

**THE EFFECT OF CORE CAPITAL ON THE FINANCIAL PERFORMANCE OF
DEPOSIT TAKING SACCOS IN NAIROBI COUNTY**

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THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF
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DECLARATION

I hereby declare that this research project is my own work and effort and it has not been presented in any other university anywhere for an academic award.

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This research proposal has been submitted for examination with my approval as the Candidate's University supervisor.

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DEDICATION

This work is dedicated to my family for without I would not have achieved much.

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LIST OF ABBREVIATIONS

CBK	-Central Bank of Kenya
CCA	-Core Capital to total Assets
CCD	-Core Capital to total Deposits
CFI	-Co-operative Financial Institution
DTS	- Deposit Taking SACCO
FOSA	- Front Office Saving Activities
GDP	-Gross Domestic Product
KNBS	-Kenya National Bureau of Statistics
ROSCAS	-Rotating Savings and Credit Associations
SACCO	- Savings and Credits Co-operatives Societies
SASRA	- Sacco Societies Regulatory Authority
SPSS	-Statistical Package for Social Sciences

ABSTRACT

The purpose of the study was to investigate the effect of core capital ratio on the financial performance of deposit taking savings and credit cooperative societies in Nairobi County. The study sought to answer the question: What is the effect of core capital ratio on the performance of SACCOs? The study evaluated the requirements for SACCOs in Kenya as outlined by the SASRA as well as the requirements for SACCOs specified by central bank of Kenya. An analysis of strategies that these institutions have undertaken to adhere to capital adequacy regulations, as enforced by their respective regulatory bodies, has also been described. The design of the research was a descriptive study that sought to detail the effect of core capital adequacy on SACCOs. The population under study was the Front office Savings Activity, FOSA, operating SACCOs within Nairobi County whereby a sample of 40 SACCOs were selected randomly. Secondary data was used and the analysis was undertaken using SPSS software to determine any correlations and frequencies within the data. The study concluded that SACCOs performance are affected by core capital significantly from the regulations in various ways such as, managing credit risk, improved public confidence, providing a safety net for members' deposits, provision of operating capital, increased lending capacity, providing a base for future growth, and preventing insolvency. SACCOs had faced various challenges in complying with capital adequacy regulations. These were reduced pay-out on members' funds, recruitment of new members, restricted avenues for investment, and reduced lending capacity. The SACCOs had engaged in strategies to meet capital adequacy. Of these strategies, SACCOs found issuing new capital, increasing membership base, diversifying product base, adjusting dividend pay-out ratio, stricter. The study recommends that managers of the SACCOs closely adhere to the requirements provided by regulation so as to continue to reap the benefits discussed in this study. Further, the study recommended a review of their lending rates via cost pricing methods.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The main purpose of Savings and Credit Cooperatives (SACCOs) are to promote the social and economic welfare of their members who could be both net savers and net borrowers. They pay an entrance fee and invest funds to purchase at least one share in the union. In addition, members are expected to deposit their savings in the credit union and these funds are only lent out to members and not the general public as is the case of commercial banks. Generally in establishing the credit union, members have a common bond, such as that of occupation or social association (Saunders & Cornett, 2011).

The co-operative societies in Kenya cut across various sectors and activities such agriculture marketing co-operatives, teachers, tea, employee-based and community based (Co-operative Bank of Kenya, 1993). SACCO is an acronym for savings and credit cooperative, which is known as savings and Credit in countries like Kenya, Uganda, Tanzania and financial Cooperatives in other countries. They are member owned organizations which encourage thrift and lending practices amongst membership and have diversity across the world, McKillop & Wilson (2011). SACCO is a type of a cooperative belonging to the sub classification of financial cooperatives Manyara (2003).

1.1.1 Core Capital

Core capital is one of the components of capital. Core capital is defined as completely paid up retained earnings, member's shares, grants and donations and disclosed reserves that a SACCO should expand unless they are faced with liquidation. Core capital has been used as a measure of capital adequacy within the deposit taking SACCOs. Institutional Capital is the percentage of the Core capital belonging to the SACCO as an institution such that no single member can place claim on it (SASRA 2010).

Capital adequacy necessities guarantee that each SACCO society upholds a level of capital satisfactory to shield member deposits and creditors against losses as a resultant of business risks. The Sacco societies Act establishes that SACCOs should at all-time have sufficient core capital (SASRA 2014).

1.1.2 Financial performance

Financial performance depicts how well an organization maximizes shareholders value and profits and minimizes risks. Information concerning the financial performance is derived from a firm's financial statements. Financial statements enable an organization to define its financial positions and performance, also top management uses the financial statement to draft strategic and financial plans. A range of performance valuation measures have been established. The measures shows the results of firms performance whether good or bad (Cole 2004). Financial measurement also assists in the production of financial statements for review by the key stakeholder.

Financial performance of a firm can be measured using various methods. The traditional techniques mainly use ratios which are classified into profitability, liquidity/ working capital, gearing and investor ratios Kaplan (2012). These ratios can be computed directly using financial statement information. Valuation ratios are added with the traditional classification of ratios, which incorporate more current assessments by the market of the company's "worth". Simple balance sheet and income statement items are used to compute ratios to analyze financial statements of the financial institutions. There are several factors that determine the performance of economic organization including asset base, leverage, performance of the loan book, corporate governance and the quality of staff and regulations in the industry. The essence of financial performance measurement is to provide the organization with the maximum return on the capital employed in the business (Gnu, 2010).

1.1.3 Core Capital and Financial performance

According to the Sacco Society Regulations, 2010, establishing a core capital for deposit taking Sacco's will improve the efficiency and effectiveness of how SACCOS conduct their deposit taking business. The improved effectiveness will result into better productivity thus improved financial performance which is a key measure of productivity in monetary terms (SACCO society's regulations, 2010).

Section 9 of the SACCO business established the importance of core capital. This was to ensure Saccos maintained sufficient capital that can protect its members deposits and also protect creditors against losses that are as a result of business risks .All the business risks

are measured in monetary terms through the financial performance of the SACCO. Thus as a measure of safety and soundness, adequate capital should result to good financial performance as it enables smooth running of the SACCO business which eventually promotes public confidence in the institution(SACCO societies regulations, 2010).

1.1.4 Deposit Taking SACCOs in Nairobi County

Co-operative movements can be traced back in 1908 in Kenya. However, it has evolved over the last 40 years into a powerful force for the social and economic transformation of the society in Kenya. The co-operative societies in Kenya cut across various sectors and activities such agriculture marketing co-operatives, teachers, tea, employee-based and community based (Co-operative Bank of Kenya, 1993).

Deposits taking Savings and Credit Co-operatives (SACCOs) have to a very large extent influenced the Kenyan economy. The SACCOs contributes up to 45% of the Kenyan GDP .This is despite the fact that they were not formerly incorporated in the formal financial system. According to the SACCO supervision Annual report, 2014 the Deposit-taking Sacco Societies (DTSS) is part of the greater Sacco sector in Kenya SACCOs deposits are non-withdraw able in that they may be used as collaterals for loans only, and can only be refunded upon the member's withdrawal from the society (SASRA, 2014).

On the other hand, the deposit-taking segment of the sub-sector is composed of those Sacco Societies which are involved withdrawable and non-withdrawable deposits. The SASRA database clearly indicates that there was an increase of the other key financial indicators like Liquidity, Asset quality and Earnings and profitability with the increase in the Core capital provisions between the year 2013 and 2014. The CCA increased from 7.74 percent to 11.2 percent while the CCD increased 10.9 percent to 16.4 percent. However, despite the indication that increase in the core capital resulted to increase in the financial performance. DTSSs, have adopted various strategies to ensure the attainment of the prescribed capital ratios including mobilization of increased shares purchase from the members, recruitment of new members, and retention of surpluses (SASRA, 2014).

1.2 Research Problem

The introduction of Deposit Taking SACCOs in Kenya brought about several risks to the SACCO members deposits which were not earlier encountered when SACCOs had not ventured into the deposit taking business and prior to the year 2008, there were no regulations in place to cater for the same. These risks posed a great problem to the member's deposits and the stability of the financial sector. The major problem was the liquidity challenge (Manyara 2003) when some SACCOs were unable to pay the members' deposits on demand. These risks resulted to the SACCO Regulatory reforms 2008 which resulted to a requirement of deposit Taking SACCOs to have a core capital requirement to help protect the members' deposits and improve their confidence and loyalty to the SACCOs (SASRA 2010).

In Kenya, SACCOS play a Key role in bridging the gap between macro and micro finance. SACCOs plays a key part in assisting Kenyans save and acquire credit at relatively lower interest rates than the main stream banks. SACCOs plays a significant roles in the realization of vision 2030. Due to the increase in demand of intermediate banking facilities, SACCOS began offering front office services similar to banks thus the rise of FOSAs taking deposits and giving credit to their members at competitive rates (Quasi Banking services). This did not spare the SACCOS from the business risks associated with financial institutions. The major challenge was liquidity due to unwillingness of members to regularly contribute shares or to repay loans advanced to them (Kobia 2014) in that some SACCOS were unable to pay the member deposits on demand (Manyara 2003). Payment of unearned income led to depletion of capital.

Various studies have been established on financial Performance influenced by diverse variables and in the SACCO industry Gisemba (2010) concluded that management of the SACCOS was involved in the management of credit risk through making credit risk decision through standardization of process and documentation watch over loan portfolio's degree of concentration and exposure for credit risk management. Gaitho (2010) carried out a survey on credit risk management practices adopted by SACCOs in Nairobi. As of 2009, SACCOs in Kenya were not performing as expected and were not contributing much to the Kenyan economy (Kimeu T. K., 2008). Among the major problems hindering good financial in SACCOs was dubious which had very little or no gain to the members capital due to under regulation (Ahmed, 2004).

In Kenya, studies have been done on varied parameters affecting financial performance which include; Sambu (2006) investigated influence of regulation on performance of SACCOS and Ngaira (2011) investigated effects of SASRA regulations on performance of SACCOs. Kilonzi (2012) examined effect of SASRA regulations on financial performance. Karagu and Okibo (2014) examined determinants of financial performance in SACCOs. They found fund misappropriation, member withdrawals and the diversity of products offered to be the key factors. Kahuthu, Muturi and Kiweu (2015) investigated effects of core capital and membership growth on performance of Deposit Taking SACCOs. The study concluded the capital requirements and membership growth positively affected financial performance. Otieno (2014) examined factors influencing growth SACCO wealth. The study found that capital structure; financial stewardship and funds allocation strategy significantly affects growth of SACCO wealth.

Similar studies on the relationship between financial performance and core capital of deposit taking SACCOS in Nairobi County are lacking. Therefore the focus of this study is to establish the relationship between core capital and financial performance of deposit taking SACCOS in Nairobi County.

1.3 Research Objective

To determine the relationship between Core capital and the financial performance of Deposit taking SACCOS within Nairobi County Kenya.

1.4 Value of the Study

The study will extend and apply the knowledge of the relationship between Core Capital and Financial performance by testing this relationship in the Nairobi County. The findings are expected to further contribute to the understanding of the SACCO operation dynamics and shed some light on whether the core capital requirements put in place for the Deposit Taking SACCOS are playing their key role of improving financial performance and investor confidence in the SACCOS by limiting the business risk he SACCOS face as financial institutions.

To the SACCO Societies Regulatory Authority (SASRA), the study will provide baseline information that will help the body in formulating policies to enhance performance of SACOS. To the SACCO societies, this study will give insight on how capital affects the general performance of the business and will help in formulating appropriate strategies to ensure capital adequacy and to improve the performance of the business in general.

To potential investors, this study will provide the much needed information on the exposure they face in investing in particular SACCOS through the findings of their

capital adequacy requirements. To the academicians, it will give an insight to those who wish to pursue further research on financial performance in the SACCOSs subsector.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two highlights various theories suggested on core capital and financial performance as well as related empirical evidence, determinants Core capital and summary of the literature concluded.

2.2 Theoretical Review

This section focuses extensively on theoretical review of literature that attempts to explain the relationship between core capital and financial performance. The following section will describe and discuss the following theories: core capital based approach and loanable funds theory and theory of micro-loan borrowing rates & default.

2.2.1 Core Capital Based Approach and Loanable Funds Theory

Wilson et al (2011) and Goddard et al (2010) explained capital baseas “meaningful capital standards that are important in protecting the taxpayers and the stability of financial system”. Since retained earnings form a key component of core capital, it forms an important source of loanable funds in SACCOs.

Saunders and Cornett (2007) acknowledge Loanable funds theory as the amount of money available to borrowers due to changes in interest rates and other government laws. However, in SACCOs, it is the amount of money available to borrowers as permitted by the SACCO by-laws

and availability of funds. The funds retained in the SACCO business as recommended by capital adequacy theory have assisted the ever growing membership and the incessant demand for loans.

Saunders and Cornet (2007) stated that most regulators acknowledge the owners contributions (core capital) as important component primarily because it is the amounts available to stakeholders in the event of insolvency and liquidation. The financial institutions particularly fix high capital ratios in order to cushion depositors against any probable loss and the undesirable banking impact of panic funds withdrawal which may create destructive panic runs on other solvent but illiquid banks or SACCOs, (Bhattacharya & Thakor, 1993).

SACCOs are exposed to many financial risks but the three direct ones are: credit, systemic and liquidity risks. In credit risk, the lender is uncertain if the loan provided will be repaid as per the contractual documents. It includes the default risk which states that the lender is unlikely to recover both the principal and the interest rate payable by the client. For the protection of deposits the regulator must be assured that the organization can at least be able to pay a proportion of shareholders' funds in the event of insolvency and liquidation (Mishkin & Eakins 2011).

2.2.2 Theory of micro-loan borrowing rates and default

A model of micro loans is used to determine the equilibrium borrowing rates, and default Probabilities. Monitoring by lenders is critical for equilibrium to exist in our model if the maturity of the loan is long. With short maturity loans, monitoring is shown to be counter-

productive. The manner in which the loan rates depend on the market structure, monitoring costs, joint-liability provisions and punishment technology is characterized when the borrowing group optimally chooses the timing of default. Designing the loan contract so that borrowers make higher payments in good states and lower payments in bad states are shown to be Pareto improving, Hoofman (2006).

There are very large groups of society, especially in poor and developing parts of the world who do not have access to rudimentary financial services such as bank savings accounts, credit facilities, or insurances. Households in these sections of the society are typically poor and access credit in informal credit markets. Such informal credit markets include: local money-lenders, cal shop-keepers, who provide trade credit, pawn-brokers, payday lenders, Rotating Savings and Credit Associations (ROSCAS). A number of economists have examined these informal credit markets, and their potential linkages to more formal credit markets. A partial list of such research includes Besley, Coate, and Lounry (1993), Braverman and Guasch (1986), Varghese (2000, 2002), and Caskey (2005). It is well understood that the interest rates in such informal markets tend to be much higher than the borrowing rates that prevail in formal credit markets.

2.3 Determinants of Financial Performance

Determinants of performance of SACCOs included in this study include core capital, investment regulation, capital adequacy and size of the SACCO.

2.3.1 Core Capital

Core capital is one of the components of capital. Core capital is defined as completely paid up retained earnings, member's shares, grants and donations and disclosed reserves that a SACCO should expand unless they are faced with liquidation. According to the Sacco Society Regulations, 2010, establishing a core capital for deposit taking Sacco's will improve the efficiency and effectiveness of how SACCOS conduct their deposit taking business. The improved effectiveness will result into better productivity thus improved financial performance which is a key measure of productivity in monetary terms (SACCO society's regulations, 2010).

2.3.2 Investment Regulation

SACCOs are regulated by SASRA. SASRA is financed by exchequer and generates income fees that it imposes. Fees charged for registration of CFI are; License fee per branch USD 250, License/Registration fee USD 700 and Renewal fee of USD 250. SASRA observes that amongst all CFIs, FOSA controls 70% of deposits. Some of the challenges faced are by CFIs include; Credit Risks, Lenders of last resort. Competent external regulation can identify, avoid and resolve many investment problems experienced by SACCOs and credit unions Brian (2005).

2.3.3 Capital Adequacy

Guidotti et al (2004) argue that a firm will perform better if it has higher levels of capital than undercapitalized firm. Johnson (2007) found capital adequacy significantly influences profitability. Jansson (1997) established that capital adequacy ratio negatively influenced profitability.

2.3.4 Size of the Sacco

Firm's size plays a crucial part in determining its financial performance. Johnson (2007) stated that size of the firm influences its performance in various ways. Sinani et al. (2007) found that firm size and higher labor quality display higher levels of financial performance. The findings however contradict earlier findings by Badunenko & Stephan (2004) who indicated that research and development expenditure, sales growth, capital intensity, proportion of East German firms and size of the firm do not have influence on technical financial performance.

2.4 Empirical Studies

Kahuthu, Muturi and Kiweu (2015) investigated influence of core capital on performance of SACCOs. The study used census Survey design and a linear regression model to establish the influence of core capital and membership retention SACCO's financial Position. It compared the Betas of various independent and dependent variables before the regulatory reforms and after. The study conclusions on the basis of findings revealed that core capital and membership growth have positive impact on SACCO's financial performance. However the major gap in the study was that the data analyzed was a set of various SACCOS within Kenya. This set might not have given a correct view of the SACCOs within Nairobi as the needs of SACCO members within Nairobi may be different to those within the rural areas.

Njihia and Muturi (2015) investigated determinants of financial performance in Savings and Credit Co-Operative Societies. The study involved the use of a descriptive design. The research focused on all the 12 Sacco's in Kiambu County licensed by SASRA the regulatory body by the end of 2014. The study was based on data published from the audited annual reports of the Sacco's and covered a period of 5 years from 2010-2014. The study revealed that dividend policy and membership affected positively the financial performance of Sacco's whereas loan default negatively affected the financial performance. The beta coefficients indicated the relative importance of each independent variable (Membership, loan default and dividend policy) in influencing the dependent variable (ROA). Dividend policy was the most important in influencing Return on Assets since it has the highest beta value (beta= -0.458). The second most influential is the Loan default with a beta value (beta= -0.385). Membership had the weakest

influence on ROA with a beta value ($\beta=0.201$). The findings of the study recommended that the Sacco should work towards joining the credit reference bureau and to educate their members in prompt payment. It also recommended that the Sacco should take insurance covers for the loans to reduce the loan losses. The Sacco should aim on onboarding more members to their Sacco thus will increase the members saving and also expand on the investment avenue so as to establish a consistent way of paying the dividend. The main gap in the study was among the factors considered, core capital requirements did not feature anywhere yet SASRA (2010) clearly indicated core capital as a requirement for all Deposit Taking SACCOs to help protect the members, deposits.

Otieno (2014) examined factors influencing growth SACCO wealth. Descriptive survey was adopted by the study A sample of 60 SACCOS was used. The study found that capital structure, financial stewardship and funds allocation strategy significantly affects growth of SACCO wealth.

Muriuki (2010) did a study on factors affecting Sacco performance in Meru South district: a case of Tharaka Nithi Teachers Sacco. Descriptive survey was adopted. The total population was stratified into the SACCO members, management committee members and staff sub-samples. The results showed that governance has enormous effects on financial performance. Further, the established aspect of education and training played a major role on influencing governance structures. The findings of this study are useful to SACCO management since critical factors which affect performance have been identified. The major causes of misappropriation of funds which included political influence and wrangles could now be dealt with to save members funds.

This study also showed that externalities such as inflation were not addressed by the management and could affect SACCO performance and need to be investigated.

Kioko (2016) studied the Effect of Capital Adequacy Regulations on SACCOs in Kenya. Three questions were answered, namely: Why is it necessary for SACCOs to adhere to capital adequacy regulations? What challenges have SACCOs faced in complying with capital adequacy requirements and what strategies have SACCOs undertaken to meet the requirements for capital adequacy?

An analysis of strategies that these institutions have undertaken to adhere to capital adequacy regulations, as enforced by their respective regulatory bodies, has also been described. This was done with comparison to commercial banks for strategies that are also applicable to SACCO industry. Finally the challenges that these institutions face in their efforts to comply with prudential guidelines of capital adequacy has been covered, with specific reference to SACCOs in Kenya and reviewing specific situations that have been encountered. The population under study was the Front office Savings Activity, FOSA, operating SACCOs within Nairobi County whereby a census was taken of all 35 of these SACCOs operating within the county. Analysis was undertaken using SPSS software to determine any correlations and frequencies within the data. The study concluded that SACCOs had benefited significantly from the regulations in various ways such as, managing credit risk, improved public confidence, providing a safety net for members' deposits, provision of operating capital, increased lending capacity, providing a base for future growth, and preventing insolvency. SACCOs had faced various challenges in complying with capital adequacy regulations. These were reduced pay-out on members' funds,

recruitment of new members, restricted avenues for investment, and reduced lending capacity. The SACCOs had engaged in strategies to meet capital adequacy. Of these strategies, SACCOs found issuing new capital, increasing membership base, diversifying product base, adjusting dividend pay-out ratio, stricter credit rating, matching share contributions to loan amounts guaranteed and reduced payment periods to be most effective. The study recommended that a review of SACCOs lending rates via cost pricing methods to ensure that though the rates remain competitively low they yield adequate revenue to offset costs involved in provision of these products.

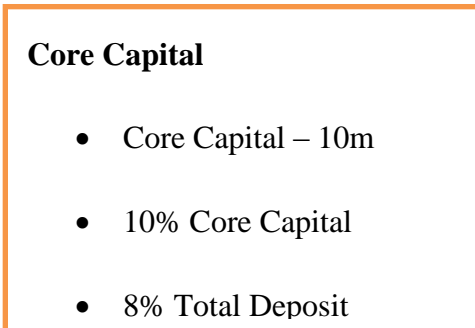
Olao (2014) investigated influence of financial stability on deposit taking SACCOs. Descriptive survey was adopted. Population comprised all the 34 DTS which had complied with SASRA regulations by December 2013. The study used secondary data from all the SACCOs sampled. The study concluded that financial stability positively and significantly influences performance of deposit taking SACCOs.

Murungi (2014) investigated impacts of credit on the growth in turnover of SACCOs. This study used descriptive research design. The study targeted 135 SACCOs in Kenya which are regulated by SASRA; the sampling method chosen was purposive sampling to form to select 35 SACCOs. Secondary data was collected from relevant articles and financial reports to obtain information on turnover, credit defaults, members' deposits, total assets and total Credits of SACCOs. A linear regression model of turnover versus credit default and member deposits was applied to determine their relationships. The data was reviewed and analyzed using SPSS Version 20 and used descriptive

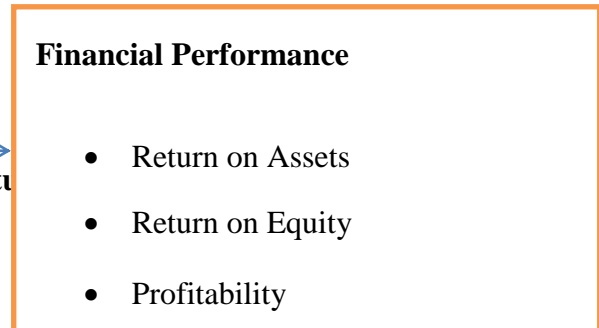
statistics. Correlation coefficient revealed that credit default and turnover had a moderate negative influence on the growth in turnover, while member deposits had an average positive influence on turnover at 95% confidence level. It was therefore concluded that credit default affected annual turnover of SACCOs. For policy implications the study will insight SACCOs to curb credit default for envisioned sustainability and growth. It agitates that SACCOs must continuously review their credit policies and procedures to capture the character and creditability of Credit applicants for recovery of all credits disbursed. The major gap in the study was the researcher did not expound on liquidity and capital adequacy as this help in protect members' deposits incase of defaults. Therefore the study posed a need for further research to be carried out the core capital requirements.

2.5 Conceptual Framework

Independent Variable



Dependent Variable



Source: Researcher (2016)

2.6 Summary of Literature Review

From the above literature, it can be concluded that; growth and sustainability of SACCOs link with not only legal framework and stewardship but also funds allocation strategy and capital structure; when SACCOs are financially stable, it will consistently improve its financial performance. Different aspects of financial stability have been found to explain financial performance levels of firms and some are positively while others are negatively related to financial performance. SACCOs therefore need to understand the effect of each variable so that they can find ways of enhancing those that are positively related while mitigating those that are negatively related in order to improve their financial performance and the overall financial performance. Most of the studies on effects of core capital on growth of SACCOs are been carried out by international authors in other countries who do not have similar financial and strategic footing with Kenya. Most of them also focus on other financial institutions other than

the SACCOs. There is therefore a literature gap. This study sought to fill this gap by determining the relationship between core capital and performance of deposit taking SACCOs in Nairobi County.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Chapter three highlights the research methodology. The chapter discusses the research design, population for the study, data collection methods and data analysis techniques.

3.2 Research Design

The study adopted descriptive correlation survey Rijbarova (2005) argued that descriptive correlation design explains association amongst variables as they exist naturally. The design was appropriate for the study as intended to examine the relationship between core capital and financial performance.

3.3 Target Population

There are 184 registered deposit taking SACCOS operating in Kenya. The study population comprised of the 40 registered deposit taking SACCOs in Nairobi County (SASRA 2015).

3.4 Data collection

The study used secondary data for five years (2011-2015) and was obtained from annual publications by central bank as well as financial statements of SACCOS. This includes statement of financial position and directors reports. Secondary data from SASRA was used to supplement data issued by Kenya National Bureau of Statistics (KNBS).

3.5 Data Analysis

The study carried out the measures of central tendency as descriptive statistics to describe the data. The study adopted a multiple linear regression model. Return on Assets was the dependent variable and core capital ratio, log of deposits and interest rate were the independent variables.

3.5.1 Analytical Model

Relationship equation was presented in the linear equation below.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Y= Return on Assets

β_0 - Constant/Y intercept

X1 – Core capital ratio

X2–Log of Deposits as a control variable to capture the differences in SACCO sizes.

X3 – Interest rate, as a control variable.

ϵ - Error term

3.5.2 Test of Significance

To test for significance, T-Tests and ANOVA was adopted to analyse the relationship between core capital and financial performance. Analysis of Variance was applied to test the differences in group means for statistical significance. Testing was undertaken at 95% confidence intervals.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the analysis of the data collected. The study used secondary data covering the period from 2011 to 2015 for analysis. Statistical Package for Social Science (SSPS) version 21 was used to do the analysis. Descriptive analysis was used to test for the average core capital and standard deviations. Results are based on the analysis of financial results of 40 registered deposit taking SACCOS in Kenya. The chapter presents the descriptive results as well as the regression analysis results. A discussion of findings is then made.

4.2 Response rate

Annual financial statements were obtained from 40 registered deposit taking SACCOS for the period 2011 – 2015. The financial statements of the registered deposit taking SACCOS were gotten from SASRA website and also from the specific SACCO's offices and websites.

4.3 Descriptive Statistics

The researcher looked at the mean, standard deviation, minimum and maximum as well as the skewness and Kurtosis.

Table 4.1: Descriptive statistics results of the main variables

	N	Mean	Std. Deviation	Minimum	Maximum
	Valid				
Return on Assets	40	0.1423	0.0126	-0.0042	1.1283
Core Capital Ratio	40	0.1121	0.3710	0.8514	0.1212
Deposits Ratio	40	1.4432	0.2915	0.1355	3.3841
Interest Rates	40	0.1312	0.0254	0.0912	0.1923

Source: Research findings

Core capital ratio (CAR) values of SACCOS had a mean score of 0.1121 and STD dev. of 0.3710 thus implying that majority of the SACCOS was able to meet their payments when they fall due. Therefore it is a share of liquid assets in deposits of households and nonfinancial companies. The level of core capital of the SACCOS is high enough to cover volatile funding if the value of this ratio is higher than 100 %. Consequently, as it can be seen from values of medians, almost all SACCOS are sensitive to potential massive deposit withdrawals. The descriptive statistic in table 4.1 shows that the mean ROA for registered SACCOS in Kenya was 0.1423 and the maximum and minimum was -0.0042 and 1.1283 respectively. The mean for deposits ratio was 1.4432 with a minimum and maximum of 0.1355 and 3.3841 respectively. The standard deviation for the deposits ratio was 0.2915. The mean for interest rate was 0.1312 with a minimum and maximum of 0.0912 and 0.1923 respectively. The standard deviation for interest rate was 0.0254.

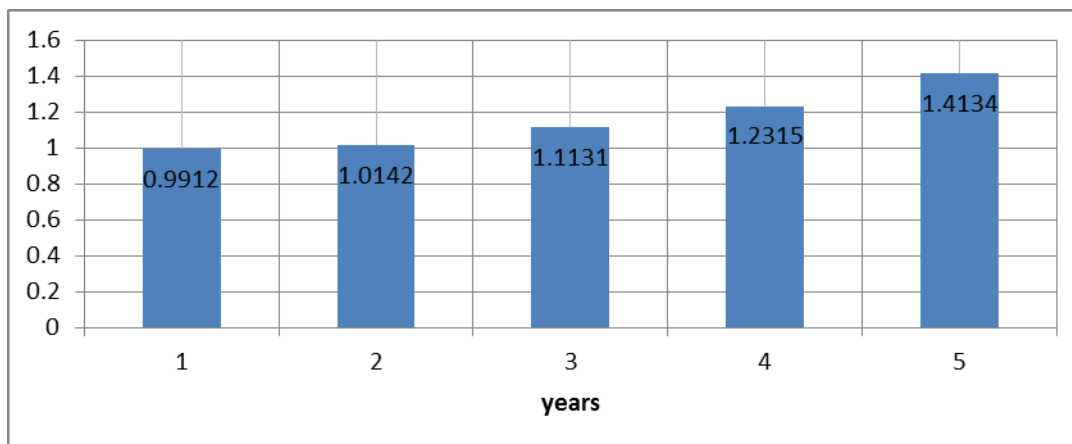
4.3.1 Return on Assets

Table 4.2 Return on Assets

Year	ROA
2011	0.1196
2012	0.1117
2013	0.1505
2014	0.1538
2015	0.1762

From (table 4.2) it is evident that ROA for the SACCOS has been on the rise since 2011 to 2015. In 2011 the ROA was 11.96% while in 2012 the ROA was 11.17%, in 2013 it was 15.05%, in 2014 the ROA was 15.38% and in 2015 it was 17.62%.

Figure 4.1 Return on Assets



According to figure 4.1 above it is evident that ROA for SACCOS has been on the rise since 2011 to 2015. In 2011 the ROA was 11.96% while in 2012 the ROA was 11.17%, in 2013 it was 15.05%, in 2014 the ROA was 15.38% and in 2015 it was 17.62%.

4.3.2 Core Capital Ratio

Table 4.3 Core Capital Ratio

Year	Current Ratio
2011	0.0912
2012	0.1042
2013	0.1131
2014	0.1231
2015	0.1213

The analysis from Table 4.3 shows that the current ratio for SACCOS in Kenya varies from year to year. In the 2011 the core capital ratio for the SACCOS was the lowest at 0.0912, in 2012 the core capital was 0.1042, in 2013 it was 0.1131, and in 2014 it was 0.1231 while in 2015 it was 0.1213 which was actually the highest.

4.3.3 Deposits Ratio

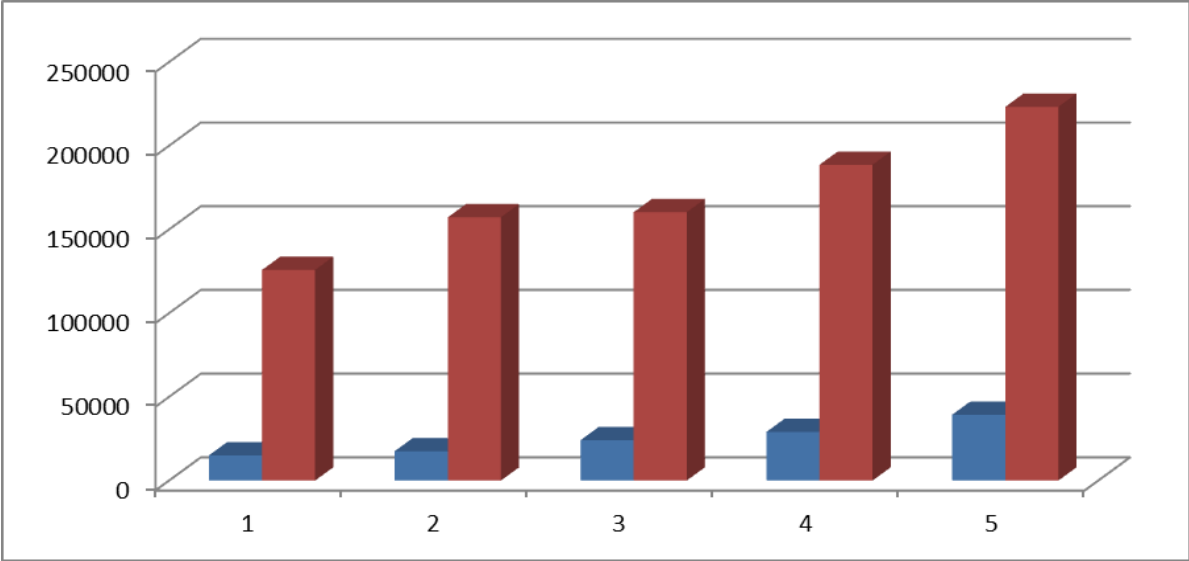
Table 4.4 Deposits Ratio

Year	Deposits Ratio
2011	1.1523
2012	1.2234

2013	1.1564
2014	1.8171
2015	1.9021

From the analysis above it is evident that the deposits ratio for SACCOS in Kenya has been varying from 2011 to 2015. In 2011 the deposits were 1.1523, 2013 it was 1.2234, 2014 it was 1.1564, in 2014 the deposit was 1.8171 while in 2015 the ratio was 1.9021.

Figure 4.2 Deposits Ratio



From the above figure it is evident that the deposits ratio for the SACCOS from 2011 to 2015 varies significantly with the highest being 1.9021 in 2015 and the lowest being 1.5234 in 2011.

4.4 Correlation Analysis

The study carried out a Pearson correlation measures examine the associations amongst the variables under review.

Table 4.5 Pearson Product Correlation Coefficients (r)

	Return Ratio	Current Ratio	Deposits	Interest Rates
Return on Assets	1			
CAR	0.5742	1		
Deposits	0.5115	0.4813	1	
Interest Rate	0.4674	0.5514	0.4264	1

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

Source: Research findings

Return on assets has a significant positive relationship with core capital ratio measured by equity divided by risk weighted assets ($r= 0.5742$, $P\text{-value} < 0.05$). The study noted that return on assets has a significant positive relationship with deposits ($r=0.5115$, $P\text{-value}<.05$). Also return on assets has a positive relationship with interest rates ($r=0.4674$, $P\text{-value}<.05$).The Pearson correlation coefficient above indicates the following relationships; financial performance had a significant positive relationship with core capital ratio which is a of capital adequacy. This implies that the core capital ratio, deposits and interest rates determines the performance of SACCOS as measured by return on assets. The Pearson correlation coefficient above showed that core capital had a a positive significant relationship with deposits that implies that these SACCOS are able to utilize better the investments they have to sell more.

4.5 Regression Analysis

Table 4.6 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.715 ^a	.631	.467	.00252

a. Predictors: (Constant), CAR, Deposits, Interest Rate

The model summary (Table 4.6) shows a strong association amongst the variables as indicated by the coefficient of determination of $R=0.715$. The value of R Square was 0.631 indicating that 63.1 % of the changes in return on assets (Net Income / Total Assets) could be explained by the independent variables for the study (core capital ratio) and Deposits and interest rates as the control variable.

Table 4.7 Analysis of Variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.368	3	.214	8.547	.025 ^a
	Residual	.531	37	.312		
	Total	.899	40			

a. Predictors: (Constant), CAR, Deposits, Interest Rates

b. Dependent Variable: Return on Assets

The Analysis of Variance (ANOVA) reveal that composite effect of the three variables (CAR, deposits and interest rates) on performance of registered deposit taking SACCOS Kenya is significant as indicated by the P values (0.025) i.e. less than 0.05 and F value (8.547).

Table 4.8 Regression model

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	0.564	0.335		2.312	0.001
CAR	0.617	0.274	0.378	5.434	0.011
Deposits	0.553	0.655	0.481	3.191	0.008
Interest Rates	0.352	0.125	0.384	1.257	0.002

a. Dependent Variable: Return on Assets

The regression model becomes:

$$\mathbf{NII = 0.564 + 0.617X_1 + 0.553X_2 + 0.352X_3 + \epsilon t}$$

From the regression analysis Constant = 0.564, shows that if all the independent variables are all rated as zero, the return on assets (Net Income/Total Assets) of SACCOS in Kenya would rate at 0.001. The level of confidence for the analysis was set at 95%. Also, return on assets of SACCOS in Kenya is significantly influenced by CAR (p=0.011), Deposits (p=0.008), and interest rate (p=0.002). However, the regression analysis shows that the current ratio positively impacted performance (ROA) (B=-0.617). Similarly, performance had a significant positive relationship with performance (P=0.008). The nature of regression coefficients shows the type of relationship between the variables. Negative regression coefficients shows an inverse

relationship exist between independent and dependent variables. The independent variables in the regression model with positive coefficient have a direct relationship with the dependent variable. Therefore, increase in CAR, deposits and interest rates lead to an increase in performance of SACCOS in Kenya.

4.6 Interpretation of the Findings

In summary, this study found that implementation of proper core capital ratio is an important element in the profitability of SACCOS in Kenya. The regression model depicted that when core capital ratio, deposits and interest are held at zero, performance of SACCOS will be 0.564. An increase in CAR leads to increase in performance by 0.617, an increase in deposits leads to increase in performance by 0.553, an increase in interest rates leads to increase in performance of by 0.352. The most significant factor is current ratio followed by deposits then interest rate. Overall current ratio as a measure of liquidity had the greatest effect on performance of registered SACCOS in Kenya.

Core capital ratio has positive relation with performance of SACCOS hence the introduction of various capital adequacy management practices will improve the financial performance of the SACCOS. Many different claims by different authors explaining the impact of core capital on performance have been explored and analyzed vis-à-vis the findings of the study. Competing explanations to the various arguments have also been shown .It was not, however possible to state the relationship between financial performance of SACCOS and some of the prepositions because of lack of relevant comparative data from other groupings of SACCOS.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter provides the summary of the findings from chapter four, and it also gives the conclusions and recommendations of the study based on the objectives of the study. The objectives of this study were to investigate the effects of core capital ratio on the performance of SACCOS in Kenya.

5.2 Summary

The study aimed at investigating the effect of core capital ratio on the performance of registered SACCOS in Kenya. The study concentrated on the core capital ratio (CAR) as the main capital adequacy practices the others are strongly regulated by SASRA. On the other hand performance of the SACCOS was measured by return on assets. The Pearson Correlation and regression analysis were used to find out whether there is a relationship between the variables to be measured (i.e. CAR and performance of SACCOS in Kenya) and also to find out if the relationship is significant or not. The proxies that were used for capital adequacy were CAR and deposits. In summary the study found that the core capital affected performance of SACCOS in Kenya positively. There was a significant relationship between core capital and performance of SACCOS in Kenya. Results are also in agreement with Gompers quarterly survey (Gompers and Metrick 2008), that a link existed.

The positive and significant coefficient of the size variable gives support to the economies of scale market-power hypothesis. Larger SACCOS make efficiency gains that can be captured as higher earnings due to the fact that they do not operate in very competitive markets. The negative coefficient of size, significant at the 10 percent level, indicates that this relation might be non-linear due to possible bureaucratic bottlenecks and managerial inefficiencies suffered by SACCOS as they become “too large.” The marginal statistical significance of the regression coefficient, on the other hand, adds further evidence to the hypothesis that, thanks to some degree of market power, SACCOS manage to pass on to depositors and borrowers potential inefficiencies without affecting profits in an important way.

5.3 Conclusion

Core capital if unchecked may adversely affect a given SACCO’s performance, capital and under extreme circumstances, it may cause the collapse of an otherwise solvent SACCOS. In addition, a SACCOS having liquidity problems may experience difficulties in meeting the demands of members, however, this solvency risk may be mitigated by maintaining sufficient cash reserves, raising deposit base, decreasing the liquidity gap and performance of SACCOS. Adequate cash reserves will decrease the SACCOS reliance on borrowing from the market which might be expensive.

It is imperative for the SACCO’s management to be aware of its liquidity position in different product segment. This will help them in enhancing their investment portfolio and providing a competitive edge in the market. It is the utmost priority of a SACCO’s management to pay the required attention to the liquidity problems. These problems should be promptly addressed, and

immediate remedial measures should be taken to avoid the consequences of illiquidity. The study has accounted for the capital adequacy in the SACCOS banks in Kenya essential in determining their performance. The study has established that there is a direct relationship between core capital and interest rate as well as the size of the SACCOS. The researcher therefore based on the findings presented in the above section makes conclusions regarding the effects of core capital and on performance of SACCOS in Kenya. Therefore in general core liquidity risks positively affect the performance of registered SACCOS Kenya. This has a significant effect on the profitability of the SACCOS which also influence their competitive advantage.

5.4 Recommendations for Policy and Practice

Most African countries have been associated with higher interest rate spreads despite the liberalization of the financial sector. Kenya is not an exception. On average, the interest rate spread for Kenya is closely comparable to the average in other regions, though higher than the average spreads for other regions such as East Asia and Pacific region. Additionally, big SACCOS have comparatively higher spreads than small SACCOS. Whereas the determinants of interest rate spreads are likely to be multifaceted, this paper provides some insights from an empirical viewpoint, based on bank-specific and macroeconomic factors along similar approaches that have been undertaken in the literature.

From the findings of this study, it can be concluded that deposit taking SACCOS in Kenya agree that active oversight board assist in liquidity risk management which helps to keep an eye on the financial occurrences of the organization and hence promoting proper management of financial

risks. Policies, procedures and limits define how the organization intends to carry out its tasks in management of liquidity risks.

Using panel data analysis, the empirical results show that SACCOS specific factors play a significant role in the determination of performance in this financial institutions in Kenya. These include, credit risk, liquidity risk, deposits, interest rates, return on assets and operating costs. The macroeconomic variables, i.e. real GDP growth and inflation rate were not found to be statistically significant in explaining interest rate spreads across banks. The effect of monetary policy as captured by the policy rate was found to be positive but weakly significant, which could arguably imply a weak response by SACCOS the monetary policy signals.

5.5 Limitations of the Study

This study was conducted on registered deposit taking SACCOS in Kenya. Credit union systems are closely related to the economy of the country they're located in. This has the effect of restricting the relevance of findings to SACCO .in Kenya. Similarities to other economies may exist but findings may differ significantly.

The study focused on variables such as core capital and size as the determinants of performance of SACCOS in Kenya. The results are therefore limited to the SACCOS variables modeled in this study which are not the only factors affecting the performance of SACCOS in Kenya.

The finds of the study show the effects as at December 2014, however with advances in ICT and everyday innovations resulting from competition, the situation could change drastically diminishing the relevance of the study.

5.6 Suggestions for Further Research

Further study in future can be done with emphasis on periods of economic shocks. The focus in this case should be how core capital affects financial performance of SACCOS when it is not business as usual. For example when the exchange rate depreciates rapidly, when interest rates increases or decreases at a steep rate or when there is economic recession or boom. Further studies can also be done on the impact of liquidity risk management with focus on product mix of sources of funding and investments. The study in this case would seek to establish how the mix of funding determines the level of liquid assets required and ultimately the impact on performance.

Finally, further studies can be done on the impact of endowment risk on financial performance of SACCOS and how these affect core capital decisions. Endowment risk would occur for example where the funding for some liquid assets such as treasury bills that have a fixed come from sources whose cost is flexible therefore a risk that in a rising interest regime a SACCO would make losses from such liquid assets.

REFERENCES

- Adeyemo, R. & Bamire, A. S. (2005). Saving and investment Patterns of Co-operative farmers in Southwestern Nigeria. *Journal of Social Science*, 11(3), 183-192.
- Goddard, J. & Wilson, J.O.S. (2005). US credit Unions, an empirical investigation of size, age and growth. *Annals of public and Cooperative economics*, 77(1), 107 –127.
- Johnson, G & Scholes, K. (2007). *Exploring Corporate strategy*. Dorling Kindersley (India) P Source: PVt ltd, New Dehli.
- Kaloi, J.M. (2004). *Factors contributing to liquidity problems on saving credit co-operatives*. MA thesis, Moi University, Eldoret, Kenya.
- Kimani, A.W. (2007). *In financial performance and ineffectiveness in credit administration. A case study of Chuna Sacco Society ltd*. MBA Thesis, Jomo Kenyatta University of Agriculture and Technology, Juja, Kenya.
- Mbaabu, A.M. (2004). *Determinants of loan non performers in commercial banks in Eldoret*. MBA thesis, Moi University, Eldoret, Kenya.
- SASRA, 2016; capital-adequacy-for-deposit-taking-saccos. Retrieved on 12th September, 2016 <http://www.sasra.go.ke/index.php/regulation/capital-adequacy-for-deposit-taking-saccos#.V9k01jVObiU>
- Saunders, A., & Cornett, M.M., (2007). *Financial Markets and Institutions: An Introduction to a Risk Management Approach. 3rd Ed*. New Delhi: Savings banks.
- Mishkin, F & Eakins S. (2011). *Financial institutions and the markets (7th ed.)*, New York: Pearson Education ltd.

Muriuki, M. (2014). *Factors affecting sacco performance in Meru South district: a case of TharakaNithi Teachers Sacco*. Unpublished MBA project, Kenyatta University.

World Bank. (2007). Kenya. A policy Agenda to Restore Growth. Washington, D.C.: WB.

Wilson, J., & Mckillop, D., (2011). *Credit Unions, a theoretical and empirical Overview*, (2011). *Periodicals, Inc* New York University Salomon center and Wiley

APPENDICES

APPENDIX I: EARNINGS OF SACCOS

Year	Net Income Kshs Million	Gross Loans Kshs Million	SACCOS Interest Rates	Banks Interest Rates
2010	15041	125783.63	11.96%	14.08%
2011	17557	157231.27	11.17%	15.05%
2012	24126	160257.89	15.05%	19.70%
2013	29015	188596.81	15.38%	17.10%
2014	39339	223230	14.50%	16.00%

APPENDIX II: LENDING RATES

Type	2010	2011	2012	2013	2014
SACCOS	0.1196	0.1117	0.1505	0.1538	0.1450
BANKS	0.1408	0.1505	0.1970	0.1710	0.1600