

The Relationship between Governance Practices and Performance: Evidence from Deposit Taking SACCOs in Nairobi and Central Kenya

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Declaration

This is to certify that this research thesis is my original work and has not been presented for a degree award in any other university or institution of higher learning. Information from other sources has been duly acknowledged.

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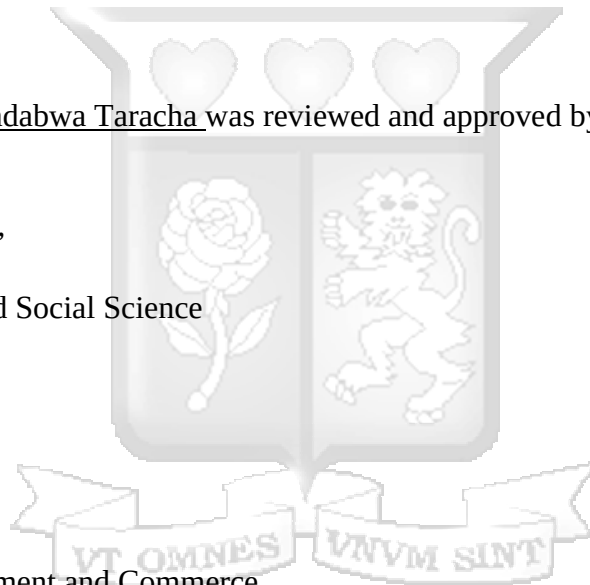


Table of contents

Declaration.....	ii
List of figures.....	vi
Dedication.....	vii
Acknowledgments	viii
Abstract.....	ix
Abbreviations	x
CHAPTER ONE	1
Introduction.....	1
1.1 Background.....	1
1.2 Statement of the problem	7
1.3 Research objectives.....	8
1.4 Research questions.....	9
1.5 Justification of the study	9
1.6 Scope of the study	10
1.7 Organization of the thesis	11
CHAPTER TWO	12
Literature Review	12
2.1 Introduction and overview of corporate governance	12
2.2 Theoretical framework.....	13
2.3 Studies on corporate governance in Kenya.....	14
2.4 Studies on corporate governance in cooperatives in Kenya.....	16
2.5 Studies on the relationship between board size and performance.....	18
2.6 Studies on women on board, CEO gender and performance.	19
2.7 SASRA requirements on governance and capital adequacy.	21
2.8 Conceptual framework.....	23
2.9 Chapter summary	24
CHAPTER THREE	25
Research Methodology	25
3.1 Introduction.....	25
3.2 Research design	25
3.3 Target Population.....	26
3.4 Sampling design.....	26

3.5	Data Collection	26
3.6	Model specifications	27
3.7	Variable definitions.....	28
CHAPTER FOUR.....		31
Data analysis and interpretation		31
4.1	Introduction.....	31
4.2	Descriptive statistics	31
4.3	Regression results	32
4.4	Compliance with SASRA regulations.....	34
4.5	Relationship between compliance with SASRA regulations and performance	36
CHAPTER FIVE		37
Discussions, Conclusions and Recommendations		37
5.1	Introduction.....	37
5.2	Relationship between board gender, CEO gender and Sacco performance	37
5.3	Compliance to SASRA regulations by SACCOs.....	39
5.4	The effect of compliance with SASRA regulations on performance.....	40
5.5	Recommendations.....	40
5.6	Limitations of the study	41
References.....		42
Appendices.....		53
Appendix 1: List of Deposit Taking SACCOs in Nairobi and Central Kenya		53
Appendix 2: Questionnaire		55
Appendix 3: Interview guide		58
Appendix 4: EViews output.....		59
Descriptive statistics		59

List of tables

Table 3.1 Study variables.....	30
Table 4.1 Descriptive statistics of dependent and independent variables.....	31
Table 4.2: ROA and governance variables: Random effects	32



List of figures

Figure 2.1: Conceptual Framework	24
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Dedication

This work is dedicated to my beloved mum, Truphosa who encouraged me to take up the Masters of Commerce course at Strathmore University.



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Abstract

This empirical study has used data for the year 2010 to 2013 extracted from the Sacco Society Regulatory Authority's Sacco supervision reports for thirty eight Savings and Credit Cooperatives in Nairobi and Central Kenya. The objective of this study is to evaluate the relationship between governance practices and performance of Deposit Taking Savings and Credit Co-operatives. The study has used Panel an Estimable Generalized Least Squares (Cross-section random effects) estimation technique to examine and determine the relationship between the independent variables: women on board chief executive officer gender and compliance with minimum capital requirements and the dependent variable return on assets. Control variables are age and debt.

Results indicate that, consistent with prior studies, there is a positive relationship between women on board, CEO gender and age with return on assets. Conversely, there is a negative relationship between debt and compliance with minimum capital requirements with return on assets. Board size has been dropped from the analysis because all Deposit Taking Savings and Credit Co-operatives in Nairobi and Central Kenya have a constant board size of nine members.

Results from analysis of primary data indicate that SACCOs have complied with most of the Sacco Societies Regulatory Authority's prudential regulations. However, they still experience challenges in liquidity management and the over involvement of board members in daily Sacco operations. Sacco performance has improved with continued compliance with Sacco regulations over the four year period.

Abbreviations

AGM	:	Annual General Meeting
ATM	:	Automated Teller Machine
BOSA	:	Back Office Savings Activities
CCG	:	Centre for Corporate Governance
DTS	:	Deposit Taking SACCOs
FOSA	:	Front Office Savings Activities
KES	:	Kenya shillings
KUSCCO	:	Kenya Union of Savings and Credit Co-operatives
NDTS	:	Non-Deposit Taking SACCOs
ROA	:	Return on assets
SACCO	:	Savings and Credit Co-operative
SASRA	:	SACCO Society Regulatory Authority
WOCCU	:	World Council of Credit Unions
PSCGT	:	Private Sector Corporate Governance Trust

CHAPTER ONE

Introduction

1.1 Background

Cooper (2007) states that corporations are subject to state imposed rules and regulations as well as events and forces around them. Corporate governance is affected by public governance. Weak economic and political governance at the country level trickles down into corporations. To promote good governance, a strong political will and appropriate resources are needed to overcome shortcomings in overall country/public governance. Governance shortcomings include defective legislations, malfunctioning judicial systems, weak accountability mechanisms, failure of law enforcement and prosecution to pursue claims arising from violations of financial regulations or white collar crime, weak auditing and disclosure laws.

The Global Corruption Report (2009) attributes poor governance in Kenya to excessive power within the presidency. Good governance demands that sector players be held responsible in the conduct of their business, demonstrating integrity in providing value to customers, adopting ethical employment practices and showing commitment to communities. Despite Kenya's admirable infrastructure, corruption remains a deterrent to potential investors in the financial sector.

According to the Global Corruption Report (2009) what ails Kenya's financial sector is poor sectorial and corporate governance resulting in weaknesses that make pensioners, creditors, employees and depositors extremely vulnerable. These weaknesses include ineffective laws, poor financial sector oversight as well as overbearing political and executive corruption.

Ng'ombe and Mikwamba (2004) define savings and credit cooperatives (SACCOs) as member owned financial cooperatives whose primary objective is to mobilize savings and afford members access to loans on competitive terms as a way of enhancing their socio- economic wellbeing. Therefore, SACCOs also known as credit unions are financial cooperative societies.

According to the World Council of Credit Cooperatives (WOCCU) website (2013) credit unions, called by various names around the world, are member-owned, not-

for-profit financial cooperatives that provide savings, credit and other financial services to their members. Credit union membership is based on a common bond, a linkage shared by savers and borrowers who belong to a specific community, organization, religion or place of employment. Credit unions pool their members' savings deposits and shares to finance their own loan portfolios rather than rely on outside capital. Members benefit from higher returns on savings, lower rates on loans and fewer fees on average.

Chavez (2007) states that SACCOs constitute a critical part of the Kenyan financial system, in many instances, they provide financial services in markets where the public lacks access to any other type of financial services. In 1997, when the banking sector experienced financial problems, several banks closed their branches in rural areas leaving many without access to financial services; SACCOs stepped in and opened branches in those rural areas.

Chavez (2007) notes that a transparent SACCO policy supported by a flexible set of laws and regulations will discourage fraud, improve the quality of services to members, ensure operational efficiency, and forge critical links to the broader financial market. SACCOs constitute a critical part of the financial system in Kenya. SACCOs are bank alternatives which provide a broad inclusive access to the financial sector. Muriuki and Ragui (2013) state that Kenya's cooperative movement is the most vibrant in Africa and ranked seventh globally.

Wanyoike (2013) observes that there are two types of SACCOs in Kenya: Deposit Taking SACCOs (DTS) and Non Deposit Taking SACCOs (NDTS). DTS are licensed and regulated by the Sacco Societies Regulatory Authority (SASRA) while NDTS are regulated and supervised by the Commissioner for Cooperatives. SASRA licenses SACCOs registered under the Cooperative Societies Act of 1997. DTS provide quasi banking services such as demand savings accounts, Automated Teller Machines (ATMs) and custodial services. NTDS limit their services to non-withdrawable or share savings and credit to members.

As stated in the Sacco supervision report (2013) the total assets of the licensed deposit taking SACCOS increased by Kshs 38 billion to Kshs 242 billion representing a 16.5% improvement from the 2012 figures. This growth in assets was funded mainly by member deposits, which increased from Ksh.146 billion in 2012 to K.sh.172 billion in

2013, a 19.3% growth. A total Kshs 185 billion was also disbursed as loans and advances representing an increase of 18.1%.

The Guidelines on Corporate Governance in Cooperatives in Kenya (2005) point out that the role of cooperatives societies (in this context SACCOs) need not be over emphasized. They are important vehicles for economic growth and development globally. National economies have benefited from well-governed cooperatives. Good governance in cooperatives would lead to the creation of wealth for sustained economic growth and development.

A number of studies highlight various governance challenges faced by SACCOs for example, Okeyo (2010), Sile (2009), Odera (2012), Owen (2007), Centre for Private Enterprise (2007), the Sacco Supervision Reports for the year 2010, 2011, 2012 and 2013. Sile (2009) observes that the board of directors and senior managers are accountable for the internal governance of a SACCO. The general assembly is the supreme authority and highest decision making body in a SACCO. While the board has a general duty to the general assembly, senior management must be held accountable for the implementation of policies, preparation of the budget and strategic plan, and achievement of predefined targets specified in the strategic plan. It is therefore important to specify in writing the roles and responsibilities of the general assembly, board members and senior management. This is the essence of governance, without clear definition and understanding of the separation of duties, governance of SACCOs may be compromised.

Sile (2009) observes that critics of the cooperative model argue that governance is the weakest link in financial cooperatives. Otieno *et al.* (2013) observe that nearly 2% of SACCOs collapse every year and about 6% of registered members withdraw from membership annually. Sacco Supervision Reports for 2010, 2011, 2012 and 2013 acknowledge that SACCOs experience challenges in governance structure, technical capacity and management information systems. With regard to governance, the historical practice where the management committee gets involved in SACCO operational affairs to the exclusion of technical staff is deeply entrenched limiting the effectiveness of the Sacco Societies Act 2008 and Sacco Societies Regulations (2010).

The Guidelines on Corporate Governance in Cooperatives in Kenya (2005) note that despite the great potential of cooperatives societies as agents for Kenya's national development they have performed poorly. The poor performance is attributable to poor governance practices by the Management Committees (Board of Directors) or other bodies entrusted with the responsibility of governing cooperative societies.

Chavez (2007) observes that active SACCOs provide traditional savings and credit services which have changed little over the years. SACCOs provide members' loans at 3 times the amount in savings. This has caused SACCOs to be illiquid, forcing them to look for other ways of improving liquidity. Introduction of Front Office Savings Account (FOSA) has enabled SACCOs to offer a broader range of services such as business, savings and fixed deposit accounts. Chavez (2007) points out that offering FOSA services has allowed SACCOs to experience phenomenal growth in assets increasing every year. Up to 2008 the growth in SACCOs was not accompanied by proportionate development of a legal and regulatory framework in the sector.

Okeyo (2010) notes that performance of many cooperatives in Kenya has been below their potential due to leadership and governance issues for example, a majority of board members had O' level and primary school level qualification with only 4% having more than A' level qualification. This could affect the decision making capacity and ability to adapt swiftly to changing business operating environments.

Sile (2009) notes that in the absence of operational policies in most SACCOs, some activities such as, setting of interest rates on loans and savings products have been institutionalized in the bylaws, because of this, SACCOs are forced to refer to the AGM operational decisions that can be easily made by senior management.

Davis (2001) observes that cooperatives fail both commercially and socially due to operating with an uncommitted management, a distant and uninvolved membership and unrepresentative and poorly skilled board. Odera (2012) states that problems occur in SACCOs due to lack of clear and proper rules separating management and board role in decision making, unqualified personnel in boards, inadequate managerial competitiveness, failure of membership and boards to exercise fiduciary responsibility and the one member one vote system.

Owen (2007) points out that the original legal framework for SACCOs in Kenya was provided by the Cooperative Societies Act of 1966 which gave the state powers to be involved in management of cooperatives. Due to economic liberalization, the Act was revised in 1997 in order for the government to give up control of cooperatives and give members autonomy. The Cooperative Societies Act of 1997 did not provide for a specialized regulatory framework for SACCOs. Consequently, there were no rules specifying qualifications for board members and prudential guidelines for monitoring financial performance. This gave rise to the '*Management Board System*' in which there was no clear division between the board and management, making board members to be involved in day to day operations of SACCOs. Weak governance in SACCOs has majorly been aggravated by the 'Management Board System' and lack of policies as well as procedures. The unwillingness of boards to delegate authority to managers hampers managers' and cooperatives' ability to function successfully in a competitive environment.

The Centre for International Private Enterprise (2007) notes that governance problems that plague cooperatives account for their poor reputation and neglect by policy makers and wider public. An impact analysis of the Sacco regulatory framework in Kenya by Chavez (2007) indicates that SACCOs are characterized by poor financial conditions, weak corporate governance, ineffective asset liability management, poor risk management and financial discipline. SACCOs are insolvent, lack adequate institutional capital, exhibit unprofitability, illiquidity and rely on external borrowed funds to meet members' loan needs. SACCOs are also plagued by governance problems that exacerbate and contribute to other problems such as non-functioning supervisory committees, poor internal controls, lack of strategic plans or business plans, basic policies and procedures, governance and insider abuse.

Chavez (2007) observes that SACCOs' ineffective asset liability management is caused by management's lack of understanding of asset liability management, inadequate computer systems and failure to modernize management techniques and practices. A serious concern in most SACCOs is their poor risk management practices. SACCOs are not accurately and effectively recognizing their liabilities and threats to their future solvency and liquidity. For example, failure to monitor and or report on delinquent loans,

loans awarded are not based on ability to repay, there are high off balance sheet liabilities and mismanagement of benevolent funds. Poor financial discipline is demonstrated in their overall management and policies, for example problems with financial statements and book keeping, failure to complete and submit required reports. Notwithstanding the challenges mentioned, the impact study highlights the fact that Kenyan SACCOs are a much bigger contributor to the economy than the industry thought and a major player in the financial market. If a large SACCO collapses, it could prove detrimental not only to the SACCO sector, but there could be a contagion effect on the entire financial sector and the Kenyan economy.

Owen (2007) observes that the capacity of boards and management is weak due to politics, inadequate policies and procedures. Board members may be elected for political reasons rather than governance and management skills. Board membership in SACCOs is viewed as a stepping stone into politics; this causes board memberships to be occupied by individuals not necessarily interested in enhancing members' interests. In the absence of a regulatory framework several weaknesses emerged hence need for enactment of a new Act of parliament to address these issues. The Sacco Societies Act 2008 was enacted in to strengthen governance of SACCOs. The Act creates the Sacco Societies Regulatory Authority (SASRA) to provide overall supervision of the Sacco sector in Kenya.

The Sacco Supervision Report (2011) points out that the new regulatory framework aims to enhance the transparency and accountability in the management of the Sacco Societies. SASRA has formulated regulations which are risk oriented to ensure that practices by SACCOs with respect to governance, operational and financial management are institutionalized and monitored to protect the interest of members and therefore depositors.

The Sacco Supervision Report (2011) lists three major challenges that SASRA continues to experience when enforcing compliance in the Sacco sector: governance structure, technical capacity and management information systems. The effective implementation of the legal and regulatory framework requires a new set of skills and knowledge. This requires financial resources and time besides attitude change amongst the leaders. The operating regulations and prudential standards define the new ways of doing business thus requiring heavy investments by Sacco societies in upgrading the

existing information systems for effective compliance. The pace of upgrade is slow due to the multiplicity of factors including governance, technical capacity and financial resources constraints.

According to the Sacco Supervision Report (2013), the Sacco board of directors is charged with the overall responsibility of ensuring sound and prudent management of Sacco affairs through implementation of an effective policy framework. However, this is lacking in a majority of SACCOs. SACCOs need to improve on the governance front to ensure that they realize their full potential.

1.2 Statement of the problem

A number of studies observe that there has been renewed interest concerning issues of corporate governance in Kenya, however relevant data from empirical studies is scant. Specific studies into governance issues and how they impact cooperatives in the developing world are very few. Cooperatives have not generated all the attention that they should as the result of the frequent corporate governance weakness identified as a major limit and constraint on their development.

SASRA was established under the Sacco Societies Act 2008 with a mandate to license regulate and supervise Deposit Taking SACCOs (DTS). However, despite the creation of the new regulatory framework, governance challenges still exist. According to the Sacco Supervision Report (2012) more than 50% of the 124 licensed SACCOs had built core capital to over 10% of their total assets as per SASRA regulations. However, challenges were noted with regard to governance and technical capacity slowing the speed of compliance. Regulatory actions were taken on a number of SACCOs which committed serious violations of the operational regulations and prudential guidelines. For example, in two institutions, officers found most responsible for violations were removed from office to protect member interests and safeguard member deposits.

In November 2012 reports appeared in the *Business Daily* Newspaper documenting various serious financial management and governance challenges in a number of SACCOs. The Business Daily Team (2012) reported that one of largest SACCOs in Kenya had been hit by a serious liquidity problem putting at risk more than

Kshs. 4 billion belonging to 100,000 members. Further, it was reported that the Commissioner of Cooperatives had ordered an inquiry into the operations of three cooperatives.

It is surprising that even after implementation of the Sacco Societies Act 2008, SACCOs still experience governance challenges. A review of literature on the few studies on the impact of SASRA regulations on financial performance of SACCOs shows that they are mainly qualitative using questionnaires and interviews to collect data. They do not employ quantitative analysis such as multiple regression analysis in studying the relationship between governance practices and Sacco performance.

Therefore this study seeks to fill the research gap by studying the relationship between governance practices and performance in DTS using multiple regression analysis. Secondly, to enrich the study feedback from SASRA is incorporated to create more clarity on Sacco governance. The study seeks to answer the following research questions: “What is the relationship between women on board, CEO gender and compliance with minimum capital requirements with return on assets in DTS?” To what extent have DTS complied with SASRA’s governance and capital adequacy requirements? What is the relationship between compliance with SASRA governance and capital adequacy requirements with return on assets?

1.3 Research objectives

The general research objective is to establish the relationship between governance practices and performance of DTS in Nairobi and Central Kenya. The specific research objectives are:

1. To ascertain the relationship between women on board, CEO gender and compliance with minimum capital requirements with return on assets for DTS.
2. To establish whether DTS have complied with SASRA’s guidelines on governance and minimum capital requirements.
3. To determine the relationship between compliance with SASRA’s guidelines on governance as well as minimum capital requirements with return on assets.

1.4 Research questions

The study seeks to answer the following questions:

1. What is the relationship between women on board, CEO gender and compliance with minimum capital requirements with return on assets?
2. Have SACCOs complied with SASRA's guidelines on governance and minimum capital requirements?
3. Does compliance with SASRA guidelines on governance and minimum capital affect return on assets?

1.5 Justification of the study

SACCOs are part of a large international movement. According to the World Council of Credit Union's Statistical Report (2012), there are 55,952 credit unions in 101 countries around the world, enabling 200,243,841 members to access affordable financial services. Globally, credit unions mobilized savings worth \$1,293,256,192,197; advanced loans amounting to \$1,083,818,986,318; their reserves stood at \$161,810,294,796 and assets totaled \$1,693,949,441,327.

According to World Council of Credit Union's Statistical Report (2012), Africa had 23 countries with 20,831 SACCOs and a membership of 16,022,707. African credit unions mobilized savings worth \$4,817,446,825; advanced loans amounting to \$4,944,970,127; their reserves stood at \$480,971,223 and assets totaled \$5,600,465,483. Kenya had 5,000 credit unions with a membership of 4,722,126. Kenyan SACCOs mobilized savings worth \$2,972,704,029; advanced loans amounting to \$3,397,826,904; their reserves stood at \$273,998,961 and assets totaled \$4,180,986,255 making it the largest credit union movement in Africa.

Sacco Supervision Report (2013) acknowledges that the Kenya Sacco industry is part of the Kenya financial services sector (FSS) which is a critical player to achieving the 10% annual economic growth target as envisioned by Kenya's economic blueprint, Vision 2030. SACCOs' central role of mobilizing both domestic and international financial resources is key to achieving this high-level growth target and funding the key Vision 2030 projects.

As demonstrated in the background to this study, SACCOs play a critical role in Kenya's economy. Corporate governance weaknesses and financial management challenges are well documented for the Sacco sector. It was hoped that with the enactment of the Sacco Society Act 2008, these issues would be resolved. However, the Sacco Supervision Report (2010), (2011), (2012) and (2013) notes that DTS still face governance challenges. Therefore, there is need for a study to be done on the nature of the relationship between governance practices and Sacco performance. Such a study could prove very useful to:

1. Board members and CEOs in SACCOs.
2. Government policy makers formulating Sacco regulations.
3. Sacco regulatory bodies.
4. Academicians interested in Sacco governance issues.
5. Countries in Kenya and outside Kenya interested in governance of SACCOs.
6. International donors who appreciate the importance of SACCOs in Kenya and throughout Africa.

1.6 Scope of the study

In analyzing the relationship between governance practices and performance of SACCOs, the scope is restricted to Deposit Taking Savings and Credit Cooperatives in Nairobi and Central Kenya. According to the Sacco Supervision Report (2013) there are 215 Deposit Taking SACCOs, which account for 78% and 77% of the total assets and deposits respectively of the entire Sacco subsector underscoring the fact that the growth potential for the SACCOs remains in the deposit taking Sacco business. Of these 215, the SASRA had licensed 135 as at December 31st 2013. The 135 licensed SACCOs command 92% of all DT Sacco assets. It therefore implies, the remaining 80 SACCOs have market share of only 8% an indication that the DTS are key players in the sector, therefore DTS make a significant contribution in the subsector in Kenya.

DTS are chosen because data on their performance data is readily available from Sacco Supervision reports published by SASRA. DTS in Nairobi and Central Kenya are chosen because according to the Sacco Supervision Report (2013), Nairobi and the Central Kenya region have the largest number of licensed DTS. Most of the biggest DTS are found in Nairobi and

Central Kenya. Therefore research findings can be extrapolated for the entire country. The study has used data from the Sacco supervision reports for the year 2010-2013 drawn from the Sacco supervision reports found in the SASRA website for the four years.

1.7 Organization of the thesis

This thesis is organized into five chapters: the introduction is covered in chapter one, literature reviewed in chapter two, research methodology is described in chapter three, data analysis and interpretation is done in chapter four, and chapter five discusses the research, concludes and gives recommendations.



CHAPTER TWO

Literature Review

2.1 Introduction and overview of corporate governance

In this chapter literature on the relationship between corporate governance and performance is reviewed. The chapter starts by giving an overview of corporate governance, and then focuses on corporate governance in Kenya as well as on corporate governance and cooperatives. Thereafter the agency theory is reviewed alongside empirical studies on the link between corporate governance practices and performance. Cooper (2007) argues that good corporate governance is imperative to inspire investors' confidence, expand private sector, and stimulate economic growth. He observes that, there is a global recognition of the impact of corporate social irresponsibility, the Asian financial crisis, corporate scandals in Enron and WorldCom in the United States of America, Parmalat and Siemens in Europe, and of crises in financial circles in several major African countries over the last decade; in each instance negatively affecting the wellbeing and lives of thousands including employees, pensioners, depositors have raised alarm for effective regulation of corporations and led to panic in market places, fall in stock prices, run on financial institutions and quick-fix remedial actions.

Corporate governance has been looked at and defined variedly by different scholars and practitioners. For example, Uwuigbe and Fakile (2012) define corporate governance as the manner in which systems, procedures, processes and practices of an entity are managed so as to allow positive relationships and the exercise of power in the management of assets and resources with an aim of advancing shareholders value and shareholder satisfaction together with improved accountability, resource use and transparent administration. Yakasai (2001) notes that corporate governance involves the balance of power, with which the organization is directed, managed, supervised and held accountable.

Within the Sacco/cooperative context, Agumba (2008) defines cooperative governance as the relationship between members as owners of the business, the management that has the care and control of the business and the board/ management as monitors of and advisors to management on behalf of the owners. Ssemwanga (2009) defines cooperative governance as the systems in which cooperatives are led, enabled and held accountable in the manner in

which leadership is executed in the stewardship of assets and resources to increase and sustain the member's value and to satisfy the need and interests of all members.

2.2 Theoretical framework

Low (2006) observes that the board is the locus of organizational governance, as critical decisions are made at that level. Other parties may influence these decisions through mechanisms such as motions put down at annual general meetings but ultimately the board has a significant degree of autonomy to do as it pleases. Brown (2005) notes that the agency theory is the most frequently used framework to link board performance to organization performance. Agency theory posits a conflict relationship between the board and the executive.

McIntyre, Murphy and Mitchell (2007) point out that the respective literatures on the theory of the firm and corporate governance suggest that a firm's board of directors is a key institution for mitigating the agency problem that arises with absentee ownership. The agency problem is that interest of the management may differ from the interest of the shareholders (depositors/members in the Sacco context) for whom they work and management may make decision in response to their interests rather than shareholders. The role of the board is in part to deal with this potential conflict of interest, and thus reduce agency costs.

Conforth (2004) observes that free markets and corporate governance arrangements help to ensure that management act in the best interest of the owners. The board's key role is to control managers; therefore a majority of directors should be independent of company so as to achieve managerial compliance by monitoring and controlling managerial behavior to act in the shareholders' best interests.

Conforth (2004) suggests that extending the agency theory to co-operatives is complicated. Agency theory assumes that the main interest of shareholders is to maximize profitability and that the market in corporate control, such as pressure from major shareholders or the threat of takeover, as well as board monitoring, will help to keep managers aligned to this goal. However, co-operatives are established to serve their members' interests and hence profitability is a means to an end rather than an end in itself. Further, the shares of co-operatives are not traded in a market and hence there is not the same

external pressures on managers to perform, such as pressure from major shareholders or the threat of takeover. Hence the boards of co-operatives may have a diversity of goals, which do not readily translate into traditional measures of business performance, and managerial actions will be less constrained by market forces. This suggests that for co-operatives, the board is the most important means that members have of trying to control managerial behavior, but at the same time these boards have to operate in a context where it is likely to be more difficult to exert influence.

A study on Corporate Governance Practices in the Cooperative Sector in Kenya (2003) undertaken by the Centre for Corporate Governance provides evidence of agency conflict between members and boards as a feature of the cooperative sector in Kenya. Mudibo (2005) observes that principal-agent relationships exist in Kenyan cooperatives. Members are clients with some as net savers and other as net borrowers. Cooperative governance structure comprise of AGM, board members, supervisory committee, management and other staff. This relationship requires separation of ownership and decision making between board members and management. These ideas are extended to this study to incorporate the agency theory as the framework for analyzing the relationship between governance practices and performance of DTS in Kenya. The study assumes that in an effort to safeguard members' interest, the board of director puts in place governance practices and seeks to comply with SASRA guidelines on governance as a way to secure the wellbeing of members.

2.3 Studies on corporate governance in Kenya

Aboagye and Otioku (2010) observe that institutions that practice good governance are more likely to achieve institutional objectives and goals. Good corporate governance should be of prime concern to owners and other stakeholders of those institutions. Good corporate governance helps promote the general welfare of the society and should be of interest to the general public and governments.

Gustavson, Kimani and Ouma (2005) highlight key developments of corporate governance in Kenya. The Commonwealth Heads of Government meeting made the Edinburg Declaration in October 1997: "to promote excellence in corporate governance in the commonwealth." Seminars were held in Kenya on the role of non-executive directors in November 1998 and March 1999. Later in 1999, two workshops sponsored by the British

Department for International Development, and the Friedrich Ebert Foundation on corporate governance that led to the setting up of the Private Sector Corporate Governance Trust (PSCGT) were held in September 2000. The objective of the PSCGT was to facilitate the administration of the private sector initiative in Kenya. The initiative was conceived as an all-inclusive coordinating council bringing together regulatory authorities, the private sector and representatives of various stakeholder groups acting jointly to promote good corporate governance to achieve sustainable wealth creation, increased employment opportunities and overall improvement in the quality of life of Kenya. The PSCGT became the Centre for Corporate Governance (CCG) in 2003.

Empirical research on corporate governance in Kenya has tended to focus on compliance with the principles of corporate governance practices. Jebet (2011) documented the corporate governance structures in listed companies, Kitonga (2002) the need for corporate governance audit in Kenya, Mwangi (2002) surveyed corporate governance in insurance industry and Mwangi (2003) investigated determinants of board composition. Mucuvi (2003) focused on corporate governance in the motor industry. Musyoki (2011) sought to establish the governance practices in state owned corporations.

It is encouraging to note that Kenyan researchers are now focusing on corporate governance and performance in various sectors. Lishenga (2011) studied corporate governance in relation to declining firm performance at Nairobi Stock Exchange; Mang'unyi (2011) studied ownership structure and corporate governance and its effect on performance of banks. Liech (2011) focused on the relationship between corporate governance and financial performance of local airlines. Kamau (2011) focused on the influence of corporate governance practices on organizational performance at Equity Bank Kenya. Ahmed (2012) analyzed the effect of corporate governance on financial performance of print media houses in Kenya. Opondo (2012) looked at the impact of corporate governance practices on operating performance of the unlisted financial institutions in Kenya. Mbaka and Lishenga (2012) investigated the link between compliance with the corporate governance disclosure code and firm performance for Kenyan firms. Gitari (2012) studied corporate governance and financial performance at new Kenya Cooperative Creameries (KCC). Njagi (2011) researched on the impact of corporate governance practices on firm financial performance in the sugar industry in Kenya. Wanjau (2007) surveyed the relationship between corporate

governance and performance in microfinance institutions in Kenya. Matengo (2008) studied the relationship between corporate governance practices and performance in Kenya's banking sector.

2.4 Studies on corporate governance in cooperatives in Kenya

Davis (2001) points out that the purpose of governance is the preservation of the integrity of the organization to fulfill the purpose for which it was founded. Corporate governance has therefore as a central part of its primary purpose, the upholding of cooperative identity (purpose). That purpose includes efficient delivery of services and products required by members in the context of building their common community.

The Centre for Corporate Governance published "*Guidelines on Corporate Governance in Cooperatives in Kenya*" in 2005. The objectives of the guidelines are to: assist cooperatives to formulate detailed codes of best practices which address their specific circumstances, excite debate and result in further evolution of better practices and procedures in cooperative societies, enable boards (Management Committees) of cooperative societies in Kenya to focus on both their performance and conformance roles in directing their respective organizations and provide a governance criterion for evaluating cooperatives.

The Guidelines on Corporate Governance in Cooperatives in Kenya (2005) are based on the seven universal principles of cooperatives: voluntary and open membership, democratic member control, member's economic participation, autonomy and independence, education, training and information, cooperation among cooperatives, and concern for the community. The guidelines outline twenty three principles of good corporate governance in cooperative societies with the following headings: Authority and duties of members as shareholders; functions and responsibilities of the board; appointment of directors; sitting allowance; disclosure of interest by directors; composition, mix of skills and competencies; succession planning; the chairman of the board; values and strategies; corporate communication; induction training and development of directors; independence of the board of directors; board meetings; financial, operational and governance reporting; committees of the board; monitoring the performance of the board; liabilities of the directors; risk management; balancing commercial objectives and social obligations; cooperative societies social responsibility; the relationship between the management; appointment and development of

the chief executive officer and management; and finally, codes of best practices. Shaw (2006) critiques the guidelines on the basis that unlike its counterparts in Europe, the code does not include provisions to encourage higher levels of participation in the cooperatives by members. Further, it lacks adequate provisions for dealing with conflict between members and boards.

Owen (2007) observes that the Annual General Meeting (AGM) is the Sacco's highest decision making organ. The AGM elects the management board (board of directors), approves interest rates and reviews the audit report. The Sacco Societies Act of 2008 established the Sacco Societies Regulatory Authority (SASRA) to provide overall regulation of the sector through issuance of regulations and prudential guidelines. Corporate governance among cooperatives in Kenya is influenced by legislation such as the Cooperative Societies Act of 1997, the Sacco Societies Act of 2008 and the CCG's guidelines on "Corporate on Corporate Governance in Cooperatives in Kenya" published in the year 2005.

Unlike the corporate and other sectors where corporate governance has been studied extensively, a review of literature reveals that very few studies have been done on the relationship between corporate governance practices and performance in cooperatives in the developed countries. Bond (2009) carried out a quantitative investigation on cooperative financial performance and board of director characteristics. Chen, Spizzirri and Fulbrook (2010) tracked the relationship between credit union governance and performance.

Similarly, in Kenya few studies have been carried out on the relationship between corporate governance practices and performance of financial cooperatives (SACCOs). Opiyo (2011) studied the relationship between corporate governance and financial performance among SACCOs in Nairobi, Wasike (2012) researched on corporate governance practices and performance of Elimu Sacco and Kamonjo (2013) carried a similar study for SACCOs in Kirinyaga County. It can be noted that none of these studies focused on DTS in Kenya. Other studies such as Ngaira (2011), Wanyoike (2013), Muriuki and Ragui (2013) as well as Otieno *et al.* (2013) which focused on Deposit Taking SACCOs mainly use a qualitative approach in their analysis of the relationship between corporate governance practices and Sacco performance. A quantitative study on the relationship between corporate governance practices and performance of DTS would help to understand the topic and fill the research gap.

2.5 Studies on the relationship between board size and performance

Kakabadse, Kakabadse and Kouzmin (2001) note that a review of the research studies in the area of corporate governance contribution to corporate performance reveals that there is no conclusive evidence of contribution. Although there is a growing literature linking corporate governance to company performance there is equally a growing diversity of results. The diversity of results can be partly explained by the theoretical perspectives applied, selected research methodologies, measurement of performance, and conflicting views on board involvement in decision making and the contextual nature of the individual firm.

Bond (2009) observes that like corporate boards, cooperative boards play an essential role linking the manager's actions to the members' and patrons' interests. Both corporate and cooperative boards are responsible for monitoring the performance of management, forming long term strategic plans, evaluating proposals presented by management and understanding financial and strategic actions taken by the firm. Several authors have studied the question of what board size maximizes firm performance. Applying studies from the corporate literature is appropriate as cooperatives are a form of a corporation, though they are differentiated by a requirement that they operate on a non-profit basis. Board members in corporate and cooperatives perform similar duties and share in upholding similar responsibilities such as looking out for the member owner's (shareholder's) best interest.

Bond (2009) reports that cooperative leaders believe smaller boards may make possible for members to be more selective in voting for directors and lead to accountability, less anonymity, and more efficient meetings. Free rider problems typically increase with board size. The larger the board, the easier it may be for an individual member to reduce his contribution and involvement. Cases of directors shirking may be expressed as reduced monitoring and lack of participation in the decision making process. If enough directors evade their oversight duties, firm performance may suffer. Little information on how size and performance are related can be gleaned from cooperative literature.

Studies on the relationship between board size and performance have been done to a greater extent in other sectors. Ujunwa (2012) states that board size is mostly used as an indication of both monitoring and advisory role. Empirical results on optimal board size are inconclusive. Large board size has been criticized for increasing costs and board room squabbles while it is also argued that small board size might not effectively monitor powerful

managers. Belkhir (2009), Jackling and Johl (2009), Abor and Biekpe (2007), Wanjau (2007) Kyereboah-Coleman (2007) and Miring'u (2011) found a positive relationship between board size and performance. However, Kajola (2008) and Ujunwa (2012), Wasike (2012), Kamonjo (2013), Uwuigbe and Fakile (2012) as well as Nyamongo and Temesgen (2013) found that board size was negatively linked with firm performance. Bennet and Robson (2004) as well as Kyereboah-Coleman and Biekpe (2005), Opiyo (2011), Njagi (2011) found little evidence of strong association between board size and firm performance.

2.6 Studies on women on board, CEO gender and performance.

Rose (2007) notes that governance diversity has gained a lot of prominence in the corporate governance literature including analysis of the effect of gender on firm performance, the key issue is whether board diversity, especially in relation to gender or ethnic background, education, proportion of foreigners etc., may facilitate the board with an enhanced competence profile, which could stimulate firm performance. Zhang (2012) remarks that according to the agency perspective, the board of directors' primary responsibility is to exercise control over management to protect the interest of all stakeholders, previous studies suggest that female and minority members on board increase the independence of the board, as they do not come from traditional backgrounds. Female board members are not just mere window dressing but contribute significantly to board strategic decision making.

Rose (2007) argues that a higher degree of board diversity serves as a positive signal to potential job applications attracting well qualified persons outside the circles where board candidates are recruited from. Board diversity may increase the competition within the firm's internal labor market, and serve as a positive signal to the firm's stakeholders. Increased board diversity may facilitate an enhanced competence profile for the board as a whole and benefit the board's decision process as new perspectives on various issues are represented by board members from diverse backgrounds. However, there is no reason to believe that less conventional board members are more active in their monitoring activities, since there is a risk that they will be marginalized. Further, a higher degree of the board diversity may hamper effective problem solving. The decision making process may take longer due to diverse perspectives raised and heard in the boardroom. Ujunwa (2012) finds that women on

board is negatively linked to firm performance, whereas Rose (2007) does not find any significant link between firm performance and female board representation.

Okeyo (2010) observes that gender balance in Kenyan cooperatives is wanting because membership criteria hinder women and youth who do not own productive assets which is a prerequisite for membership. The few women who join cooperatives face cultural constraints and lack the confidence to lead. A study on Corporate Governance Practices in the Cooperative Sector in Kenya (2003) by the Centre for Corporate Governance observes that gender equity is a serious problem in Kenyan cooperatives. There is a significant underrepresentation of women in decision making structures with half of all management committees (Board) having no women members.

Studies by Rovers (2010), Post and Byron (2014), as well as Erhardt, Webel and Shrader (2003) find a positive relationship between women on board and performance. Letting', Aosa and Machuki (2012) found a weak positive relationship between women on board and performance. Wachudi and Mboya (2012), Mboya (2012), Ujunwa, Okeyeuzu and Nwakoby (2012) found a negative relationship between women on board and firm financial performance. Marinova, Plantenga and Remery (2010) found no effect of women on board on performance.

Mersland and Strom (2007) argue that the better the CEO and board are informed the better will the financial performance be. One of the innovations in microfinance has been targeting of female customers. Presumably, having a female CEO or a high fraction of women on the board would help the institution to understand its customers better so as to separate the good risks from bad. Better customer understanding should influence the operational costs and profitability. Extending this observation to the cooperative sector, this study seeks to ascertain the effect of CEO gender on performance in SACCOs. In line with prior studies that have focused on the effect of CEO gender on performance. Terrance, Mercedes and Kimberly (2013) show a positive relationship between CEO gender and performance. Strelcova found a negative relationship between CEO gender and performance whereas Hays, Day and Belanus (2011) did not find any difference between male and female gender CEO influence on performance.

2.7 SASRA requirements on governance and capital adequacy.

Enactment of the Sacco Societies Act 2008 and operationalization of the SASRA regulations 2010 has provided the regulatory framework for the governance of DTS in Kenya. Wanyoike (2013) summarizes the prudential guidelines that DTS must adhere to. DTS prudential guidelines specify the extent of external borrowing, asset categorization and provisioning, maximum loan size and insider lending and loan loss classification. SACCOs are obliged to submit: Monthly returns (capital adequacy, liquidity, and deposits); Quarterly returns (risk classification of assets and loan loss provisioning, investment returns, financial performance) and other returns as requested by SASRA; Annual returns (audited financial statements). SASRA has the authority to inspect the premises and the records of a Sacco and to prescribe enforcement actions in case of deficiencies including the appointment of a statutory manager. Noncompliance with legal requirements carries clearly specified penalties and includes removal from office of directors and other responsible officers. This is applicable to all licensed SACCOS. Once licensed, member deposits will be protected in the event of collapse of a Sacco. SASRA is on the process of setting up a Deposit Guarantee Fund (DGF) and SACCOs will be expected to contribute to this coverage to a limit of KES100000. The Fund shall vest on a Board of Trustees four members of which shall be nominated by the SACCOS.

SASRA Regulations (2010) impose the following duties on the board of directors: , the board of directors shall: exercise prudence and diligence of "ordinary men of business" and shall be held, jointly and severally liable for any loss occasioned by their actions which are contrary to the Act, regulations, rules, bylaws or the direction of any general meeting of the Sacco Society or any other applicable law; ensure that the management maintains proper and accurate records that reflect the true and fair position of the Sacco Society's financial condition; ensure that the Sacco Society functions effectively and that an adequate and effective internal control system is put in place; establish appropriate policies including human resource policy, credit policy, investment policy, savings policy, liquidity policy, information preservation policy, dividend policy and risk management policy; meet not more than twelve times in a financial year and not more two months shall lapse between the date of one meeting and the date of the next meeting; ensure that the Sacco makes adequate provisions for known and probable losses likely to occur as required by regulations; ensure that the Sacco Society maintains a positive image within the industry and

the economy as a whole; establish such number of board or management committees, including an audit and a credit committee as may be necessary to effectively discharge its functions; be responsible to the members for the production of the Annual Audited Accounts which shall be presented at an Annual General Meeting held not later than four months after the end of a financial year; be responsible for the appointment and removal of the chief executive officer of a Sacco Society; report to the Authority, within fifteen days, the appointment, resignation and or removal of the chief executive officer.

SASRA Regulations (2010) impose the following duties on the Chief Executive Officer: chief executive officer shall be responsible to the board of directors for the day- to-day running of the matter of the Sacco, paying attention to: implementation and adherence to the prescribed policies, procedures and standards; systems that have been established to facilitate efficient operations and communication; the planning process developed to facilitate achievement of targets and objectives; all staff matters, particularly human resource development and training; adherence to the established code of conduct; and to the Act, regulations, rules, by laws and any other applicable laws.

Further, chief executive officer shall ensure that the board of directors is frequently and adequately appraised of the operations of the Sacco Society through presentation of relevant board papers which shall cover, among other areas: monthly, quarterly and annual financial statements, showing current compared with past period actual performance, the budget compared with the actual expenditure, and with explanations for any variances; capital structure and adequacy; delinquent loan list, and in particular growth in loans, loan losses, recoveries and provisioning; statement of comprehensive income (monthly, quarterly and annual) comparison with budgeted against actual; sources and distribution on profile of savings and deposits; all insider dealings and non-performing insider loans if any; reports on violation of the Act, regulations and any other applicable law, and remedial actions taken to comply; large risk exposures; investment portfolio; any regulatory reports, and internal reports; and any other relevant areas to the Sacco Society's operations.

According to the Sacco supervision report (2012), the Sacco Societies Act 2008 and its attendant Regulations 2010 are risk oriented providing minimum operational regulations and prudential standards required of deposit-taking Sacco societies to ensure financial stability of the Sacco subsector. The prudential standards target all areas that entail significant risk for the Sacco

business from a going-concern perspective. This includes the: availability of capital funds to face any potential unexpected losses arising from poorly performing loans or investments; quality of the loan portfolio as the main income-generating asset in Sacco societies as well as ensuring that loan granting and lending conforms to the approved credit policy; reasonability of expenses relative to effective income received; continuing availability of liquid funds to finance portfolio growth and to respond to depositor's and creditor's needs; and overall asset structure in terms of non-earning assets, fixed assets and investments in private sector securities, as per regulatory requirements.

As per the Sacco supervision report (2013), SASRA requires SACCOs to adhere to minimum capital requirements including accompanying ratios. Minimum regulatory capital requirement is KES 10million that is to be maintained at all times while the ratio of core capital to total assets is 10%. Further, regulatory requirement provides that SACCOs comply with core capital to total deposits ratio of 8%. Ochei (2013) observed a negative relationship between compliance with capital adequacy requirements and performance. However, Ezike and Oke (2013), Olalekan and Adeyenka (2013), as well as Ogboi and Unuafé (2013) found a positive relationship between compliance with capital adequacy requirements and performance.

2.8 Conceptual framework.

Kakabse, Kakabse and Kouzmin (2001) state that corporate governance literature identifies four sets of board attributes: composition, characteristics, structures and process. Board composition refers to the size of the board and mix of different director's demographics (insiders/outsiders, male/female, foreign/local) and the degree of affiliation the directors have with the corporations. Brennan (2006) notes that the board of directors is charged with oversight of management on behalf of the shareholders, agency theorists argue that in order to protect the interest of shareholders, the board of directors must assume an effective oversight function. It is assumed that board performance of its monitoring duties is influenced by the effectiveness of the board, which in turn is influenced by governance practices such as board composition and quality, size of boards, duality of CEO/chairman positions, board diversity, information asymmetries and board culture.

In order to bring to light the relationship between governance practices and performance of DTS, the study isolates the following governance practices: women on board, CEO gender

and minimum capital requirements. Return on assets is used as the key performance variable as shown in conceptual framework model.

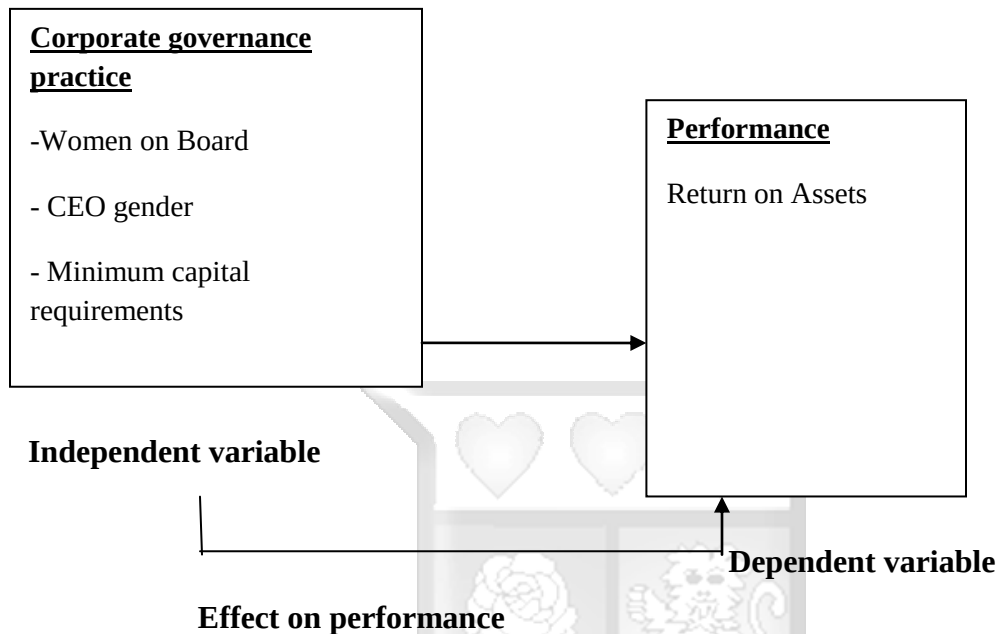


Figure 2.1: Conceptual Framework, on corporate governance practices and performance (Source: Author 2013).

In the conceptual framework model it is assumed that various corporate governance practices influence performance.

2.9 Chapter summary

The chapter starts by providing an overview of corporate governance, looks at the theoretical framework for corporate governance; it reviews empirical studies on: corporate governance in Kenya, corporate governance in cooperatives in Kenya, the relationship between board size, women on board, CEO gender, minimum capital requirements and performance. Finally based on the literature reviewed, a conceptual framework for the study is developed.

CHAPTER THREE

Research Methodology

3.1 Introduction

This chapter focuses on the methodology used to seek answers to the research questions. Specifically, the study seeks to ascertain the relationship between board size, women on board, CEO gender as well as compliance with SASRA requirements on governance and minimum capital with performance. This chapter discusses the research design, population and sampling design, model specification, data collection and definition of variables.

3.2 Research design

In seeking answers to the research questions on the relationship between governance practices and performance of Deposit Taking SACCOs (DTS) in Kenya, this study adopts both a qualitative and quantitative approach. Quantitative data on corporate governance variables and performance has been extracted from the Sacco supervision reports for DTS in Nairobi and Central Kenya for the year 2010 to 2013. This period has been selected due to the availability of the data required to test the relationship between corporate governance practices and performance for the period of interest. This has helped to answer the first research question: “what is the relationship between women on board, CEO gender, as well as compliance with minimum capital requirements with return on assets?”

A panel or longitudinal research is one in which data is collected over a period of time and summarized statistically according to Hair *et al.* (2003). Its objective is to observe, monitor and assess variations and developments in a situation or set of variables over a given period of time, in order to provide a detailed and in depth understanding of phenomena. Panel data methodology has been adopted because it makes it possible to combine time series and cross sectional data. The method of estimation is Estimated General Least Squares (EGLS). This approach has been used by Kajola (2008) to examine the impact of corporate governance on performance of Nigerian listed companies.

Multiple regression methodology has been adopted in this study because it is the preferred approach in most previous studies examining the impact of corporate governance

on performance. Statistical analysis has been done using EViews software to generate quantitative results to answer the research questions.

3.3 Target Population

A census survey in which there is complete enumeration of all items in the population has been used. The population for the study is thirty eight Deposit Taking SACCOs (DTS) in Nairobi and Central Kenya that had registered with SASRA by the year 2010. This study adopts a census survey because it is possible to factor in all the DTS registered by SASRA in Nairobi and Central Kenya in 2010. Population is composed of nineteen DTS from Nairobi and nineteen DTS from Central Kenya. Since they the DTS were registered in 2010, it was possible to obtain all the data required for quantitative analysis for the four years beginning 2010 to 2013. All other DTS that did not have complete data for the four year period of 2010 to 2013 were excluded from the population due to non-availability of data for some of the years considered by the study.

3.4 Sampling design

No sampling was used as the study adopted a census survey. A census survey has been used because all the nineteen DTS in Nairobi and nineteen DTS in Central Kenya had submitted their financial information to SASRA for the year 2010 to 2013.

3.5 Data Collection

Various methods can be used to collect primary data for example: observation, interviews, questionnaires and schedules. This study has used a questionnaire and an interview guide to collect data. A questionnaire has been used to obtain information from the manager Sacco Supervision in SASRA to obtain information on the extent of compliance by DTS to SASRA regulations. The manager Sacco Supervision has been selected because he can be relied on as an expert on Sacco regulation and compliance. The study has used a structured questionnaire with both closed and open questions. An interview with the manager Sacco Supervision in SASRA has been used to further clarify answers given in the questionnaire to help in fully answering the research questions.

3.6 Model specifications

When using Panel/longitudinal or cross sectional time series data, consideration has to be made whether to use fixed or random effects model for the analysis. Prihatiningtias (2012) observes that the fixed effects model explores the relationship between the predictor and outcome variables within an entity. In this case, each Sacco has its own individual characteristics that may or may not influence the predictor variables. On the other hand, the random effects model assumes that variation across entities is assumed to be random and uncorrelated with the predictor or independent variables included in the model.

Borenstein *et al.* (2010) observe that there are two popular statistical models for meta-analysis, the fixed-effect model and the random-effects model. The fixed-effect model assumes that there is one true effect size that underlies all the studies in the analysis, and that all differences in observed effects are due to sampling error. By contrast, under the random-effects model allows the true effect sizes to differ. In random-effects meta-analysis model, the effect sizes in the studies that actually were performed are assumed to represent a random sample from a particular distribution of these effect sizes.

According to Borenstein *et al.* (2010) the random-effects model would be the more appropriate choice where the model is more likely to fit the actual sampling distribution; does not impose a restriction of a common effect size; yields the identical results as the fixed-effect model in the absence of heterogeneity; and allows the conclusions to be generalized to a wider array of situations. It is for this reason that this study adopts a random effects model.

The econometric model that has been used in this study has been adopted from Kajola (2008) given as follows:

$$Y = \beta_0 + \beta_1 F_{it} + \varepsilon_{it} \dots \dots \dots (1)$$

Y: the dependent variable (in this case return on assets)

β_0 : the constant

β_1 : the coefficient of the explanatory variable (corporate governance practices)

F_{it} : explanatory variable

ε_{it} : error term

By adopting the econometric model in equation (1) above to this study equation (2) becomes:

$$\text{PERFORMANCE} = \beta_0 + \beta_1 \text{WOMENBOARD} + \beta_2 \text{CEOGENDER} + \beta_3 \text{MINCAP} + \beta_4 \text{AGE} + \beta_5 \text{DEBT} + \varepsilon_{it} \dots \dots \dots (2)$$

β_1 WOMENBOARD: Ratio of women on Sacco board

β_2 CEOGENDER: Gender of the Chief Executive Officer

β_3 MINCAP: Minimum Capital for SACCOs

β_4 : AGE: Age of a Sacco

β_5 DEBT: Level of debt in a Sacco

ε_{it} : error term

3.7 Variable definitions

3.7.1 Independent variables

Independent variables that have been used in this study are: board size, board gender, and CEO gender.

(a) Women on board

Barako and Brown (2008) and Ujunwa (2012) measure women on board as the ratio of the number of women to total board size. This study adopts a similar approach.

(b) CEO gender

Mersland and Strom (2007) assign a dummy variable of 1 if the CEO is female and 0 for a male CEO. This study adopts a similar approach.

(c) Minimum Capital

According SASRA regulations, DTS are expect to maintain a minimum share capital of Kenya Shillings ten million. To test the nature of the relationship between compliance with capital adequacy requirements and performance, the

study assigns a dummy variable of 1 if capital is above KES 10,000,000 and zero if it is below.

3.7.2 Dependent variables

Only one dependent variable return on assets (ROA) has been used in this study. Ongore and K'Obonyo (2012) have used ROA and observe that return on assets measures how much profits a firm can achieve using a single unit of assets. It helps to evaluate the results of the managerial decisions on the use of assets which have been entrusted to managers by the owners. Return on assets has also been used by Kajola (2008), Ujunwa (2012), Kyereboah-Coleman and Biekpe (2005), Kyereboah-Coleman and Biekpe (2006) to measure performance. Since this study is based on the agency theory framework, where it is assumed that the board monitors management on behalf of members, a measure on how they effectively use the Sacco assets to generate value for the members is more appropriate hence justifying use of return on assets.

3.7.3 Control variables

The control variables that have been used in the study are debt measured by total debt divided by total assets and age which is the number of years a Sacco has been in existence. Selection of the control variables has been influenced by prior work by Prihatiningtias (2012), Ujunwa (2012), Kyereboah-Coleman and Biekpe (2005) and Kyereboah-Coleman and Biekpe (2006).

(a) Firm age

Firm age is the number of years that a firm has been in existence; it has an influence on performance. It is for this reason that prior research on corporate governance has included it as a control variable. Bond (2009) included co-operative age as a control variable in a study on the link between co-operative financial performance and board of director characteristics. It is expected that the older the Sacco the better the performance.

(b) Debt

Atrill et al. (2009) note that leverage, debt or financial gearing evaluates the long term financial stability or solvency of a business. Leverage exists if a

firm is partly loaned or financed by external parties such as banks or financial institutions to cover capital adequacy, to escalate the dividend paid to shareholders or to expand business. The level of financial gearing usually called leverage is essential to examine the risk faced by firms in managing loan or debt since a higher debt involves a higher interest expense. As debt directly influences firm performance it is included as one of the control variables in the study. Debt is measured by the ratio of total debt total assets.

(Table 3.1 Study variables)

Independent variables 1. Board gender: ratio of female directors to total board size. 2. CEO/Female gender: Value one (1) if the CEO is female and zero (0) for otherwise. 3. Minimum capital: Value one (1) if the Minimum capital is KES10,000,000 and zero (0) if it is below KES 10,000,000
Dependent variables 1. Return on assets: profit before interest and tax divided by total assets.
Control variables 1. Age : number of years the Sacco has been in existence 2. Leverage/Debt: total liabilities divided by total assets

CHAPTER FOUR

Data analysis and interpretation

4.1 Introduction

This chapter presents the findings of the study on the relationship between women on board, CEO gender as well as compliance with minimum capital requirements with return on assets of DTS in Nairobi and Central Kenya.

4.2 Descriptive statistics

Descriptive statistics explain the primary characteristics of quantitative data acquired during the data collection process to summarize the data as observed by Hair *et al.* (2003). Descriptive statistics are useful to describe the nature of the relationship between women on board, CEO gender as well as compliance with minimum capital requirements with return on assets of DTS in Nairobi and Central Kenya.

Table 4.1 presents the summary of descriptive statistics of the research variables.

(Table 4.1 Descriptive statistics of dependent and independent variables)

	ROA	WOMEN ON BOARD	CEO GENDER	MINCAP	AGE	DEBT
Observations	152	152	152	152	152	152
Mean	14.07791	0.128642	0.210526	0.894737	3.375893	0.726065
Median	13.55897	0.111100	0.000000	1.000000	3.555300	0.739400
Maximum	34.54545	0.333300	1.000000	1.000000	3.850100	0.887700
Minimum	0.0000	0.000000	0.000000	0.00000	1.945900	0.375800
Std. Dev	4.457168	0.113001	0.409030	0.307907	0.396600	0.09784

There were one hundred and fifty two observations given that thirty eight SACCOs were studied for a four year period from 2010 to 2013, the average value of ROA was 14.07791. The median was 13.55897, the maximum value was 34.54545 and the minimum was 0.00 with a standard deviation of 4.457168.

On average mean of the women on board ratio is 0.128642. The median was 0.111100, the maximum value is 0.3333 and the minimum value is 0.00 with a standard deviation of 0.113001.

The average CEO gender value is 0.210526 with a median value of 0.0000, a maximum value of 1 and minimum value of zero and a standard deviation of 0.409030.

With regard to minimum capital the average value is 0.894737, the median and maximum value is 1.000 whereas the minimum capital value is 0.0000 with a standard deviation of 0.307907.

Results show that the average age is 3.375893 (29 years), with a median of 3.555300 (32 years), a maximum value of 3.850100 (47 years) and a minimum value of 1.945900 (7 years) with a standard deviation of 0.396600.

The average debt value is 0.726065. The maximum value is 0.887700, a median of 0.739400; minimum value is 0.375800 with a standard deviation of 0.09284. The lowest amount of debt for DTS stands at 37%, the average debt is 73% and the maximum debt is 88%.

4.3 Regression results

Table 4.2 shows the regression results of the relationship between governance variables and return on assets.

(Table 4.2 ROA and governance variables: Random effects)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.106763	0.067510	1.581452	0.1167
ROA(-1)	0.663054	0.151950	4.363622	0.0000
WOMENBOARD	0.014156	0.027225	0.519955	0.6042
CEOGENDER	0.000168	0.011321	0.014837	0.9882
MINCAP	-0.030325	0.008849	-3.426908	0.0009
DEBT	-0.056204	0.044195	-1.271712	0.2062
AGE	0.003113	0.012178	0.255629	0.7987
Effects Specification				
			S.D.	Rho
Cross-section random			0.009775	0.1042
Idiosyncratic random			0.028667	0.8958
Weighted Statistics				
R-squared	0.416251	Mean dependent var	0.122359	
Adjusted R-squared	0.383517	S.D. dependent var	0.040161	
S.E. of regression	0.031533	Sum squared resid	0.106395	
F-statistic	12.71631	Durbin-Watson stat	1.827300	
Prob(F-statistic)	0.000000			

The model uses includes a lagged dependent variable ROA (-1) to estimate the effect of prior year returns on the current year. As can be seen from the regression output, prior year returns have a very significant impact on future returns this is because ROA (-1) has a probability of 0.00% (significant at 1%). This approach is supported in a web article by Wilkins (n.d.) of Stanford University observes that Lagged dependent variables (LDV) have been used in regression analysis to provide robust estimates of the effects of independent variables, but some research argues that using LDVs in regressions produces negatively biased coefficient estimates, even if the LDV is part of the data generating process. However, these concerns are easily resolved by specifying a regression model that accounts for autocorrelation in the error term. This actually implies that more lagged dependent and independent variables should be included in the specification, not fewer. Including the additional lags yields more accurate parameter estimates, which returns much more accurate coefficient estimates for independent variables (across a wide range of parameter values) than alternatives considered in earlier research. The simulation results also indicate that improper exclusion of LDVs can lead to severe bias in coefficient estimates. While no panacea, scholars should continue to confidently include lagged dependent variables as part of a robust estimation strategy.

Regression results indicate that there is a positive relationship between women on board, CEO gender and age with return on assets. Findings also show that there is a negative relationship between compliance with minimum capital requirements and debt with return on assets. Minimum capital is significant at 1%. R^2 has a value of 0.416251 which shows that 42.6251% is explained by the independent variables included in the model. Adjusted R^2 of 0.383517 variation in the dependent variable (ROA) is explained by the independent variables (women on board, CEO gender and compliance with minimum capital requirements. Adjusted R^2 indicates the true behavior of the dependent variable that varies in accordance with the independent variable. Whereas a very low percentage of the changes in the dependent variable can be attributed to the independent variable, however this model is significant. This is because it has an F-statistic with a value of 12.71631 with a probability (F-statistic) of 0 (significant at 1% or 99% confidence interval) which proves that the model can be relied upon. The Durbin Watson statistic has a value of 1.8273 which is approximately close to 2, this indicates that there is no serial autocorrelation in the model.

4.4 Compliance with SASRA regulations

Sacco supervision report (2013), notes that 2013 was a very unique year for the Sacco societies as it marked the last stretch to the end of the four years transition period upon which all the deposit taking Sacco societies were expected to fully comply with the Sacco societies Act, NO. 12 of 2008 and Sacco societies' regulations (2010). A number of SACCOs met the requirements in order to obtain the license. This resulted into an increase of the number of licensed SACCOs from 124 reported in 2012 to 135, which is an improvement of 8.9%. SACCOs that are yet to be licensed embarked on aggressive strategies of fulfilling requirements specifically focusing on capital growth strategies such as recruiting additional membership, issuance of additional shares, retaining of surpluses among others.

With regard to capital adequacy, the report states that all the licensed SACCOs complied with minimum core capital requirement of Kshs.10 million while compliance with accompanying capital adequacy ratios still remains a challenge for a number of individual SACCOs. However, the average capital ratios for the licensed SACCOs marginally satisfied the regulatory minimum indicating the sustained effort by the SACCOs to retain earnings and raise new capital from members.

In an effort to obtain a greater insight into the state of compliance by SACCOs, a questionnaire was sent to the manager Sacco Supervision Department in SASRA to ascertain the extent to which SACCOs had complied with SASRA regulations of governance. Based on responses to the questionnaire, an interview guide was developed and an interview held with the manager to clarify responses given in the questionnaire. Results summarized from the responses to the questionnaire and interview guide are documented in the subsequent paragraphs.

One of the notable challenges noted by the regulator was the tendency by Sacco board members to be overinvolved in the daily Sacco operations. Regulation 59(3) of Sacco regulations (2010) prohibits board members from getting involved in day to day operations of a Sacco. However, some Sacco boards are still involved in daily operation to a limited extent. The main reason why Sacco boards are involved in daily operations is that old habits die hard. It will take time for the practice to end. What mostly compounds the problem is that Sacco members elect the board from amongst themselves. Members find it easier to deal with board members who are their peers than the Sacco employees who are considered outsiders. Further to increase chances

of being re-elected most board members prefer to personally intervene on behalf of their members.

To discourage over involvement by board members in daily operations, SASRA has issued guidelines as well as circulars. Further, SASRA has partnered with the Financial Sector Deepening and the Co-operative University of Kenya for capacity building on Sacco governance for board members. These efforts will assist in dealing with the challenge of board involvement in daily Sacco operations.

Board members are required to ensure that management maintains proper and accurate records that reflect the true and fair position of the Sacco financial position. SACCOs face a number of financial management challenges such as liquidity, borrowing externally at a higher rate and lending at a lower rate to members, pricing mismatch as well as investment in noncore business such as equities. To address these financial management challenges, SASRA requires that all new products must be approved by SASRA to mitigate the product pricing mismatch; external borrowing has been limited to not more than 25% of total assets, and SACCOs are required to file monthly liquidity returns. These steps have been put in place by SASRA to enhance sound liquidity for DTS.

With regard to other Sacco governance regulations, it was observed that board members have: put in place adequate and effective internal control systems, most SACCOs have an internal audit department that reports directly to the board to enhance independence; instituted appropriate policies in SACCOs such as: Human resources, credit, investment, savings, liquidity, information preservation and risk management. However a challenge was noted with regard to Dividend policy because of political intrigues in SACCOs. This is because members prefer to take home higher dividends being the return on investment. Due to potential backlash from member appetite for huge dividends most boards have challenges when it comes to formulating dividend policy.

Most SACCOs had complied with this the requirement to make adequate provisions for known and probable losses except for a few that have not appreciated the importance of making the provisions. Most SACCOs have put in place proper liquidity management measures. Sacco liquidity is managed regularly since SACCOs are expected to file monthly liquidity returns with

SASRA. Most SACCOs have endeavored to maintain a positive image by developing websites and running supplements in the mass media. SASRA has greatly boosted the image of the SACCOs by giving the public assurance that their funds are being monitored by a regulator. SASRA engages in Sacco publicity by placing advertisements in dailies on SACCOs. Most SACCOs had complied with the requirement to establish appropriate committees for the proper functioning of Sacco Societies and to formulate a code of conduct.

4.5 Relationship between compliance with SASRA regulations and performance

Analysis of Sacco Supervision Reports from the year 2011, 2012 and 2013 shows that Sacco performance has improved over the three years they have been subjected to regulatory control. This proves that there is a positive relationship between compliance with SASRA guidelines and Sacco performance. To ensure that SACCOs fully comply with the regulations, SASRA enforces the Sacco Societies Act 2008, involves Sacco stakeholders, engages in capacity building through workshops and training on governance and risk management, finally it uses a risk based supervision model in regulating the SACCOs.

As observed in the Sacco supervision report (2013), Sacco performance has improved significantly over the four year period starting in the year 2010. The report indicates that licensed deposit taking SACCOs recorded improved performance in the year 2013, with total assets increasing by 16.6 percent from KES 207.3 billion in December 2012 to KES 241.6 billion in December 2013. This growth was mainly funded by member deposits, share capital and retained earnings. Turnover also grew to Ksh.33.7 billion, a 32.1 percent from the Ksh.28.4 billion recorded in 2012. This resulted in improved capitalizations with increased retained surplus and injection of capital by members. A significant trend is the continued improvement in asset quality with the non-performing loans declining from 7.4 percent in 2012 to 4.7 percent in 2013. This indicates the policy objective of the prudential regulatory framework in SACCOs, which is to enhance governance and risk management systems, is yielding the intended benefits.

Based on the overall performance of the Sacco sector as documented in various Sacco supervision reports, it can be concluded that generally compliance with SASRA regulations leads to higher Sacco performance.

CHAPTER FIVE

Discussions, Conclusions and Recommendations

5.1 Introduction

In this chapter, the research results are discussed, conclusions drawn and recommendations made. The chapter starts with a discussion on the relationship between: board gender, CEO gender and SACCO performance. It finally ends by giving recommendations arising from the research results.

5.2 Relationship between board gender, CEO gender and Sacco performance

Descriptive statistics show that the average return on assets is 14% indicating a fairly good performance for the DTS. Women on board average stands at 13% showing that only a small fraction of DTS have women sitting on their boards, this confirms prior studies such as Okeyo (2010) and a study on Corporate Governance Practices in the Cooperative Sector in Kenya (2003) which noted that there is significant underrepresentation of women on Sacco boards in Kenya. Average CEO Gender is at 21% confirming that there are very few women CEOs in the DTS. Compliance with minimum capital requirements average is at 89% proving that a majority of the SACCOs have complied with the requirement to hold a minimum capital of KES 10,000,000. The average Sacco age is 29 years indicating that most of the DTS have been in existence for a long time.

Average debt stands at 73% showing that DTS are highly geared. According to Atrill *et al.* (2009) the debt is measured by the debt to assets ratio. The smaller the value of this ratio, the more viable the firm is in terms of its ability to pay debt using its assets. When the value of the ratio is larger than one, the financial performance of the firm may be questionable since it clearly has a potential to not be able to pay the debt even after liquidating all of the assets. However, a small value of the ratio is also not a positive indicator since it demonstrates the inability of a firm to manage its assets to increase its income. DTS are highly geared which may partly explain the observation by Chavez (2007) that most Kenyan SACCOs are illiquid arising from the practice of giving loans to members based on three times their savings. This demonstrates that DTS rely

on debt heavily to finance their operations. This finding is consistent with prior studies which noted that SACCOs rely heavily on debt to finance their operations.

From the regression output, results show a positive relationship with return on assets. This is consistent with prior studies by Erhardt, Webel and Shrader (2003), Letting', Aosa and Machuki (2012), Rovers (2010), Post and Byron (2014). It can be noted that holding all other factors constant, a unit increase in the ratio of women on board leads to a 1.4% increase in return on assets. This implies the more the number of women on a Sacco board, the better the performance of a Sacco. In view, of the fact that women are underrepresented in Sacco boards, there is need for SACCOs in Kenya to consider enlisting more women on their boards.

Consistent with Mersland and Strom (2007), Terrance, Mercedes and Kimberly (2013), Khan and Vieito (2013) results indicate a positive relationship between CEO gender and return on assets. Holding all other factors constant, a unit increase in women CEOs leads to a 0.0168% increase in return on assets. Therefore, board members are encouraged to consider hiring female CEOs.

Similar to Ochei (2013) and Okafor (n.d) results show a negative relationship between compliance with minimum capital requirements. Holding other factors constant, a unit increase in minimum capital leads to a reduction in return on assets by 3%. This implies that as more capital is set aside to fulfill capital adequacy requirements, it affects Sacco performance. It follows that compliance with capital adequacy requirements does not necessarily lead to improved performance. Regulators set capital adequacy requirements mainly to maintain stability, protect depositors and boost confidence in the Sacco sector and not to improve profitability. The implication of this finding is that other factors such as risk, size and macro-economic variables which can impact on performance should also be considered.

Sollenberger and Schneckenburger (1994) argue that there is a temptation for regulators to argue that “more is better.” How much capital is enough? Having too little capital leads to obvious problems, however too much capital can also lead to problems such as: non-competitiveness, false assurances of safety, and discrimination against sound, efficient and effective managers. Regulators of credit unions have no method of signaling to the credit unions that “enough is enough.” It is a rare examiner who will tell a manager that the credit union’s capital position is beyond a prudent level or that less would be better.

Comparable to with Bond (2009) findings indicate a positive relationship between Sacco age and return on assets, this implies that holding all other factors constant for every unit increase in Sacco age, return on assets increases marginally by 0.3% . Finally in with Atrill *et al.* (2009) findings indicate a negative relationship between debt and ROA.

Minimum capital is significant at 5% with a p value of value of 0.0009. This implies that, holding all other factors constant a unit increase in the minimum leads to a decrease of 3% in the return on assets. Sollenberger and Schneckenburger (1994) observe that credit union members typically want high dividend rates and low loan rates which lead to smaller equity positions. It follows then, that for SACCOs to set aside more capital, they are forced to eat into their profitability as they shore up capital. This explains the negative relationship between compliance with minimum capital requirements and return on assets.

5.3 Compliance to SASRA regulations by SACCOs

Most SACCOs have complied with SASRA regulations, however as noted in the Sacco Supervision Reports, SACCOs still experience challenges especially with regard to the tendency by board members to get involved in daily Sacco operations. Sacco supervision reports observe that most SACCOs have complied with SASRA regulations as they are a precondition for the issuance and renewal of licenses. Out of a total of 215 DTS in Kenya, 135 had been licensed by December 31, 2014. 80 DTS are yet to be licensed mainly because they have not met the regulatory threshold to warrant issuance of a license.

Licensed DTS still face regulatory sanctions for breach of SASRA regulations, for example as noted in the Sacco supervision report (2012) regulatory actions were taken on a number of SACCOs which committed serious violations of the operational regulations and prudential guidelines.

This result indicates that on average a majority of SACCOs (89%) have a minimum capital of more than KES 10,000,000.00 in compliance with SASRA capital adequacy requirements. However, as noted from the regression output compliance with minimum capital adequacy requirements does not lead to a higher return on assets.

5.4 The effect of compliance with SASRA regulations on performance

An analysis of Sacco Supervision Reports for the year 2010, 2011, 2012 and 2013 indicates that Sacco performance has been improving over time. This shows that compliance with SASRA regulations leads to better Sacco performance. However, results from the regression output show that there is a weak negative relationship between compliance with minimum capital requirements and ROA. Holding all other factors constant, there is a 3% reduction in ROA for every unit increase in share capital. This is consistent with Ochei (2013) who also found a negative relationship between compliance with capital adequacy requirements and return on assets.

5.5 Recommendations

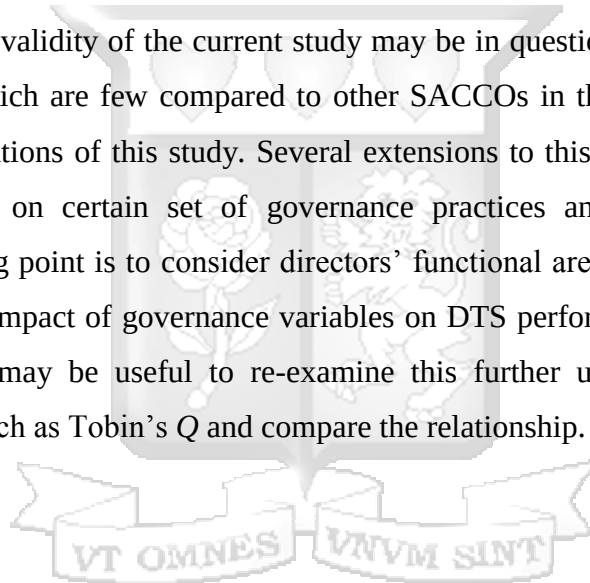
Consistent with prior studies, results indicate that there is a positive relationship between: women on board, CEO gender and Sacco age with return on assets. Conversely, there is a negative relationship between debt and compliance with capital adequacy requirements with return on assets. Results from analysis of primary data indicate that most SACCOs have complied with SASRA regulations. Financial performance over the three years has consistently improved confirming that compliance with SASRA guidelines leads to better financial performance. Arising from these findings, the following recommendations are made:

- (a) More women should be encouraged to sit on Sacco boards.
- (b) SACCOs should reduce the level of debt.
- (c) Recommendations for further research:
 - i. Further research focusing more sectors of Kenyan SACCOs should be done to see whether the findings are consistent across the entire sector.
 - ii. Further research should incorporate non-financial measures of Sacco performance to investigate how they are affected by corporate governance variables.
 - iii. Further research should incorporate other factors that impact on performance such as risk, size and macro-economic variables, technology and quality of management.

5.6 Limitations of the study

Notwithstanding of the above findings, the study has some limitations. No research can be comprehensive and this research addresses only some elements of corporate governance practices and is restricted to DTS in Nairobi and Central Kenya. Some of the limitations of this study are presented here. First, the main limitation of the study is that the data was collected through data filed by DTSs to SASRA. If there were any problems relating to data disclosures or professional accounting practices, then that would limit the validity of the findings. Second, the entire population comprised of only 38 firms, which is relatively small. The size of the sample was limited by the number of DTS in Nairobi and Central Kenya licensed by SASRA in year 2010.

Also the external validity of the current study may be in question, since the data belongs to only Kenyan DTS which are few compared to other SACCOs in the world. Future research should address the limitations of this study. Several extensions to this study are possible. First, the study focused only on certain set of governance practices and their impact on DTS performance. The starting point is to consider directors' functional area knowledge. Finally, the study has examined the impact of governance variables on DTS performance, as measured only by return on assets. It may be useful to re-examine this further using other market based performance variables such as Tobin's Q and compare the relationship.



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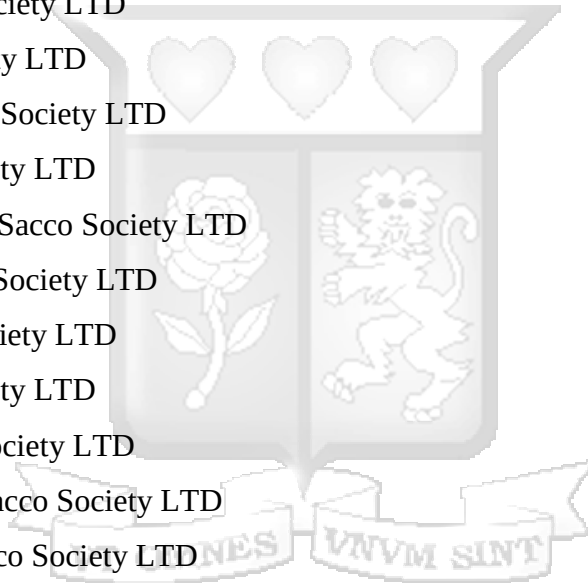
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Appendices

Appendix 1: List of Deposit Taking SACCOs in Nairobi and Central Kenya

The following list of DTS in Nairobi and Central Kenya has been extracted from the Sacco Societies Report (2010):

1. Afya Sacco Society LTD
2. Asili Sacco Society LTD
3. Baraka Sacco Society LTD
4. Biashara Sacco Society LTD
5. Bingwa Sacco Society LTD
6. Chai Sacco Society LTD
7. COMOCO Sacco Society LTD
8. Fariji Sacco Society LTD
9. Githunguri Dairy Sacco Society LTD
10. Harambee Sacco Society LTD
11. Hazina Sacco Society LTD
12. Jamii Sacco Society LTD
13. Kenpipe Sacco Society LTD
14. Kenya Cannery Sacco Society LTD
15. Kenya Police Sacco Society LTD
16. Kiambu Unity Sacco Society LTD
17. Kingdom Sacco Society LTD
18. Enea Sacco Society LTD
19. Metropolitan Sacco Society LTD
20. Muhigia Sacco Society LTD
21. UNAITAS Sacco Society LTD
22. Mentor Sacco Society LTD
23. Mwalimu National Sacco Society LTD
24. Mwito Sacco Society LTD
25. NACICO Sacco Society LTD



- 26. Nation Sacco Society LTD
- 27. Tower Sacco Society LTD
- 28. Nyeri Teachers Sacco Society LTD
- 29. Orthodox Sacco Society LTD
- 30. Safaricom Sacco Society LTD
- 31. Sheria Sacco Society LTD
- 32. Stima Sacco Society LTD
- 33. Tai/ Kiambu TG Sacco Society LTD
- 34. Taifa-Nyeri DFCS Sacco Society LTD
- 35. UN Sacco Society LTD
- 36. Wakulima Dairy Sacco Society LTD
- 37. Wananchi NTG Sacco Society LTD
- 38. Wanandege Sacco Society LTD



Appendix 2: Questionnaire

QUESTIONNAIRE

Please answer the following questions by placing a tick (✓) on the most appropriate response

1. Are board members are involved in day to day Sacco operations?

Yes ☐ No ☐

2. Do board members ensure that the management maintains proper and accurate records that reflect the true and fair position of the Sacco Societies' financial condition?

Yes ☐ No ☐

3. Have board members put in place an adequate and effective internal control system in Sacco Societies?

Yes ☐ No ☐

4. Have board members put in place appropriate policies in Sacco Societies?

Yes ☐ No ☐

5. Have board members implemented the following policies in Sacco Societies?

	Policy	Yes	No	Comments
i.	Human resources			
ii.	Credit			
iii.	Investment			
iv.	Savings			
v.	Liquidity			
vi.	Information preservation			
vii.	Dividend			
viii.	Risk management			

6. Do board members ensure that Sacco Societies make adequate provisions for known and probable losses likely to occur?

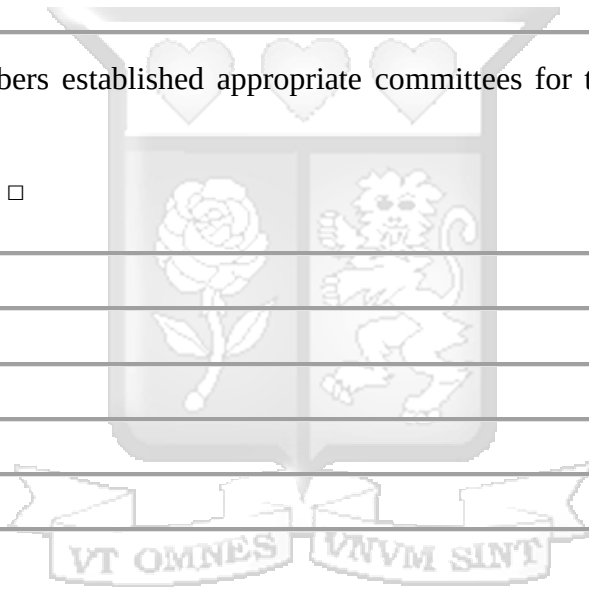
Yes ☐ No ☐

7. Do board members ensure that the Sacco Societies maintain a positive image within the industry and the economy as a whole?

Yes ☐ No ☐

8. Have board members established appropriate committees for the proper functioning of Sacco Societies?

Yes ☐ No ☐



9. Have board members ensured that Sacco Societies have a code of conduct?

Yes ☐ No ☐

Appendix 3: Interview guide

SASRA REGULATIONS ON GOVERNANCE

- 1) SASRA reports indicate that the habit of board members getting involved in day to day activities is deeply entrenched, why is this so?
- 2) What steps is SASRA taking to ensure that board members stop over involvement in Sacco Management?
- 3) What are the main financial management challenges that SACCOs face?
- 4) What steps is SASRA taking to address financial management challenges faced by SACCOs?
- 5) Do all Sacco Societies have internal audit department?
- 6) Does the department report directly to the board?
- 7) Have Sacco Societies implemented all the eight policies recommended by SASRA? If not, which policies are missing in most of the SACCOs? Why are they missing?
- 8) What steps is SASRA taking to make SACCOs develop appropriate policies?
- 9) Do SACCOs have proper liquidity management mechanisms? Are SACCOs following SASRA guidelines on classification of loans?
- 10) Are there any steps that SASRA is taking to enhance the image in the industry?

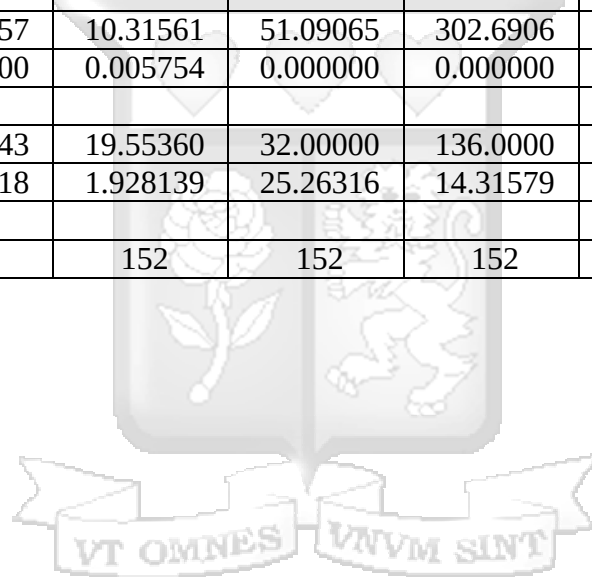
NATURE OF THE RELATIONSHIP BETWEEN COMPLIANCE WITH SASRA GUIDELINES AND SACCO PERFORMANCE

- 1) What is the nature of the relationship between compliance with SASRA guidelines and performance of SACCOs?
- 2) What steps is SASRA taking to ensure that SACCOs fully comply with its guidelines?

Appendix 4: EViews output

Descriptive statistics

	ROA	WOMENBOR ARD	CEOGENDE R	MINCAP	AGE	DEBT
Mean	14.07791	0.128642	0.210526	0.894737	3.375893	0.726065
Median	13.55897	0.111100	0.000000	1.000000	3.555300	0.739400
Maximum	34.54545	0.333300	1.000000	1.000000	3.850100	0.887700
Minimum	0.000000	0.000000	0.000000	0.000000	1.945900	0.375800
Std. Dev.	4.457168	0.113001	0.409030	0.307907	0.396600	0.097284
Skewness	1.297481	0.438289	1.420094	-2.572479	-1.570010	-0.725652
Kurtosis	7.149092	2.072428	3.016667	7.617647	4.991261	3.727309
Jarque-Bera	151.6757	10.31561	51.09065	302.6906	87.55739	16.68997
Probability	0.000000	0.005754	0.000000	0.000000	0.000000	0.000238
Sum	2139.843	19.55360	32.00000	136.0000	513.1358	110.3619
Sum Sq. Dev.	2999.818	1.928139	25.26316	14.31579	23.75108	1.429078
Observations	152	152	152	152	152	152



Dependent Variable: ROA
 Method: Panel EGLS (Cross-section random effects)
 Date: 03/16/15 Time: 15:46
 Sample (adjusted): 2011 2013
 Periods included: 3
 Cross-sections included: 38
 Total panel (balanced) observations: 114
 Swamy and Arora estimator of component variances
 White period standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.106763	0.067510	1.581452	0.1167
ROA(-1)	0.663054	0.151950	4.363622	0.0000
WOMENBOARD	0.014156	0.027225	0.519955	0.6042
CEOGENDER	0.000168	0.011321	0.014837	0.9882
MINCAP	-0.030325	0.008849	-3.426908	0.0009
DEBT	-0.056204	0.044195	-1.271712	0.2062
AGE	0.003113	0.012178	0.255629	0.7987

Effects Specification

	S.D.	Rho
Cross-section random	0.009775	0.1042
Idiosyncratic random	0.028667	0.8958

Weighted Statistics

R-squared	0.416251	Mean dependent var	0.122359
Adjusted R-squared	0.383517	S.D. dependent var	0.040161
S.E. of regression	0.031533	Sum squared resid	0.106395
F-statistic	12.71631	Durbin-Watson stat	1.827300
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.472452	Mean dependent var	0.142108
Sum squared resid	0.117875	Durbin-Watson stat	1.649339