meetings is expected to

enable the directors to contribute effectively to the different aspects of the SACCO and thus positively influencing financial performance of the SACCO (Mohan & Chandramohan, 2018a). However, when meeting attendance by directors is low, this is expected to have a negative effective on stewardship of the SACCO and can lead to reduced financial performance.

2.2.2 Resource dependence theory

Pfeffer and Salancik (1978) developed the resource dependence theory (RDT) which indicates that resources generated externally and internally by the organization can influence the operations and efficacy of the organization. In tactical and strategic management of an organization, the procurement of external resources is essential as it enables the organization to enhance the diversity of resources at its disposal. This theory is particularly critical when it comes to recruitment of board members in an organization. The theory hypothesizes that when an organization recruits board members who have diverse professional, gender, education and technical characteristics and competencies, the organization is able to tap from a diverse pool of talent which enables efficient stewardship and control (Bhagat & Bolton, 2008). This in turn can enable the organization to perform better than its peers financially.

Resource dependence theory is a popular theory in corporate governance and organization studies. It has been appropriately tested in various studies where several studies support the theory. These studies include Hanh, Ting, Kweh and Hoanh (2018), Buchdadi et al. (2019), Slama, Ajina, and Lakhal (2019) and Ali et al. (2019). However, despite its popularity and extensive application in organizational and corporate governance studies, the theory has faced several criticisms. For instance, Vo and Nguyen (2014) indicated that the theory mostly focusses from resources that are external to the firms and thus ignoring the internal resources

such as executive directors. This theory could not hence explain the link between executive directors and other internal organization aspects and financial performance.

This theory was used in this study to explain how board size and gender diversity can influence performance of the organization. Size of the board size is the number of directors or members of the board. When a board has many members, this could imply a mix of diverse experiences and competencies which the organization can utilize in implementing its policies and strategies (Arora & Sharma, 2016). An organization with a small board is expected to have a small pool of professionals to control and steer it. This means limited experiences and capacities amongst the members which limit their ability to provide adequate stewardship for the organization (Bhagat & Bolton, 2008). Moreover, an organization that has a board that is diverse in relation to gender has a diverse pool of members to provide different opinions or perspectives which can assist in determining the right direction for the organization (Wu et al., 2017). However, a board which is not diverse may have limited perspectives which can hurt the firm's bottom-line.

2.2.3 Stewardship Theory

Stewardship theory of organizational management and corporate governance was developed by Davis, Schoorman and Donaldson (1997). The major proposition of the theory is that agents do not always go against the interest of the principals. This theory indicates that the interests of the agents could be harmonised to the interest of the principals. The implication of this is that when left on their own, organization's executives would still play the role of stewards effectively (Donaldson & Davis, 1991). The theory further posits that management will choose to cater for the interest of the principals instead of portraying self-serving behaviour and thus

choosing cooperation over defection. Therefore, the theory presumes that there is no need of having strict monitoring by shareholders of corporate boards.

This theory has been used in various studies to explain aspects of board (such as diversity, independence and competence) and why they do not have an effect on corporate performance. (Contrafatto (2014) applied the theory to indicate the motivations of organization to maintain, protect and nurture economic, natural and social assets for the benefit of communities and stakeholders. Moreover, Subramanian (2019) used the theory to indicate the basis of cooperation between agents and principals for mutual benefit. However, the theory has faced much criticisms mostly due to its assumption that agents do not have self-serving behaviour despite vast empirical findings supporting the notion of agency-principal conflicts (Wu et al., 2017). Moreover, Karim, Manab and Ismail (2019) indicates that the theory fails to indicate the necessary conditions for trust building so that agents will act as responsible stewards.

This theory was used in the study to explain why corporate governance aspects based on the board of directors may not have an influence on corporate performance. This is because managers, despite the presence or absence of corporate board will act as responsible stewards and pursue the interest of the shareholders of the firms. The key role of the boards in this case is not to monitor management but to play a strategic role of guiding management in the direction that will be beneficial for the optimum performance of the firm. The theory hence informs that presence of board committees and having a board with diverse skills, experiences and technical capacities will enable the board to play its role as a direction provider better and thus influencing financial performance.

2.3 Empirical Review

The empirical review of studies that have been conducted locally, regionally and globally on corporate governance and financial performance are presented in this section. The review of studies provides a glimpse of the expected influence of board committees, board diversity, board size and board meeting attendance on financial performance of firms in different sectors and industries.

2.3.1 Board size and financial performance

Mohan and Chandramohan (2018) conducted a study in India that examined the influence of corporate governance mechanisms on financial performance of the entity. In the study, financial performance was measured using price to book ratio and ROE. Corporate governance instruments considered in the study were CEO duality, board size and board composition. Panel data for the study was gathered from 30 firms listed in the Bombay Stock Exchange. The study findings from the panel data regression model revealed that board size had a statistically significant negative influence on firm performance. The explanation to these findings was that when a firm has many board members, this can increase conflict in major decisions which negatively affects the firm's operations and hence reducing performance.

A study in Taiwan by Wu et al. (2017) investigated the effect of corporate governance on financial performance. The study was conducted on non-financial firms that were listed in the stock exchange in the country. The study collected data for nine years (2001 – 2008). Panel data analysis technique was adopted due to the panel nature of the data collected. The study findings established that board size had a negative and significant influence on financial performance.

Indicators of financial performance applied in the study were Tobin's Q, ROE and ROA. Large boards can make consensus building hard which makes decision making slow and thus not enabling the firm to take advantage of opportunities on a timely manner. This can lead to reduced performance.

Shunu, Bii and Ombaba (2017) investigated the influence of board size on financial performance of firms listed in the Nairobi securities exchange (NSE), in Nairobi, Kenya. The study focused on all the listed firms in the main market segment of the NSE. Panel data for 10 years (2006 to 2015) was collected for the study. The data was gathered from audited financial statements of the listed firms. Multiple regression analysis was used to determine the influence of board size on the firms' financial performance. The results from the study showed that board size had a statistically significant positive influence on financial performance of firms listed at the Nairobi securities exchange. The study implied that a larger board brings in more experience into the firm which can be utilized to provide better governance and hence improved financial performance.

In India, Palaniappan (2017) conducted a study with the purpose of examining the effect of board characteristics on financial performance of organizations. The study used 5 years (2011 – 2015) panel data for 275 listed firms. The study used a multiple regression model to analyse the resultant data. Among the board characteristics included in the study were board activity, CEO duality, board size and board independence. The study findings revealed a negative relationship between board size and the several measures of performance used which included ROA, Tobin's Q and ROE.

Ogada, Achoki and Njuguna (2016) assessed the influence of board size on financial performance of financial institutions in Kenya. The study focused on 51 financial institutions that

had conducted a merger. The study applied mixed methods of research design. Descriptive statistics, and panel data regression were applied to analyze the data collected. The study results determined that board size had a significant influence on the merged firms' financial performance. The study noted that a larger board brings in different skill sets to the firms which the firm can utilize to enhance decision making and performance.

A study by Topal and Dogan (2014) conducted in Turkey established that board size had a positive effect on performance measured through ROA, but had no significant effect on performance measured through ROE. The study utilized 10 years' panel data for 136 manufacturing companies listed in the Borsa Istanbul (BIST), which is the securities exchange in Turkey. The study applied panel data to analyse the collected data. Board size was indicated to influence ROA by providing the firm with a variety of skills, experiences and diversity in knowledge to enable the firm to take advantage of opportunities and deal with threats. Besides, a large board is expected to have a diversity of skills and expertise and drawing from the variety of expertise, better decision can be made which can enable the firm to perform better financially.

Vo and Nguyen (2014) on a study in Vietnam assessed the influence of corporate governance on firm performance. The study investigated the role of board size on firm performance whereby performance was indicated by return on equity, return on assets, Altman's Z-score and Tobin's Q. The study focused on 177 listed firms from 2008 to 2012. The collected secondary data was analyzed through feasible generalized least squares (FGLS) regression. The study results show that there was no statistically significant influence of the size of the board on financial performance.

In Nigeria, Uwuigbe and Fakile (2012) assessed how financial profitability of commercial banks quoted on the Nigerian Stock Exchange was influenced by board size. The

study used a correlational design and collected data from all the listed commercial banks. Panel data was collected for ten years. The collected data was analyzed using pooled ordinary least squares regression. The findings revealed that commercial banks with board size less than 13 reported a higher financial performance than those commercial banks that had a board size of more than 13. The study hence provided a deduction that board size has a negative and significant influence on financial profitability of listed commercial banks in Nigeria.

2.3.2 Board committees and financial performance

A study in United Arab Emirates (UAE) by Khalifa and Abdulfattah (2018) evaluated the influence of audit and board committee characteristics on financial performance of firms in the country. The study indicated that though numerous previous studies had investigated the influence of corporate governance on financial performance, there was a dearth of research in the UAE focussing on the same. The study used data for 10 years (2006 – 2015) and focussed on the 47 listed companies in the UAE. Analysis of the collected data was through multiple regression panel model. The study findings indicated that the number of board committees had a positive and significant effect on financial performance of the firms. Firms that had many committees performed better. This was due to the capacity of the committees to focus on various aspects of the firm and hence informing the board who in turn make evidence based decisions that enhance performance.

Ammari, Amdouni, Zemzem and Ellouze (2016) conducted a study in France that explored the influence of board committees on company performance. The study focused on 80 publicly listed French firms for a period of 13 years (2001 to 2013). Panel data was gathered from the annual audited statements of the 80 companies. Panel data regression model was

applied to analyze the panel data. The study results established that existence of at least three board committees positively affects financial performance of the listed French firms. The conclusion from the study was that more board committees are beneficial for financial performance of organizations since they provide oversight to critical areas in the firm.

A study in Ghana by Glover-Akpey and Azembila (2016) examined the influence of audit committees on financial performance of companies listed in the Ghana Stock Exchange (GSE). Secondary cross-sectional data was collected from 36 companies for the 2015 financial year. The study applied logit cross-sectional regression model to analyze the data. Results from the study showed that there existed a positive relationship between number of members in the audit committee and financial performance. These findings imply that having many board committees taps the specific knowledge, skills and talents of the different board directors that enables them to educate the entire board on critical areas of concern.

Puni (2015) conducted another study in Ghana that explored the effect of board committees on financial performance of quoted firms. The attention of the study was on all the firms listed in the GSE. The study applied a quantitative research design and focused on companies listed consistently for five years between 2006 and 2010. Secondary data for the study was gathered from the audited annual financial statements of the firms. Panel data collected was analyzed using fixed effects panel regression model. The study findings showed that board committees had no significant influence on financial performance of the quoted companies.

A study in Australia by Singhchawla and Evans (2011) assessed the influence of independence and number of board committees on firm's financial performance. The study focused on 250 listed companies listed in the Australian Stock Exchange (ASX). Financial

institutions in insurance, banking and trusts were excluded in the study. Secondary data was extracted from the audited yearly reports of the companies in the financial year under review. The variable board committee was measured using the number of independent sub-committees established by the board. Financial performance was measured using ROE. The study results indicated that the number of independent sub-committees had insignificant influence on financial performance. The most common committees among the firms were audit, nomination and remuneration committees. Having such committees allows the board to share the board's work to different manageable sections.

2.3.3 Board diversity and financial performance

A study in France by Slama, Ajina and Lakhali (2019) assessed the influence of board gender diversity on an organization's financial performance. A sample of 89 French companies quoted in the CAC All-Tradable for four years (2008 – 2011) was used in the study. The study excluded financial institutions. Tobin's Q and ROA were used as indicators of financial performance. Analysis of the data was through panel data method of individual-time and fixed effects. The study findings showed that the comply-or-explain sanction regarding increasing the percentage of women in boards by the French code was expected to reduce performance for firms that performed poorly. Nevertheless, there was increase in financial performance for high performing firms. Having a more gender diverse board can enhance financial performance since it is expected to lead to better decision-making, more diverse discussion and enhances the reputation of the firm to its customers and constituents.

Green and Homroy (2018) examined the influence of women directors in the board on financial performance of listed European firms. The study used secondary data for 12 years

(2004 – 2015) from a sample of EuroTop 100 firms. The firms were from 11 European countries among them United Kingdom (30), France (24), Germany (21), Switzerland (14), Netherlands (13), Spain (11), Italy (10), Denmark (7), Belgium (5), Sweden (4) and Norway (3). The data collected was analyzed using two-stage least squares (2SLS) regression. The study results confirmed that percentage of women representation in boards had a robust positive effect on financial performance of the EuroTop 100 firms. The results indicated that having a gender balanced board influenced performance since a gender-diverse board are more likely to have diverse perspectives which are essential for the firm in today's, complex and dynamic operating environment.

Adusei, Akomea and Poku (2017) explored the effect of board gender diversity on financial performance of MFIs. The study focused on 494 MFIs in 76 around the globe. Panel data for five years (2010–2014) was collected for the study. Financial performance was measured using operational self-sufficiency (OSS) and ROA. The fixed effects panel data regression model was applied. The findings suggested that board gender diversity had a significant negative influence on MFI financial performance. However, the findings indicated that 50% or lower female representation in the board was the edge at which gender diversity is beneficial to MFIs. The explanation for these findings is that when the board is gender-diverse at 50% or lower, it provides the board with a more impetus to ensure greater due diligence and a better understanding of customer preferences which are critical for financial performance.

A study on the Indian microfinance sector by Vishwakarma (2017) explored the effect of female members in the board on microfinance institutions' (MFIs) financial performance. This study was conducted on the background that gender diverse boards tend to have diverse perspectives, make better decisions and be more innovative. The study used a sample of 50

microfinance institutions and collected secondary cross-sectional data for the institutions. Regression analysis was applied to analyze the collected data. Results from the study determined that there was a significant positive influence of the proportion of women as board members on financial performance of the Indian MFIs.

Pletzer, Nikolova, Kedzior and Voelpel (2015) investigated the effect of female representation on boards on financial performance of the firms. The study was conducted on the backdrop of the global ongoing debate concerning the commercial advantages of female representation in companies' boards. This study was a meta-analysis on data from 3097 companies in 20 empirical studies. The studies nominated for the meta-analysis were those published in peer-reviewed journals. Half of the studies had been conducted in developed countries with the other half being conducted in developing countries. Analysis of data was through random effects panel regression model. The study results indicated that the average representation of women in boards was low (mean = 14%). Moreover, the study results showed no significant association between women representation in boards and financial performance of the firm.

2.3.4 Board meetings attendance and financial performance

In Indonesia, Buchdadi, Ulupui, Dalimunthe, Pamungkas and Fauziyyah (2019) examined the influence of board of directors meeting and financial performance of all the 135 firms listed in the Jakarta Stock Exchange for a four year period (2013-2016). The study applied Tobin's Q and ROA as indicators of financial performance. The fixed effects panel data regression model was used to analyze the data. The study results showed that board of director meeting attendance and the number of board meetings had significant positive effects on financial performance of the

firms quoted in the Jakarta Stock Exchange. The results indicate that board member participation in meetings provide valuable and productive contributions towards strategies and decision making which are essential for the firm's financial performance.

A study in the Kenyan commercial banking sector by Mweta and Mungai (2018) assessed the influence of board meeting attendance on financial performance of the 11 commercial banks quoted in the NSE. The study applied a descriptive research design and utilized secondary quantitative data that was collected from the audited annual financial statements of the commercial banks for five years (2012 – 2016). The panel data collected was analyzed using fixed effects panel data regression model. Moreover, descriptive statistics and correlation analysis were used. The study findings established that board meeting attendance had a weak negative relationship with financial performance of commercial banks. This could be due to inability of the meetings to discuss critical governance or strategic items in those meetings which makes the contributions of such meeting attendance to be insignificant.

A study by Paul (2017) in the fast moving consumer goods (FMCG) sector of India assessed the role of board activity on financial performance of the companies in the sector. Board activity was assessed by the frequency of meetings and meetings attendance by the different directors. Data was collected for three years (2011 to 2013) for 96 companies. Financial performance in the study was indicated by ROA. The study applied ordinary least squares (OLS) regression to analyze the data. The study results implied that attendance in board meetings was positively and significantly correlated to ROA. The findings led to the conclusion that attendance of board meetings is a pointer to the monitoring role of the board.

Attendance rate in board meetings and the number of board meetings have a positive effect on financial performance of listed firms in the GSE (Glover-Akpey & Azembila, 2016).

These findings relate to the previous results by Chou, Chung and Yin (2013) in Taiwan. The study by Chou et al. (2013) was conducted on the corporations listed in Taipei. The study used five-year secondary data (2008 – 2011). Random effects panel regression model was applied in data analysis. The study results showed that high meeting attendance by directors in the board had a positive influence on profitability of the firms. The results held even after factoring in the board composition and ownership structure variables.

In Australia, Hoque et al. (2013), assessed the effect of board committee meetings on firm financial performance. The study used panel data of 92 non-financial and 26 financial firms for nine years (1999-2007). The study findings indicated that frequencies of remuneration committee meetings and audit committee meetings have a significant positive relationship with ROA and ROE. However, the study findings showed that frequencies of risk committee meetings did not any significant relationship with financial performance measures.

2.4 Research Gaps

The empirical studies reviewed in this section established some key knowledge gaps which the current study sought to fill. These gaps include methodological, contextual and conceptual gaps. Moreover, there are gaps related to mixed results. Some of the methodological gaps relate to the application of different study methodologies and models in analysing the data on corporate governance and financial performance. This leads to conflicting findings. For instance, the studies by Mohan and Chandramohan (2018) and Wu et al. (2017) established that board size had a negative and significant influence on financial performance. However, Shunu et al. (2017) established that board size had a positive influence on financial performance. It is hence critical to conduct this study and establish the effect of board size on SACCOs in Nairobi County.

The reviewed studies have some contextual gaps. For instance, the study by Buchdadi et al. (2019) was conducted in Indonesia, Green and Homroy (2018) in Europe and Paul (2017) in India. These studies had been conducted in countries different from Kenya due to the differences in social, political, economic, legal and technological aspects. The findings from these studies conducted outside Kenya, may not be generalizable to the firms in Kenya. It was hence essential to conduct this study to establish the effect of corporate governance in SACCOs in Nairobi County, Kenya.

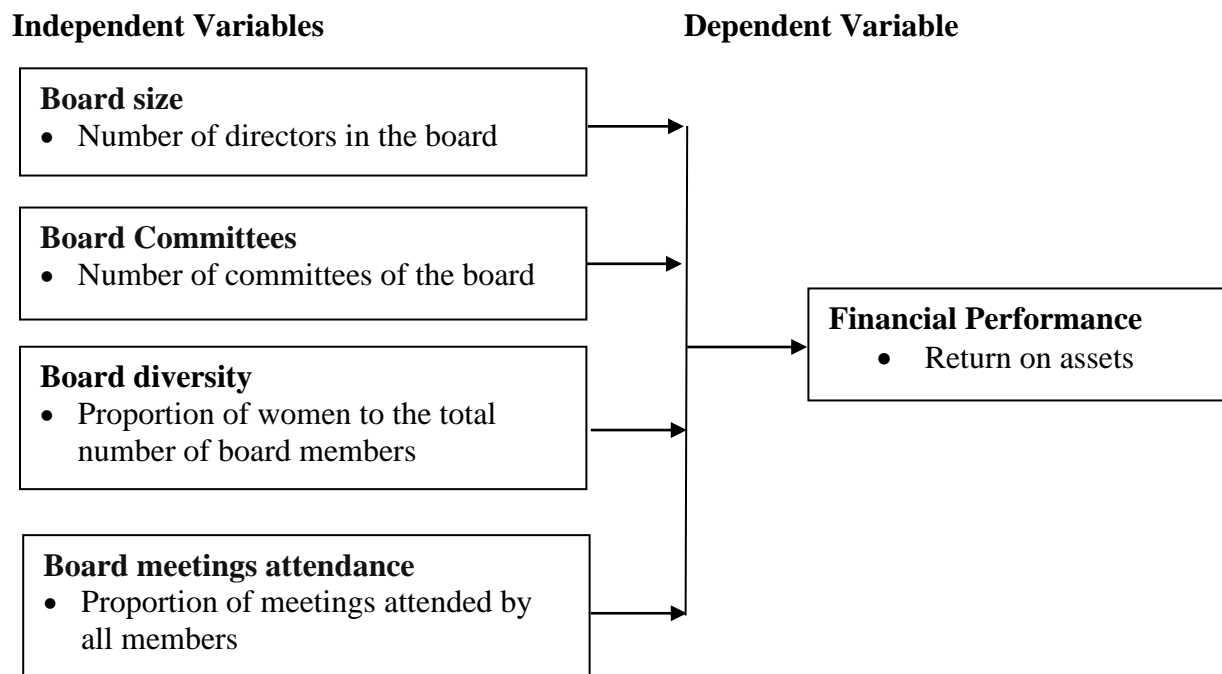
Lastly, most of the studies leave some conceptual gaps. For instance, Mohan and Chandramohan (2018) examined the influence of CEO duality, board size and board composition on financial performance. This study did not include board gender diversity, board committees and board meeting attendance which are critical in improving the monitoring ability of the board. Moreover, the study by Green and Homroy (2018) assessed the influence of female directors in the board on financial performance of listed European firms. This study did not include board size, board committees and board meeting attendance. Further, the study by Mweta and Mungai (2018) investigated the influence of board meeting attendance on financial performance of the 11 commercial banks listed in the NSE. The study did not consider board committees, board gender diversity and board size. The current study therefore filled these gaps by establishing the effect of board size, board committees, board gender diversity and board meeting attendance on financial performance of SACCOs in Nairobi County, Kenya.

2.5 Conceptual Framework

The conceptual framework that guided the study is presented in Figure 2.1. This framework provides the hypothesized relationship between the predictor variables (board size, board

diversity, board committees and board meeting attendance) and the response variable (financial performance).

Figure1
Conceptual Framework



Source: Author (2020)

2.6 Operationalization and Measurement of Study Variables

The operationalization and measurement of the study variables is presented in Table 2.1. The presentation provides how each of the study variables (board size, board diversity, board meetings attendance, board committees and financial performance) was measured and the level of measurement used.

Table 1
Operationalization of Variables

| Variable | Measurement | Level of measurement |
|---------------------------|--|-----------------------------|
| Board size | <ul style="list-style-type: none"> • Number of members in the board | Ratio |
| Board committees | <ul style="list-style-type: none"> • Number of committees of the board in the SACCO | Ratio |
| Board diversity | <ul style="list-style-type: none"> • Number of females members / Board size | Ratio |
| Board meetings attendance | <ul style="list-style-type: none"> • Meetings attended by each member / total number of eligible meetings | Ratio |
| Financial performance | <ul style="list-style-type: none"> • Return on assets (net surplus/total assets) | Ratio |

Source: Author (2020)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides the methodology that was applied in the study. The research methodology sought to achieve the objective of establishing how financial performance of SACCOs in Nairobi County is influenced by corporate governance. The contents of the chapter include the research design applied, the target population considered in the study, the sampling technique and the sample size that will participate in the study. Moreover, the data collection methods and data analysis techniques are discussed in this section. Lastly, the chapter provides the diagnostics tests that were conducted.

3.2 Research Design

This study applied a causal research design. A causal research design is applied in studies that seek to determine the relationships that exists amongst variables or to assess the cause and effect association between two variables after an event has already occurred (Easterby-Smith et al., 2012). This design is appropriate for this study since the study sought to determine the influence of corporate governance on financial performance of SACCOs in Nairobi County. The study collected data that was already available and linked the study variables to establish the cause and effect association between corporate governance and financial performance of the SACCOs.

3.3 Target Population

All the 41 deposit taking SACCOs in Nairobi County that are licensed by SASRA formed the target population for the current study (Appendix I). Deposit taking SACCOs were selected since

they were closely regulated by SASRA and are required to observe corporate governance to protect member's savings and deposits. SACCOs that are not deposit taking were excluded in the study since some of them are very small without any identifiable corporate governance mechanisms.

3.4 Sample Size and Sampling Technique

This study used the census method. It included all the 41-deposit taking SACCOs in Nairobi County that were licensed by SASRA. The reasons why there was no sampling is because the sample was small and manageable. According to Sharp, Peters and Howard (2017), it is advisable to study the whole population when the population is small and one has a complete sampling frame. This enables the study to eradicate any possible bias which can emanate from sampling.

3.5 Data Collection

Five years (2015 – 2019) secondary data was collected from the 41-deposit taking SACCOs. The five years were selected because of currency. The data was derived from the audited annual reports of the SACCOs and annual submission to SASRA. These were obtained from the websites of SASRA and the SACCOs, or from the head offices of the SACCOs. The study used a data capture sheet which was used to record all the data for each of the SACCOs for five years.

3.6 Data Analysis

Data collected in the study was panel data that captured cross sectional and time series data for five years (2015 – 2019) for all the deposit taking SACCOs in Nairobi County(41). Panel data

regression analysis techniques were used in the study. According to Guo (2015), panel data regression enables the researcher to control unobservable variables and hence accounting for individual heterogeneity. The study could have applied either the pooled ordinary least squares (POLS) regression, random effects model or fixed effects model depending on which model was found appropriate for the study. To establish the model suitable for the study, the study conducted various model specification tests. First, a Hausman test was conducted to establish which among the panel regression models (random effects model and fixed effects model) was suitable for the data.

Fixed effects model is applied when the researcher seeks to determine the effect of variables that vary over time. The major assumptions underlying application of fixed effects model is that there are aspects within the entities that may influence the independent variables and hence needs to be controlled. Therefore, the predictor variables are assumed to be associated with the entity's error term. When the fixed effects model is selected, it should be used for the study. The fixed effects model applied could be of the form;

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon_{it} \quad (1)$$

Where;

α = Constant or intercept.

Y = Dependent variable (Financial performance)

i = Sacco (1-41)

t = time (2015 – 2019).

X_1 = Board size

X_2 = Board committees

X_3 = Board diversity

X_4 = Board meetings attendance

B_i = Coefficient of the independent variables

ε = error term

The Hausmann test could lead to selection of random effects model. The random effects model presupposes that the variation across entities is uncorrelated with the response variables and random (Chandra & Sharma, 2013). The random effects model permits inclusion of time-invariant variables as predictor variables in the model. However, one limitation is that some of these time invariant variables may not be available which could lead to the issue of omitted variable bias (Pischke & Angrist, 2014). The random effects model that could be applied in the study is of the form;

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + u_{it} + \varepsilon_{it} \quad (2)$$

Where all variables are as per equation 1.

u = Between entity error

ε = Within entity error

However, when the Hausmann test leads to the selection of the random effects model, the study should conduct the Breusch-Pagan Lagrange multiplier (BPLM) test which is used to assess the suitable model between the random effects model and the POLS regression model. The test assesses whether there are any significant differences across entities. If this test selects random effects model, then the model is fitted. However, if this test selects the POLS model then the model run should be of the form;

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \quad (3)$$

Where all variables are as indicated in equation 2.

The results of the model that is appropriate for the study were presented in tabular form.

3.7 Diagnostic Tests

The study conducted diagnostic tests to ensure that the regression model diagnostics are satisfied before and after the model specification. The first test conducted before the model was fitted was the test of multicollinearity. This test was conducted to assess whether there are any two independent variables that have high correlation (Zikmund et al., 2013). Multicollinearity could lead to inflation of standard errors and thus making it difficult to assess the individual regression coefficients. The variance inflation factor (VIF) was used for this study. If there are variables with high multicollinearity, one of the variables should be excluded from the study. A VIF of above 5 shows multicollinearity, while a VIF below 5 indicates that there is no multicollinearity.

After the model is fitted, the study conducted the test for heteroscedasticity. This is where the variance of errors is not uniform along all levels of the dependent variable. Heteroscedasticity can lead to inefficiency of the estimators and high variance in the model coefficients (Guo, 2015). The study applied the Breusch-Pagan Cook-Weisberg test for groupwise heteroscedasticity to assess heteroscedasticity in the data. If heteroscedasticity is present, robust errors should be used in place of standard errors. The null hypothesis of the test is homoscedasticity. Therefore, when the p value is above 0.05, it shows homoscedasticity and when p value is below 0.05, this indicates heteroscedasticity.

The test for serial correlation assessed whether there is any association between the study variables and their lagged versions over the different time periods. Fisher (2017) observes that though serial correlation does not influence the consistency or lack of biasness of the regression estimators, it could influence their efficiency. However, Zikmund et al. (2013) indicates that

serial correlation does not have significant consequences for data with less than 10 time periods. The study will apply the Wooldridge test to assess serial correlation in this study. The null hypothesis for the test is no serial correlation. Therefore, p values of 0.05 and above will indicate no serial correlation while p values of 0.05 and below will indicate presence of serial correlation.

Lastly, the study conducted the normality test to assess the normality of residuals. Saunders et al. (2015) indicate that the error terms of a regression model need to be normally distributed for the inferences from the model regarding significance levels and coefficients to be valid. In this study, the Shapiro-Wilk test was conducted to assess the normality of residuals. The null hypothesis of the test is that the residuals are normally distributed. Therefore, when p value is above 0.05, the residuals are normally distributed. However, when the p value is below 0.05, the residuals are not normally distributed.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the process followed in data analysis, the study findings and the discussion of the study findings. The process followed in the analysis of the collected data included providing descriptive statistics, exploratory analysis, diagnostic tests and the model fitting. The data analysis process followed in this chapter follows the methodology proposed and seeks to provide answers to the research questions. Besides, the diagnostic tests conducted seeks to certify that the data does not violate the regression assumptions. Lastly, the panel data model appropriate for the study was fitted.

4.2 Descriptive Statistics

This section provides the descriptive statistics for the data collected. Data for five years (2015 – 2019) for 41 SACCOs was collected. The data collected was on board size (BS), board committees (BCs), proportion of women in the board of directors (FBM), percentage of meeting attendance by the board of directors (MA) and the SACCO's surplus as a percentage of its total assets (ROA). The descriptive statistics that include the mean, standard deviation, minimum and maximums are provided in this section in Table 2.

Table 2
Descriptive Statistics

| Variable | | Mean | Std. Dev. | Min | Max | Observations | |
|----------|---------|----------|-----------|----------|----------|--------------|-----|
| BS | overall | 9.278049 | 1.913767 | 4 | 13 | N = | 205 |
| | between | | 1.870764 | 4.8 | 12.2 | n = | 41 |
| | within | | .481012 | 8.078049 | 10.47805 | T = | 5 |
| BCs | overall | 3.556098 | .8592201 | 2 | 6 | N = | 205 |
| | between | | .6730709 | 2.6 | 4.8 | n = | 41 |
| | within | | .5423261 | 2.356098 | 4.956098 | T = | 5 |
| FBM | overall | .2811543 | .1270385 | .0769231 | .625 | N = | 205 |
| | between | | .1077552 | .1156177 | .5361111 | n = | 41 |
| | within | | .0689584 | .0811543 | .4644876 | T = | 5 |
| MA | overall | .9466714 | .0470165 | .7583333 | 1 | N = | 205 |
| | between | | .0412422 | .8044445 | .9833333 | n = | 41 |
| | within | | .0233022 | .8662481 | 1.031116 | T = | 5 |
| ROA | overall | 2.007659 | 1.024958 | -1.86 | 4.97 | N = | 205 |
| | between | | .9651326 | -.434 | 4.574 | n = | 41 |
| | within | | .3705698 | .5816585 | 3.151659 | T = | 5 |

Source: Author (2020)

The study results presented in Table 2 indicate that the average board size (BS) in the 41 SACCOs was 9.28 with a standard deviation of 1.91. The minimum board size was 4 and the maximum was 13. Regarding committees of the board (BCs), the average was 3.56 with a standard deviation of 0.86. The SACCOs with the lowest number of committees had two while the one with the most board committees had 6. Regarding board diversity measures by the number of female's members on the board (FBM), the study established that the average proportion of women was 0.28 or 28% with a standard deviation of 0.13. Sacco with the lowest proportion of women in the board had 7.7% while the one with the highest had 62.5%.

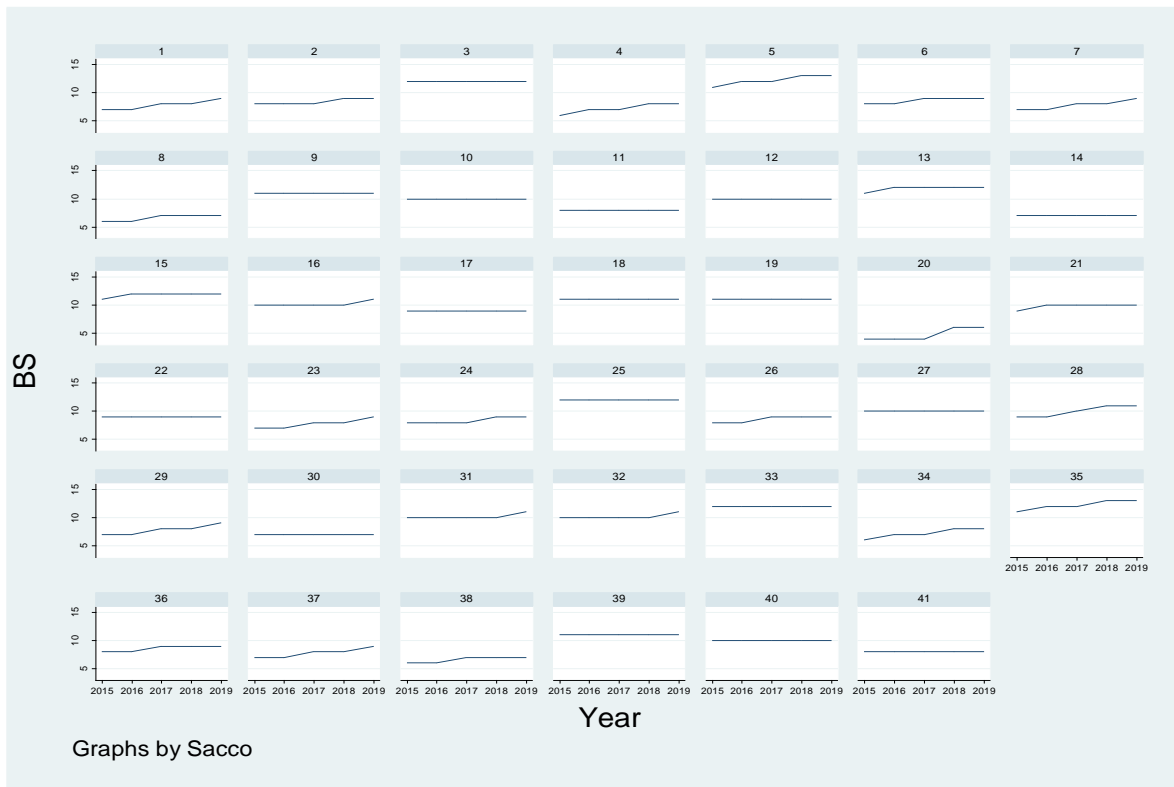
On meetings attendance by the board members (MA), the study established that the average attendance was 94.93% with a standard deviation of 0.05. The SACCO with the lowest

meeting attendance over the five-year period had 75.83% while the one with the highest had 100% attendance. The dependent variable in the study was ROA which was measured by the SACCO's surplus as a percentage of its total assets. The average ROA was 2.01% while the standard deviation was 1.02. The Sacco that reported the lowest ROA over the five-year period had -1.86% while the one with the highest had 4.97%.

4.3 Study Variables

This section presents the exploratory analysis of the study variables that show the line plots for the independent variables and the overlain plots for the dependent variable. In Figure 2, the panel data line plots for board size (BS) are presented.

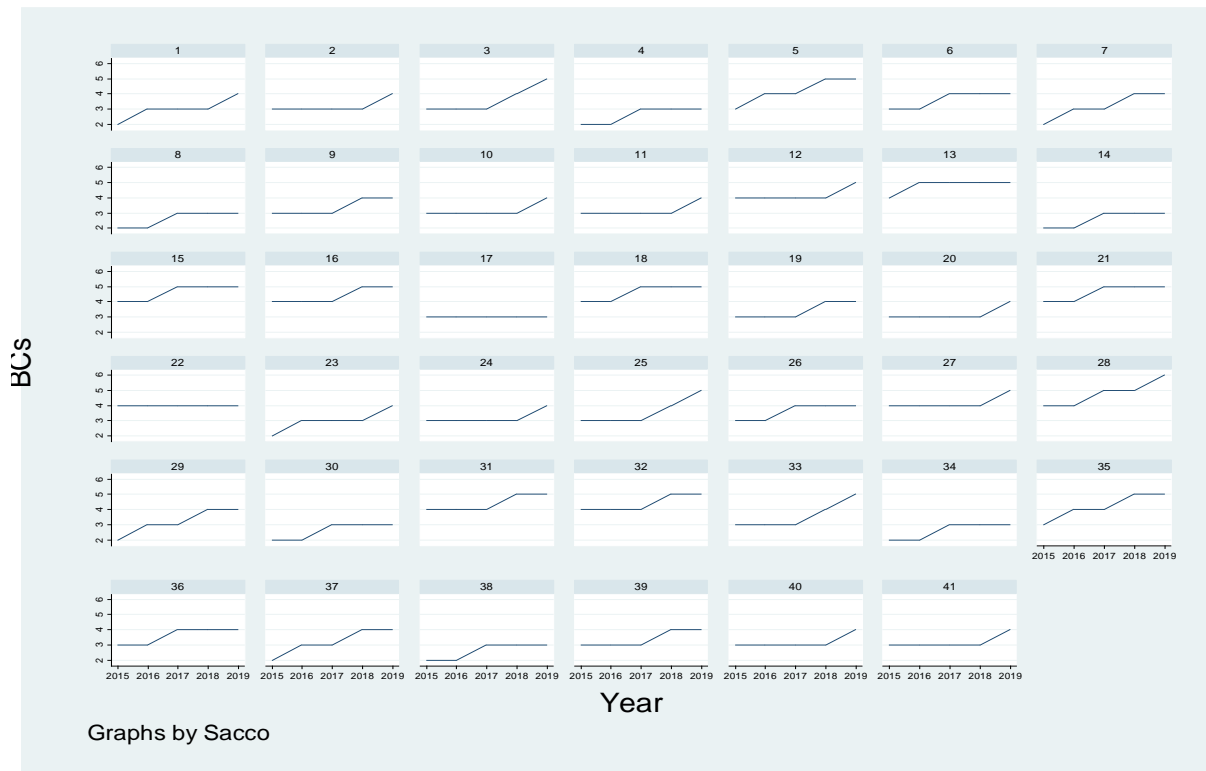
Figure 2
Panel Data Line Plots for Board Size



Source: Author (2020)

The panel data line plots for board size presented in Figure 2 illustrate the changes in board size for the 41 SACCOs for the five years. The figure illustrates that for most of the SACCOs, board size remained unchanged for the entire five year period. However, there are some SACCOs like 1, 2, 20 and 35 which increased the size of their board. Besides, the panel data line –plots for committees of the board are provided in Figure 3.

Figure 3
Panel Data Line Plots for Board Committees



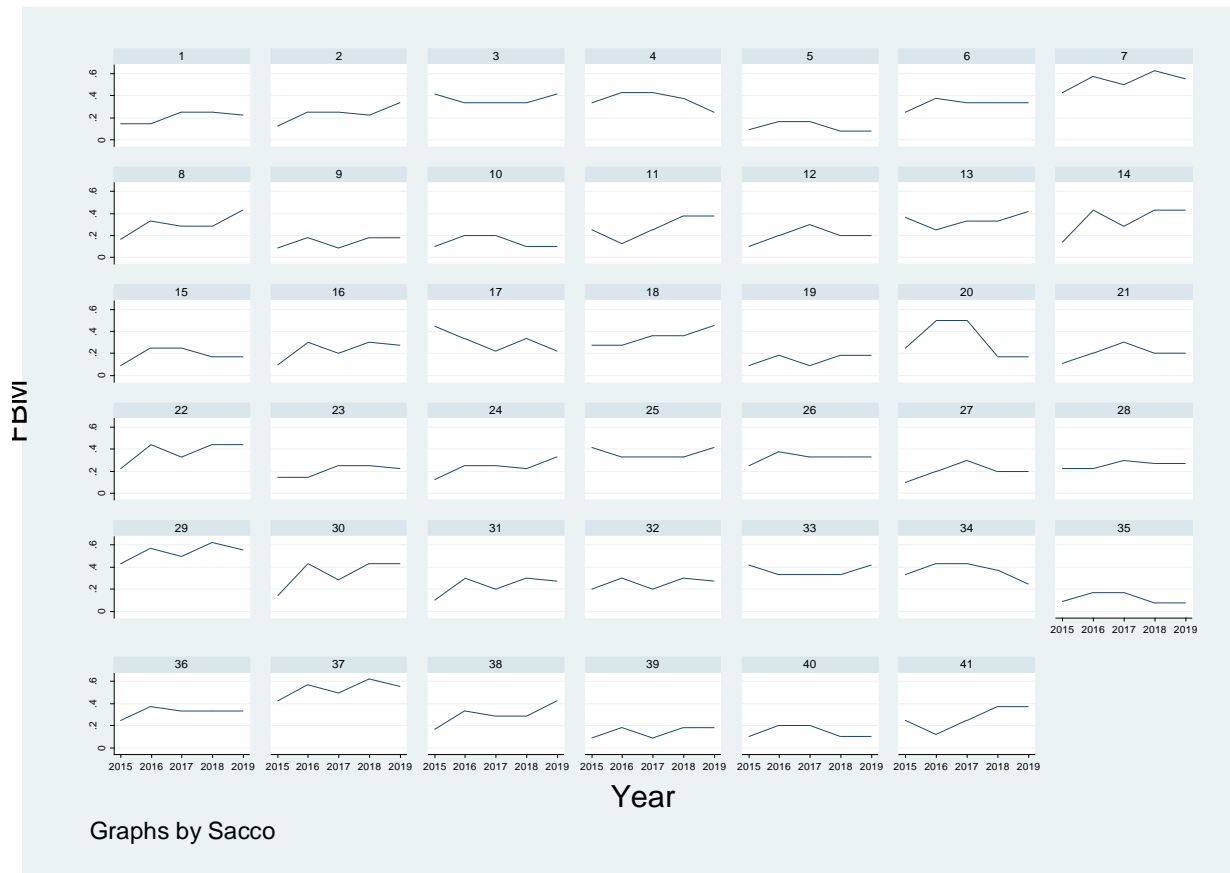
Source: Author (2020)

The panel data line plots for board committees indicate that most of the SACCOs increased the number of the committees of the board at some time over the five year period. However, there were some SACCOs like 17 and 22 which did not change the number of

committees over the five-year period. Regarding board diversity, the panel data line plots for proportion of female board of directors is presented in Figure 4.

Figure 4

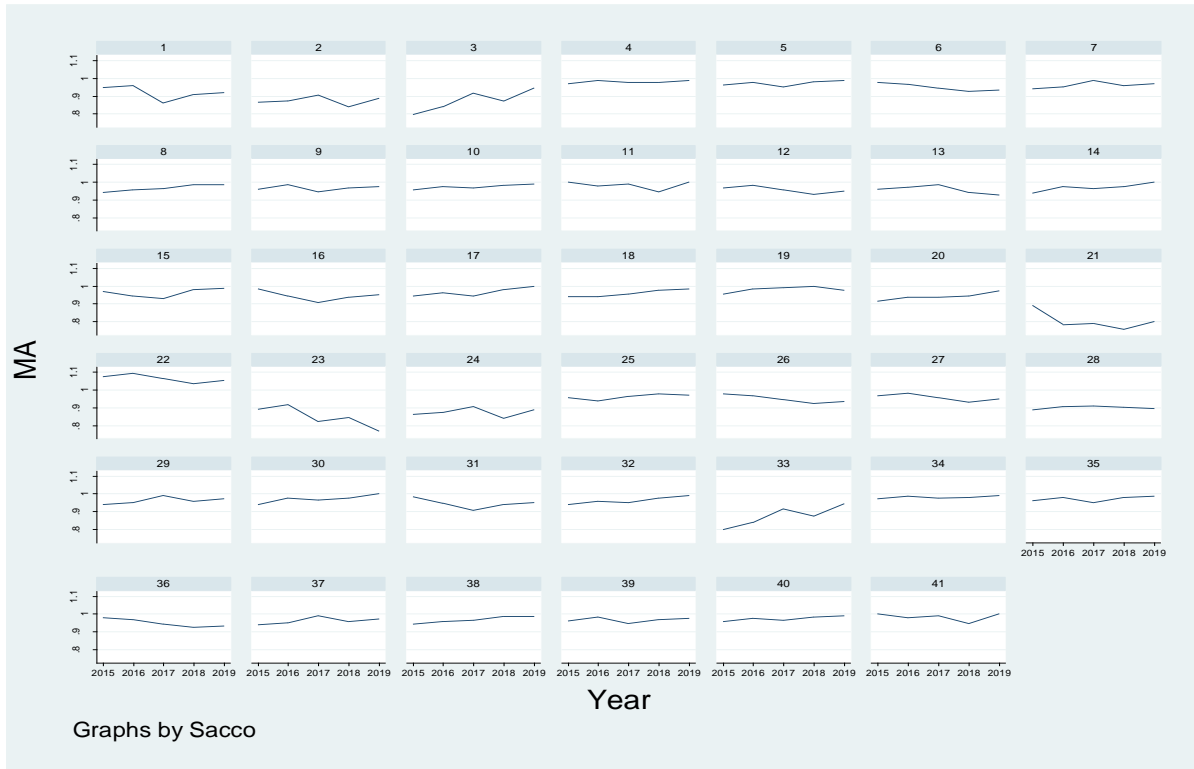
Panel Data Line Plots for Proportion of Women in the Board



Source: Author (2020)

The plots provided in Figure 4 show that this was the variable with the highest change amongst most of the SACCOs in the five-year period. SACCOs experiencing highest changes included 14, 16, 17, 20, 22, 30 and 39 amongst others. Additionally, the study developed panel data line plots for meeting attendance. The findings are presented in Figure 5.

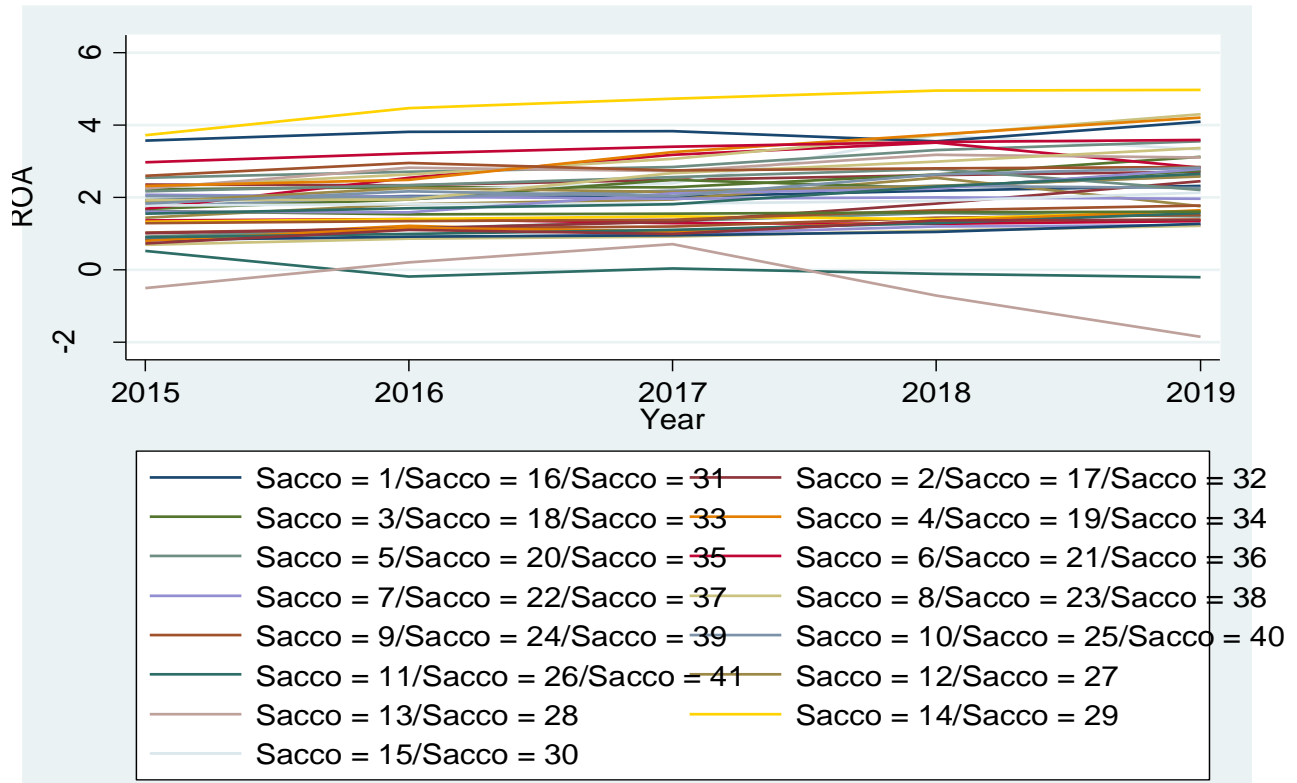
Figure 5
Panel Data Line Plots for Meetings Attendance



Source: Author (2020)

The panel data line plots in figure 5 illustrate that meeting attendance by the board of directors was high with year on year changes in most SACCOs. However, there were SACCOs that experienced high year on year disparities such as 1, 2, 3, 21, 23, 24 and 33. Lastly, the dependent variable for the study was ROA. The panel data overlain plots for ROA are presented in Figure 6.

Figure 6
Panel Data Overlain Plots for Return on Assets



Source: Author (2020)

The overlain plots for ROA illustrate that apart from a few SACCOs, the ROA ranged from 1.5 to 4%. The overlay plots also show that there were no major observable differences in the trends of ROA of the 41 SACCOs.

4.4 Diagnostic Tests

To ensure that the regression model assumptions are satisfied before and after the model specification, the study conducted diagnostic tests. The first test conducted before the model was fitted was the test of multi-collinearity, which was conducted to assess whether there are any two

independent variables that had high linear relationship. When multi-collinearity exists, this could lead to inflation of standard errors and thus making it difficult to assess the individual regression coefficients. The VIF was used for this study. The results are presented in Table 3.

Table 3
Multi-collinearity test Using Variance Inflation Factors

| Variable | VIF | 1 / VIF |
|----------|------|----------|
| BS | 1.86 | 0.536691 |
| BCs | 1.68 | 0.594969 |
| FBM | 1.15 | 0.868216 |
| MA | 1.01 | 0.991662 |
| Mean VIF | 1.43 | |

Source: Author (2020)

The results in Table 3 show that all the variables had VIFs below 2. The mean VIF was 1.43. Board size and board committees had the highest VIFs with 1.86 and 1.68 respectively. According to Linton (2017), if the VIFs of independent variables in a regression model are below 5, this is an indicator that they have no significant linear association. The implication is that there is no multi-collinearity and therefore, the standard errors and the regression coefficients from such a regression model are efficient and reliable.

The second diagnostic test conducted was test for autocorrelation. This assessed whether there was any association between the study variables and their lagged versions over the different time periods. Fisher (2017) observes that though serial correlation does not influence the consistency or lack of biasness of the regression estimators, it could influence their efficiency of the model. The study applied Wooldridge test to assess serial correlation. The null hypothesis for the test is no serial correlation. The findings are presented in Table 4.

Table 4
Test of Autocorrelation Using Woodridge Test

| | | | |
|---|------------|-----|----------|
| Wooldridge test for autocorrelation in panel data | | | |
| H0: no first order autocorrelation | | | |
| F(| 1, | 40) | = 18.896 |
| | Prob > F = | | 0.0001 |

Source: Author (2020)

The study results presented in Table 4 show that the p value of the Woodridge test for autocorrelation was below 0.05 ($p = 0.0001$). This implies that there was autocorrelation. Though Zikmund et al. (2013) indicates that serial correlation does not have significant consequences for data with less than 10 time periods, Angrist and Pischke (2014) note that addressing serial correlation would make the fitted model to be more efficient. Wooldridge (2015) indicates that this can be fixed by clustering the standard errors at the unit level. In the study, the model was fitted by clustering the standard errors at the SACCO level.

After the model was fitted using the clustered errors, the study conducted the test for heteroscedasticity, which is the condition that the variance of errors is not uniform along all levels of the dependent variable. According to Gujarati (2011), heteroscedasticity can lead to inefficiency of the estimators and high variance in the model coefficients. The study applied the Breusch-Pagan Cook-Weisberg test for group wise heteroscedasticity to assess heteroscedasticity in the data. The results are presented in Table 5.

Table 5
Test of Heteroscedasticity

| | |
|---|----------|
| Breusch-Pagan / Cook-Weisberg test for heteroskedasticity | |
| Ho: Constant variance | |
| Variables: fitted values of ROA | |
| chi2(1) | = 2.16 |
| Prob > chi2 | = 0.1420 |

Source: Author (2020)

The results presented in Table 5 indicate that p value of the Breusch-Pagan Cook-Weisberg test for group wise heteroscedasticity Chi square was above 0.05 ($p = 0.1420$). This indicates that the null hypothesis of constant variance could not be rejected implying that there was homoscedasticity.

Lastly, the study conducted the test of normality of residuals. This was conducted using the Shapiro Wilk test. After the model was fit, the residuals were generated and the test conducted. Saunders et al. (2015) indicate that the error terms of a regression model need to be normally distributed for the inferences from the model regarding significance levels and coefficients to be valid. The results of the Shapiro Wilk test are provided Table 6.

Table 6
Test of Normality of Residuals Using Shapiro Wilk

| Variable | Obs | W | V | z | Prob> z |
|-----------|-----|--------|-------|-------|---------|
| Residuals | 205 | 0.9684 | 1.412 | 0.547 | 0.2417 |

Source: Author (2020)

The results provided in Table 6 show that the Shapiro-Wilk test was not significant since the p value was above 0.05 ($p = 0.2417$). This shows that the null hypothesis of normal distribution of the errors could not be rejected. It was hence concluded that the errors were

normally distributed. This is an indication that the inferences from the model regarding significance levels and coefficients are valid.

After the diagnostic tests, the study conducted a Hausman test to determine which of the panel data models (fixed effects or random effects) was appropriate for the study. The Hausman test discovers endogenous predictor variables in a regression model which have values that are determined by other variables in the model. The results of the Hausman test are provided in Table 7. The results indicate that the p value was below 0.05 ($p = 0.0014$). This indicates that the fixed effects model was appropriate for the data. Hilmer and Hilmer (2013) observe that the fixed effects model enables control of the unobserved time-invariant characteristics that are specific to the individual units. This model assumes that these characteristics are correlated with the predictor variables included in the model.

Table 7
Hausman Test

| . hausman fixed random | | | | |
|------------------------|--------------------|----------|------------|---------------------|
| | —— Coefficients —— | | | |
| | (b) | (B) | (b-B) | sqrt(diag(V_b-V_B)) |
| | fixed | random | Difference | S.E. |
| BS | .2794502 | .1412009 | .1382493 | .0330589 |
| BCs | .2033005 | .2696161 | -.0663156 | .0144747 |
| FBM | .2192325 | .2030313 | .0162012 | . |
| MA | 1.100099 | .3136384 | .7864603 | .2022447 |

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

Test: Ho: difference in coefficients not systematic

$\chi^2(4) = (b-B)' [(V_b-V_B)^{-1}] (b-B)$
 = 17.74
 Prob>chi2 = 0.0014
 (V_b-V_B is not positive definite)

Source: Author (2020)

4.5 Model Fitting

The selected fixed effects model that was fitted is presented in this section. The independent variables were board size (BS), board committees (BCs), board diversity indicated by the proportion of female members in the board (FBM) and meeting attendance by the board members (MA). The dependent variable was surplus as a percentage of the SACCO's assets (ROA). During the model fitting, the standard errors were adjusted by clustering them by SACCOs. This was done to address the problem of serial correlation. The results of the model are presented in Table 8.

Table 8
Fixed Effects Model on Return on Assets

| Fixed-effects (within) regression | | Number of obs | = | 205 | |
|---|-----------|---|-------|--------|----------------------|
| Group variable: Sacco | | Number of groups | = | 41 | |
| R-sq: within | = 0.3789 | Obs per group: min | = | 5 | |
| between | = 0.0143 | avg | = | 5.0 | |
| overall | = 0.0007 | max | = | 5 | |
| corr(u _i , Xb) = -0.5669 | | F(4, 40) | = | 16.58 | |
| | | Prob > F | = | 0.0000 | |
| (Std. Err. adjusted for 41 clusters in Sacco) | | | | | |
| ROA | Coef. | Robust Std. Err. | t | P> t | [95% Conf. Interval] |
| BS | .2794502 | .0585431 | 4.77 | 0.000 | .1611301 .3977703 |
| BCs | .2033005 | .0555456 | 3.66 | 0.001 | .0910385 .3155624 |
| FBM | .2192325 | .3401387 | 0.64 | 0.523 | -.4682133 .9066784 |
| MA | 1.100099 | 1.806707 | 0.61 | 0.546 | -2.551392 4.751589 |
| _cons | -2.414052 | 1.649974 | -1.46 | 0.151 | -5.748773 .9206686 |
| sigma_u | 1.2039984 | | | | |
| sigma_e | .32976748 | | | | |
| rho | .93021722 | (fraction of variance due to u _i) | | | |

Source: Author (2020)

The results presented in Table 8 show the fitness of the model, the explanatory power of the model and the significance of the independent variables in predicting the dependent variable. The panel was balanced as all the SACCOs had observations for all the years. Regarding fitness of the model, the f statistic ($F = 16.58$) was statistically significant ($p < 0.05$) indicating that the model was fit and at least one of the independent variables was significant in explaining the dependent variable. The coefficient of determination (r squared within) indicates that 37.89% of the variation in ROA within the five-year period is explained by board size, board committees, gender diversity and board meetings. Besides, the model explains 1.43% of the variation in financial performance between the 41 SACCOs (r squared between = 0.0143). Additionally, the overall r squared indicates that if POLS model was applied, it would have experienced 0.7% of the variance in financial performance of the SACCOs (r squared overall = 0.0007).

The study findings presented in Table 7 show that board size (BS) had a significant positive effect on ROA ($\beta = 0.2795$, $t = 4.77$, $p < 0.05$). This implies that SACCOs that had a larger board performed better than their peers with smaller boards. The findings suggest that increasing the board size by 1 member would result to an increase in ROA by 0.2795, when all others variables are held constant. The findings also indicated that board committees (BCs) had a significant positive effect on ROA ($\beta = 0.2033$, $t = 3.66$, $p < 0.05$). This suggests that SACCOs with more board committees performed better than their counterparts who had fewer board committees. Additionally, the results indicate that increasing the board committees by 1 would lead to an increase in ROA by 0.2033 when all other variables are held constant. Besides, the findings indicate that gender board diversity (FBM) did not have a significant effect on ROA ($\beta = 0.2192$, $t = 0.64$, $p = 0.523$). Similarly, board meeting attendance (MA) did not have a significant effect on ROA ($\beta = 1.1$, $t = 0.61$, $p = 0.546$).

4.6 Discussion of the Findings

The study findings showed that board size had a significant positive effect on ROA ($\beta = 0.2795$, $t = 4.77$, $p < 0.05$). This implies that SACCOs that had a larger board performed better than their peers with smaller boards. The findings suggest that increasing the board size by 1 member would result to an increase in ROA by 0.2795, when all others variables are held constant. These findings support the agency theory by Jensen and Meckling (1976) which hypothesizes that agency relationship between principals and agents breed conflict where the agents could cater for their self-regard relatively more than catering for the interests of their principals. This happens when there is a separation of control and ownership. Principals in a SACCO are the members whereas the agents are the management. In some cases, Kandukuri et al. (2015), observed that management could cater for their selfish interests rather than catering for the members' interests. This generates into an agency conflict. This conflict can be managed by providing monitoring mechanisms such as the board of directors. The board of directors are elected by the SACCO members in an annual general meeting so that they can monitor the actions of management on the members' behalf according to Arora and Sharma (2016).

The findings in this study of the positive and significant effect of board size on financial performance of SACCOs give credence to the agency theory. When a SACCO has a large board, this board will be able to effectively monitor all key areas of the SACCO, and cater for the different operations and interests which can improve the financial performance of the SACCO. Besides, A SACCO with many board members is expected to cater efficiently to the different operations of the SACCO and thus enhancing the effectiveness of the SACCOs strategies, policies and operations. This in turn is expected to lead to improved performance. Moreover,

having many board members is expected to enhance the experience, skills and knowledge available to the SACCO. This can enable the board to contribute effectively to the different aspects of the SACCO and thus positively influencing financial performance of the SACCO.

Besides, the study results of the positive and significant effect of board size on financial performance of SACCOs relate with previous empirical findings. Specifically, the study findings concur with the findings by Shunu et al. (2017) who investigated the influence of board size on financial performance of firms listed in the NSE, in Nairobi, Kenya. The study established that board size had a statistically significant positive influence on financial performance of firms listed at the NSE. The study implied that a larger board brings in more experience into the firm which can be utilized to provide better governance and hence improved financial performance. Similarly, the study findings agree with the findings by Ogada et al. (2016) who determined that board size had a significant influence on a firm's financial performance. The study noted that a larger board brings in different skill sets to the firm which the firm can utilize to enhance decision making and performance.

However, the study findings of the positive and significant effect of board size on financial performance of SACCOs contradicts some previous studies. For instance the findings contradict the findings by Vo and Nguyen (2014) who assessed the influence of corporate governance on firm performance in Vietnam. The study established that there was no statistically significant influence of the size of the board on financial performance.

The findings of the positive influence of board size on financial performance of SACCOs also disagree with some studies which had found negative effect. Specifically, the findings of the study by Mohan and Chandramohan (2018) which was conducted in India disagree with the current study findings. The study findings had revealed that board size had a statistically

significant negative influence on firm performance. The explanation to these findings was that when a firm has many board members, this can increase conflict in major decisions which negatively affects the firm's operations and hence reducing performance. The current study findings also disagree with the findings in a study in Taiwan by Wu et al. (2017) which investigated the effect of board size on financial performance. The study established that board size had a negative and significant influence on financial performance. The study further established that large boards can make consensus building hard which makes decision making slow. This can make the firm unable to take advantage of opportunities on a timely manner, thus leading to reduced performance. Similarly, the study results contradict the results from a study by Uwuigbe and Fakile (2012) which was conducted in the Nigerian banking sector. The study established that board size has a negative and significant influence on financial profitability of listed commercial banks in Nigeria. The reason the current study findings differ from these studies could be explained by the differences in context, industries and methodologies.

Regarding board committees, the study established that board committees had a significant positive effect on ROA ($\beta = 0.2033$, $t = 3.66$, $p < 0.05$). This suggests that SACCOs with more board committees performed better than their counterparts who had fewer board committees. Additionally, these study results imply that increasing the board committees by 1 would lead to an increase in ROA by 0.2033 when all other variables are held constant. These findings support the stewardship theory of organizational management and corporate governance which was developed by Davis et al. (1997). The major proposition of the theory is that agents do not always go against the interest of the principals. This theory indicates that the interests of the agents could be harmonised to the interest of the principals. The implication of this is that when left on their own, organization's executives would still play the role of stewards

effectively. Therefore, as Donaldson and Davis (1991) observed, the role of the board is therefore not to monitor management but to provide direction and leadership to enable management perform to the best of their abilities for the benefit of the organization. The study findings support this theory by showing that through board committees, the key role of the board in this case is not to monitor management but to play a strategic role of guiding management in the direction that will be beneficial for the optimum performance of the SACCO. Therefore, having many committees covering all the key areas of the firm and thus enabling the SACCO to function smoothly. Presence of many board committees enables the board to utilize the diverse skills, experiences and technical capacities of the members to enable the board to play its role as a direction provider better and thus influencing financial performance of the SACCO

The study findings that board committees have a positive effect on financial performance of SACCOs support various previous study findings. For instance, the study findings concur with the findings by Ammari, Amdouni, Zemzem and Ellouze (2016) in a study conducted in France. The study had established that the existence of at least three board committees positively affects financial performance of the listed French firms. The study's conclusion that more board committees are beneficial for financial performance of organizations since they provide oversight to critical areas in the firm. The findings also support the findings by Glover-Akpey and Azembila (2016) in a study that examined the influence of audit committees on financial performance of companies listed in the Ghana Stock Exchange (GSE). The study findings determined that having many board committees taps the specific knowledge, skills and talents of the different board directors that enables them to educate the entire board on critical areas of concern.

However, the study results of the effect of board committees on financial performance of the SACCOs contradict other studies which had found no significant effect. For instance, the study results contradict the findings by Puni (2015) in a study conducted in Ghana that explored the effect of board committees on financial performance of quoted firms. The study established that board committees had no significant influence on financial performance of the quoted companies. Similarly, the study findings contradict with the results in a study by Singhchawla and Evans (2011) in Australia that assessed the influence of independence and number of board committees on firm's financial performance. The study results determined that the number of independent sub-committees had insignificant influence on financial performance.

On board diversity, the study findings established that board gender diversity did not have a significant effect on ROA ($\beta = 0.2192$, $t = 0.64$, $p = 0.523$). These findings contradict the Pfeffer and Salancik's (1978) resource dependence theory which indicates that resources generated externally and internally by the organization can influence the operations and efficacy of the organization. The theory indicates that procurement of external resources, such as female board members, is essential as it enables the organization to enhance the diversity of resources at its disposal. This theory is particularly critical when it comes to recruitment of board members in an organization. The theory hypothesizes that when an organization recruits board members who have diverse professional, gender, education and technical characteristics and competencies, the organization is able to tap from a diverse pool of talent which enables efficient stewardship and control (Bhagat & Bolton, 2008). This in turn can enable the organization to perform better than its peers financially. Resource dependence theory is a popular theory in corporate governance and organization studies. It has been appropriately tested in various studies where several studies support the theory. These studies include Hanh, Ting, Kweh and Hoanh (2018), Buchdadi et al.

(2019), Slama, Ajina, and Lakhali (2019) and Ali et al. (2019). However, despite support from such studies, the findings in this study did not support the theory.

The resource dependence theory had been applied in the study to explain how board size and gender diversity can influence financial performance of the SACCO. The hypothesis from the theory is that when a board has gender diversity, this could imply a mix of diverse experiences and competencies which the organization can utilize in implementing its policies and strategies as indicated by Arora and Sharma (2016). An organization with a less diverse board was expected to have a small pool of professionals to control and steer it. This means limited experiences and capacities amongst the members which limit their ability to provide adequate stewardship for the organization as postulated by Bhagat and Bolton (2008). However, the findings from the study indicated that board gender diversity did not have an effect on financial performance of the SACCO.

The study findings of the effect of board diversity on financial performance relates to the findings from previous studies. The current study findings support the results by Pletzer et al. (2015) in a study that investigated the effect of female representation on boards on financial performance of the firms. The study results showed no significant association between women representation in boards and financial performance of the firm.

However, the study findings of the no effect of board gender diversity on financial performance of SACCOs contradicts findings from previous studies. For instance, the study findings contradict the findings by Slama, Ajina and Lakhali (2019) that assessed the influence of board gender diversity on an organization's financial performance. The study findings determined that the comply-or-explain sanction regarding increasing the percentage of women in boards by the French code increased financial performance for high performing firms. The

findings suggested that having a more gender diverse board enhanced financial performance since it led to better decision-making, more diverse discussion and enhanced the reputation of the firm to its customers and constituents. The findings also contradicted the findings by Green and Homroy (2018) which established that percentage of women representation in boards had a robust positive effect on financial performance of the Euro Top 100 firms. The study had been conducted on Euro Top 100 firms from 11 European countries. The results indicated that having a gender balanced board influenced performance since a gender-diverse board is more likely to have diverse perspectives which are essential for the firm in today's, complex and dynamic operating environment. Another study by Vishwakarma (2017) also contradicted the findings from the current study. Results from the study determined that there is a significant positive influence of the proportion of women as board members on financial performance of the Indian MFIs.

Besides, the study results contradict the findings by studies that found negative effect of board gender diversity on financial performance. For instance, the study findings contradict the findings by Adusei, Akomea and Poku (2017) who explored the effect of board gender diversity on financial performance of MFIs. The study results determined that board gender diversity had a significant negative influence on MFI financial performance. However, the findings indicated that 50% or lower female representation in the board was the edge at which gender diversity is beneficial to MFIs. The explanation for these findings that when the board is gender-diverse at 50% or lower, it provides the board with a more impetus to ensure greater due diligence and a better understanding of customer preferences which are critical for financial performance.

Regarding board meeting attendance, the study established that board meeting attendance did not have a significant effect on ROA ($\beta = 1.1$, $t = 0.61$, $p = 0.546$). This did not support the

stewardship theory of organizational management and corporate governance as developed by Davis et al. (1997). This theory proposes that the key role of the board is not to monitor management but to play a strategic role of guiding management in the direction that will be beneficial for the optimum performance of the firm. This is done by attending meetings that make key organizational decisions. However, the study findings indicated that meeting attendance did not have an effect on financial performance of SACCOs contrary to the expectations from the theory's concepts.

The study findings on the effect of board meetings attendance on financial performance of SACCOs contradicted several studies. For instance, the study contradicts the findings by Buchdadi et al. (2019) who examined the influence of board of director meeting attendance on financial performance of firms listed in the Jakarta Stock Exchange. The study results showed that board of director meeting attendance and the number of board meetings had significant positive effect on financial performance of the firms quoted in the Jakarta Stock Exchange. The results indicate that board member participation in meetings provide valuable and productive contributions towards strategies and decision making which are essential for the firm's financial performance. Similarly, the study findings contradicted the findings from a study by Paul (2017) which indicated that attendance of board meetings was positively and significantly correlated to ROA. Additionally, the study results contradicted the findings by Glover-Akpey and Azembila (2016) which established that attendance rate in board meetings and the number of board meetings have a positive effect on financial performance of listed firms in the GSE.

Besides, the study findings contradicted the findings by a study conducted on the Kenyan commercial banking sector by Mweta and Mungai (2018). The study findings established that board meeting attendance had a weak negative relationship with financial performance of

commercial banks. This could have been due to inability of the meetings to discuss critical governance or strategic items in those meetings which made the contributions of such meeting attendance to be insignificant.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter comprises of the summary of the key findings, the study conclusions, and the recommendations made. The summary provides the findings relating to the study objectives and research questions. The findings hence provided answers to the research questions. The conclusions made are based on the key study findings while the recommendations are provided for policy and practice improvement. The chapter also outlines the limitations of the study. Lastly, the chapter provides suggestions for further research.

5.2 Summary of Findings

The study findings indicated that board size has a significant positive effect on ROA. This implies that SACCOs with a larger board performs better than their peers with smaller boards. The findings suggested that increasing the board size would result to an improvement in ROA. The study noted that the average board size in the 41 SACCOs was 9.28 with a standard deviation of 1.91. The minimum board size was 4 and the maximum was 13. Considering this and the effect of board size on ROA, increasing the board size towards above the average is expected to have a positive effect on ROA.

The study findings indicated that board committees (BCs) have a significant positive effect on ROA. This implies that SACCOs with more board committees performed better than their counterparts with fewer board committees. The implication of these findings is that increasing the board committees by 1 would lead to an increase of 0.2033 in ROA. While considering that the average committees of the board was 3.56 with a standard deviation of 0.86,

and the SACCOs with the lowest number of committees had 2 while the one with the most board committees had 6, this implies that increasing board committees towards 6 would enable the SACCO to enhance their performance.

The study findings indicate that gender board diversity did not have a significant effect on ROA. Board diversity was measured by the number of female members on the board. The study established that the average proportion of women was 28% with a standard deviation of 0.13. The SACCO with the lowest proportion of women in the board had 7.7% while the one with the highest had 62.5%. However, despite this disparity, research evidence indicated no significant differences in ROA between the SACCOs that had more women in their board and those with fewer members in the board. The proposition that increasing women in the board will improve performance of the organization rests on the assumption that the women members added will enhance the board's cognitive variety since female board members are indicated to have different knowledge, experience and from men. However, this proposition was not supported by the study findings.

Lastly, the study results indicated that board meeting attendance did not have a significant effect on ROA. The average board meeting attendance was high in all the SACCOs (94.93%) with a standard deviation of 0.05. The SACCO with the lowest meeting attendance over the five-year period had 75.83% while the one with the highest had 100% attendance. The proposition that board of directors meeting attendance is critical for attaining quorum, for any business to be conducted legally. Similarly, boards have directors who regularly fail to attend meetings, the SACCO business and the other highly engaged members of the board could be affected. Besides, failure to attend meetings regularly by board members could harm the company since such board members will be voting without a clear understanding of the issues

that had been deliberated in the meetings that the board members had not attended. Though board meeting attendance was expected to have a positive effect on SACCO performance, this was not supported by the findings.

5.3 Conclusions

Considering the findings of the study, the following conclusions are made. Regarding board size, the study concludes that board size is essential for financial performance of SACCOs. Having a larger board size enables the SACCO to performance better than those SACCOs with smaller boards. A larger board is expected to enable inclusion of many members with different skill set, experiences and professions to be accommodated. When the SACCO draws board from a variety of skillsets, it can achieve better governance and achieve high levels of performance. This is unlike boards with fewer members and hence providing the SACCO with fewer experiences and skills.

The study concludes that the number of board committees play a critical role in influencing financial performance of deposit taking SACCOs. Therefore, SACCOs with more board committees are expected to post better performance than their counterparts with fewer board committees. Committees that are formed by the board focus on key specific areas and make informed and effective decisions within the delegated authority framework. They then make key recommendations to the boards which when addressed, they can influence financial performance of the SACCO and also its sustainability. The board through its committees, have a more detailed, better and more focused attention on critical areas of the SACCO which enhances governance and financial performance. Besides, when board members are involved in committees, it allows them to deepen their understanding of the SACCO, become more actively

involved in steering the SACCO and use their skills, knowledge and experience to enhance performance of the SACCO.

Regarding board gender diversity, the study concludes that though desirable to ensure balance in gender representation at the key decision making organ in the SACCO, board gender diversity does not play any significant role in influencing financial performance of the SACCO. The increase in female representation at the board level of organizations in general and SACCOs in particular, have been promoted either by imposing regulation or providing softer recommendations regarding codes of good governance. Based on the study findings, this has taken traction but women representation in boards largely falls below a third in most SACCOs. However, there was no evidence in the study linking gender board diversity with financial performance of SACCOs.

Lastly, the study concludes that board meeting attendance was not critical in influencing financial performance of the SACCOs. The board of directors have the responsibility of providing oversight and ensuring welfare and good governance in their respective SACCOs. After being elected, each director is expected to be engaged and be present in all meetings to make the necessary decisions for the performance, growth and prosperity of the SACCO. It is hence expected that attendance of meetings by board members could be linked to financial performance and prosperity of the SACCO. Regular meeting attendance also provides good working relationship amongst the board members which is vital for the welfare of the organization. Moreover, when board members regularly attend meetings, they create teamwork which is critical for unified efforts towards achievement of the goals of the SACCO. However, despite these positive effects of board meeting attendance, there was no evidence that related meeting attendance to financial performance of the SACCOs.

5.4 Recommendations of the Study

Based on the study conclusions, the study makes the following recommendations. First, SACCOs with fewer board members should consider increasing the number of board members to be sufficient enough to provide the requisite oversight and governance of the SACCO. Consideration should also be made to include board members with various experiences, skills and professions so that to provide oversight for all critical areas of the SACCO.

Secondly, SACCO boards of directors should form several committees to oversee critical functional areas of the SACCOs. Boards should consider having committees for various functions and areas such as credit, audit, investment, supervisory, remuneration, ethics, education, community involvement, saving mobilization and other key functional areas which are critical for the performance and growth of the SACCO. This will enable the board members to have a more detailed, better and more focused attention on critical areas of the SACCO, thus enabling the board to make effective decisions that could enhance financial performance of the SACCO.

Third, the study recommends that though board gender diversity does not link to financial performance of the SACCO, SACCO members should consider electing more women to the board. The study concludes that though desirable to ensure balance in gender representation at the key decision making organ in the SACCO, board gender diversity does not play any significant role in influencing financial performance of the SACCO. The increase in female representation at the board level of organizations in general and SACCOs in particular, have been promoted either by imposing regulation or providing softer recommendations regarding codes of good governance. Based on the study findings, this has taken traction but women

representation in boards largely falls below a third in most SACCOs. However, there was no evidence in the study linking gender board diversity with financial performance of SACCOs.

Lastly, the study recommends that though board meeting attendance is not critical in influencing financial performance of the SACCOs, elected members of the board should ensure that they attend all statutory meetings to enable such meetings to have the required quorum to conduct business that could benefit the SACCO. Besides, every SACCO should have strict policy on meeting attendance so that every elected member's performance could be gauged by how they attend meetings and their contributions in such meetings. Members should also attend meetings regularly to create a teamwork and a good working relationship amongst the board members which is critical for the success of the SACCO.

5.5 Limitations of the Study

This study assessed the effect of corporate governance on financial performance of savings and credit cooperatives in Nairobi County, Kenya. The study findings indicated that board size and board committees have a significant positive effect on financial performance of SACCOs. However, the study findings established that gender board diversity and board meeting attendance did not have a significant effect on financial performance of SACCOs. Interpretation of these findings requires one to understand the study limitations so that interpretation, generalization or application of the findings is conducted while considering these limitations in mind.

First, the study only focussed on SACCOs in Nairobi County. Though the findings provide critical evidence for policy and practice, it is important to note that these findings may not be readily generalizable to SACCOs in peri-urban or rural settings. Besides, the study

considered linear regression techniques while some variables, such as gender board diversity and board size, have been indicated to have an inverted U shaped relationship with financial performance in some studies. Lastly, the study only applied gender as the measure of diversity while not considering other measures of diversity such as skill diversity, age diversity, experience diversity and technical diversity.

5.6 Recommendations for Future Research

This study focussed on SACCOs in Nairobi County and excluded SACCOs from other parts of the country. SACCOs play a critical role in enhancing financial deepening and inclusion in the country while enhancing socioeconomic development of communities and members. SACCOs make it easier for the unbanked to access financial services, creates employment opportunities, encourages savings, supports development in the community, stimulates investments and economic growth to enable them to play these critical roles, the financial performance and economic sustainability of the SACCOs is critical. Since some corporate governance aspects and mechanisms have been established to affect financial performance in this study, this study should be replicated to SACCOs outside Nairobi.

The study also recommends studying other corporate governance mechanisms that could affect financial performance of SACCOs besides the ones that were included in this study. Such other factors could include skill diversity of the board, board characteristics, board tenure, transparency and accountability of the board, experience of the board and board independence. A study on how these factors influence performance would be critical in informing policy and practice that could enhance the financial performance and stewardship of SACCOs.

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APPENDICES

Appendix I: List of deposit taking SACCOs in Nairobi

1. Chai sacco society ltd
2. Kenya police sacco society ltd
3. Chunasacco society ltd
4. Ukulimasacco society ltd
5. Hazinasacco society ltd
6. Afyasacco society ltd
7. Kingdom sacco society ltd
8. Kenversitysacco society ltd
9. Elimusacco society ltd
10. Maisha bora sacco society ltd
11. Milikisacco society ltd
12. Mwalimu national sacco society ltd
13. Mwitosacco society ltd
14. Nacicosacco society ltd
15. Magerezasacco society ltd
16. Nafakasacco society ltd
17. Ardhisacco society ltd
18. Harambeesacco society ltd
19. Airports Sacco Society Ltd
20. Sheriasacco society ltd
21. Kenya bankers sacco society ltd
22. Nassefusacco society ltd
23. Kenpipesacco society ltd
24. Nation sacco society ltd
25. Asilisacco society ltd
26. Nyatisacco society ltd
27. Safaricomsacco society ltd
28. Shirikasacco society ltd
29. Jamiisacco society ltd

30. Shoppers sacco society ltd
31. Stimasacco society ltd
32. Ufanisisacco society ltd
33. Wanandegesacco society ltd
34. Ukristonafanisiwaanglicanasacco society ltd
35. Unaitas sacco society ltd
36. United nations sacco society ltd
37. Wanaangasacco society ltd
38. Waumini Sacco Society Ltd
39. Fundilimasacco society ltd
40. Comoco Sacco Society Ltd
41. Telepost Sacco Society Ltd

Source: SASRA (2020).

Appendix II: Data Collection Sheet

| Year | No. of board members | Number of board committees | Number of female members in the board | Total board meetings | Total meeting attendance by all members | Net Profit | Total Assets |
|----------------|----------------------|----------------------------|---------------------------------------|----------------------|---|------------|--------------|
| Sacco 1 | | | | | | | |
| 2019 | | | | | | | |
| 2018 | | | | | | | |
| 2017 | | | | | | | |
| 2016 | | | | | | | |
| 2015 | | | | | | | |
| Sacco 2 | | | | | | | |
| 2019 | | | | | | | |
| 2018 | | | | | | | |
| 2017 | | | | | | | |
| 2016 | | | | | | | |
| 2015 | | | | | | | |
| Sacco 3 | | | | | | | |
| 2019 | | | | | | | |
| 2018 | | | | | | | |
| 2017 | | | | | | | |
| 2016 | | | | | | | |
| 2015 | | | | | | | |
| .. | | | | | | | |
| .. | | | | | | | |
| .. | | | | | | | |