

**EFFECTS OF SASRA REGULATIONS ON RETURNS OF SACCOS IN NORTH AND
CENTRAL RIFT REGIONS**

Ng'eno Cheptanui Nelly

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DECLARATION AND RECOMMENDATION

Declaration

This research project is my original work and has not been submitted for any degree in any other university or institution.

NAME	SIGNATURE	DATE
NGE'NO CHEPTANUI NELLY
GMB/NE/0194/01/13		

Recommendation

This research project has been submitted for examination with our recommendation as University supervisors.

Signature..... Date.....

DR. LAWRENCE.K. KIBET

Lecturer: Kabarak University.

Signature..... Date.....

PROF. KATWALO MULENGANI

Dean School of Business Kabarak University

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DEDICATION

I dedicate this work to my dear parents Mr and Mrs Andrew Ngeno and my siblings Brian, Kelvin and Bramwel for their continuous and overwhelming support, encouragement and sacrifice throughout the journey.

ABSTRACT

SACCOs operating front office services are required by law to comply with the regulations stipulated in the SACCO societies Act enacted in the year 2008. The authority is mandated to: license, regulate and supervise the SACCO societies. This study explored the effect of SASRA regulations on the Returns of SACCOs. This study focused on regulations specifically involving, liquidity and core capital as they affect returns directly. The study considered the entire population of deposit taking SACCOs in North and Central Rift Regions. The researcher compiled data from 2006-2013 to carry out the study. The study used Secondary data which was collected from financial statements, reports on liquidity, capital adequacy and balance sheet from SACCOs registered under SASRA. The study used a descriptive research design where a census was taken of all the 18 SACCOs in the North and Central rift regions, the data was reviewed and analyzed using SPSS 21. The Chow test model that follows an F test was conducted to determine if the change in policy caused a significant effect on the SACCOs. From the findings of the study the F critical value at five percent significance was greater than F values therefore we do not reject the null hypothesis indicating that there are no structural breaks in the model. We can therefore conclude that SASRA regulatory body has had no significant effect in DTS in the North and Central Rift Regions. There is therefore need to assist SACCOs learn how to cope with the regulatory pressures involved with meeting the requirements how to restructure its operations, reduce costs, grow its returns and come up with strategies to keep pace with shifts in government policies and global economy. SASRA entity should assist the DTS in all aspects possible to come up with strategies that will ensure their existence. This study has been significant in that the stakeholders are now aware of the regulations that should be enhanced and maintained; however, from the findings it is evident that there is need to revise some regulations to boost the profitability ratios.

Key words: *Returns, SACCOS, SASRA regulations, liquidity, capital.*

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ACRONYMS AND ABBREVIATIONS

ACCOSSCA	Africa Confederation of Cooperative Society Savings and Credit Association
CAMELS	Capital, asset quality, management, earnings liquidity and financial System
CAR	Capital Adequacy Ratio
DTS	Deposit taking SACCOs
FOSA	Front Office Savings Activities
G o K	Government of Kenya
I.C.A	International Cooperative Alliance
KUSCCO	Kenya Union of Saving and Credit Co-operatives
MFI's	Microfinance Institutions
PEARLS	Protection, Effective financial structure, Asset quality, Rates of Return, Liquidity and Signs of growth.
R.O.A	Return on Asset
R.O.E	Return on Equity
SACCO	Savings and Credit Cooperative Societies
SASRA	Sacco's Societies Regulatory authority
WOCCU	World Council of Credit Unions

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Savings and Credit Cooperative Societies (SACCOs) are vehicles of resource mobilization that build up economic prosperity for families in the lower and middle income strata.(Gichara1990).They are formidable sources for social and economic transformation of Kenyan people. SACCOs handle large sums of member funds in form of deposits, shares and interest. SACCOs have been in existent in Kenya over the years with the goal of maximizing their shareholders wealth and improve the standard of living in the country.

According to World Council of Credit Unions WOCCU (2012), statistics the total number of credit unions was 5000, the asset level was estimated at 4,180,986,255 and the total loan level was at 3,397,826,904. Kenya had the highest number of members in Africa, asset level and loans. It is the 3rdlargest in terms of the total number of credit unions. Active SACCOs account for 10% in Kenya but have a total of 80%on total assets and deposits. (ACCOSCA2011)

Cooperatives are categorized into financial and non-financial cooperatives. Non- financial cooperatives include: farm produce, marketing, housing, transport and investment cooperatives. Gichara, (1990) noted that SACCOs are premised on small saving accounts. The purpose of these cooperatives is to empower their members, mobilize savings, disburse credit and exercise prudent financial stewardship. Ofei, (2001).

The context of cooperatives sector in Kenya consists of primary SACCOs consisting marketing societies, farming societies, housing societies, consumer societies, producer society and credit societies Odido (2008). secondary SACCOs are small societies that have grown to offer their members various services and lastly apex cooperative bodies are firms that offer support services to SACCOs the likes of CIC Insurance, KUSCCO Limited

The International Cooperative Alliance I.C.A (2005) defines a cooperative as an autonomous association of persons united voluntarily to meet their common economic, social, cultural needs

and aspirations through a jointly owned and democratically controlled enterprise. The cooperative movement in Kenya may be traced back to the pre-independence times, with accelerated development in the period immediately after the country attained independence.

Mishikin and Eakins (2011) define credit unions also known as SACCOs in other countries as financial institutions designed to service the customer needs who are also owners distinguished by their ownership structure. The United Nations declared the year 2012 as the International Year of the Cooperatives (IYC). In launching the year, the United Nations secretary general Ban Ki Moon said Cooperatives are a reminder to the international community that it is possible to pursue both economic viability and social responsibility. It is also a fact that the cooperative movement has been an important vehicle of empowerment and liberation from economic misery to many poor people across the world. The world cooperative movement has approximately one billion people making it one of the largest constituencies in the world. On the other hand, 3 billion people do benefit from the cooperative movement” (ICA, 2013)

Cooperatives have occupied a special place in the Kenyan economy from pre independence period. Lumbwa was the first cooperative society in Kenya, formed in 1908 by the European farmers. Its core objective was supporting agricultural activities and products to take advantage of economies of scale (Kobia, 2011). Their growth and development can be attributed to intensive colonization which left the vast majority of Africans outside the monetary economy until the late 1950s. Lumbwa remained the only cooperative in Kenya until the mid-1940's when the colonialists agreed to introduce cooperatives in the colonies as a piece-meal programme for the development of Africa. In 1945, Kenya enacted the cooperative ordinance which was followed by the creation of a department under the Registrar of cooperatives in 1946 (Kibanga, 2001). This was after Africans rejected the cooperative ordinance which had forbidden Africans to join cooperatives. By 1969 a total of 1894 cooperative societies had been registered (Nyagah 2012)

Regulation of SACCOs can be traced back to 1965. Cooperative policies were instituted after the Sessional paper No 10 of 1965 on “African Socialism and its application to planning in Kenya” that was developed by the government. These policies were put in place to enable cooperatives to address technical and managerial skills, improve their performance, enjoy marketing monopolies and consolidate movement in those areas that were inactive. This led to

the enactment of the cooperative societies Act (CAP 490) laws of Kenya in 1966. These laws were followed by several amendments among them being the National Development Plan of 1970- 1974; the Cooperative Development Policy for Kenya, session paper (No 8 of 1970). (Kibanga, 2001). Sessional paper No 6 of 1997, on “Cooperatives in a liberalized economic environment” defined a new relationship that saw government involvement in cooperatives substantially reduced and cooperatives encouraged managing their affairs democratically.

This liberalization adversely affected cooperatives as it led to the collapse of many societies. This is because the liberalization made SACCOs misuses the newly acquired powers leading to some SACCOs closing down Mumanyi (2014). As a result, the government had to act to save the industry. The cooperative and societies Act which had reduced the government powers in overseeing the running of the cooperatives was amended in the same year changing the government’s role from controlling to regulation. Government of Kenya G.o.K(2008).This mixed results necessitated continuous review by the government.

A major innovation in the development of this sector in Kenya was the development of the front office services (F.O.S.A.S) or direct deposit taking services (DTS) which offers banking like services to members. For purposes of distinguishing the SACCOs that accept deposits directly the SACCO laws acknowledged them as Deposit taking SACCOs Owen (2007). Deposits taking SACCOs also besides the basic savings and credit products provide basic banking services like demand deposits, services and channels such as quasi banking services commonly known as automated teller machines

Until 2004, there was no legislation governing SACCO’s business alone. Being cooperatives, SACCOs were regulated under a general cooperative legislative framework. The rapid growth and development of Front Office Savings Activities F.O.S.A, by a large majority of the SACCOs necessitated demand for appropriate regulatory framework to address the unique issues and risk that affect them. The FOSAs encountered so many challenges which emerged ranging from mismanagement by boards, corruption deals especially in procurement, business ventures that have not been fully evaluated being ventured into, to outright embezzlement of SACCO funds. In the same year the government introduced legal provisions in the general cooperative laws to address the issues of financial intermediation that SACCOs are undertaking. During these

amendments the government realized the need for a SACCO specific regulatory framework given their importance in the financial system. Nyagah(2012). This led to the enactment of the SACCO societies Act 2008 and creation of SASRA regulatory body to license and regulate these societies. It established operational guidelines and prudential regulations almost similar to that of banks and deposit taking microfinance institutions. SASRA was established as there was need to promote transparency and accountability in management of deposit taking SACCOs. Enhancing public confidence and attracting more members was also considered a very important objective. Nyagah(2012)

FOSAs are required by law to comply with the rules and regulations captured in the SACCO societies Act. SASRA has been granted specific powers to deal with SACCOs that contravene these laws. The SACCO societies Act, No 14 of 2008 is divided into eight portions namely: the preliminary, the SACCO societies regulatory authority that gives the outline on how to establish the authority, objects, the board of authority its committee and delegation of its powers. The licensing portion concerns itself with the application, conditions of issuance and revocation of the license. The governance section points out the minimum regulatory requirements of capital and liquid assets. Regulations on investments and loans,; the financial accounts and statements and appointment of internal and external auditors. The fifth portion stipulates the regulation and supervision of powers of authority to inspect, advice, direct and intervene in management. The deposit Guarantee fund shall be established by the board of trustees where the funds shall be invested by them in government securities and in deposits with banks: miscellaneous and a schedule of how to conduct affairs of the board comes at the very end. GoK (2008)

SASRA uses a standard template in determining the size of SACCOs and how to regulate and cluster them. They focus on loans, deposits and asset base Njuguna (2012). Small SACCO s are considered to be those with asset base of below 1 Billion while SACCOs with savings between one and three billion are considered medium while SACCOs with over four billion are large SACCOs. By close of the transition period on 18th June 2014, only forty-nine 49 FOSAs had met the minimum licensing requirements, and were accordingly issued with licenses to undertake deposit-taking business in Kenya. The remaining thirty-one 31 DTSS which were previously undertaking deposit-taking business before the commencement of the Regulations

failed to attain the minimum core capital and other licensing requirements. These thirty-one 31 DTS were therefore not granted deposit-taking license and were directed to cease deposit-taking business activities. They were to do away with the FOSA business and resort back Back Office Service Activities (BOSA) The Authority therefore had a total of 184 licensed DTSs during the year under review, but at the end of year 2014, three of the licensed DTSs, had their deposit-taking licenses revoked and not renewed for the year 2015 due to persistent failure to address non-compliance issues which put to risk the member deposits and financial sustainability of the deposit-taking business. These DTSs were equally directed to revert to BOSA only businesses under the Co-operative Societies Act Njihia (2015)

1.2 Statement of the Problem

SASRA is a regulatory body that prudentially regulates front office operating SACCOs. It is charged with the responsibility of enhancing transparency and accountability in governance of SACCOs, Nyaga (2010). In line with the achievement of Vision 2030 goals. It is certain that SACCOs play a crucial role of wealth creation in the Kenyan economy. Therefore it is paramount that this industry runs efficiently and effectively, as poor performance experienced by cooperatives affect the overall economy proportionately.

In the academic field various researches have been done on financial performance and challenges, but so little on the impact of SASRA regulation. Studies carried out by Otieno et al (2011), Muriuki and Ragui (2013) and Wambua (2011), focused on corporate governance and financial regulations. Kioko (2012) and Wanyoike (2013) both did their research on SASRA regulations but considered different variables that is staff competence, quality of Board of Directors, corporate governance and capital requirement. The research done by Kioko captured only two years before and after creation of SASRA. Hence may not have been adequate due to the short period considering the deadline for the SACCOs to comply with these regulations was by June 2014. Other studies done on financial regulations and performance level by Mersland and Strom(2009) found out that regulation does not have significant influence on the financial and social performance .This is Contrary to the expectation that regulation will positively influence the level of performance in financial institutions.

The Major challenge that FOSAs face is the process of implementing the new rules and regulations. This has seen some SACCOs close down or merge to satisfy the regulatory requirements. The operational costs were expected to rise because of the requirements to be adhered to and this was expected to affect the operational level and returns of DTS SACCOs. Generally it was deemed necessary to determine if the SASRA regulations are adding value economically to the SACCO industry? How the SACCOs are coping up with the regulatory framework? How the SASRA regulations through minimum capital and liquidity requirements have affected the Returns on Asset and Return on Equity and operations.

This study's main aim was to explore the effects of SASRA regulations on returns of SACCOs. The study was conducted in North and Central Rift Regions; previous studies done on SASRA regulations have been conducted in Nairobi which is an urban setting. This study was done on a semi urban area in the North and central rift region whose main activity of the occupants in the region is agricultural activities.

1.3 Research Objectives

1.3.1 General Objective

The general objective of the study was to assess the effects of SASRA regulations on returns of SACCOs.

1.3.2 Specific Objectives

- i) To determine the effect of SASRA regulations on ROA of SACCOs.
- ii) To establish the effect of SASRA regulations on ROE of SACCOs.
- iii) To examine how SASRA regulations influence returns of SACCOs.

1.4 Research Hypotheses

H₀₁: There is no significant effect of SASRA regulations on ROE of SACCO's

H₀₂: There is no significant effect of SASRA regulations on ROA of SACCO'S

H₀₃: There is no significant effect of SASRA regulations on returns of SACCO's

1.5 Justification of the Study

The findings of this study were deemed applicable to the various stakeholders of SACCOs. This study will benefit the SACCOs' management and employees through in depth knowledge about

the regulations governing them to improve their performance thus attainment of the ultimate goal of wealth maximization of members. It will provide key information to the government on the success or failure of SASRA legislations in achieving its objective that is enhancing efficiency, effectiveness and accountability towards improving the level of savings.

The two latter studies were done in Nairobi County which is the city of Kenya, an urban setting none of the study has focused on a semi urban setting. This researcher considered the SASRA regulations for a longer period of (2006-2013). It will be among the pioneering research done on impact of SASRA body on returns of SACCO.

1.6 Scope of the Study

The study concentrated on all the SACCOs in North and Central rift regions. North Rift is strategically located as the commercial hub for the agriculturally rich environs in Kenya. The region has also been experiencing incremental growth in the recent past. SACCOs encourage most members to increase their savings and borrow.

The total number of DTS in North and Central Rift were 18 however; some DTS took a longer period from the date of compliance to submit their monthly and annual report to the regulatory authority. This made the researcher reduce the number of population to 17, as all this SACCOs were already adhering to regulations as required. The researcher received a fair cooperation from the SASRA officials while in search for the data.

1.7 Limitations and Delimitations of the Study

Several limitations existed especially concerning the data collection process. Some audited reports differed with the actual data accounts. Variances occurred between the two in some instances this is because even the auditor may provide only reasonable but not absolute assurance on the truth. However in this case the audited accounts were the most preferred and relied upon.

Some mechanisms and methods that the SACCOs use to come up with the financial statements and reports did not conform to International Accounting Standards, making the comparison among them difficult. To counter this challenge a pretest was done on three SACCOs in the region to determine the accuracy of the information

The North Rift region is basically an agricultural area. Most of the members are engaged in farming activities which is homogenous to this region only. This may make it difficult to generalize the findings to other places in the country.

The researcher encountered problems with some SACCO's unwillingness to provide the raw data. The study relied entirely on secondary data from the SACCOs. This challenge was dealt with by an official letter from the school to confirm the purpose of the study.

In the process of attempting to comply with the SASRA regulations some SACCOs may have merged in order to meet the minimum liquidity and capital requirements. Due to these requirements some even closed. There was therefore need to identify those deposit taking cooperatives that closed up or merged and the reasons as to the cause stated.

1.8 Operational Terms

Liquidity: This refers to how quickly or fast an asset can be transformed into cash. When referring to company liquidity it means its ability to meet its current liabilities as and when they fall due. This study will look at liquidity from the perspective of how well the financial institutions can meet the obligations of depositors and members as and when they fall due.

Core Capital: This means the fully paid up members' shares, capital issued, disclosed reserves, retained earnings, grants and donations all of which are not meant to be expended unless on liquidation of the SACCO society.

Deposit: It is the sum of money received on terms under which it shall be repaid on demand by or on behalf of the person making the payment and the person receiving it. This study will consider the shares or money submitted to it by the members. It is from the deposits that capital of the SACCOs is derived.

Financial regulations: It is supervision which subjects financial institutions to certain requirements, restrictions and guidelines with the aim to ensure a healthy financial system. It is handled either by a government or a regulatory body. According to this study the regulatory body SASRA, was created by an Act of parliament to monitor the activities of deposit taking cooperatives.

SASRA: It is a creation of the SACCO societies act 2008 inaugurated in 2009 charged with a prime responsibility to license and supervise Deposit taking SACCO societies in Kenya.

Returns: It is the gain that an organization achieves from the investment projects it has embarked on or from the activities of its business.

Return on Asset- This ratio measures for the operating efficiency of the company based on the firm's generated profits from its total assets. Return on asset is used to measure the effectiveness of the company in generating profits by exploiting its assets.

Return on equity- Measures the level to which companies can manage their own capital effectively and efficiently. It measures the profit margins that the owners or shareholders of the company have.

Cooperative society- An association of persons who have voluntarily joined together for the purpose of achieving a common need through the formation of democratic, controlled organization and who make equitable contributions to the capital required for the formation of such an organization and who accept the risk and the benefits of the undertaking which they actively participate.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The literature review considered previous studies in journals, conference reports, and the Government of Kenya legislation in relation to the objectives of the study with the hope of providing more insight. This chapter will cover the theoretical review of liquidity, capital, deposits, credit management, Return on Asset, Return on Equity and returns. SASRA regulations of SACCOs will be looked at too. The empirical review and conceptual framework will also be considered.

2.2 Theoretical Review

2.2.1 Theory on Capital Adequacy

Capital is a key measure of safety and soundness of a SACCO and serves to protect member deposits and creditors against losses resulting from business risks that SACCO, as a financial institution faces. The need for such measures can be justified by virtual existence of a number of externalities that exist in the business environment that SACCOs operate in. Capital adequacy is measured by ratio of risk weighted assets relative to regulatory equity. It is recommended internationally that this ratio be about 8% as proposed by the Basel committee. Initially it was meant specifically for international and large banking institution but its critical importance has also been recognized in other financial institutions. The capital adequacy ratio (CAR) is the ratio that is set by the regulatory authority to test the health of the banking system. This ratio has mandatory requirement imposed by the state bank because it ensures banks have the ability to absorb the reasonable amount of losses. CAR ensures the banks are in a capacity to meet the liabilities and other risks such as credit risk, market risk, operational risk and others. Ijaz *et al* (2013)

Capital adequacy refers to a relative measure. It establishes the maximum level of leverage that a financial institution is allowed to reach on its operations Jansson, (1997). Capital is one of the most important elements in any institution since it acts as a cushion and protects the institution against looming crisis, due to its own performance or to exogenous factors such as economic

downturns Christen *et al.*,(2003). Some people argue that a high minimum capital requirement may act as a barrier to market entry of new participants in the market that may find it difficult to raise such sufficient capital. Likewise a high capital requirement may reduce the level of moral hazard among participants (Jansson, 1997). It can also be used as an instrument to limit the number of institutions to ascertain effective management and supervision (Schmidt,2000).The CAR is more sophisticated measure than the minimum capital requirement since it actually correlates capital with different degrees of risk on the asset side

The levels of deposits in these SACCO institutions determine the capital adequacy ratios. Deposits are cheap source of finance as compared to the external source of finances such as loans from other sources and banks, syndications and bonds (Kleff andWeber, 2003). Hence, the decrease in deposits causes an increase in cost of borrowing through external sources reducing the profit. Institutional capital is also a cheaper source of financing as there are no conditions imposed upon the society on their utilization (KUSCCO, 2007).

A bank whose capital level is running low to a level below the minimum regulatory requirement may have an incentive to boost capital to avoid the regulatory costs. However, poorly capitalized banks may be tempted to take risk in the hope that higher expected returns will help them increase the capital (Calem&Rob 1996)

Institutional capital which comprises the core capital less the share capital is mainly accumulated from appropriation of the surpluses. Core capital which was lacking in SACCOs before legislation is a cushion to retain cash in the businesses as a way of improving liquidity Ochoki(2007).Savings mobilization should be backed by adequate institutional capital which assures permanency, provide protection against losses and impairment of members' savings (Evans, 2001). This capital ensures the growth of SACCOs even in rough economic times. It helps them grow and remain economically and financially viable.

2.2.2 Theory on Liquidity

Republic of Kenya (2008) defines liquid assets as those assets which can be readily converted into cash due to the nature of asset or the condition of the market that supports easy convertibility.

Liquidity is a precondition that ensures firms meet short term obligations as and when they fall due. An optimum liquidity position is that minimum level of liquidity necessary to support a given level of business activity (Schilling, 1996). Low liquidity is detrimental to the organization as it leads to the inability to meet short term liabilities like payment to creditors on time. This could result in losses due to non-availability of supplies and lead to possible insolvency. It may also force the company to miss out on incentives given by suppliers of credit, services, and goods that may result to high cost of goods.

Cash management is concerned with the managing of cash flows into and out of the firm, cash flows within the firm and cash balances held by the firm at a point in time, by financing deficit or investing surplus cash. There is a consensus among authors on the reasons for maintain some level of cash balances, this may be attributed to the following three motives: the transactions motive, the precautionary motive and the speculative motive. Though informed by earlier works, these motives have been documented in various classical works; Baumol (1952) and Pigou (1970).

Liquidity is computed by dividing current assets by current liability. Liquidity represents the capital amount that is available for use as expenditure or in investment. It also shows the ability of a firm to meet their current liabilities as and when they fall due Ross(1977)

In response to the global financial crisis of 2007-2009, the Basel committee proposed a set of liquidity requirements to compliment its revised framework of capital requirements. The primary and obvious motivation for the new interest in managing financial institutions' liquidity is concern about liquidity risk, which we define as the risk that a solvent financial institution may find itself unable to manage its current flow of withdrawals from its own stock of liquidity and access to borrowed funds from other firms.

Holmstrom and Tirole (2000) provided a theory of liquidity in a model in which intermediaries have borrowing frictions. In their model, a government has an advantage over private markets because it can enforce repayment of borrowed funds while the private lenders cant. They argue that the role of a government is to correct any inefficiencies arising from externalities and private information and possibility of hidden trades. They also noted that corporations do not invest all

their money in profitable long term projects; they also invest in less profitable liquid assets held in their balance sheet as buffers against shocks. Liquid asset can quickly be resold or pledged to collateral at their true value and the market value cannot be depressed when the firm needs resources.

Improvement in cash management of a firm can result in better profit margins and high turnover ratio which can lead to higher profitability Larsson and Hammarlund,(1995). This clearly indicates that it is necessary to manage liquidity of all businesses whether small, medium or large. In this regard Uyar (2009) gave the opinion that in addition to profitability liquidity management is vital for going concern. However, there exist a dilemma where a desired trade off needs to be achieved between liquidity and profitability (Raheman *et al*, 2007). A firm should not hold too much cash or liquid assets as this will reduce the level of investment and affect the long term profitability. Cash in excess of what the firms requires needs to be invested in securities until the need arises.

Liquidity is measured in terms of current asset ratio, quick ratios, and operating cash flow. A study of liquidity of any institution should be of prime concern to both internal and external analysts because it has a close relationship with the day to day operations (Bhunias, 2010). Liquidity requirement of any firm is solely unique to the nature of each firm. There is no specific measure to determine the optimal level of liquidity that a firm can maintain to ensure positive impact.

The main objective for any institution in the financial sector is to maintain an optimal balance which is a position when its cash balance is ideal so that the company has the ability to invest the excess cash for a profit and at the same time have sufficient liquidity for future need Owolabi and Obida, (2012).The day to day management of the firms short term assets and liabilities plays an important role in the success of the organization. Firms with long term prospects and healthy lines do not remain solvent without good liquidity (Josee *et al* 1996).

The trade- off theory of liquidity makes an assumption that under perfect capital market, holding cash neither creates nor destroys value. Since the firm can always raise funds from capital markets when they are needed without incurring any transaction costs and can always be raised

at a fair price. A firm targets an optimal level of liquidity to balance the benefit and cost of holding cash. The pecking order theory of liquidity arises as a result of asymmetric information. The corporate managers have more information about the performance of the company than the outside investor. Sebastian (2010), after examining a Dutch firm's liquidity and solvency information, hedging, and leverage channels concluded that, information and hedging increase the value of firms which helps pay regular dividend and reduce cash flow volatility.

2.2.3 Returns

2.2.3.1 Stake Holder Theory

According to Freeman (1984) stakeholder is defined as any group or individuals who can affect or is affected by the achievement of the organization's objective. However, this definition has evolved over time with Freeman (2004) stating it as those groups who are vital to the survival and success of the corporation. The organization itself should be thought of as a grouping of stakeholders and its purpose should be to manage their interests, needs and viewpoints.

The purpose of stakeholder management is to create methods to manage and integrate the relationships of all stakeholders. It is concerned about active management of the business environment. This theory has three main branches which are inclusive of: Descriptive, in this case the aim is to understand how managers deal with stakeholders. The corporation is viewed as a constellation of interests some competitive some cooperative. Secondly is the instrumental approach which views stakeholders' interest as factors to be taken into account and managed while the company is engaged in maximization of shareholders wealth (Jawahar & McLaughlin, 2001). Lastly is the normative approach which is the core of all the three it is the identification of moral or philosophical guides linked to the activities or the management of cooperation. (Fontaine *et al* 2006)

Advanced stakeholders theory acknowledges that all the stakeholders interests in the SACCO need to be addressed adequately for the success of the institution and overall membership. The theory asserts that satisfying shareholders is beneficial in the short term while satisfying all stakeholders is more sustainable and benefits shareholders more in the long term. Abdullah and Valentine (2009),

Stakeholder theory is of great interest to the communities since supplier's want to be sure of timely payment of their goods; customers are looking forward to quality and affordable goods and services. Employees too want to be assured of sustained employment. (Agumba,2008).

2.2.3.2 Shareholder Theory

One of the theories of returns is the principal Agent model. It states that the purpose of corporation is to maximize shareholders wealth. (Coelho et al 2003). With the principal agent model, the agency problems occur. It is difficult to verify what the agent is actually doing, whether it is for his personal interest or both his interest and the shareholders. It is hard to identify if they have behaved appropriately. The second issue that may arise is about the attitude towards risk; the parties may prefer different actions because of risk (Eisenhardt, 1989).

Agency problems arise when the agent does not share the same objectives with the principal. This relationship makes the principal incur a cost known as the agency cost. This management cost is incurred in an attempt to ensure that an agent acts in the principals' interest. The principal in the case of SACCOs is the members while the agent is the employees and the management. The management should have the interest of the members at heart to avoid any conflict between the two. Companies have a legal and fiduciary obligation to maximizing the shareholder wealth. A business cannot base its operations solely on ethics but should balance both and ensure success. Solomon (2007).

The stakeholder theory is sufficient, since all the stakeholders that are involved in the organization directly or indirectly are important. Profit maximization should not be the only motive that an institution focuses on. The benefit accrued from the institution should cut across all the participants that are attached to the organization one way or the other.

2.2.4 Theory on Deposits

Banks are known to heavily depend upon funds mainly provided by the public as deposits to finance their operations and to earn interest income from them by issuing out loans. Deposits are known to be cheapest source of finance in financial institutions since they do not have a charge on them unlike borrowing. Deposits have a positive impact on banks since the profitability of most financial institutions relies heavily on bank loans: Meaning the more the deposits a

financial institution is able to accumulate the greater is its capacity to offer loans and make profits. Devinaga(2010). However, more deposits can result to low profits especially when the loans are not on high demand leading to decreased earnings. This is because deposits like fixed, term attract high interest payable to the members.

Saving is a common practice among all human societies. Saving practices differ from one individual to another and from one society to another. The drive or motivation to save also varies. Some are due to social pressures or ambitions for future consumptions may be the key reasons that encourage people to save Friedman (1957)Individuals who save do so mainly so as to invest in human resources like payment of school fess or pension purposes non cash form of saving are more popular in rural areas because of the cultural tendency. Ddumba and Obwona (1998)

The determinants of savings as identified by Obwoma (1998) is the ability to save based on the disposable income and expenditure. The propensity or willingness to save as influenced by socio- cultural and economic factors like the family obligation to educate the children, marriage, funeral rites and old age. Lastly are the chance to save and the ability to earn the returns on savings in form of dividends and capital gains.

Very little work is being done on constraints faced by banks and financial institutions when trying to mobilize deposits. There has been an overemphasis on moral hazard issues surrounding loans meaning that not enough attention has been placed on the actual ability of financial institutions to raise deposits. SACCOs are voluntary and democratic organizations where members can elect anybody who has minimal skills required to run the cooperatives. Cases of declaring inappropriate high dividend rates have been blamed on poor management. Emphasis should be placed on mobilization of these deposits as they are the sources of finance for the loans to be disbursed. Mudibo (2005)

According to Wysock et al (1996) in industrialized countries in the early stages of development showed that people of lower income levels were prevented from depositing their savings in the commercial banks. The focus of commercial banks on industry, trade and the wealthier classes led to a division in society between those who had access to financial services and those who did

not. This led to the cooperative societies thriving among the lower income level community. Since it was the only way they could save their money.

Since 1993 KUSCCO has been instrumental in encouraging SACCOs to shift from traditional to modern products in order to expand their sources of livelihood. Emphasis has been placed to them to engage in front office services to enhance financial deepening in rural areas and mobilize savings through deposits.

2.2.5 Theory on Credit Management

SACCO societies rely on lending and deposits for their operations, a sound Sacco society can be measured by the volume of its lending. They charge a specific interest rate when they issue loan to the members. This interest rate is determined by the board of directors. SACCO societies have been on the rise in the recent past. This is because the commercial banks have not catered fully for financial needs, especially for people in the rural areas. Commercial banks in the past have failed to cater for the credit needs of small holders; this is attributed to the strict lending rules and regulations. This has created a mentality that the poor cannot get the required collateral to access the loan Adera,(1995).

Provision of loan and credit has been seen as one of the most important instrument for raising the income and standard of living of the rural populations. This is done by mobilizing resources into more productive areas. Even as development is taking place, a question emerges to what extent credit can be offered to the rural poor to assist them take advantage of the entrepreneurial activities Cohen,(2002).Microfinance institutions that employ higher debt in their capital structure are more profitable, highly leveraged microfinance institutions are more profitable. Muriu, (2011)

Credit risk is defined as the risk of losses caused by default of borrowers. Default occurs when borrowers do not meet their financial obligations. Greuning&Iqbal(2007), It is still considered as one of the oldest and important risk which banks and financial institutions are exposed to where the risk has been increasing in the recent years because of various reasons such as economic crisis and stagnation. This is according to the Basel Committee on Banking Supervision,(1999). The average collection period determines the speed of payment by clients the default rate can be

measured in terms of bad debt losses to total loan granted. Default risk is indicated by the bad debt losses ratio. Default risk is the likelihood that a customer will fail to pay the credit obligation Ross *et al.*,(2008).

According to Steams (1991) the manner in which borrowers are selected and the amount of loan given to each successful borrower determines the magnitude of loan delinquency. Borrowers who are given loans they can repay without hardships hardly default in repayment. In any case default in loan repayment is as a result of bad loans and not bad borrowers. A bad loan is one that the borrower repays with a lot of hardships.

Portfolio quality reflects the risk of loan delinquency and determines future revenues and institution's ability to increase outreach and serve existing clients. The value of a loan portfolio depends not only on the interest rates earned but on the quality and likelihood that the principal and interest will be fully paid. Lenders, however ration the level of loan given due to the problem of asymmetric information. This is a situation where one party to the transaction does not have adequate information about the other party to make accurate decisions. Asymmetric information leads to the problem of adverse selection and moral hazard. Adverse selection occurs because lenders would wish to identify the borrowers who may not default repayment. This case bankers and financial institutions are likely to use interest rates as screening device. Mylenko (2008), observed that borrowers willing to pay high interest rates may be worse risks to take. This is because as the interest rates increase, the riskiness of borrowers increases. As the interest rate and other terms of the contract change, the behavior of borrowers is likely to change.

Moral hazard refers to possibility that borrowers may be involved in actions that are not expected by the lenders i.e. they are undesirable, making the full repayment of the loan less likely. Borrowers may for example engage in very high risk activities which may result in high returns but whose failure may also be very high. Savings are a pillar of sustainability. Delinquency or non-payment of loans has disastrous consequences on sustainability Gibbons,(1996), this applies well to SACCOs as they depend on this savings so as to generate income and at large benefit the member

Imperfect information in the market generates the possibility of loan default and eventually the problems of credit rationing. However, a study on the formal and informal institutions lending policies depicted that loan rationing in the informal credit market ration loan due to the limited resource base. While for the formal sector it is due to the lending terms and conditions Atieno , (2011).

A study on the determinants of banks credit for smallholder farmers in Tanzania also concluded that limited awareness about available credit facilities was one of the important factors keeping smallholder farmers from getting access to credit Kashuliza&Kydd, (1996).

2.2.5 Return on Asset and Return on Equity

The use of financial ratios as performance measures is faced by a number of obstacles, they are only meaningful when compared to a benchmark and finding a suitable benchmark of an institution that is performing well may be quite difficult. Yeh(1996) each performance measure as well is partial that is only a subset of the data available is used to calculate the ratios. The problem arises where a firm may perform well using one measure but badly on the other. Despite the above shortcomings they are still the most preferred measures of performance since their degree of inaccuracy is minimal. There are other ratios that can be used in the measuring effectiveness of the firm like liquidity ratios but when focusing on performance return on asset and return on equity are widely applicable.

2.2.5.1 Return on Asset

Ratio analysis is a method used widely to measure performance by analyzing the financial statements of a firm. Return on Asset ratio measures the operating efficiency for the company based on the firm's generated profits from its total assets. Kabajei (2007)

The Return on Assets Ratio measures how well the institution uses all its assets. In Other words, it measures how profitable a company is relative to its total assets. It gives an idea as to how efficient management is at using its assets to generate earnings Damian et al, (2003).

Befekadu B. Kereta, (2007) in his findings from a study on financial sustainability angle, finds that financial institutions are operationally sustainably measured by return on asset and return on equity as the industry's profit performance is improving over time.

Return on asset is used to measure the effectiveness of the company in generating profits by exploiting its assets. ROA is a tool that measures the rate of return on total assets after excluding all the interest expense and taxes. Brigham (2001)

A high value of ROA indicates that the company is capable of generating high profits. The greater and higher the ROA the better the company's performance since the rate of return on investment is also high. Riyanto(2001)

2.2.5.2 Return on Equity

ROE is used as the measurement of the amount of profit generated by the equity in the firm. ROE is an indicator of the efficiency of the firm to generate profit from equity. ROE is the company net income after tax divided by shareholder equity .Net income is the company earnings after paying all tax and expenses. Equity represents the capital invested in the company plus the retained earnings.ROE is inclusive of retained earnings from the previous period and communicates to the investors how efficiently the capital is reinvested Joetta (2007)

Return on Equity measures the level to which companies can manage their own capital effectively and efficiently. It measures the profit margins that the owners or shareholders of the company have made. This ratio measures the shareholders rate of return on their investment in the company. Ang (2001)

ROE indicates the profitability of one's own capital. The higher the ROE levels the higher the level of profit made as the additional working capital can be used to finance the company's operations. Suwarno (2004)

The Return on equity model developed by David Cole in 1972 enables an analyst to evaluate the source and magnitude of bank profits relative to selected risks like the credit, liquidity interest, operational and capital risk. Koch (1987)

Studies done by Irawan in 2011 found out that ROE affected the growth in profit. This is primarily dependant on the nature and pattern of investments made by the company precisely on assets to ensure they have been used efficiently to maximize profits. ROE affects assets and profit margins directly. Most of the researchers prefer using the profitability ratios that is ROA and ROE when measuring the performance of firms

It has been discovered that it is difficult to identify an efficient performance indicator as they only give a partial view of the entire firm. Balanced scorecard has been adopted by SACCOs since this approach combines both the quantitative and qualitative approach. Armstrong, (2006). According to Pandley (2005) operational controls give a better control over short periods and give a post action test too, They identify any mistakes done and corrective action taken later, however a control mechanism needs to be developed whereby any mistake can be predicted prior in order to avoid its occurrence. The above reasons concerning financial performance provide a basis in which the ROA and ROE is chosen as the measures of financial performance as they give a comprehensive view of any institution its profits, expenditure and what the stakeholders benefit out of its existence.

2.2.6 Financial Regulations

Financial institutions and systems are prone to a series of instability. Liewellyn (1998) highlights objectives of regulation: maintain soundness and safety of financial institutions protect the consumer, and; to ensure systematic stability. These objectives depend on various market imperfections such as externalities and asymmetric information which may result in sub-optimal results. However, Beston (1998) argues that regulations serves interest of the government, regulators and financial firms and are detrimental to the consumers. He also points out that government involvement in regulation either directly or indirectly is important because ultimately, it is the only entity that possesses the legal power to enforce compliance.

In public interest theory it asserts that economic regulation is rooted in the governments' perception. The government must step in to regulate markets in situations where they cannot regulate themselves. Regulation thus results from the need to protect the public from negative impacts of such market failures and other harmful business behaviors Pigou (1932).

Bhole (2004) noted that the process of financial regulation results in customers incurring some costs. They include; unwarranted entry barriers, restrictive practices and other anti-competitive mechanisms. These costs should be reduced by competition. Therefore, regulations should not hinder competition but, enhance and make it more effective. It should allow the market be governed by the laws of demand and supply. The benefits derived out of regulations emerge where asymmetric information exists. In such scenarios, consumers are aware of the product

traits but are not able to distinguish between the better products from the rest at the point of purchase. This is because of insufficient credible information at the point of purchase since the quality is revealed only after a period of time. Without regulation to give customers the assurance of the terms of contract, safety of the assets which they provide as collateral and the quality of advice they receive saving and investment may be discouraged (Davies, 1999).

Prudential regulation is an important component in financial institutions, ensures their soundness and going concern. Benston (1998) argues that failure of any firm can cause disruption to the consumer. This attribute applies for all financial institutions across the board SACCOs inclusive.

Armstrong (2006) examined two schools of thoughts on regulation namely the positive theories of regulation and normative theories. These theories include market power, stakeholder interest and government opportunism. It was concluded that regulations occur because the government is interested in overcoming information asymmetries and consumer protection even when the competition is ineffective.

Although regulation and supervision are sometimes used interchangeably, supervision is the systematic oversight of market participants to ensure they comply with the rules (Christen and Rosenberg, 2000). Regulation typically refers to the rules that govern the behavior of financial institutions (Barth *et.al*, 2006).

Regulation and compliance to rules according to some studies has been brought out as being too costly to the financial institutions concerned. Complying with regulation in the United States is sizeable equal to 12% to 13% of banks non-interest expenses. (Thornton1993) ; Ellehausen1998). Need for more skilled labor and legal expenses to cater for regulatory changes, regulator interpretations and court decisions become too expensive for MFIs and SACCOs. This is because regulatory costs exhibit economies of scale with smaller banks facing higher costs than large banks in complying with regulations. (Murphy 1980)

According study carried out by Fieldsman and Schmidt (1996), indicated that deregulation and new technology have eroded bank comparative advantage and made it easier for non Bank competitors to enter this market.

Certain regulatory tools such as required capital ratios, exposure limits, and constraints on self-dealing and (CAMEL ratings capital, asset management earnings and liquidity) are designed to ensure that market participants comply with minimal standards of capital and risk exposures. It should be emphasized that effective regulation require proper compliance and enforcement. However, such rules should be kept simple but also bearing in mind that too many rules impose a heavy regulatory cost.

ACCOSCA (2012) identifies that there is need to use the (PEARLS: protection, effectiveness, asset, return, signs of growth) and CAMEL or a hybrid of the two to measure regulation. CAMEL reflects five assessment areas: capital, asset quality, management, earnings and liquidity. In 1995 the Federal Reserve and the OCC replaced CAMEL with CAMELS, adding the "S" which stands for financial system. CAMEL: reflects five assessment areas: capital, asset quality, management, earnings and liquidity. In 1995 the Federal Reserve and the OCC replaced CAMEL with CAMELS, adding the "S" which stands for financial (S) system. This covers an assessment of exposure to market risk and adds the 1 to 5 rating for market risk management. It is extensively used in banks but is applicable financial institutions. The ratings are assigned based on a ratio analysis of the financial statements, combined with on-site examinations made by a designated supervisory regulator. Ratings are not released to the public but only to the top management. Ratings are given from 1 (best) to 5 (worse) in each of the above categories PEARL uses a set of financial ratios to monitor the financial stability of the credit unions. Each letter in the word PEARLS measures the key areas of credit union operations: Protection, Effective financial structure, Asset quality, Rates of return and costs, and Liquidity and Signs of growth. The cooperatives mostly use the PEARLS while the central bank uses the CAMEL. PEARLS as a system works well only if you have standardized chart of accounts as this creates uniformity of measurement.

2.3 Empirical Review

The SACCO sector remains one of the most vibrant instrument and technique of wealth, job creation and poverty eradication. As a result, a lot of studies have been carried out in this field. However, it is clear that most studies have concentrated on the challenges and financial performance of SACCOs but little on SASRA and financial regulation.

Simeyo otieno et.al(2013) did an empirical study in Kisii central where analysis was being done on the effect of financial regulations on financial performance of SACCOs the studies indicated that financial regulations contributed only 26.2% to the financial performance of SACCOs in Kisii Central. To achieve this objective, the study considered; efficiency and promptness in loan disbursement, consistent increase in investments, consistent increase in surplus given out as dividends and consistent increase in membership. The study revealed that SACCOs' had moderate performance in their investment level; however, this did not translate to an improvement in the general financial performance. The findings also revealed that membership of the SACCO societies have been decreasing. The study also established that the financial performance of SACCO societies in Kisii Central district was on average low with the majority of the respondents describing their performance to be deteriorating. This was mainly attributed to poor management decisions

Kaleshu (2008), identified lack of financial regulations as a major setback to the financial performance of cooperatives societies saying that group action is more difficult to coordinate than individual action. Therefore, he suggested that with proper government interventions SACCOs are likely to perform much better with a lot of discipline.

Mudibo (2005), in his study on co-operative governance in the East African experience, he concluded that structures, accountability, continuity, balance and the composition are some of the factors affecting performance in SACCOs . An optimal combination of these variables resulted in service satisfaction leading to stimulation of better performance.

Akinwumi (2006) argued that cooperative sector provides the best alternative than all other economic groupings and schemes, suggesting that they needed to formalize in line with cooperative principles so that long after project interventions they still remain sustained. cooperative society remains the better alternative to economic reconstruction of any country. He noted that as much as it is desirable for cooperative societies to help in the development of a nation, there are problems and constraints that have affected its effective performance of its roles in nation building and that this has led to poor financial performance, declining and death of some cooperatives. The other critical element according to him was leadership. He said cooperative leaders should be willing to be more transparent,

dedicated and follow good financial management policies. A true leader does not cut corners, does not inflate contracts so as to receive kickbacks, does not have favorites among members and does not mismanage the resources.

Gamba & Komo, (2005), in their study on evolution, growth and decline of the cooperative sector, found out that SACCO performance was affected extremely by inefficient management systems, loss of government protection, political interference, and inadequate reforms.

Mburu (2010) carried out a study on the determinants of performance of SACCOs in Kenya. In his findings, he identified conflict of interest, absence of strict monitoring and evaluation measures and lack of business planning as some of the causes of SACCO failure.

Atieno (2001), conducted a study on formal and informal institutions and access to credit by small scale enterprises in which her study highlighted the factors that influenced repayment of loans in SACCOs were salary, nature of loans and control recovery measures of loans. The study recommended that there is need for SACCOs to implement sound management, control and loan recovery measures.

A study done by Christen and Lyman(2003) of guiding principles on regulation and supervision of microfinance in Washington, The study found that microfinance are required to hold a high capital ratio than banks as they are characterized by high volatility.

Furlong (1992) in his study on the impact of capital requirements on Banks' cost of intermediation and performance the case of Egypt conclude that capital regulations in credit unions contributed to decrease in lending and a major cause of post- capital requirements credit crunch.

Bokhar (2013) did a study on the relationship between liquidity and profitability of trading companies in Sri Lanka that covered a period of five years from 2008 to 2012 the findings suggest that there is a significant relationship between liquidity and profitability among the listed companies in Sri Lanka.

Kaloi (2004) in another study found that there were delays in remittance; loan default; low monthly earnings and failure to invest in illiquid investments led to losses hence no

growth of wealth resulting to low performance. The study recommended that Ministry of Co-operative Development and Marketing should introduce sound remittance policies. The study by Kaloi (2004) focused mainly on issues dealing with affected liquidity and financial stewardship.

According to Odhiambo (2013) where he did a study on the relationship between working capital management and financial performance of DTS in Nairobi County. The findings showed that efficient working capital management leads to a better financial performance of a SACCO; hence a positive relationship existed between working capital and financial performance variable.

Adeyemo and Bamire (2005) in their study found that unavailability and inadequacy of credit was a major problem; loan repayment and amount of money borrowed were significant variables that influenced saving patterns; and fund borrowed significantly influenced investment patterns. This led to their making recommendation that saving and investment level could be enhanced if loans were adequately made available and proper supervision and monitoring of funds were put in place. The study by Adeyemo and Bamire (2005) identified lack of funds and poor stewardship and the challenges to good performance as well as hinders its wealth creation.

Mvula (2013) presented a report on common issues affecting performance of SACCOs and pointed out that the issues affecting performance of SACCOs are inadequate capital, poor asset quality, poor governance, poor profitability, poor liquidity and non-compliance.

2.4 SASRA Regulatory Framework

SASRA is a state owned corporation established under an Act of Parliament as per the SACCO Societies Act, 2008. The law was enacted in 2008, after the SACCO Society's Act bill was assented into law on 24th December 2008. However, the date of commencement was on 26th December 2009 when the new law would begin implementation. SACCOS are required to have fully complied with these regulations by the year 2014.(G.O.K 2008) The need for SASRA was necessitated by the prevalent inadequacies of the then legislature governing the running of SACCOs. It was very difficult to supervise how SACCOs operate due to their dynamism. The

SACCO Act emphasized on issues concerning; licensing, governance of SACCOs, regulation and supervision, deposit guarantee fund and preliminary. (G.O.K 2008)

The SACCO Societies Act defines the prudential regulatory institution whose primary purpose is to: enhance governance through improved transparency and accountability; Identify mainstream SACCO societies as significant players in the Kenyan financial system, and; deepen financial access in Kenya. All this is done with the sole objective of ascertaining that SACCOs ultimately contribute to increasing the national savings GDP from 17% to 30% by the year 2030. ACCOSCA congress (2012)

The SACCO Societies Act 2008 covers operational aspects that include: Licensing, Capital adequacy, Liquidity and asset liability management. In addition it also focuses on shares, savings and deposits, credit management, risk classification and investments. There is need to regulate SACCOs since they provide retail services to the low income population and 63% of the Kenyan population depends on cooperative activities for their livelihood. The provisions made in the Societies Act 2008 will form the premise on which this research will focus on. Emphasis will be mainly on the financial aspects that affect the performance of SACCOs. Stakeholders of the SACCO society are more concerned about the financial performance as this indicates the stability of the organization.

2.4.1 Regulations on Capital Adequacy

Total capital is the total sum of core capital and supplementary capital of a SACCO society. The Core capital can be defined as the share capital that is fully paid up by members for the shares issued. It cannot be expended unless on liquidation of the SACCO Society.

Capital adequacy is crucial for SACCOs. This is because it protects member deposits and creditors against losses resulting from business and economic risks. In a SACCO society capital constitutes of core capital as the fully paid up members shares which cannot be expended unless on liquidation. The institutional capital is the total capital less the members share' capital, this is the institutional capital that belongs to the SACCO society that no individual member can lay claim on (SASRA 2012)

A minimum core capital of 10 million shillings should be met before a license is issued. A core capital of not less than ten percent of total assets, deposit and liabilities should be maintained. An institutional capital of not less than eight percent of its total assets should be met too (G.O.K. 2008.)

According to a SASRA circular No.7 of 2010 December a regulation was put in place considering the capital requirements where it was stated that a buildup capital of not less than 4% of the total assets which shall graduate to ten percent by the fourth year should be maintained. A build up capital of not less than 5% of the total deposits and liabilities, which shall graduate to 8% by the fourth year should also be maintained (SASRA, 2010). SACCOs that were in operation by June 2010 were granted a four year transition period to comply with these regulations. (Financial Sector Deepening FSD). A SACCO is required to submit a return on capital adequacy form on monthly basis. The purpose is to monitor and regulate. Board of Directors is responsible for establishing and maintaining the adequate level of capital in the SACCO (Gok 2008).

As noted by SASRA Report (2010), there was a decline in the number of SACCOs in 2009. This could have been an indication that some SACCOs had to close up and others merge due to difficulties emanating from the implementation of licensing and the capital requirements as stipulated by the SASRA circular No.7 of 2010 December

2.4.2 Regulations on Liquidity of SACCOs

The provisions for liquidity and asset liability according to the revised version of 2012, stipulated that the board members will be responsible solely for formulating and reviewing the liquidity policy of the SACCOs. This will be done on an annual basis. According to the SACCO Societies Act (2008), the policy should address the issues such as; the minimum and maximum levels for total cash assets, appoint a person who can access a line of credit and monitoring of liquidity; the processes and methods used. It also is required to look at the frequency for analyzing the asset and liquidity position.

A SACCO society should maintain fifteen percent of its savings, deposits and short-term liabilities in liquid assets. The board too has a responsibility to come up with a contingency plan

that will assist the institution when liquidity falls short and crises occur. Calculations of the average monthly balance of its deposits and borrowings should be done on weekly basis and the liquidity statement return will be submitted on or before the 15th day of the following month. Liquid assets according to the act is the notes and coins, the balances at institutions including deposits held at other SACCO Societies, treasury bills and bonds traded in secondary market. This provision for liquid assets will assist in supervision of the SACCO liquidity. This will ensure confidence of the members on the safety of their deposits and savings.

Failure to comply with these regulations may result in the SACCO society being liable of a penalty interest charge not exceeding one percent of the amount of deficiency. They may also face suspension of lending, investing and taking new deposits. Prohibition from acquisition of additional non-core assets, declaring dividends and any activities that may be the cause of the liquidity strain

2.4.3 Regulations on Returns of SACCOs

SACCOs' returns can be analyzed in terms of the surplus they get from the daily operations. The members are paid dividend out of this surplus after all the activities have been financed including any investment plans.

According to the SACCO Societies Act (2008), the SACCO must make adequate provisions for loan losses, depreciation, amortization and any other expenses. Proposed dividends should be taken into account too. The shares may earn dividends paid out of net surplus after the required transfers to reserves annually in accordance with the dividend policy. However, the Sacco shall not pay dividends unless it has complied with the prescribed capital adequacy and any other requirements that the authority may impose. A statement of deposit return on its withdrawable and non- withdrawable deposits shall be submitted at the end of every month to be received on or before the 15th day of the following month. At the end of every quarter, a report on its investment returns should be submitted to the authorities. (G.o. k 2008)

Investment in returns of non-earning assets, or property and equipment in excess of ten percent of total assets should not be invested on, whereby land and buildings shall not exceed five percent unless a waiver has been obtained from the authority. A SACCO society is also

prohibited to make financial investments in non-government securities in excess of forty percent of its core capital or five percent of its total deposits liabilities. Financial investment in government securities may include; shares, stocks, deposits in institutions licensed under the banking act and licensed SACCO societies. (G.o.K 2008)

2.4.4 Regulations on Credit management:

The regulations on credit management apply to all the credit facilities including loans, advances and overdrafts to members. It is the responsibility of individual SACCO societies to have their own credit policies which should be consistent with the provisions of the act. The policy shall contain information concerning the loan procedures, requirements for loan, acceptable types of collateral, interest rates of the different loan types as well as the periodic frequency of the payments. The maximum loan amount per each product, appraisal of the borrower's ability to repay the loan as well as the terms and conditions for insider lending and all the guaranteeing requirements.

The act prohibits the employees and management from receiving any compensation in connection with any credit facility. It is the responsibility of the board of directors to ensure an up to date credit policy reflecting the current lending policies that are determined by the market forces. It is their responsibility to provide a sixty day written notice to every member affected by the change in the rates and any term disclosed in the loan contract. Every borrower has a right to their account statement at least once in every six months or upon the request by the member for each outstanding credit facility providing detailed transactions made.

The society will disclose the lending terms that are the amount to be financed, the charges the interest rate fees and its computation, collateral required and the conditions for refinancing the loans. Loan interest rates may be established by the management and approved by board of directors. The society has a right to levy a penalty against any loan repayment made after the due date. In some situations the loan applications may be rejected, this information shall be communicated to the applicant through writing within a period of fourteen day. SASRA (2012)

In cases where a borrower defaults payment of the loan amount, the amount to be recovered is limited only to the amount not exceeding the amount owing when the loan became delinquent.

All loan facilities shall be fully secured and members should not over guarantee one another. Loan requested by a member against an individual shares without any collateral is not allowed. The borrower should provide adequate security.

In situations of lending among the SACCO themselves they are allowed in most cases to solve problems of liquidity crisis that may occur. However, the borrowing SACCO should not exceed the limit for external borrowing, and a signed agreement of borrowing shall be evidenced by the participating SACCO societies. The approval of lending shall be done by the board of directors. However, the society is not allowed to exceed twenty five percent of its total assets unless the society has waived the limit level. The application for such a waiver shall contain a detailed explanation showing the need to wave the amount .The borrowing SACCO shall charge interest at least two percent higher than the rate it is charged in procuring the facility. SASRA (2008)

If a SACCO society intends to introduce a new loan product it shall seek approval from the authority first. The proposal shall be accompanied by information on the scope of operations, the projected demand for market and the market segmentation. Employees working in the DTS are warned against using any of their positions to the advantage of their own interests. All loans to the directors and employees shall be ratified by the board members. The rates terms and conditions of the loans shall be the same as those offered to the members it shall not in any way favor the employees.

Where the SACCO holds an asset on behalf of an individual who has not made the loan repayments. The disposal of such an asset should happen within a period of one year. If the asset is sold at a higher cost and an excess amount is realized it shall be reimbursed back to the owner of the asset. If the asset is to be disposed through public auction the SACCO shall advertise the disposal in the national newspaper during the weekdays. If the SACCO has exhausted the normal debt collection procedures a debt collector like an auctioneer may be appointed. He should not in any case use threat, violence or criminal means against the owner of the property. A debt collector shall not receive any interest or collect any fees directly from the interest.

The DTS should constantly from time to time review its credit portfolio at least once every quarter this is because the financial institutions rely heavily on interest income to finance their

activities and meet their costs. Thus a loan portfolio is very important since situations of doubtful debts can lead to the collapse of the Society. It should also ensure that loan granting and lending conforms to the approved policies

All loans will be classified into five categories, performing: Loans that are well documented, watch: loans whose principal and interest have remained unpaid for thirty days, substandard: Loans not adequately protected by security and remain unpaid for thirty to one eighty days. Doubtful loans; they have remained unpaid between one hundred and eighty days to three hundred and sixty days that is approximately one year. Lastly are the loss loans they are loans that cannot be collected, they are considered of low value that their continued recognition is not accepted. They have remained outstanding for more than twelve months.

Interest on non performing loans shall be suspended once a loan is classified as substandard doubtful and loss and it shall not be treated as income. Where the society will take collateral for purposes of protecting themselves, the society shall ensure that the collateral is duly charged and adequately insured .revaluation should be done after every three years.

Loan loss allowances shall be provided for every category of the loan and the society should ensure at all times that the risk should not exceed this limits. One percent loan classified as performing, five percent as watch, twenty five percent as substandard , fifty percent as doubtful and hundred percent as loss.

2.4.5 Regulations on share capital, deposits and savings

Savings are deposits that are payable on demand. Equity is defined as the difference between assets and liabilities the SACCO societies act states that the society itself shall prescribe the minimum number of shares for which an individual shall subscribe to become a member. A member is not restricted from pledging the shares as security in cases of borrowing a loan. They members are also limited to transfer shares to other members in the society. In the event that a member quits the society they cannot be refunded back the shares that have accumulated.

At the end of every financial year the members earn dividends from the net surplus. The payment is dependent upon the dividend policy of individual SACCO societies. However the DTS is not allowed to pay dividends unless it has complied with the prescribed minimum requirements of

liquidity and core capital requirements. Non withdrawable deposits also known as fixed deposits shall be operated periodically as requested by the member and it shall earn interest at the rate determined by the SACCO society and dictated by the external market forces.

It is upon the SACCO management to come up with an appropriate savings policy. The society shall maintain an account for each of its members where all records and transactions shall be kept. It is the responsibility of the society to inform the members on the terms and conditions of operating such an account. The information should be simple and well understood. It should not be misleading or inaccurate or misrepresent the society.

An account is deemed dormant if no transactions have been made for a period of six months, if a person has not used the account for a period of five years it may be seen as abandoned and the member or nominee will be given a notice in writing within ninety days notice to the member or nominee. Monthly, the SACCO society shall submit its report on withdrawable and non withdrawable deposits.

2.4.6 Regulation and supervision

The authority has the responsibility of supervising the SACCO societies and also ensure that they comply with the provisions of the Act. The employees should be given unlimited access to all premises and records of a SACCO Society including strong room or any safe. Every employee should be willing at all times to provide the institutions accounting and financial information to the representative of the regulator. The authority shall receive all the reports from the societies in regards to all the monthly, quarterly and yearly reports. The authority shall conduct frequent on site inspection to the societies if the reports granted are unsatisfactory the regulator has the right to conduct on site inspection visits after which they will come up with a more detailed report which shall be treated as very confidential. The report itself will highlight the SACCO performance versus the set standards.

In situations where some corrective or remedial action is required, the authority has a right to use supervisory enforcement actions against any lapses or violations. Before any administrative action is taken against the society the authority shall consider the financial condition, interest of the members, board of directors, management and Macroeconomic conditions. The authority

may use any enforcement action against an individual who may act in contraventions of the societies act. It shall communicate these actions to the individual in confidentiality.

The authority has the mandate to pursue some administrative sanctions such as prohibition from declaring or paying out dividends, expansion, suspension of lending and credit extension, prohibition against receiving and accepting deposits and declaration of the bonuses.

2.5 Theoretical Framework

Theoretical framework is a collection of interrelated concepts in a theory to guide a researcher as it determines the items for measurement and the statistical relationships being studied. Kotler and Gary (2005)

This research will be anchored on the dividend policy theory. The term dividend policy can be defined as the practice that management follows in making dividend payout decisions, the size and pattern of cash distributions to the shareholders (Lease et al, 2000). The SACCO maintains a dividend policy meant to reward the members of the SACCO. They also reserve funds internally to facilitate company's growth. The dividend policy decisions rely entirely on the Board of Directors. The dividend in cooperative societies can be defined as the distribution of surplus among the shareholder in proportion to the ownership once a year on a specific date. The society themselves decide on what to do with the surplus either to retain or pay out as dividends. Dividend policy of the firm has its effect on both the long term financing, wealth and returns of the shareholders therefore a firm's decision to pay dividends may be shaped by the above (Pandey, 2010).

The basic financial objective of any firm is to maximize the wealth of its shareholders. Rappaport (1998) emphasizes that this occurs when the returns relative to investment are maximized. It is thus evident that dividend payment is entirely dependent on the performance of the SACCO itself. Dividend payout decisions are also affected by the capital and liquidity requirements. SACCOs must put this into consideration before deciding on what percentage to payout and the amount to plough back into the organization. It is clear that the SACCOs should maintain a balance between the amounts to retain because if they issue too much dividends, their

investment level will drop and this affects the returns and financial performance. The dividend policy can also be used as a measure of the performance level of the firm this is so because a consistent and stable policy indicates a sound and stable SACCO.

2.6 Conceptual Framework

Conceptual framework involves forming an idea about the relationship between variables in the study and showing them grammatically. The conceptual framework of this study concerns the effects of SASRA regulations on Returns of SACCOs. SASRA is a regulatory body that has the mandate to oversee the operations of the SACCOs. It was incorporated in the year 2008 under the SACCO societies act. The aim of this study was to find out to what extent has SASRA since its inception influenced the Returns and financial performance of the SACCOs, through measuring the profitability ratios of ROA and ROE. How these regulations are implemented and adhered to. These ratios were used since they are widely known and accepted to be used as performance indicators. The influence of SASRA regulations is primarily through the minimum liquidity and Core capital requirements since this two variables form part of the independent variable and they directly influence Return on Asset and Return on Equity. Previous studies concerning regulation in MFIs and the banking institutions indicate that it affects their returns and profitability. Christen, Layman and Rosenberg (2003) identified that compliance with regulations could cost a MFI 5% of the assets in the first year and 1% thereafter.

The study adopted the chow test analysis where separate regression lines are run to determine if there is any significant change in the periods. Regression before, after SASRA and for the entire period was done. In the conceptual framework, regulations on core capital and liquidity, deposits assets and Total Equity are the independent variables for the period after SASRA, or the period before SASRA since there was no major regulation about the liquidity and core capital, the researcher considered other variables that are share capital, membership assets, loans and deposits. The dependent variable is ROA, ROE and Returns. The intervening variables included all the other exogenous factors that affect the SACCOs. These are factors that the SACCO has no control over; they are determined by the external environment that the SACCO societies operate under. This may include factors like the lending interest rates from banks to SACCOs, exchange rate system and government policies

Liquidity and capital affect the returns and ultimately the financial performance of financial SACCO societies; this is the solid reason why there exist minimum reserve requirements on these variables not only in Kenya but also in other countries around the world. Having excessive liquidity means holding too much cash however it is a money loser because it does not earn enough to cover funding and administrative costs. If a village bank goes under, the depositors in other financial institutions will panic and begin to withdraw their funds. Such domino effects can bring down healthy institutions. This would severely affect the institutions returns and the entire region and economy. Bald Joachim (2000).

Capital adequacy, a higher equilibrium capital ratio has a significant effect on the banks assets. The impact is more sizeable on security holdings than on loans. The minimum regulatory capital requirements serve as buffers in cases of economic crises and market pressures to avoid solvency of the banks and financial institutions.

CONCEPTUAL FRAMEWORK

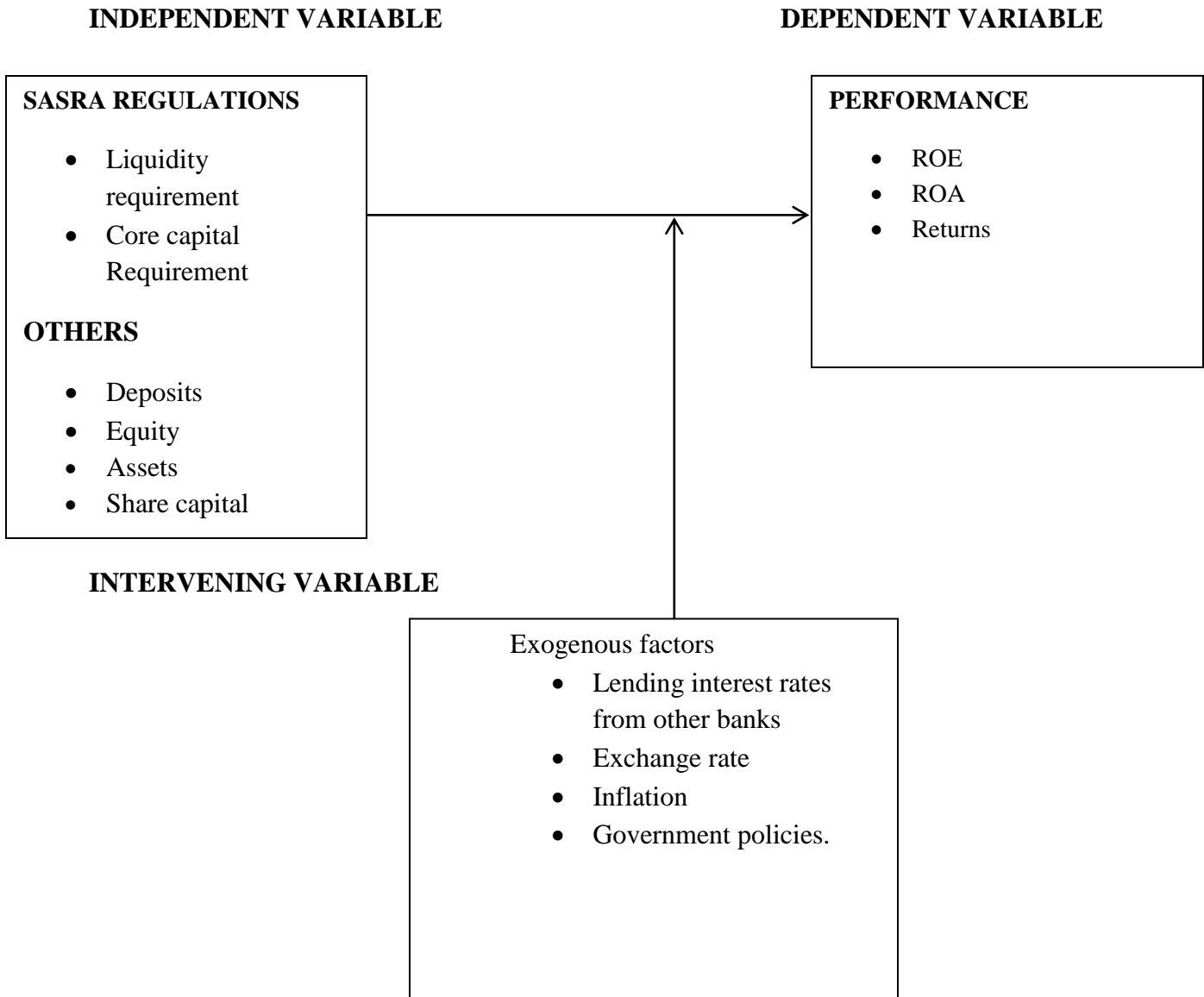


Figure 1.1 Conceptual Framework Model *Source: Author 2015*

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Methodology

Research design and methodology is a way to systematically solve the research problem. Kothari (2004). It is essential in this study as it contains information on how the research process is to be designed. It is also believed to give an insight to the variables and methodological approaches and assessment strategies on interpretations and other considerations. This chapter will be concerned with population design, data collection methodology, research procedures and data analysis methods.

3.2 Research Design

A descriptive research design was used in this study majorly since it provides information on characteristics of a population or phenomenon. (Zikimund2003).It was employed because it guaranteed a wide variety of information and accurate descriptive analysis of characteristics of a sample which were used to make inferences about the population. This design assisted the researcher to collect comprehensive, relevant and specific information under study. The study used the Chow test model which is applicable in time series analysis and econometrics where the researcher is able to identify the effect of the changes in policy. Structural breaks can occur in time series data or cross sectional data where there is a sudden change in relationship being examined. Examples may include sudden changes such as change in government policies. Out of this a need arises to separate regression lines, as they are more efficient than a single regression. This research design was incorporated in the study since it covered a period of between 2006-2013.

3.3 Target Population

Ngechu (2004) defines a population as a set of people, services, elements, events that are being investigated. The target population comprised all the SACCOs in North and Central Rift, Kenya. Information on total numbers of deposit taking SACCOs was obtained from the regulator SASRA in Nairobi. The regulatory authority clusters the SACCOs according to regions and not

counties. The financial statements, audited accounts, capital adequacy reports and liquidity were accessed from the SASRA offices.

3.4 Sampling Technique

All the deposit taking SACCOs in Central and North Rift regions were involved in this study, thus a census was done. Kothari (2004) indicates that where members of a target population are considered, it becomes more representative of the population of interest. It fulfills the requirements of efficiency, representativeness, reliability and other factors like nature of units and size of the population.

3.5 Data Collection

Research instruments are the means by which data is collected. The study adopted the use of secondary data that was obtained from the SASRA offices. Data was collected using the data collection sheet. The study used the annual financial statements from the SACCOs, the statement of financial position and income statement. The Capital adequacy, return and liquidity monthly reports were also analyzed. The variables used were the aggregate values of capital, deposits, Total equity, assets, loans, membership, share capital and Core capital. The values of Return on Asset and Return on Equity were also available in ratio format. Liquidity was given in percentages but the researcher converted them into decimal points.

3.6 Data Analysis

For the study to achieve the general and specific Objectives, data was comprehensively analyzed using the Chow test model, this model follows an F test. An F test was applicable in this study where the researcher had an interest in establishing if there are any differences between the means of the periods. The Chow test analysis used in econometrics measures any effect of the changes in policy. Three separate regression lines were run. One was for the period before SASRA regulations, after SASRA and the last one was for the entire period before and after the SASRA regulations including the year of change. The independent variables in the regression for the first period before SASRA include: share capital, membership, assets and deposits. The second period: liquidity, core capital, Deposits, loans, Total Equity and assets whereas the dependent variable is the Return on Asset, Return on Equity and returns of the Deposit Taking

SACCOs. ROA and ROE were chosen as the measures of returns since they are the most commonly used profitability ratios and can be incorporated to measure performance.

For the period between 2006 to 2008 data on Assets, share capital deposits, and membership were available. Since the regulator had not been incorporated liquidity and core capital could not be measured for the period 2006-2008.

Presentation of the findings was done using tables and mathematical calculations to compare the F values and the critical F values. The regression output was obtained using statistical package for social sciences (SPSS 21)

Chow test equation:

$$Y_i = b_1 + b_2x_{i2} + b_3x_{i3} + \dots + b_kx_{ik} + e$$

$$Y_i = y_1 + y_2x_{i2} + y_3x_{i3} + \dots + y_kx_{ik} + e$$

Where each of these equations represents a different group

Testing the null hypothesis:

$$H_0: b_1 = Y_1, b_2 = Y_2 \dots b_k = Y_k$$

Where: Y_i = dependent variable (ROA, ROE, Returns)

$b_i - b_k$ = Regression coefficients for the first period.

$y_i - y_k$ = Regression coefficients for the second period.

e = Error term

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATIONS

4.1 Introduction

The study examined the effect of SASRA regulations on returns of deposit taking SACCOs in North and Central Rift Regions, This chapter presents the results of the study. In order to examine the relationship between the variables, the study used the chow test analysis applicable in time series. This chapter also contains findings on the descriptive analysis, correlation of the variables and analysis of variance.

4.2 Descriptive Statistics

Descriptive analysis is the analysis of data that summarizes a data set, describes its main features and shows the resulting pattern formed by the set of data. Descriptive statistics consists of measures of variability that include variance and standard deviation; the three measures of central tendency: mean, mode and median; maximum and minimum data values; standard error; and measures of deviation from normality: skewness and kurtosis.

Table 4.1 Descriptive Statistics:

	ASSETS	CORECAPITAL	DEPOSITS	LIQUIDITY	T Equity
MEAN	9868985137	723031330.8	7135166235	8.82	974853821.8
STANDARD ERROR	824981672.4	98314780.93	509940267.2	0.286461	115252878.8
STANDARD DEVIATION	2020784144.38	240821047.4	124909345.98	0.701684	282310744.5
VARIANCE	4.08357E+18	5.79948E+16	1.56023E+18	0.49236	7.96994E+16

SKEWNESS	0.244660641	0.836755304	0.496335728	-0.46227	0.612704442
KURTOSIS	0.233412151	0.889031366	-0.953617706	-0.47383	0.323104493

The mean measures the average of measurements under investigation, which in accordance with this study is Core capital, liquidity, deposits, assets and Total Equity of deposit taking SACCOs in the North and Central Rift region, for the period 2006 to 2013. Standard deviation measures the spread of data within the sample. It measures how much each individual element in a sample deviate from the mean .The results in table 4.1 shows the mean and standard deviation of the key variables of interest. The results indicate that T equity has the highest mean while liquidity has the lowest mean.

The standard error measures stability of the data or sampling error. Table 4.1 above shows the sampling errors of the mean, The Table 4.1 above also shows the results of the normality test of the variables under study. This test utilizes the mean based coefficient of skewness and kurtosis to check the normality of all the variables used.

A positive value indicates skewness to the right while a negative value indicates skewness to the left. Values between -3 and +3 indicate that they are typical values of samples from a normal distribution. From the results shown in Table 4.1 above, it is clear that some variables are skewed to the right while liquidity is skewed to the left and they all assume a normal distribution. Kurtosis quantifies whether the shape of the data distribution matches the Gaussian distribution. A Gaussian distribution has a kurtosis of 0. A flatter distribution has a negative kurtosis while a positive kurtosis has a distribution that is more peaked than a Gaussian distribution. According to Table 4.1 above, kurtosis values lie between -0.47 and 0.89.

4.3: Correlation Matrix

A correlation matrix is a model used to investigate the dependence between multiple variables at the same time. It is presented in table form containing the correlation coefficients between each variable and each other.

Table 4.2: Correlation Matrix

The correlation matrix results are shown in Table 4.2 below.

Correlation Matrix Table:

	ASSETS	TEQUITY	DEPOSITS	LIQUIDITY	CORE CAPITAL
ASSETS	1				
TEQUITY	0.97971	1			
DEPOSITS	0.996685	0.984299	1		
LIQUIDITY	-0.6109	-0.69704	-0.62895	1	
CORE CAPITAL	0.967306	0.998083	0.976029	-0.7076	1

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

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

Using Pearson Correlation (r), the most commonly used bivivariate correlation technique; the association between the variables was estimated. The absolute value of the correlation coefficient ranges from 0 to 1. A value of zero indicates that there is no correlation between the variables whereas a value of one indicates that there is a perfect correlation between the variables. The sign of the correlation coefficient will be positive for direct relationship and negative for an indirect relationship.

The results in Table 4.2 above show the correlation matrix. According to the findings above the table indicates that Correlation between core capital, T equity, assets and deposits, is positive. The relationship is also strong between assets, deposits, total equity and core capital. Liquidity's

r-values are negative showing there is an indirect relationship between all the other variables and liquidity.

Chow Test:

The Chow Test is a test that determines if the coefficients from two regression analyses are the same.

$$Y_i = b_1 + b_2 X_{i2} + b_3 X_{i3} + \dots + b_k X_{ik} + e$$

$$Y_i = y_1 + y_2 X_{i2} + y_3 X_{i3} + \dots + y_k X_{ik} + e$$

Where each of these equations represents a different group, the model in effect uses an F- test to determine whether a single regression is more efficient than two separate regressions involving splitting the data into two sub- samples.

In the first case we have just a single regression line, in the second case where there is a structural break. We have two separate models.

F test is a statistical test in which the test statistic has an F distribution. It tests if variances from two populations are equal it does this by comparing the ratio of two variances so if the variances are equal the ratios will be one.

The stages in running the Chow test are:

First run the regression using all the data, before and after the structural break, collect the SSE_R

Run two separate regressions on the data before and after the structural break, collecting the SSE_1 and SSE_2

Using these three values, calculate the test statistic using the formula as expressed below

Find the critical values in the F-test tables, in this case it has $F(k, n-2k)$ degrees of freedom.

Conclude the null hypothesis.

Three regressions will be run where one is for the first period before SASRA 2006-2008, the second 2009-2013 for the second period after SASRA and the last one for the entire sample 2006-2008. The researcher then uses an F test to determine if the models are significantly different from one another.

$$F_{k,n+m-2k} = \frac{(SSE_R - SSE_1 - SSE_2) / K}{(SSE_1 + SSE_2) / (n+m-2k)}$$

- Where: **SSE_R**=Error sum of squares
- SSE₁** = Error sums of squares for the first group
- SSE₂** = Error sums of squares for the second group
- n**= Number of observations in the first group
- m**= Number of observations in the second group
- k**= Number of regressors, including the intercept term

4.4 Analysis of Variance Results

It is a statistical technique that is intended to analyze variability in data to check for any inequalities among the population means. The researcher computed three Analysis of Variance models based on three periods that is before SASRA, After SASRA and the entire period of eight years.

4.4.1 ANOVA results for the period before SASRA

Table 4.3: ANOVA table results for the period before SASRA

ANOVA						
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	2.73E+16	4	6.83E+15	77.34825	1.76E	3.47805
Within Groups	8.83E+14	10	8.83E+13			

Total 2.82E+16 14

The null hypothesis in analysis of variance states that the F critical should be greater than the F values.

The F value is greater than F critical we reject the null hypothesis. This is the case as 77.34 is greater than 3.478 therefore we reject the null hypothesis the means of the populations are not all equal. At least one of the means is different.

4.4.2 ANOVA results for the period after SASRA

4.4 ANOVA table results for period after SASRA

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	4.79	4	1.197	103.55537	3.5	2.75871
Within Groups	2.89	25	1.156			
Total	5.08	29				

The F value is greater than the F critical as above. $103.555 > 2.759$ therefore we reject the null hypothesis that the means of the populations are not all equal.

4.4.3 ANOVA results for the whole period 2006-2013

Table 4.5: ANOVA for the period whole 2006-2013

ANOVA

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	4.11533	7	5.87904E+19	11.570	2.1258E	2.15642397

Within			
Groups	3.25195E+2	64	5.08117E+18
Total	7.36728E+2	71	

The same F value is greater than F critical as above, $11.570 > 2.1564$ thus we reject the null hypothesis this shows that means of the populations are not all equal

4.5 Mean Ratios of SACCO s performance before and after adoption of SASRA Regulations.

Table 4.5 Mean Ratios for the period before and after SASRA

Ratios	Mean Before SASRA	Mean After SASRA
ROA	0.113582899	0.12012668
ROE	0.095662764	0.160966586
Core Capital Ratio	0.106880118	0.105881363
Deposit	0.704903813	0.164433131
Liquidity	0.526833531	0.50235907
Asset	0.013196305	0.020144693

The researcher made a comparison of the means of the variables before and after Incorporation of the SASRA regulatory body. The study recognized that SASRA regulations had a positive impact on Return on Asset and Return on Equity. This is as shown in the above table where ROA increased from 0.11359 in 2008-2009 to 0.12012668 in 2010-2013. ROE on the other hand increased from 0.0957 to 0.1610 the study also established that Liquidity, Core capital ratio and equity to deposit ratio were all affected negatively by the SASRA regulations. Liquidity reduced from 0.527 to 0.5024, Core capital ratio from 0.1069 to 0.1059 and Equity to deposit ratio from 0.70490 to 0.16443

4.6 Regression Results

Regression analysis is a statistical process for estimating the relationships among variables. The focus is on the relationship between one or more independent and a dependant variable. Regression analysis is used to assist one to understand how the dependent variable changes when any one of the independent variable is varied. It is widely applied in prediction and forecasting. The study uses the chow test model. However, the chow test requires one to perform the regression analysis first and then compute the mathematical F values from the Residual sum of squares. The researcher conducted three regression models for the three periods.

4.6.1 Regression results for the period before SASRA

This was the period before SASRA regulation came into effect since there were no regulations governing the SACCOs

Table 4.6 Effects of SASRA Regulations on ROA, 2006-2008

Variables	Coefficient	Std. Error	P values	RSS
Constant	-4.011	.000	0.00	
Share capital	1.78	.000	0.00	0.00
Core capital	8.75	.000	0.00	

Table 4.7 Effects of SASRA Regulations on ROE, 2006-2008

Variables	Coefficient	Std. Error	P values	RSS
Constant	-38.36	0.000	0.00	
Membership	3.45	0.000	0.738	0.00
Deposits	8.66	0.000	0.335	

Table 4.8 Effects of SASRA Regulations on Returns, 2006-2008

Variables	Coefficient	Std. Error	P values	RSS
Constant	-2019305.70	0.000	0.00	0.000
Membership	0.007	0.000	0.00	
Deposits	0.150	0.000	0.00	

Total RSS for group one:

$$0.00+0.00+0.00= 0.0$$

4.6.2 Regression Results for the period after SASRA 2009-2013

Table 4.9 Effect of SASRA Regulations on ROA 2009-2013

Variable	Coefficient	Robust Std. Error	P values	RSS
Constant	0.184	1.150	0.899	0.034
Liquidity	0.008	.112	0.956	
Core capital	1.18	.000	0.901	
Share capital	-3.406	.000	0.817	
Deposits	2.79	.000	.0929	

Table 5.0 Effect of SASRA Regulations on ROE 2009-2013

Variable	Coefficient	Std. Error	P values	RSS
Constant	9.091	0.000	0.00	0.00
Liquidity	-0.693	0.000	0.519	
Share capital	-5.042	0.000	0.684	

Table 5.1 Effect of SASRA Regulations on Returns 2009-2013

Variables	Coefficient	Std. Error	P values	RSS
Constant	-200114091966.4	55905314988.8	0.173	2.501
Liquidity	24353625539.27	7127085017.04	0.181	
Core capital	-574.177	161.366	0.174	
Assets	0.662	0.172	0.162	
Membership	201.728	51.852	0.160	

For period two the RSS Value is

$$0.034+2.501+0.00= 2.536$$

4.6.3 Regression Results for the entire period

Table 5.2 Effect of SASRA Regulations on ROA 2006-2013

Variables	Coefficient	Std. Error	P values	RSS
Constant	0.010	0.077	0.903	0.035
Liquidity	0.023	0.026	0.442	
Core capital	1.66	0.000	0.705	
Share capital	-3.55	0.000	0.633	
Deposits	2.57	0.000	0.870	

Table 5.3 Effect of SASRA Regulations on ROE.2006-2013

Variables	Coefficient	Std. Error	P values	RSS
Constant	-20.150	4.209	0.131	0.132
T Equity	5.323	0.000	0.219	
Membership	2.06	0.000	0.132	
Liquidity	3.13	0.609	0.122	
Core capital	-1.40	0.000	0.125	

Deposits	2.48	0.000	0.125	
Share capital	9.94	0.000	0.192	

Table 5.4 Effect of SASRA Regulations on Returns 2006-2013

Variables	Coefficients	Std. Error	P values	RSS
Constant	189288801790.4	35625295708	0.013	
Liquidity	23093214294.34	4878998539.53	0.018	3.961
Core capital	-555.6	113.486	0.016	
Assets	00.642	0.122	0.013	
Membership	195.318	36.712	0.013	

Total Residual Sum of Squares for the whole period 2006-2013,

$$0.035+0.132+3.961= 4.128$$

4.7 Chow test for structural break

To calculate the chow test we use the following formula, the aim of the researcher is to establish if there is a structural break due to the changes in policies due to the introduction of the regulations to regulate deposit taking SACCOs.

$$F_{k,n+m-2k} = \frac{(SSE_R - SSE_1 - SSE_2)/K}{(SSE_1 + SSE_2) / (n+m-2k)}$$

➤ Where: SSE_R = Error sum of squares

SSE_1 = Error sums of squares for the first group

SSE_2 = Error sums of squares for the second group

n = Number of observations in the first group

m= Number of observations in the second group

k= Number of regressors, including the intercept term

$$\mathbf{k=3, \quad n=3, \quad m=5,}$$

$$\mathbf{SSE_R=4.128}$$

$$\mathbf{SSE_1=0.000}$$

$$\mathbf{SSE_2=2.536}$$

$$\mathbf{F_{3,3+5-(2*3)}=\underline{(4.128-0.000-2.536)/3}}$$

$$\mathbf{(0.000+2.536)/ (3+5-(2*3))}$$

$$\mathbf{\triangleright 1.592/3=0.53067}$$

$$\mathbf{\triangleright 2.536/2=1.268}$$

$$\mathbf{F_{3,3+5-(2*3)}= 0.53067/1.268}$$

$$\mathbf{= 0.4185}$$

$$\mathbf{F_{3,8-6}= 0.419}$$

$$\mathbf{F_{3,2}= 0.419}$$

According to the F test tables $F_{3,2}$ at 5% significance level=19.16

0.419<19.16 the F critical is larger than the F value.

The null hypothesis tests that there is no difference between the results of the entire period, the first period before SASRA and the second period after SASRA.

From the results above we can see that the F critical values are greater than F test values thereby we do not reject the null hypothesis and conclude that there is no difference between the periods. From the results the researcher concluded that SASRA regulations resulted to minimal effect on the Deposit Taking SACCOs. After mathematical computation of the F values the researcher at five percent significance level found out that the F critical value computed by the degrees of freedom $F_{3,2}$ are 19.16, this value is shown in the mathematical F test tables. The value 19.16 is compared to the F values that are calculated after the regression analysis has been done.

Since there is no structural break the researcher can therefore conclude that the regulations on SASRA did not create a major change in the Deposit taking SACCOs, this may be attributed to the fact that some SACCOs are still struggling to meet the required minimum regulatory requirements.

A comparison of the means was done and on the performance ratios alone that is ROA and ROE, We find out that there was growth. This shows that SASRA regulations in comparison with the ratios alone show an improvement. However when it comes to all the other variables the core capital, liquidity, deposits, T equity and assets they are affected negatively and the mean can be seen depreciating. This shows that the SACCOs are finding it difficult to adopt the regulations and integrate them into their day to day activities.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1: Introduction

This study set out to investigate the effect of SASRA regulation on returns of SACCO in North and Central Rift Regions over the period of 2006-2013. This study addressed three objectives which were to determine the effect of SASRA regulations on Return on Assets of SACCOs, to establish the effect of SASRA regulations on Return on Equity of SACCOs and to examine how SASRA regulations influence returns of SACCOs. To achieve these objectives this study used the chow test analysis widely applicable in econometrics and time series. The used explored two year before SASRA and five years after the regulations. The researcher conducted three regression models for the different periods. This is in accordance to the chow test analysis follows an F test.

5.2: Summary of the Findings

The chow test analysis follows an F test; we use this analysis to identify if structural breaks exist in a time series data. Examples include sudden policy changes such as a change in government laws and procedures. This study involves a change in government policy concerning the Deposit Taking SACCOs that changed their way of operations from 2008 onwards as a government body was created to monitor and regulate them. To achieve this, three regression models were done, model one was for the period before SASRA, model two the period after SASRA and model three for the entire period. The residual sum of squares for the three periods was noted. The residual sum of squares values are then used to compute the F test using a mathematical formula and the results compared to the critical f values.

The null hypothesis being tested is that there is existence of a structural break if the F value is greater than F critical. In this study the F value is less than the F critical showing that there exist no structural breaks in the periods and thus we can conclude that SASRA regulatory body has had no significant effect on the deposit taking SACCOs The results from the analysis show that despite the advent of these regulations their impact has not been how it was anticipated.

A study done by Kilonzo on the effect of SASRA regulations on performance of DTS in Nairobi region which found out that regulation on liquidity affected the SACCOs Return on Asset inversely; the study was done in 2011 few years after SASRA body was created. This concurs with this study that the effect of the regulations on the three measures of performance was not achieved by the regulations that came into effect in the year 2008.

A study done by Mersland and Strom in the year 2008 also found out that regulations have no significant impact on financial and social performance.

5.3 Conclusions

Considering that some SACCOs closed down as a result of regulatory pressure, the study concluded that there is need for SACCOs to learn how to deal with the pressures to restructure its operations, reduce costs, grow its returns and come up with strategies to keep pace with shifts in government policies and global economy.

The regulatory authority should continue to monitor the operations of this SACCOs as they continue to comply with the stipulated requirements. Other policies and reforms on how to increase members should also be structured so as to bring on board more savings through increase in number of members.

The SACCOs may have encountered challenges in adjusting to the new regulations and thus this may have been the major cause why its influence on ROA and ROE may have been minimal. The SASRA regulatory body may have to offer more assistance to this growing institutions and this can be done through constant training of the employees on matters especially concerned with how to maintain a tradeoff between how much to hold and how much to spend as this affects liquidity. Issues on the strategies on how to balance the minimum capital requirements should also be looked into and communicated to the DTS. The study also recommends that the government should be lenient in its regulations to allow SACCOs grow and expand. It should impose few regulatory restrictions that affect ROA and ROE.

Emphasis has been placed on the deposit taking SACCOs, without considering the regulatory body. The regulator SASRA authority body itself faces a number of challenges some of which include the limited financial resources of the body, low adoption of technology by the SACCO

society thus it becomes difficult to integrate their work, different growth phases of SACCOs some adopt the regulations easily than others. Change resistance by the SACCOs that find it difficult to conform to the new way of doing things complex multifunctional between MFIs SACCO themselves and the bank, their functions are similar and all of them have the same target market.

Some SACCOs embrace technology faster than others, this requires that the regulator constantly reviews the laws to keep pace with this changes. Lastly lack of responsible governance players that is the SACCO management has limited skills and competent manpower who fully understand SACCO operations.

Despite the challenges the SASRA regulations are seen to have some benefits to the DTS such as enhancing confidence of members in terms of leadership and management. It also encourages fair competition by demolishing any unethical behaviors and business practices.

5.4: Recommendations

From the findings of this study there is need for SASRA to continue reviewing the regulations especially in consideration with the ROA and ROE. These are profitability ratios and they are used in measuring the profit margins. They reflect a picture that the impact of regulations on these ratios has been insignificant.

The regulations should continue being enhanced in the SACCOs since comprehensively they assist in stability of these institutions. Previous studies show the importance of maintaining a minimum capital requirement especially with financial institutions.

The regulatory authority should also be well facilitated by the government to ensure that their activities are not interrupted due to lack of financial resources.

5.5: Suggestions for further studies

This study examined the effect of SASRA regulations on SACCOs' returns. Its experimental units were deposit taking SACCOs in North and Central Rift region registered under SASRA.

A further study should be conducted to scrutinize the attitudes and opinions of SACCO members towards SASRA regulations and how it has influenced their lifestyles.

The study also recommends that a study should be conducted to establish other factors other than regulations that contribute to the failure or success of SACCOS in Kenya.

Further studies should also be done to determine the influence of SASRA in enhancing Financial Sector Deepening through SACCOs.

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APPENDICES

APPENDIX I: LIST OF DEPOSIT TAKING SACCOs IN NORTH AND CENTRAL RIFT REGIONS

- 1) Boresha Sacco
- 2) Skyline Sacco
- 3) Keiyo Teachers Sacco
- 4) Marakwet Teachers Sacco
- 5) Cosmopolitan Sacco
- 6) Egerton University Sacco
- 7) Gilgil/Vision Afrika Sacco
- 8) Baraton University Sacco
- 9) Kolenge Tea Sacco
- 10) Nandi Farmers Sacco
- 11) Nandi Hekima Sacco
- 12) Nandi teachers Sacco
- 13) Transcounties Sacco
- 14) Transzoia Teachers Sacco
- 15) Ainabkoi Sacco
- 16) Moi University Sacco
- 17) Wareng Teachers Sacco

SECONDARY DATA SOURCED FROM SASRA REGULATORY BODY.

Years	Assets	Loans	Deposits	Membership	Returns	S Capital	Liquidit	Tequity
2006	105533000	68302000	51113000	981830000	12170000	2030000	0	0
2007	115900000	77356000	61753000	955162000	13589000	2473000	0	0
2008	134018000	90984000	71110000	1061348000	15698000	2720000	9.54	63285657
2009	146167000	102514000	105929000	1538993000	17195000	4242000	8.38	75392714
2010	171345000	123492000	123137000	1646966000	22022000	5413000	9.58	90090662
2011	196342000	147737000	140650000	2092946000	25000000	27067000	8.79	102720407
2012	22353500	167598000	160482000	2341107000	28403248068	7630000	8.89	110327745
2013	241621964970	184538572411	172526183751	2612250000	33715291271	10664000	7.74	110327745