

**LIQUIDITY MANAGEMENT AND FINANCIAL PERFORMANCE OF
SAVINGS AND CREDIT COOPERATIVE ORGANIZATIONS IN KENYA**

(A SURVEY OF SACCOs IN NAIROBI COUNTY)

BY

REG. NO. 12/02530

**A PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE COURSE
REQUIREMENT OF MASTER OF SCIENCE IN COMMERCE (FINANCE AND
INVESTMENT) AT KCA UNIVERSITY**

SEPTEMBER, 2016

DECLARATION

I, Isaiah Musau Mulinge, hereby submit my research project for examination, entitled “Liquidity Management and Financial Performance of Savings and Credit Cooperative Organizations in Kenya: A Survey of SACCOS in Nairobi County” and truthfully declare that the above-titled paper is a product of my original research investigation and has not been presented for a degree award in any other institution

I further declare that, should the faculty eventually discover that a substantial portion of my paper is lifted, in total, from original sources, using exactly the words of the author in more than 50% of the whole content, I reserve the right to KCA University to recall my M.Sc. and cancel the degree granted to me.

Signed this day of _____ at KCA University.

**Isaiah Musau Mulinge
Registration No. 12/02530**

This project has been submitted for examination with my approval as University Supervisor.

.....
Signature
Michael Njogu
Lecturer, KCA University

.....
Date

ACKNOWLEDGEMENTS

My special gratitude goes to Almighty God for giving me the strength and wisdom to pursue this course.

I am very grateful to my Supervisor, Michael Njogu who indeed inspired me for his commitment and guidance throughout this project. I appreciate the knowledge and skills that all my other lecturers have imparted in me through coursework.

I must admit humbly that the success of this research has been largely due to collaborative efforts and devotion of many people to who I owe a lot of gratitude. This research would have not been completed without their ultimate support.

May God bless you all.

DEDICATION

I would like to dedicate this project to my parents, siblings and friends. Your encouragement, support and unending belief in me are a source of inspiration to me. All of my achievements would not have been possible without you and it's because of this fact that I salute you. My win is your win. Thank you so much and be blessed.

ABSTRACT

Generally, the global market has witnessed competition that makes it liquidity management necessary for financial performance of SACCOs. Some SACCOs especially those that are deposit taking accepts savings from customers and therefore creating liabilities. At the same time, SACCOs also lend out funds to members and other investors. While the deposits from customers are on short term horizon, lending to investors by SACCOs are on long time horizon, and this results into liquidity risk. Liquidity management is one of the most crucial aspects of financial management. Its main objective is to maintain an optimal balance between current assets and current liabilities between each of the working capital components. Thus, the objective of this study was to assess the effect of Liquidity Management on Financial Performance of SACCOs within in Kenya. The study adopted a descriptive survey design and targeted all the 42 SACCOs operating in Nairobi. The study targeted 42 employees in 42 SACCOs. A census approach was used as the population was relatively small to sample. The study collected primary data using a structured questionnaire. The collected data was analyzed using measures of central tendency including mean and standard deviations. The study used the F Statistic to determine the validity of the regression model adopted. The analyzed data were presented using tables and charts. The findings of the study indicated that cash flow management ($p=0.04<0.05$) and contingency funding management ($p=0.000<0.05$) all significantly affected financial performance of SACCOs. The study concluded that credit risk management had insignificant influence on financial performance of SACCOs. Cash flow management had significant influence on financial performance of SACCOs. Cash flow management had a positive influence on financial performance of SACCOs. Contingency funding management had a significant influence on financial performance of SACCOs. Compared with cash flow management, contingency funding management had a greater influence on financial performance of SACCOs. The study recommended that extent of funding management affects financial performance. External variables that affect cash management which poses a greater risk in the operations of the institutions. Contingency funding should include a pre-funding for what the management team estimated will be the potential cash and collateral needs as well as utilizing secondary sources of liquidity.

TABLE OF CONTENTS

DECLARATION.....	ii
ACKNOWLEDGEMENTS	iii
DEDICATION.....	iv
ABSTRACT.....	v
LIST OF FIGURES	ix
LIST OF TABLES	x
ABBREVIATIONS AND ACRONYMS.....	xi
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Background of the Study	1
1.1.1 Liquidity Management.....	1
1.1.2 Financial Performance of SACCOs.....	4
1.1.3 History of SACCOs in Kenya.....	5
1.2 Statement of the Problem.....	6
1.3 Objective of the Study	8
1.3.1 General Objective	8
1.3.2 Specific Objectives	8
1.4 Research Questions.....	9
1.5 Significance of the Study	9
1.6 Scope.....	10
1.7 Limitation of the Study	10
CHAPTER TWO	11
LITERATURE REVIEW	11
2.1 Introduction.....	11
2.2 Theoretical Review	11
2.3 Empirical Review.....	15
2.4 Conceptual Framework.....	23
2.5 Operationalization.....	24
2.6 Critique of Literature	24

2.7 Summary	26
CHAPTER THREE	27
RESEARCH METHODOLOGY	27
3.1 Introduction.....	27
3.2 Research Design.....	27
3.3 Target Population.....	27
3.4 Sample Size and Sampling procedures	28
3.5 Instrumentation	28
3.6 Data Collection Procedure	29
CHAPTER FOUR.....	31
RESULTS AND FINDINGS	31
4.1 Introduction.....	31
4.2 Demographic Information.....	32
4.3 Effect of Credit Risk Management on The Financial Performance.....	33
4.4 Effect of Cash Flow Management on Financial Performance	34
4.5 Effect of Contingency Funding Management on Financial Performance of SACCOs In Kenya.....	36
4.6 Financial Performance of SACCOs	37
4.7 Diagnostic Tests.....	37
4.8 Regression Analysis.....	39
CHAPTER FIVE	41
SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATION	41
5.1 Introduction.....	41
5.2 Summary of the Findings.....	41
5.3 Discussion.....	42
5.4 Conclusion	43
5.5 Recommendation for the Study	44
5.6 Recommendation For Further Research	45
REFERENCES.....	46
APPENDICES.....	52

Appendix I: Questionnaire	52
Appendix II: Budget	56
Appendix III: Work plan.....	57
Appendix IV: List of Registered SACCOs in Nairobi.....	58

LIST OF FIGURES

Figure 2.1: Conceptual Framework	23
--	----

LIST OF TABLES

Table 2. 1: Operationalization of Variables	24
Table 4. 1: Response Rate.....	31
Table 4. 2: Validity and Reliability Results.....	32
Table 4. 3: Demographic Information	32
Table 4. 4: Credit Risk Management on the Financial Performance	33
Table 4. 5: Cash flow management.....	35
Table 4. 6: Contingency Funding Management on Financial Performance	36
Table 4. 7: Financial Performance of SACCOs.....	37
Table 4. 8: Multicollinearity Test	38
Table 4. 9: Autocorrelation Test	38
Table 4. 10: Normality Test	39
Table 4. 11: Model Summary	39
Table 4. 12: ANOVA.....	40
Table 4. 13 Coefficients	40

ABBREVIATIONS AND ACRONYMS

ATM	Automated Teller Machines
CEOs	Chief Executive Officer
CFP	Contingency Funding Plan
FOSAs	Front Office
GDP	Gross Domestic Product
ICT	Information Communication Technology
KUSSCO	Kenya Union of Savings Societies Cooperatives
MFI	Micro-Finance Institutions
OECD	Economic Co-operation and Development
SACCOs	Savings and Credit Co-operatives Organizations
SASRA	SACCOs Societies Regulatory Authority
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for social Sciences

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

SACCOs exist to maximize the wealth of shareholders through generation of adequate profits to cover for the expenses and future investment projects. In order to effectively and efficiently enhance their financial performance, SACCOs are now paying greater emphasis on proper management of their liquidity levels and positions. Being in a highly competitive financial sector, SACCOs are striving to enhance their financial performance through liquidity management.

Liquidity management is one of the most crucial aspects of financial management. Its main objective is to maintain an optimal balance between current assets and current liabilities between each of the working capital components. A business success heavily depends on the financial executives' ability to effectively manage current assets and current liabilities elements (Loutskina, 2011).

The two most crucial reasons for the existence of financial institutions, like banks, micro-finance Institutions (MFIs) and Savings and Credit Cooperative Organizations (SACCOs) are their provision of liquidity and financial services. Regarding the provision of liquidity, banks, SACCOs and MFIs accept funds from depositors and extend such funds to the sector while providing liquidity for any withdrawal of deposits. The concept of liquidity in finance principally lies in two areas, the liquidity of financial instruments in the financial market and the liquidity related to solvency. The former relates to liquid financial markets and financial instruments. The latter discusses the obligation of SACCOs to make payments to third parties who are majorly their members (Magali, 2013).

1.1.1 Liquidity Management

Liquidity is the availability of funds, or assurance that funds will be available, to honor all cash outflow commitments (both on- and off-balance sheet) as they fall due (Loutskina, 2011). These commitments are generally met through cash inflows,

supplemented by assets readily convertible to cash or through the institution's capacity to borrow. The risk of illiquidity may increase if principal and interest cash flows related to assets, liabilities and off-balance sheet items are mismatched (Cornett, McNutt, Strahan, & Tehranian, 2011). Liquidity can also be defined as the ability of an organization to meet its short-term obligations as and when they fall due.

Liquidity is essential in all financial institutions like banks, micro-finance institutions (MFIs) and SACCOs to meet customer withdrawals, compensate for balance sheet fluctuations, and provide funds for growth. Funds management involves estimating liquidity requirements and meeting those needs in a cost-effective way. Effective funds management requires financial institutions to estimate and plan for liquidity demands over various periods and to consider how funding requirements may evolve under various scenarios, including adverse conditions. Financial institutions must maintain sufficient levels of cash, liquid assets, and prospective borrowing lines to meet expected and contingent liquidity demands (Campello, Giambona, Graham & Harvey, 2011).

Managing liquidity is a fundamental component in the safe and sound management of all financial institutions. Sound liquidity management involves prudently managing assets and liabilities (on- and off the balance sheet), both as to cash flow and concentration, to ensure that cash inflows have an appropriate relationship to approaching cash outflows (Campello et al., 2011). This needs to be supported by a process of liquidity planning which assesses potential future liquidity needs, taking into account changes in economic, regulatory or other operating conditions. Such planning involves identifying known, expected and potential cash outflows and weighing alternative asset/liability management strategies to ensure that adequate cash inflows will be available to the institution to meet these needs (Magali, 2013).

Several studies have been carried out on liquidity risk and firm performance. For instance, Bandyopadhyay (2014) studied the liquidity management in Indian corporate sector: a study of selected companies during the post- liberalization period. The study found that in the current changes in the Indian industries due to intensified competition in

the market place as a result of liberalization, privatization and globalization and the collapse of big businesses has made many managers to look keenly at liquidity management. Success of the firm is dependent largely on the efficient management of its liquidity. The management of liquidity involves planning and controlling current assets and current liabilities in such a manner that eliminates the risk of the inability to meet the short-term obligations, on one hand, and avoids excessive investment in current assets on the other. A firm's liquidity is driven by the structure of its balance sheet normally by the nature and composition of its assets and the way they are financed.

The level of liquidity management and corporate profitability among manufacturing companies listed on the Nigerian stock exchange show the importance of firms checking and maintaining their liquidity ratios (Owolabi & Obida, 2012). The management of liquid funds is considered to be an important factor of company's growth; and an effective working capital management implies a trade-off between liquidity and profitability of the company; this trade-off must be through a carefully thought out process. Each company should maintain a particular level of liquidity to support its day-to-day operations. Over financing leads to additional expenses like the storage and maintenance costs. Also, the surplus of cash, inventories and accounts receivable constitute the excess current assets and generate the cost of lost opportunities. On the contrary under financing may affect revenues.

Sound liquidity management practices help SACCOs to meet the short-term demands, needs and obligations of their customer in the most effective and convenient manner. Among the customers of SACCOs include investors and depositors of funds especially for deposit taking SACCOs that are solely regulated by the Sacco Societies Regulatory Authority SASRA. Deposit taking SACCOs are licensed to take savings in form of deposits from customers which results into a liability. SACCOs also issue out loans at convenient and effective interest rates to their members and investors and this is an asset. It is important that small savings are made by depositors on short term basis while loans are issued to investors and other customers on a long-time horizon. This exposes

SACCOs to liquidity risk which needs adequate practices to manage (Agbada & Osuji, 2013).

According to Bassey and Moses (2015), liquidity management is inversely related with financial performance. This implies that poor liquidity management practices of SACCOs affects financial performance. During the Global financial crisis of 2007 to 2008, most SACCOs in Kenya were largely affected. This was the worst financial crisis that raised concerns of liquidity management and how it affects financial performance of SACCOs in particular (Central Bank of Kenya CBK, 2016).

When SACCOs hold highly liquid assets, the risks involved are low and therefore returns are also low. In absence of sound regulation, SACCOs would hold liquid assets to a degree of strengthening their financial performance. Beyond this, policy and regulatory authorities have to impose strict regulations on SACCOs to hold liquid assets. In Kenya for instance, rule 52(3b) of Cooperative Society Rules, 2004 required Sacco societies operating FOSAs to maintain a capital adequacy of 10% of total liabilities. Moreover, the regulatory requirements require Deposit Taking SACCOs to maintain liquidity level of 15 percent of their savings deposits and other short-term liabilities in liquid assets (SASRA, 2014). It is against this regulatory and policy requirement that SACCOs should put in place proper liquidity risk management.

1.1.2 Financial Performance of SACCOs

Jackson (1989) defines performance measurement as a way of ensuring that resources available are used in the most efficient and effective way. The essence is to provide for the organization the maximum return on the capital employed in the business. Financial performance for SACCOs is very important because managers need to know how well the SACCOs are performing. There are two major reasons as to why SACCOs should have financial performance measurement (Jenkins, 1997). The first one is to produce financial statements at the right time. Secondly, financial statements should be analyzed to produce information about the performance of the scheme, which must be used to improve that performance. The factors which determine the performance of SACCOs

include; asset base, liabilities, performance of the loan book, corporate governance and the quality of staff and regulations in the industry (Brigham & Ehrhardt, 2013). This study adopted return on investment as the measure of financial performance of SACCOs. This is because ROI would help in evaluating efficiency of investments of SACCOs in Kenya that determine their financial performance. Return on Investment as a measure of performance indicates the efficiency in conversion of SACCOs investments into profits.

1.1.3 History of SACCOs in Kenya

In Kenya, the SACCO movement has evolved in the past 40 years into a formidable force for the social and economic transformation of the Kenyan people. There are over 12,000 registered co-operative societies with a membership of over 7 million; out of which 5,000 is non-deposit taking SACCOs while 230 are deposit taking (have FOSAs) (SASRA, 2016). About 63% of the Kenya population directly and indirectly depends on co-operative related activities for their livelihood. The Sacco sector has mobilized over Ksh 200 billion in savings which is about 31% of the national savings. 70% of Africa's Sacco portfolio is Kenyan which also ranks 7th worldwide (SASRA, 2016). Kenya sits in the group of 10 largest co-operative movement (G10) member countries (Ademba, 2012). The 230 SACCOs with FOSAs have diversified into specialized bank-like activities which include deposit taking, saving facilities, debit card (ATM) and money transfers both local and international (Ministry of Cooperative Development and Marketing, 2007).

SACCOs play an important role of serving the financing requirements need of households, small and medium enterprises (SMEs). They encourage individuals to save thereby creating or accumulating capital which contribute to economic development of the country (Kabure, 2014). Co-operatives are governed and managed by elected committees. These committees are entrusted with the management of societies on behalf of members and employ managers and staff to carry out the day-to-day functions of the societies. In such instances, the leadership provides the guidance and delegates the powers of implementation to the staff, leaving them to act as members' agents (Kabure, 2014).

Since the co-operative agents are custodians, trustees and stewards of the societies, they are accountable and answerable to members, and are expected to be efficient, effective, responsible, responsive, honest, faithful, diligent and prudent. The firm performance of the SACCOs is greatly affected by the corporate governance practices which are attributed to its committees, directors, CEOs and other stakeholders (Ademba, 2012). SACCOs are regulated by the Sacco Societies Regulatory Authority (SASRA) which is a semi-autonomous Government Agency under the Ministry of Industrialization and Enterprise Development (Gweyi & Karanja, 2014).

1.2 Statement of the Problem

Liquidity level of an organization has significant effect on the financial performance of firms and especially those in the financial sector. Whenever the liquidity levels go down then the financial performance of the firm will reduce. Therefore, there is need for financial institutions like banks, SACCOs, MFIs and deposit taking micro-finance to check that they have enough cash or liquid assets that can easily be converted to cash to cover short term obligations. SACCOs rely on contributions from members to create credit in form of loans. However, members borrow a number of times their savings leaving a deficit which the SACCOs have to find ways like borrowing from commercial banks and other institutions to sustain the credit. This therefore means that the SACCOs have to think of ways on how to balance credit and member deposits. A number of regulations have been developed to regulate the operations of SACCOs following collapse of many SACCOs with registered members losing their contributions.

Studies have been done on liquidity and financial performance for instance, Alesina, Ardagna, Nicoletti and Schiantarelli (2005) carried out a study on regulation and investment in the Organization for Economic Co-operation and Development (OECD) countries. They used a measure of the rate of GDP growth in these countries to assemble data on regulation in several sectors of these economies to provide evidence that regulatory reform is associated with an increase in investment. They concluded that entry liberalization and privatization have substantial effects on investment.

Regionally, Kassa (2010) did a study on the regulation and supervision of MFIs in Ethiopia where he found that to a large extent, the regulatory framework has a host of benefits to the country such as establishing an enabling environment for financial institutions which focused on providing financial services to the poor in the community to be established. However, he also found that the regulatory and supervision framework also had its own constraints and challenges such as the costs of supervision, focus on historical and not future performance of MFIs, weak information management systems, shortage of skilled manpower among other challenges.

In a local study, Ngaira (2011) carried out a study on the impact of Sacco Regulatory Authority (SASRA) guidelines on Sacco operations in Kenya. She concluded that SASRA has greatly impacted on SACCO performance in terms of outreach, sustainability, general efficiency and performance of SACCOs. Most SACCOs were said to be complying with the regulator so as not to be locked out of business. Kilonzi (2012) studied the impact of SASRA regulations on the financial performance of SACCOs' in Kenya. He concluded that higher capital requirements and increase in management efficiency impacted positively to Sacco's profitability in the post regulation period. Further, he concluded that capital regulation affects financial performance in SACCOs and that financial stability could be at risk as a result of shocks impinging on the economic system and absence of proper policy adjustments to mitigate the effects of these shocks.

Song'e (2015) studied the effect of liquidity management on the financial performance of deposit taking SACCOs in Nairobi County. The findings revealed showed that financial performance is normally measured as profit before tax over total assets and this is positively related to liquidity of a firm, funding liquidity risk, operational efficiency, quick ratio and log of total assets. The study recommends that for the deposit taking SACCOs should put in place the best liquidity management practices to increase their financial performance.

Njeri (2014) while studying the effects of liquidity on financial performance of deposit taking microfinance institutions in Kenya. Through the use of inferential statistics the main features of quantitative data could be explained and the linear regression and correlation were used to analyze the data. The firm's financial performance was measured by use of return on assets while liquidity was measured by cash and cash equivalents divided by total average assets. The research study findings show a positive relationship between liquidity and financial performance.

The studies done by Ngaira (2011), Kilonzi (2012) looked at Sacco Regulatory Authority (SASRA) guidelines on Sacco operation, while Song'e (2015) and Njeri (2014) looked at liquidity management on the financial performance of deposit taking SACCOs and deposit taking microfinance institutions but none of these studies have looked at liquidity risk and the performance of SACCOs in Kenya, thus creating a research gap which this study wishes to fill the gap by answering the question: what is the effect of liquidity on the return on investments of SACCOs in Kenya?

1.3 Objective of the Study

1.3.1 General Objective

To assess the effect of liquidity management on financial performance of SACCOs in Kenya

1.3.2 Specific Objectives

- i. To assess the effect of credit risk management on the financial performance of SACCOs in Kenya.
- ii. To determine the effect of cash flow management on the financial performance of SACCOs in Kenya.
- iii. To establish the effect of contingency funding management on the financial performance of SACCOs in Kenya.

1.4 Research Questions

- i. How does credit risk management affect the financial performance of SACCOs in Kenya?
- ii. What is the effect of cash flow management on the financial performance of SACCOs in Kenya?
- iii. What is the effect of contingency funding management on the financial performance of SACCOs in Kenya?

1.5 Significance of the Study

The findings of this study would help in enlightening the key decision makers in the government and the Sacco Societies Regulatory Authority (SASRA) in particular on the effect of other determinants of investments in SACCOs. The information acquired from this study is useful to policy-makers both in the government and SACCOs, for purposes of strengthening policy considerations in this sector. Such policy improvement may be handy in enhancing the guidelines on how to improve the performance and effectiveness of SACCOs in an effort to enhance their efficiency for the benefit of the members

The study would be useful to other stakeholders like: financiers, investors and managers in formulating and planning areas of intervention and support for the SACCOs in Kenya. The management may borrow the information and use it to better improve the services and performance to reap the benefits. Finally, the study would provide information on the vision 2030 as regards SACCOs and the role of SACCO in ensuring achievement of this vision's objectives.

Findings of the study would be particularly useful in providing additional knowledge to existing and future institutions on effect of liquidity on the investments of SACCOs in Kenya. This would expand their knowledge on effect of liquidity on the investments of SACCOs and also identify areas of further study. The study would be a source of reference material for future researchers on related topics; it would also help other

academicians who undertake the same topic in their studies. The study would also highlight other important relationships that require further research.

1.6 Scope

The study focused on 42 SACCOs registered with SASRA within Nairobi County. The study was limited to the liquidity management and return on investment in the SACCOs in Kenya. The study collected primary data using questionnaires. Questionnaires were used because they are made up of fixed responses.

1.7 Limitation of the Study

The researcher anticipated that since the respondents were the managers and staff of SACCOs, they might be reluctant to give out information since this is an industry characterized by confidentiality clauses to protect the customers' information on their financial status. In order to overcome this challenge, the researcher assured the respondents that the information they provided would be held in confidence and that it was going to be used for academic purposes only.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses existing theories that are in line with the study objectives. In addition, the chapter also discussed empirical studies done in the particular area of interest of this study.

2.2 Theoretical Review

2.2.1 Liquidity Preference Theory

This theory states that short term bonds are more favorable to investors than long term bonds since investors prefer short term bonds to long term securities for the liquidity aspect for they can be converted to cash with little danger of losing of the principle amount they have invested in. Keynes (1936) argued that money is demanded everyday by institutions in the financial sector for transaction, speculative, and precaution purposes.

The two key roles as performed by SACCOs are liquidity and risk transformation. Analysis of banks role in creating liquidity and thereby spurring economic growth have a long tradition dating back to Adam Smith (1776), (Michalski, 2009). This theory argues that SACCOs create liquidity on the balance sheet by financing relatively illiquid assets with relatively liquid liabilities ones. Keynes (1936) presents liquidity preference theory as a liquidity preference theory of interest, a theory that is supposed to fill the vacuum left by what he regarded as a flawed classical savings theory of interest. Initially it was assumed that liquidity preference is translated to demand for money. Therefore, if one had a constant degree of money then liquidity preference became the factor that would be used to determine the rate of interest in the money market of Hicks' (1937) on seminal investment saving to liquidity preference money supply model (Bibow, 2013).

Compliance to solvency issues need to be given another consideration. Solvency ratios are financial indicators that show the SACCO's ability and capacity to meet its liabilities

from its assets at any one moment as demanded. Solvency indicators are concerned with how much the SACCOs owe in relation to their asset values, whether they are getting into heavier debt or improving their situation and whether their debt burden seems heavy or light. The Sharpe ratio characterizes how well the return of an asset compensates the SACCO for the risk taken. Tobin's q is the ratio between a physical asset's market value and its replacement value. These ratios are important at managing liquidity risk.

This theory is relevant to the current study since it explains how credit risk can be managed by SACCOs. The theory explains how SACCOs can create liquidity on the balance sheet by financing relatively illiquid assets with relatively liquid liabilities ones and therefore managing credit risk.

2.2.2 Anticipated Income Theory

This theory of Liquidity holds that liquidity can be estimated and met if scheduled payments made by creditors are based on the income that they make. It emphasizes on relating loan repayment to income rather than relying heavily on collaterals that were made during the loan application. It also holds that, liquidity can be influenced by the maturity pattern of the loans and investment portfolios, short-term business and customer installment loans which would have more liquidity than those secured by real estate (Woodford, 2011).

According to Crowe (2009), the doctrine of anticipated income embodies the ideas and equates intrinsic soundness of term loans with appropriate repayment schedules adapted to the anticipated income or cash flow of the borrower. As a result, the credit demands of business are well accommodated under this system of banking policy, and the use of loan commitments is freely pursued. The changing economic conditions in the financial institutions have placed extra demands on the financial sector where the banking system is in and probably resulted in a new approach in viewing the balance sheet. Under this emerging state of affairs, credit commitment policies would come to play a more important part in the credit process (Crowe, 2009).

With these in mind then SACCOs must also look at scheduled loan payments from their customers in terms of the income that they make as opposed to the collaterals they put when applying for the loans and overdrafts. These are important as payments will affect the cash flow and eventually their liquidity.

This Anticipated Income Theory is relevant to the current study as it explains how cash flow management affects financial performance of SACCOs. This is because the scheduled loan payments of customers of SACCOs act as cash flows of SACCOs which when adequately managed would result into improved financial performance.

2.2.3 The Loanable Funds Theory

Classical economists like Smith (1776), Ricardo (1891) and Malthus (1872) developed the classical theory of interest; who held the view that economic activities were guided by some kind of invisible hand through the self interest motive and the price mechanism and therefore government interference was unnecessary and should be kept at a minimum level.

Loanable funds theorists believe that higher saving through lower consumption and lower deficits would lead to a higher credit supply, lower interest rates, more investment and thus a higher capital stock and higher future income for the investors (Lindner, 2013). They explained the rate of interest in terms of the demand for money by investor firms; whereby as the rate of interest gets low the number of profitable projects increase; while supply of loanable funds is from peoples' savings and in return they would want to be compensated in terms of interest for forgoing present consumption. If the interest rate is high, people will be encouraged to save and lend. If the interest rate is low, people will be discouraged from saving and lending.

The demand for SACCO loans represents the willingness by the public (the households and firms) to borrow, and the supply curve for SACCO loans represents the willingness to lend or save. The quantity borrowed is inversely related to the interest rate, and the quantity lent is directly related to the interest rate (Mishkin, 2009). The market rate of interest is therefore determined where the demand for and supply of loanable funds are

equal. In order for this demand and supply to be effectively met liquidity risk management practices remain relevant and the influence of this liquidity risk management on profitability must be examined. SACCO loans are subject to significantly lesser transaction costs than retail profit seeking banks and MFIs leading to high demand for credit the resultant is increased exposures of liquidity risks in cases of insufficient mobilization of savings for on lending (Mwandia, 2014).

This theory is relevant to the current study as it supports how credit risk management affects financial performance of SACCOs. This because in event of an increase in interest rate on borrowed funds, borrowers would be unable to meet the costs and therefore increased chances of default on loans (that increase credit risk) and therefore low financial performance.

2.2.4 Trade-off Theory

The trade-off theory opines that firms have optimal debt-equity ratios, which they determine by trading off the benefits of debt with the costs (Myers, 1977). In traditional trade-off models, the chief benefit of debt is the tax advantage of interest deductibility (Modigliani & Miller, 1963). The primary costs are those associated with financial distress and the personal tax expense bondholders incur when they receive interest income (Myers, 1977). This theory states that companies will borrow when the marginal value of tax shields on additional debt can be offset by an increment in the present value of possible costs of financial distress (Hovakimian, Kayhan, & Titman, 2011). According to Atiyet (2012), a company will have debt at a certain level, and the tax shields (tax saving) from additional debt is similar to the cost of financial distress. The cost of financial distress leads to the costs of bankruptcy or reorganization, and creates the agency costs that arise because the company's creditworthiness is in doubt.

DeAngelo and Masulis (1980) opine that the presence of non-debt tax shields for instance capital deductions that are allowed by investment tax credit and depreciations could be substitutes to the part of tax savings which are possible due to debt. What this means is

that a firm which possess a high proportion of non-debt tax shields will in turn have a low rank of debt in comparison to a firm with no tax shields. A majority of profitable firms engage higher levels of debt hence enjoy the advantage of tax shields due to debt (Cotei, & Farhat, 2009). Firms that are highly profitable are more likely to fulfill their obligations regarding debt repayment and interests hence less likelihood of bankruptcy. Firms undertake to borrow loans to invest in long term projects. They therefore need to optimally these borrowed funds so that initial costs can be recovered after the end of the project life cycle. This study shall therefore seek to determine the influence of capital budgeting techniques on firm performance.

The assumption of the theory is that a firm does not operate in a perfect market where holding cash neither creates nor destroys value. It further observes that the firm will always raise funds from capital market when funds are needed and there are no transaction costs in raising these funds and they will be raised at a fair price because the capital market is assumed to be fully informed about the prospects of the firm. The theory further suggests that firms target an optimal level of liquidity where they will balance benefit and cost of holding cash (Jensen, 1986).

The Tradeoff Theory explains how contingency funding affects financial performance of SACCOS. This is because setting aside funds for contingency funds is a trade off with other viable investment projects of SACCOS which affect financial performance.

2.3 Empirical Review

2.3.1 Credit Risk Management and Performance of SACCOS

Credit risk is considered as the most important of all risks. It is referred to the customers' inability or unwillingness to serve their debts, and constitutes a major source of loss not only on banks profitability but also on the initial asset; the loss could be as much partial as total of any amount lent to the counter party. Inability or unwillingness leads to non-performance of loans and non-performance of assets which affects the financial institutions liquidity position. Not performing the obligations of a contract is usually

appeared to loans, swaps, options, and during settlement. Securities firms are faced with credit risk whenever they enter into a loan agreement, a contract, or extend credit (Barfield & Venkat, 2009).

Essendi (2013) studied the effects of credit risk management on loans portfolio among SACCOS in Kenya. A descriptive research design was used whereby the population of interest was the 106 licensed SACCOs. Consequently, a sample of 35 SACCOs was selected within Nairobi County. Both primary and secondary data were used as the source of research data whereby primary data was collected through distributed questionnaires and secondary data was obtained from reports made by SASRA. Collected data was subsequently analyzed via the use of regression analysis and descriptive statistics. The study results showed that all the SACCOs had adopted a management policy regarding loan risks. It was clearly evident from the research findings that all the studied SACCOs had incorporated various contributions from different stakeholders during the process of formulation of appropriate credit policies. The study results also indicated that a majority of the studied SACCOs conducts constant review of their ICT with the sole intention of enhancing better management of their loan portfolio right from risk identification to risk monitoring and control (Essendi, 2013).

Korir (2014) studied the effect of credit risk management on financial performance of deposit taking microfinance institutions in Kenya. The study posits that credit risk is also the risk of a decline in the credit standing of an obligor of the issuer of a bond or stock. Such a possibility does not mean default, but it means that the probability of default increases because an upward move is needed of the required market yield to compensate the higher risk which brings a value decline. The real risk from credit is the deviation of portfolio performance from its expected value. Accordingly, credit risk is diversifiable, but difficult to eliminate completely and that because it depends on a number of borrower-specific factors and of systemic risk outlined above. Credit risk is not easily transferred, and accurate estimates of loss are difficult to obtain.

Wanjohi (2013) assessed the risk management practices of the commercial banks and linking them with the banks' financial performance. The banks' financial performance was analyzed using Return on Assets (ROA) for years (2008-2012). The study used questionnaires to collect data. The findings revealed that many banks in Kenya experienced good financial performance as noted by high Return on Assets (ROA) due to financial risk management practices. The study further recommends that banks should devise and implement modern risk measurement techniques such as Risk-Adjusted Return on Capital in an effort to keep improving the banks' financial performance.

Sensarma and Jayadev (2009) investigated the risk management of public and domestic private banks of India for the period 1998 to 2006. They found an enhancement on risk management aptitude of the banks. Akhtar, Ali and Sadaqat (2011) established better performance in elements of assets and return which recognized that conventional banks had improved liquidity risk management than Islamic banks in Pakistan.

Dokulilova, Janda and Zetek (2009) in their study on the problems of microfinance and the sustainability of microfinance institutions (MFI) in financial crisis They found, that MFIs are often considered as one of the most effective and flexible strategies in the fight against global poverty. However, current global financial crisis is testing the resilience of MFIs hardly. The MFIs are much more connected to international financial markets now that it was the case during previous crises. Therefore, we expect that they will not survive the crisis without bearing some losses. But the expected losses are relatively smaller when compared to other financial institutions.

Mwirigi (2006) did an assessment of credit risk management techniques adopted by micro finance institutions in Kenya. He found out that a significant number 92.5% (37 out of 40 respondents) have credit risk management policies as a basis for objective credit risk appraisal and that they involved their employees in developing the risk management policies. Most of the institutions used the manual to sensitize their employee about credit risk management. Although the findings gave a positive relationship between credit risk management policies and risk reduction, it would have been fair to use alternative

avenues to sensitize the staff on credit risk like training through seminars which would have probably improved the results.

A study on the effect of credit risk management on financial performance of deposit taking savings and credit cooperative societies in Kenya done by Kimari (2013) revealed that there was a direct relationship between credit risk management practices and financial performance of SACCOs. The recommendation was that management of SACCOs in Kenya should ensure the adoption and implementation of sound credit risk management practices, appropriate credit risk policy and that appropriate credit risk limits are set as they impact on the financial performance of the SACCOs.

2.3.2 Cash Flow Management and Performance of SACCOs

Jun (2006) defined cash management as a term which refers to the collection concentration and disbursement of cash. It encompasses a company's level of liquidity, management of cash balance and short-term strategies. Randall and Farris (2009) also defines cash management as part of working capital that makes up the optimal level needed by a company. Titman, Keown and Martin, (2015) noted that, cash management is of importance for both new and growing businesses. Companies may suffer from cash flow problems because of lack of margin of safety in case of anticipated expenses such that they experience problems in finding the funds for innovation or expansion or simply catering for the daily running of their business empire. Weak cash flow makes it difficult to hire and retain good employees meaning there will be a lot of employee turn-over within the organization.

According to Aminu (2012) cash flow management brings together actions concerned with cash payment, collection management and liquidity management, which involves acquisition and disposal of treasury assets and their subsequent monitoring, a strategy for investing surpluses of cash for maximum profitability and financing deficits at minimum costs. In another study on liquidity risk mitigation measures and financial performance of savings and credit co-operative societies (SACCOs) in Kisumu County-Kenya by Omino (2014) The study revealed that the liquidity risk mitigation approaches adopted by

different SACCOs within the County had a significant effect on their financial performances. Whenever SACCOs adopted a more cautious position in handling its current liabilities this resulted in an increase in operating cash flows for the SACCOs thus enabling them to have sufficient cash flows to cover the short terms obligations of the SACCOs. Another finding by the study showed that by increasing the debtor collection periods the SACCOs voluntary membership for the SACCOs was increased. The study recommends that SACCOs should put measures to ensure that they have sufficient cash flows to cover their immediate financial needs

According to McKinney (2015) postponing capital expenditure is one method that can ease cash shortage but he suggests efficient cash management. Although some capital expenditures are more important and urgent than others hence, it might be imprudent to postpone expenditure on fixed assets which are needed for the development and growth of business. Since when a lot of cash is used to pay for fixed assets, the company may come up against a cash crunch that prevents it from paying suppliers, buying materials and even paying salaries. It's a good idea, to maintain a level of working capital that allows making through those crunch times and continuing to operate the business.

Miriti (2014) on the study on the factors influencing financial performance of savings and credit cooperative societies - A case of capital Sacco, Meru County, Kenya. The study identified the issues that affect financial performance of the SACCOs. These issues included the interest rates they charge on loan to members since the higher the interest charged the higher the chances of default in repayment of the loan. Another issue is the membership numbers of the SACCO and thus the management has drawn a lot of attention to increase marketing so as to increase the membership numbers in an effort to better manage the cash flow management while seeking to better the financial performance.

Financial management has long been recognized as an important management tool and proper cash flow management is crucial to the survival of companies in the financial sector like banks, SMEs, micro-finance institutions and SACCOs because cash is the

most important corporate resource for its day-to-day activities (Peer, 1982). A proper cash flow management is also important as a means to obtain loans, as banks and other money lending institutions are normally much more inclined to lend money to companies that can present periodic cash flow forecasts (Ndwiga, 2010).

A firm's cash flow can be manipulated in three ways: the time from when goods are sold until the revenue is collected by the firm may be adjusted; the firm's inventory levels may change; and the time that a firm takes to pay its vendors may change. When assessing or manipulating a firm's cash positions, one can monitor either individual measures of each of these three cash flow levers or metrics that are combinations of the three measures (Bhunia, 2011). Studies on cash flow management, shows a relationship between cash flow management and performance. The days of sales outstanding being shorter and longer days of payable outstanding would show positive improvements in the firm financial performance and provide additional insight into the importance of cash flow management for companies in the financial sector (Randall & Farris, 2009).

In combination, these two findings provide strong evidence that when a firm shortens its days of sales outstanding through better relationships with customers and good customer care initiatives, the firm may experience a prolonged period of continuing firm financial performance improvement that persists for up to one year. This might be the result of a combination of factors. First, reducing days of sales outstanding improves a firm's liquidity, as debts are collected much faster which permits the firm to invest in new business growth opportunities, the implementation and benefits of which may require several quarters to materialize. Secondly as the debts are reduced, which often involve improving customer relationships and communications, represent sustainable longer-term improvements for both parties that likely will continue for extended periods of time (Randall & Farris, 2009).

2.3.3 Contingency Funding Management and Performance of SACCOs

All institutions within the financial sector and regardless of its size (capital base, market share and volume of business) or complexity should have a formal contingency funding

plan (CFP) that clearly defines strategies for addressing liquidity shortfalls in emergency situations or whenever there are adjustments in the market or during financial distress either locally or globally (Higgins, Silverman & Heil, 2008).

Chou (2011) stated that the contingency funding plan should formulate policies to manage a range of stressful financial environments in the current or future times, establish clear lines of responsibility, and articulate clear implementation and escalation procedures to be undertaken. The plans should be regularly tested and updated to ensure that it is operationally sound, this is important since the financial sector is constantly changing. Senior management team in the SACCOs should coordinate liquidity risk management plans with disaster, contingency, and business planning efforts, as well as with business line and risk management objectives, strategies, and tactics at organizational level (Chou, 2011).

Muriuki (2010) Factors affecting SACCO performance in Meru South district: A case of Tharaka Nithi Teachers SACCO. The results showed that governance and management greatly affected the performance of SACCOs. Education and training also affected the performance of SACCOs. Proper management would help the SACCO reduce its chances of misappropriation of funds which would eventually affect the financial performance of the SACCOs.

The major aim of having a contingency funding plan is to provide a framework for analyzing and responding to a liquidity crisis situation or periods of market stress. This is done by outlining a list of potentially risk factors, key reports and metrics that are reviewed on an ongoing basis to assist in assessing the severity of the liquidity crisis the firm is facing, and managing through a liquidity crisis and/or market dislocation method. If the SACCO enters a liquidity crisis, the contingency funding plans will include a pre-funding for what the management team estimated will be the potential cash and collateral needs as well as utilizing secondary sources of liquidity. Mitigants and action items to address specific risks which may arise are also described and assigned to individuals responsible for execution (Booth, 2015).

The contingency funding plan identifies key groups of individuals to foster effective coordination, control and distribution of information, all of which are critical in the management of a crisis or period of market stress. The contingency funding plan also details the responsibilities of these groups and individuals, which include making and disseminating key decisions, coordinating all contingency activities throughout the duration of the crisis or period of market stress, implementing liquidity maintenance activities and managing internal and external communication (Trkman, 2010).

Magara (2013) while doing a study on the effect of internal controls on financial performance of deposit taking savings and credit cooperative societies in Kenya. The study covered 122 Deposit Taking SACCOs in Kenya and used primary and secondary data. The study revealed that whenever the SACCOs showed an improvement in the effectiveness of their internal controls, then the financial performance of these SACCOs improves drastically. The study also found out that the variables which are control environment, risk assessment, control activities and monitoring mechanisms contribute positively to the financial performance of SACCOs in Kenya. The study shows that it is evident that internal controls in SACCOs positively affect the financial performance and thus recommend strong internal controls whenever organizations want to realize high financial performance.

2.4 Conceptual Framework

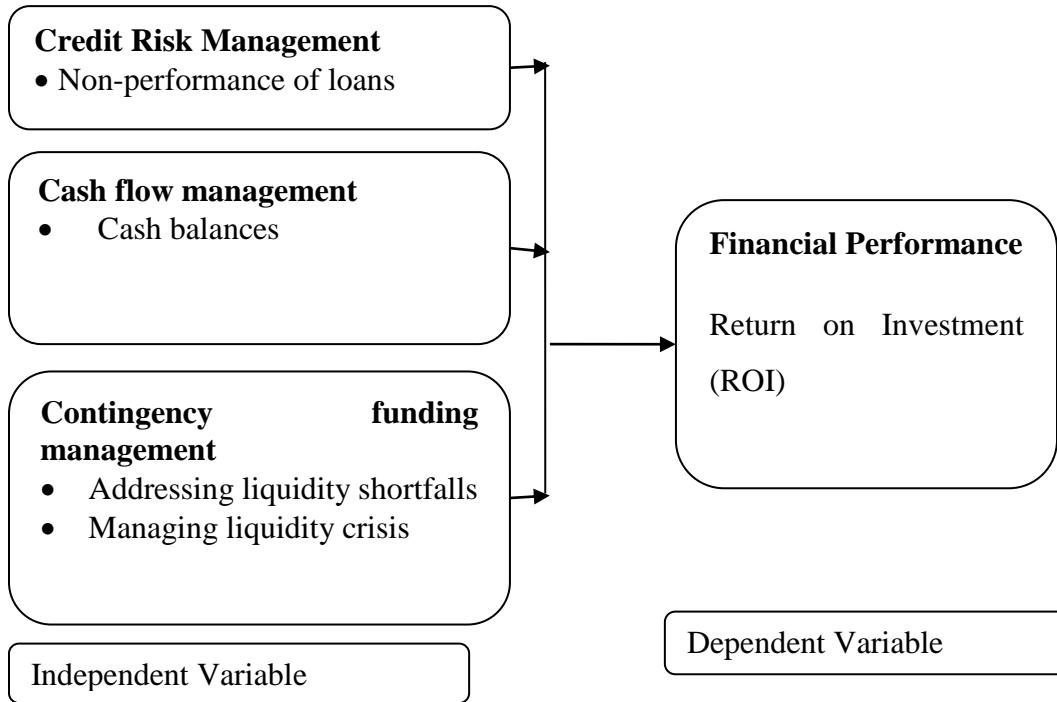


Figure 2. 1: Conceptual Framework

2.5 Operationalization

Table 2. 1: Operationalization of Variables

Objective	Variable Type	Indicators	Type of data analysis
To assess the effect of credit risk management on the financial performance of SACCOs in Kenya.	Independent Credit Risk Management	Non-performance of loans	Descriptive Regression
To determine the effect of cash flow management on the financial performance of SACCOs in Kenya.	Independent Cash flow management	Disbursement of cash	Descriptive Regression
To establish the effect of contingency funding management on the financial performance of SACCOs in Kenya	Independent Contingency funding management	Responding to a liquidity	Descriptive Regression
Financial performance	Dependent Financial performance	Return on investment	Descriptive Regression

2.6 Critique of Literature

Author	Topic	Findings	Gaps
Essendi (2013)	Effects of credit risk management on loans portfolio among SACCOS in Kenya.	The study results showed that all the SACCOs had adopted a management policy regarding loan risks. While they constantly review their ICT so as to enhance better management of their loan portfolio	This study did not look at how liquidity management affected the financial performance of the SACCOs
Korir (2014)	Effect of credit risk management on financial performance of deposit taking	The study posits that a decline in credit risk increases the probability of default in making loan repayments	This study looked at credit risk management and how it affects the financial performance. It didn't mention the

	microfinance institutions in Kenya		effect of liquidity management
Wanjohi (2013)	The risk management practices of the commercial banks	The findings revealed that many banks in Kenya experienced good financial performance as noted by high Return on Assets (ROA) due to financial risk management practices.	This study looked at commercial banks and not SACCOs thus these findings aren't applicable in the SACCO context.
Sensarma and Jayadev (2009)	The risk management of public and domestic private banks of India for the period 1998 to 2006	The study found an enhancement on risk management aptitude of the banks	The study was done in India and its findings may not be applicable in Kenya.
Miriti (2014)	The factors influencing financial performance of savings and credit cooperative societies - A case of capital Sacco, Meru County, Kenya	The study found out that high interest rates charged on loan to members increases the chances of default in repayment of the loan.	The study looked in general terms the factors that affect financial performance and not the specific effect of liquidity management
Dokulilova, Janda and Zetek (2009)	The problems of microfinance and the sustainability of microfinance institutions (MFI) in financial crisis	They found, that MFIs are often considered as one of the most effective and flexible strategies in the fight against global poverty.	The study looked at MFIs and its findings may not be applicable for the case of SACCOs
Muriuki (2010)	Factors affecting SACCO performance in Meru South district: A case of Tharaka Nithi Teachers SACCO.	The results showed that governance and management and education and training greatly affected the performance of SACCOs.	This study did not look at how liquidity management affected the financial performance of the SACCOs

2.7 Summary

Chapter two looks at the theoretical framework of the study and the empirical literature covering the four independent variables (credit risk management, cash flow management, liquidity risk management and contingency funding management) it also has conceptual framework, hypothesis and Operationalization.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the researcher discusses the intended research design, target population, sampling technique and sampling size, data collection, data analysis and the ethical considerations for the study.

3.2 Research Design

The study adopted a descriptive survey design. A descriptive research design determines and reports the way things are Maxwell (2012) observe that a descriptive research design is used when data are collected to describe persons, organizations, settings or phenomena. The design also has enough provision for protection of bias and maximized reliability (Creswell, 2012). This design has been chosen because of its ability to build a profile on a phenomenon as the case is in the current study.

Descriptive design uses a pre-planned design for analysis. A study on the effect of credit risk management on financial performance of deposit taking savings and credit cooperative societies in Kenya done by Kimari (2013) revealed that there was a direct relationship between credit risk management practices and financial performance of SACCOs.

3.3 Target Population

The target population is a group of elements to which the researcher wants to make inference to make conclusion on characteristic of the whole population (Mugenda, 2008). The target population of this study comprised 42 senior staffs from Loans/Credit Departments drawn from the 42 SACCOs operating in Nairobi County and that are registered with SASRA by June, 2016 (SASRA, 2016). The researcher selected 1 senior staff from the Loans/Credit Departments of every SACCO in Nairobi.

3.4 Sample Size and Sampling procedures

A sample is a subset of the population that has similar characteristics as the population scientifically selected to represent the population. Since the unit of analysis is SACCOs, the study targeted 42 senior staffs from Loans/Credit Departments from the 42 SACCOs operating in Nairobi County. Since the population was small and easily accessible within Nairobi County, all the SACCOs were included hence a census study. There was therefore no sampling. According to Mugenda and Mugenda (2003), a census can be adopted when the population comprises of 200 or less items and are easily accessible to participate in the study

3.5 Instrumentation

Structured questionnaires were used to collect primary data from the respondents in this study. According to Nichols, Mitchell, Nichols, Chalmers and Begley (2013) a questionnaire is simply a 'tool' for collecting and recording information about a particular issue of interest to an individual. It is mainly made up of a list of questions, having clear instructions and space for answering the questions.

The structured questions were used in an effort to conserve time and to facilitate easier analysis as they are in immediate usable form. This helped in easy data analysis (Mugenda, 2008).

3.5.1 Validity and Reliability of Instruments

Validity is the accuracy and meaningfulness of inferences based on the research results. It is the degree to which results obtained from the analysis of the data actually represent the phenomenon under study. Creswell (2012) states that validity indicates the degree to which an instrument measures what it is supposed to measure, that is the extent to which differences found with a measuring instrument reflect true differences among those being tested. To enhance validity of the instruments, the questionnaires were reviewed by the supervisor to find out whether the questions would achieve the research objectives and answer the research questions. The study used Cronbach's Alpha ($\alpha = 0.7$) to test on the reliability. The Cronbach's Alpha ($\alpha = 0.7$) is the acceptable threshold according to

Kothari (2004) when he observed that Cronbach's alpha of 0.7 is considered very strong for a reliability test.

According to O'Connor and Kleyner (2011) reliability is defined as a measure of how consistent a research method is. The pilot study allowed for pre-testing of the research instruments for reliability. The clarity of the instrument items to the respondents was necessary so as to enhance the instrument's reliability. The aim was to correct any inconsistencies arising from the instruments, to ensure that they measure what was intended.

3.6 Data Collection Procedure

Data collection is gathering empirical evidence in order to gain new insights about a situation and answer questions that prompt undertaking of the research (Kothari, 2004). A Questionnaire was administered to managers, supervisors, and loan officers at the SACCOs. The use of questionnaires is important in this case because of the issue of anonymity of the respondents in that they can respond without fear of being known or identified hence accurate and correct information is received (Mugenda, 2008).

The researcher used a drop and pick technique method where he dropped the questionnaires to the respondents' place of work and picked them later after two days. Where applicable the researcher established contacts with respondents in order to follow up on the progress in filling the questionnaires.

3.7 Diagnostic Tests

The researcher carried out diagnostic tests to determine the fitness of the regression model. The specific tests performed included; Autocorrelation, Multicollinearity and Normality Test.

Autocorrelation Test was done using Durbin Watson Statistics. Multicollinearity was detected using Variance of Inflation Factor VIF while Normality Tests was done using Skewness and Kurtosis.

3.8 Data Analysis Techniques

Before the collected data was processed, data preparation was done on the completed questionnaires by editing, coding, entering and cleaning the data. This helped in checking for completion and accuracy of the responses. Data was then analyzed using descriptive statistics and multiple regression analysis with the help of SPSS version 22.0.

The regression model for the study was specified as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

Whereby:

Y = Financial Performance of SACCOs

X₁ = Credit risk management

X₂ = Cash flow management

X₃ = Contingency funding management

ε = Error term/Erroneous variables

β₀ = the minimum Y when the rest of the variables are held at a constant zero

β = measure of the rate of change in Y when X_i changes by 1 unit: β₁ measures the rate of change in Y as a result of a unit change in X₁.

The analyzed data was presented in the form of tables, graphs and charts.

CHAPTER FOUR

RESULTS AND FINDINGS

4.1 Introduction

This chapter represents the data collected from the field, analysis and interpretation. The study sought to assess liquidity management and financial performance of savings and credit cooperative organizations in Kenya. The study was guided by three objectives: To assess the effect of credit risk management on the financial performance of SACCOs in Kenya. To determine the effect of cash flow management on the financial performance of SACCOs in Kenya and to establish the effect of contingency funding management on the financial performance of SACCOs in Kenya. The analysis was facilitated by statistical package for social sciences (SPSS). Both descriptive and inferential statistics aided in analysis. The findings are presented in form of Tables, Figures, Means and Standard deviation.

4.1.1 Response Rate

The study targeted 42 senior staffs from Loans/Credit Departments in each of 42 SACCOs operating in Nairobi County. Out of the 42 questionnaires distributed only 32 were filled and returned. This gave a response rate of 76%. According to Mugenda and Mugenda (2008) a statistically significant response rate should at least be 50%. In Table 4.1

Table 4. 1: Response Rate

Response Rate	Frequency	Percentage
Response	32	76
Non-Response	10	24
Total	42	100

4.1.2 Validity and Reliability Results

In order to establish reliability of the research instruments, the researcher used Cronbach Alpha Tests. The Cronbach's Alpha ($\alpha = 0.7$) is the acceptable threshold according to Kothari (2004) when he observed that Cronbach's alpha of 0.7 is considered very strong for a reliability test.

Table 4. 2: Validity and Reliability Results

Variable	Number of Items	Cronbach Alpha
Credit Risk management	11	0.713
Cashflow management	10	0.967
Contingency funding management	7	0.941
Financial Performance	4	0.923

From the findings, credit risk management had Cronbach alpha of 0.713, cash flow management had 0.967, contingency funding management had 0.941 and financial performance had 0.923. Since all the Cronbach values were above 0.7, this shows that the scale used was reliable.

4.2 Demographic Information

The analysis in this section relates to gender, age group and the number of years worked at the SACCOs.

Table 4. 3: Demographic Information

Characteristic	Classification	Frequency	Percentage
Gender	Male	18	56.3
	Female	14	43.8
	Total	32	100.0
Age Group	Below 18-25	6	18.8
	26 – 30	8	25.0
	30 – 35	5	15.6
	35 – 40	8	25.0
	Over 40	5	15.6
	Total	32	100.0
Years of Experience	Less than 2 years	5	15.6
	2-5 years	4	12.5
	6-10 years	5	15.6
	10-20years	5	15.6
	Over 20 years	13	40.6
	Total	32	100.0

From Table 4.3, the study found that 56.3% of the respondents were male and 43.8% were female. This is an indication that the study did not suffer from gender bias. This is also an indication that more male are employed in SACCOs.

Table 4.3 further indicates that 18.8% of the respondents are aged below 18 -25 years, 25% of the respondents are aged between 26- 30 years, 15.6% of the respondents are aged between 30-35 years, 25% of are aged between 35-40 years and 15.6% are over 40 years. This shows majority of employees in SACCOs are aged 26-30 and between 35-40 years. The findings in Table 4.3 further shows that 15.6% of the respondents had less than 2 years of experience, 12.5% had 2-5 years, 15.6% had 6-10 years, 15.6% had 10-20 years and 40.6% had over 20 years. It therefore indicates that most of the respondents had worked in their respective organization for a longer period of time and were therefore knowledgeable on the study requirements.

4.3 Effect Of Credit Risk Management On The Financial Performance

Several statements on the effect of credit risk management on financial performance of SACCOs in Kenya were identified and the respondents were required to indicate the extent to which it applied at the SACCOs. Kindly indicate your rating based on the scale of 1-5 where: 1= Not at all, 2= Little Extent 3= Moderate Extent 4=Large Extent 5= Very large extent. The finding is shown in Table 4.4

Table 4. 4: Credit Risk Management on the Financial Performance

Credit Risk Management	Mean	Std. Dev
Importance of all risks affecting financial performance	4.9038	0.53033
Important of all risks affecting financial performance	4.4688	0.50701
Adopted a management policy regarding loan risks	3.3438	0.65300
Stakeholders during the process of formulation of appropriate credit policies	3.4688	0.50701
Credit risk is difficult to eliminate	3.7188	0.72887
Constantly review ICT so as to enhance better management of their loan portfolio	3.4062	0.71208
Can result into a decline of the credit standing of an obligor of the issuer of a bond or stock	3.3437	0.54532
Credit risk increases the probability of default	3.6250	0.79312
Exposed to credit risk whenever it enters into a loan agreement to a third party	3.4062	0.71208
Affects portfolio performance from its expected value of the SACCO	3.5625	0.80071
Extent to which credit risk management affects financial performance	3.6563	0.74528

As shown in table 4.4, important of all risks affecting financial performance has a mean of 4.9038 and standard deviation of 0.53033, Important of all risks affecting financial performance had a mean of 4.4688 and standard deviation of 0.50701. Adopted a management policy regarding loan risks had a mean of 3.3438 and standard deviation of 0.65300. Stakeholders during the process of formulation of appropriate credit policies had a mean of 3.4688 and a standard deviation of 0.50701. It was established that Credit risk is difficult to eliminate and a mean of 3.7188 and standard deviation of 0.72887.

Constantly review ICT so as to enhance better management of their loan portfolio has a mean of 3.4062 and standard deviation 0.71208. Can result into a decline of the credit standing of an obligor of the issuer of a bond or stock has a mean of 3.3437 and standard deviation of 0.54532. Credit risk increases the probability of default with mean 3.6250 and standard deviation of 0.79312. Exposed to credit risk whenever it enters into a loan agreement to a third party with a mean of 3.4062 and standard deviation of 0.71208. Affects portfolio performance from its expected value of the SACCO had a mean of 3.5625 and standard deviation 0.80071. Extent to which credit risk management affects financial performance had a mean of 3.6563 and standard deviation of 0.74528.

4.4 Effect Of Cash Flow Management On Financial Performance

Several statements on the effect of credit risk management on financial performance of SACCOs in Kenya based on the scale of 1-5 where: 1= Not at all, 2. Little Extent 3= Moderate Extent 4= Large Extent 5= Very large extent as shown in table

Table 4. 5: Cash flow management

Cash flow management	Mean	STD Dev
Cash flow management affects financial performance of the SACCO	3.5625	0.75935
Weak cash flow makes it difficult to hire and retain good employees leading to high employee turn-over	3.5312	0.91526
SACCOs suffer from cash flow problems because of lack of margin of safety in case of anticipated expenses	3.4688	0.80259
If SACCOs spend a lot of cash to pay for fixed assets, they may face a cash crunch which affects operational expenditures	3.5	0.87988
Proper cash flow management is crucial to the survival of SACCOs	3.5625	0.80071
Proper cash flow management enables SACCOs to easily obtain loans	3.5625	0.84003
Proper cash management strategies help SACCOs maintain a level of working capital during crunch times	3.5938	0.75602
SACCOs solves cash flow problems by postponing capital expenditure that eases cash shortage.	3.5625	0.80071
Cash flow management encompasses a SACCO's level of liquidity,	3.5938	0.75602
Extent to which flow cash management affects financial performance	3.6875	0.69270

Cash flow management affects financial performance of the SACCO had a mean of 3.5625 and standard deviation of 0.75935. Weak cash flow makes it difficult to hire and retain good employees leading to high employee turn-over had a mean of 3.5312 and standard deviation of 0.91526. SACCOs suffer from cash flow problems because of lack of margin of safety in case of anticipated expenses had a mean of 3.4688 and standard deviation of 0.80259. If SACCOs spend a lot of cash to pay for fixed assets, they may face a cash crunch which affects operational expenditures had a mean of 3.5 and standard deviation of 0.87988.

Proper cash flow management is crucial to the survival of SACCOs had a mean of 3.5625 and 0.80071. Proper cash flow management enables SACCOs to easily obtain loans had a mean of 3.5625 and standard deviation of 0.84003. Proper cash management strategies help SACCOs maintain a level of working capital during crunch times had a mean of 3.5938 and standard deviation 0.75602. SACCOs solves cash flow problems by postponing capital expenditure that eases cash shortage had mean of 3.5625 and standard

deviation of 0.80071. Cash flow management encompasses a SACCO's level of liquidity had a mean of 3.5938 and 0.75602. Extent to which flow cash management affects financial performance had a mean of 3.6875 and standard deviation 0.69270.

4.5 Effect Of Contingency Funding Management On Financial Performance Of SACCOs In Kenya

Several statements on the effect of Contingency Funding Management on the Financial Performance of SACCOs in Kenya by applying a 5-scale rating whereby: 1= Not at all, 2. Little Extent 3= Moderate Extent 4=Large Extent 5. Very Large Extent

Table 4. 6: Contingency Funding Management on Financial Performance

Contingency Funding	Mean	Std. Dev
My SACCO has a formal contingency funding plan in place	3.6563	0.74528
The funding plan helps my SACCO to clearly define strategies for addressing liquidity shortfalls in emergency situations	3.5625	0.80071
The contingency plan in my SACCO is regularly tested to ensure that it is operationally sound	3.4375	0.94826
Senior management team are charged with coordinating liquidity risk plans	3.4375	0.94826
The major aim of having a contingency funding plan is to provide a framework for analyzing a liquidity crisis situation	3.6875	0.73780
SACCOs formulate policies to manage a range of stressful financial environments in current or future times	3.5312	0.84183
Extent of funding management affects financial performance	3.6563	0.70066

SACCO has a formal contingency funding plan in place had mean of 3.6563 and standard deviation of 0.74528. The funding plan helps my SACCO to clearly define strategies for addressing liquidity shortfalls in emergency situations had a mean of 3.5625 and standard deviation of 0.80071. The contingency plan in my SACCO is regularly tested to ensure that it is operationally sound had a mean of 3.4375 and standard deviation of 0.94826. Senior management team are charged with coordinating liquidity risk plans had a mean of 3.4375 and standard deviation of 0.94826. The major aim of having a contingency funding plan is to provide a framework for analyzing a liquidity crisis situation had a mean of 3.6875 and 0.73780. SACCOs formulate policies to manage a range of stressful financial environments in current or future times had a mean of 3.5312 and standard

deviation of 0.84183. Extent of funding management affects financial performance had a mean of 3.6563 and standard deviation of 0.70066.

4.6 Financial Performance of SACCOs

Several statements on the Financial Performance of SACCOs in Kenya by applying a 5-scale rating whereby: 1= Not at all, 2. Little Extent 3=Moderate Extent 4= Large Extent 5. Very Large Extent as shown

Table 4. 7: Financial Performance of SACCOs

Financial Performance	Mean	Std Dev
Maximum returns on the capital employed in the business	3.5938	0.7562
Increase in asset base of the SACCOs	3.6563	0.7878
Better performance of the SACCO's loan book	3.4688	0.9156
High returns on investment	3.75	0.7182

The Maximum returns on the capital employed in the business have a mean of 3.5938 and standard deviation of 0.7562. Increase in asset base of the SACCOs had a mean of 3.6563 and standard deviation of 0.7878. Better performance of the SACCO's loan book had a mean of 3.4688 and standard deviation of 0.9156. High returns on investment had mean of 3.75 and standard deviation of 0.7182.

4.7 Diagnostic Tests

The researcher carried out Multicollinearity Tests, Autocorrelation Test and Normality Test before the regressing liquidity management against financial performance of SACCOs. The findings are indicated in subsequent sections.

4.7.1 Multicollinearity Test

Variance of Inflation Factor, VIF was used to detect multicollinearity in the data set. The findings are indicated in Table 4.8.

Table 4. 8: Multicollinearity Test

	Collinearity Statistics	
	Tolerance	VIF
Risk management	.903	1.108
Cash Flow management	.086	11.624
Contingency funding	.084	11.849

From the findings, the VIF for risk management was 1.108, cash flow management had 11.624 and contingency funding management had 11.849. Usually, VIF values of less than 1 or greater than 10 indicates some multicollinearity while VIF of 1-10 shows no multicollinearity. Therefore, risk management was not highly correlated with financial performance while cash flow management and contingency funding had some moderate correlation with financial performance which was small and therefore ignored.

4.7.2 Autocorrelation Test

The researcher used Durbin Watson Statistic to test for Autocorrelation in the data set. The findings are indicated in Table 4.9.

Table 4. 9: Autocorrelation Test

Model	Durbin-Watson
1	1.681

From Table 4.9, the value of Durbin Watson Statistics was 1.681. Usually, values of Durbin Watson ranges from 0 to 4. Values of 0 indicates positive autocorrelation while values of 4 indicates negative autocorrelation. Durbin Watson Statistics of 2 indicates no autocorrelation. Since the value in this case is approximately 2, this shows that there was autocorrelation in the data set.

4.7.3 Normality Test

Normality Test was done using Skewness and Kurtosis. See Table 4.10.

Table 4. 10: Normality Test

	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
Risk management	32	.299	.414	-.536	.809
Cash Flow management	32	.286	.414	-.155	.809
Contingency funding	32	.258	.414	.212	.809
Financial performance	32	.238	.414	.199	.809

From the findings, risk management had skewness of 0.299 and Kurtosis of -0.596, cash flow management had 0.286 and -0.155, contingency funding management had 0.258 and 0.212 while financial performance had 0.238 and 0.199 as skewness and Kurtosis respectively. According to Kothari (2004), data analysis proceeds if Kurtosis and Skewness lies between +2 and -2. Therefore, the data set was normally distributed and therefore suitable for regressing.

4.8 Regression Analysis

A multiple linear regression analysis was conducted to investigate on the relationship between the independent variables and performance of the SACCO. The coefficient of determination (R-Square) resulting from the linear regression was used to determine the goodness of fit and R-square greater than 0.7 indicated a very good fit. P-values for the t-test statistics were used to determine the significance of the independent variables in the regression model. The findings are presented in subsequent sections.

4.8.1 Model Summary

Table 4. 11: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.983	.967	.964	.65259

The findings of the model summary indicate that the value of R is 0.983, R square is 0.967 and adjusted R square is 0.964. The findings indicate that 96.7% of performance the SACCOs is explained by the independent variables in the study.

4.8.2 Analysis of Variance ANOVA

Table 4. 12: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	349.951	3	116.650	273.908	.001 ^b
Residual	11.924	28	0.426		
Total	361.875	31			

ANOVA statistics of the processed data at 5% level of significance shows that the value of calculated F is 273.908 and the value of F critical at 5% level is 2.95. Since F calculated is greater than the F critical ($273.908 > 2.95$), this shows that the overall model was significant.

4.8.3 Regression Coefficients

Table 4. 13 Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.177	1.485		.119	.906
Risk management	.008	.036	.008	.231	.819
Cash Flow management	.133	.062	.252	2.155	.040
Contingency funding	.526	.084	.737	6.242	.000

$$Y = 0.177 + 0.008X_1 + 0.252X_2 + 0.737X_3 + \epsilon$$

Whereby: Y = Financial Performance of SACCOs X₁ = Credit risk management X₂ = Cash flow management X₃ = Contingency funding management

From the findings of the regression analysis if all factors were held constant financial performance would be at 0.177. An increase in credit risk management would lead to an increase in the financial performance by 0.008. An increase in cash flow management would lead to an increase in financial performance by 0.252. An increase in contingency funding management would lead to an increase in financial performance by 0.737. All the variables except credit risk management were significant as the P-values were less than 0.05 which indicates that all the factors considered were statistically significant.

CHAPTER FIVE

SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter presents the summary, discussion, conclusion and recommendation of the study. The study was established to examine liquidity management and financial performance of savings and credit cooperative organizations in Kenya (A survey of SACCOs in Nairobi County). The findings are presented in subsequent sections.

5.2 Summary of the Findings

It was established that credit risk is an important of all risks affecting financial performance has a mean of 4.9038 and standard deviation of 0.53033, Important of all risks affecting financial performance had a mean of 4.4688 and standard deviation of 0.50701. Stakeholders during the process of formulation of appropriate credit policies had a mean of 3.4688 and a standard deviation of 0.50701. It was established that Credit risk is difficult to eliminate and a mean of 3.7188 and standard deviation of 0.72887. Extent to which credit risk management affects financial performance had a mean of 3.6563 and standard deviation of 0.74528.

SACCOs suffer from cash flow problems because of lack of margin of safety in case of anticipated expenses had a mean of 3.4688 and standard deviation of 0.80259. Proper cash flow management is crucial to the survival of SACCOs had a mean of 3.5625 and 0.80071. Proper cash management strategies help SACCOs maintain a level of working capital during crunch times had a mean of 3.5938 and standard deviation 0.75602. SACCOs solves cash flow problems by postponing capital expenditure that eases cash shortage had mean of 3.5625 and standard deviation of 0.80071. Cash flow management encompasses a SACCO's level of liquidity had a mean of 3.5938 and 0.75602. Extent to which flow cash management affects financial performance had a mean of 3.6875 and standard deviation 0.69270.

SACCO has a formal contingency funding plan in place had mean of 3.6563 and standard deviation of 0.74528. The funding plan helps my SACCO to clearly define strategies for addressing liquidity shortfalls in emergency situations had a mean of 3.5625 and standard deviation of 0.80071. The major aim of having a contingency funding plan is to provide a framework for analyzing a liquidity crisis situation had a mean of 3.6875 and 0.73780. Extent of funding management affects financial performance had a mean of 3.6563 and standard deviation of 0.70066.

The Maximum returns on the capital employed in the business have a mean of 3.5938 and standard deviation of 0.7562. Increase in asset base of the SACCOs had a mean of 3.6563 and standard deviation of 0.7878. Better performance of the SACCO's loan book had a mean of 3.4688 and standard deviation of 0.9156. High returns on investment had mean of 3.75 and standard deviation of 0.7182.

5.3 Discussion

It was established that credit risk is an important of all risks affecting financial performance. It was established that Credit risk is difficult to eliminate completely because it depends on a number of borrower-specific factors and of systemic risk. The findings concur with Korir (2014) that credit risk is diversifiable, but difficult to eliminate completely and that because it depends on a number of borrower-specific factors and of systemic risk. Credit risk is difficult to eliminate because it is a function of several factors of borrowers of funds. It also dependents on how proper an appraisal and evaluation system is in place to assess credit worthiness of borrowers before funds are given to borrowers.

Proper cash management strategies help SACCOs maintain a level of working capital during crunch times. Cash flow management encompasses a SACCO's level of liquidity. Cash flow cash management has an effect on financial performance. This finding concurs with Aminu (2012) cash flow management brings together actions concerned with cash payment, collection management and liquidity management, which involves acquisition and disposal of treasury assets and their subsequent monitoring.

The major aim of having a contingency funding plan is to provide a framework for analyzing a liquidity crisis situation. Extent of funding management affects financial performance. The findings are consistent with that of Magara (2013) who concluded that whenever the SACCOs showed an improvement in the effectiveness of their internal controls, then the financial performance of these SACCOs improves drastically. Increase in asset base of the SACCOs tends to improve financial performance of the SACCOs. Better performance of the SACCO's and high returns on investment.

The findings from regression analysis indicate that 96.7% of performance the SACCOs is explained by the independent variables in the study. Regression results further documents that cash flow management and contingency funding management all had significant effect on financial performance of SACCOs. According to Randall and Farris (2009), studies on cash flow management, shows a relationship between cash flow management and performance. Taking the argument further, Magara (2013) noted that the variables which are control environment, risk assessment, control activities and monitoring mechanisms contribute positively to the financial performance of SACCOs in Kenya.

5.4 Conclusion

The study concludes that credit risk management had insignificant influence on financial performance of SACCOs. This finding contradicts with Wanjohi (2013) who established that many banks in Kenya experienced good financial performance as noted by high Return on Assets (ROA) due to financial risk management practices. The findings further contradict with Kimari (2013) who revealed that there was a direct relationship between credit risk management practices and financial performance of SACCOs.

The study concludes that cash flow management had significant influence on financial performance of SACCOs. Cash flow management had a positive influence on financial performance of SACCOs. According to Omino (2014), liquidity risk mitigation approaches adopted by different SACCOs within the County had a significant effect on their financial performances Cash flow management encompasses a SACCO's level of liquidity.

Contingency funding management had a significant influence on financial performance of SACCOs. The effect of contingency funding management on financial performance of SACCOs was positive. Compared with cash flow management, contingency funding management had a greater influence on financial performance of SACCOs. The findings are supported by the Tradeoff Theory by (Myers, 1977), in that setting aside contingency funds is a tradeoff which has an influence on financial performance of SACCOs.

5.5 Recommendation for the Study

The study has established the extent to which liquidity influences performance of SACCOs in Kenya. Specifically, the study recommends;

The study sought to find the effect of credit risk management on financial performance of savings and credit cooperative organizations a survey of SACCOs in Kenya. The study recommends that banks should devise and implement modern risk measurement techniques such as Risk-Adjusted Return on Capital in an effort to keep improving the banks' financial performance. The management needs to ensure there are adequate credit management controls to ensure all the time there is optimal cash where there are strategies to be in place during minimal cash and surplus cash since either of the side will contribute to credit risk to the organization.

The study sought to determine the effect of cash flow management on financial performance of savings and credit cooperative organizations a survey of SACCOs. The study recommends that, there are external variables that can affect cash management which poses a greater risk in the operations of the institutions. Hence the need to critically review in-depth on the cash management factors both in the external environment and internal environment that can affect cash management in the institutions and establish mitigation factors.

The study sought to establish the effect of contingency funding on financial performance of savings and credit cooperative organizations a survey of SACCOs. Senior management team in the SACCOs should coordinate liquidity risk management plans with disaster, contingency, and business planning efforts, as well as with business line. Contingency

funding should include a pre-funding for what the management team estimated will be the potential cash and collateral needs as well as utilizing secondary sources of liquidity.

5.6 Recommendation For Further Research

The study mainly focused on four dimensions of liquidity risk (credit risk, cash flow management and contingency funding management) that affect the performance of SACCOs. The banking sector as a whole would benefit tremendously if studies like this one could be done in other industries of the economy. The firms in this study included those that were 3 years and above and therefore it would be useful for the banking sector if studies focusing on the effect of each dimensions of liquidity risk were done at different stages of firm age.

REFERENCES

- Ademba, C. (2012). Challenges facing SACCOs in Africa today. *Regulatory Paper* retrieved May, 14, 2014.
- Agbada, A. O., & Osuji, C. C. (2013). The efficacy of liquidity management and banking performance in Nigeria. *International review of management and business research*, 2(1), 223-233.
- Akhtar, M. F., Ali, K., & Sadaqat, S. (2011). Liquidity risk management: a comparative study between conventional and Islamic banks of Pakistan. *Interdisciplinary journal of research in business*, 1(1), 35-44.
- Alesina, A., Ardagna, S., Nicoletti, G., & Schiantarelli, F. (2005). Regulation and investment. *Journal of the European Economic Association*, 3(4), 791-825.
- Angelopoulos, P., & Mourdoukoutas, P. (2001). *Banking risk management in a globalizing economy*. Greenwood Publishing Group.
- Atiyet, B. A. (2012). The pecking order theory and the static trade off theory: comparison of the alternative explanatory power in French Firms. *Journal of Business Studies Quarterly*, 4(1), 1.
- Bandyopadhyay, P. (2014). Liquidity Management in Indian corporate sector: a study of selected companies during the post-liberalisation period.
- Barfield, R., & Venkat, S. (2009). *Liquidity Risk Management*. UK: PricewaterhouseCoopers.
- Bassey, G. E., & Moses, C. E. (2015). Bank profitability and liquidity management: A case study of selected Nigerian deposit money banks. *International Journal of Economics, Commerce and Management*, 1(4), 1-24.
- Beranek W (2000). *Analysis for financial decisions*, 15th edition, Irwin, Homewood.
- Bhunia, A. (2011). Importance of Liquidity Management on Profitability. *mqwertyuiopasdfghjklzxcvbnmrt*, 43.
- Bibow, J. (2013). *Keynes on monetary policy, finance and uncertainty: Liquidity preference theory and the global financial crisis*. Routledge.
- Booth, S. A. (2015). *Crisis management strategy: Competition and change in modern enterprises*. Routledge.
- Bort R (2004). *Corporate cash management hand book*, 2nd edition, Warren Gorman and Larmont RIA Group, New York.
- Brigham, E., & Ehrhardt, M. (2013). *Financial management: Theory & practice*. Cengage Learning.

- Campello, M., Giambona, E., Graham, J. R., & Harvey, C. R. (2011). Liquidity management and corporate investment during a financial crisis. *Review of Financial Studies*, 24(6), 1944-1979.
- CBK (2016). Central Bank of Kenya: Commercial Banks & Mortgage Finance Institutions. Central Bank of Kenya (CBK). Retrieved 2 August 2014.
- Chou, J. S. (2011). Cost simulation in an item-based project involving construction engineering and management. *International Journal of Project Management*, 29(6), 706-717.
- Cooper, D. R., & Schindler, P. S. (2003). Business research methods.
- Cornett, M. M., McNutt, J. J., Strahan, P. E., & Tehranian, H. (2011). Liquidity risk management and credit supply in the financial crisis. *Journal of Financial Economics*, 101(2), 297-312.
- Cornett, M. M., McNutt, J. J., Strahan, P. E., & Tehranian, H. (2011). Liquidity risk management and credit supply in the financial crisis. *Journal of Financial Economics*, 101(2), 297-312.
- Cotei, C., & Farhat, J. B. (2009). The trade-off theory and the pecking order theory: are they mutually exclusive?. Available at SSRN 1404576.
- Crowe, K. (2009). Liquidity risk management – more important than ever, Financial Solutions, Harlow.
- DeAngelo, H., & Masulis, R. W. (1980). Optimal capital structure under corporate and personal taxation. *Journal of financial economics*, 8(1), 3-29.
- Denscombe, M. (2010). *The good research guide: For small-scale social research projects: For small-scale social research projects*. McGraw-Hill International. Division ASCE, 108, (CO2), 226-232.
- Dokulilova, L., Janda, K., & Zetek, P. (2009). Sustainability of Microfinance Institutions in Financial crisis. *European financial and accounting journal*, 4(2), 7-33.
- Drehmann, M., & Nikolaou, K. (2013). Funding Liquidity Risk: definition and measurement. *Journal of Banking & Finance*, 37(7), 2173-2182.
- Essendi, L. K. (2013). The Effect Of Credit Risk Management On Loans Portfolio Among Saccos In Kenya. *Unpublished MBA thesis. Univeristy of Nairobi, Nairobi, Kenya*.
- Gweyi, M. O., & Karanja, J. (2014). Effect of Financial Leverage on Financial Performance of Deposit Taking Savings and Credit Co-operative in Kenya. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 4(2), 176-184.

- Hicks, J. R. (1937). Mr. Keynes and the "classics"; a suggested interpretation. *Econometrica: Journal of the Econometric Society*, 147-159.
- Higgins, S. T., Silverman, K., & Heil, S. H. (Eds.). (2008). *Contingency management in substance abuse treatment*. Guilford Press.
- Hovakimian, A., Kayhan, A., & Titman, S. (2011). Are Corporate Default Probabilities Consistent with the Static Trade-off Theory?. *Review of Financial Studies*, hhr101.
- Jackson, T. (1989). *Evaluation: Relating training to business performance*. Pfeiffer & Company.
- Jenkins, M. (1997). Entrepreneurial Intentions and Outcomes: a Comparative Causal Mapping Study. *Journal of Management Studies*, 34(6), 895-920.
- Jensen, M. C. (1986). Agency cost of free cash flow, corporate finance, and takeovers. *Corporate Finance, and Takeovers. American Economic Review*, 76(2).
- Jun, X. (2006). Dividend Policy, the Largest Shareholder and Firm Growth: Free Cash Flow vs. Tunneling [J]. *Accounting Research*, 4, 51-57.
- Kabure, M. J. (2014). *The effect of liquidity on the return on investments for Saccos in Nairobi* (Doctoral dissertation, University Of Nairobi).
- Kaplan, B., & Maxwell, J. A. (2005). Qualitative research methods for evaluating computer information systems. In *Evaluating the Organizational Impact of Healthcare Information Systems* (pp. 30-55). Springer New York.
- Kassa, Y. (2010). Regulation and Supervision of Microfinance Business in Ethiopia: Achievements. *Challenges & Prospects, National Bank of Ethiopia (NBE), Addis Ababa*.
- Keynes, J. M. (1936). The general theory of interest, employment and money.
- Kilonzi, B. K. (2012). *The impact of Sasra regulations on the financial performance of Sacco's in Kenya* (Doctoral dissertation).
- Korir, S. (2014). *The effect of credit risk management on financial performance of deposit taking microfinance institutions in Kenya* (Doctoral dissertation, University of Nairobi).
- Krueger, R. A., & Casey, M. A. (2009). *Focus groups: A practical guide for applied research*. Sage.
- Lindner, F. (2013). Does saving increase the supply of credit? A critique of loanable funds theory.

- Loutskina, E. (2011). The role of securitization in bank liquidity and funding management. *Journal of Financial Economics*, 100(3), 663-684.
- Magali, J. J. (2013). Factors Affecting Credit Default Risks For Rural Savings and Credits Cooperative Societies (SACCOS) in Tanzania. *European Journal of Business and Management*, 5(32), 60-73. *Management and Economics*, 13, 501-510
- Magara, C. N. (2013). *Effect of internal controls on financial performance of deposit taking savings and credit cooperative societies in Kenya* (Doctoral dissertation, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI).
- Malthus, T. R. (1872). *An Essay on the Principle of Population Or a View of Its Past and Present Effects on Human Happiness, an Inquiry Into Our Prospects Respecting the Future Removal Or Mitigation of the Evils which it Occasions by Rev. TR Malthus*. Reeves and Turner.
- Maxwell, J. A. (2012). *Qualitative research design: An interactive approach: An interactive approach* (Vol. 41). Sage.
- McKinney, J. B. (2015). *Effective financial management in public and nonprofit agencies*. ABC-CLIO
- McNeil, A. J., Frey, R., & Embrechts, P. (2015). *Quantitative risk management: Concepts, techniques and tools*. Princeton university press.
- Michalski, G. (2009). Inventory Management optimization as part of operational risk management. *Economic Computation and Economic Cybernetics Studies and Research*, 213-222.
- Micheal, M. C. (1998). *Organization Theory and Methodology*.
- Miriti, J. M. (2014). *Factors influencing financial performance of savings and credit cooperative societies. A case of capital sacco, Meru county, Kenya* (Doctoral dissertation, University of Nairobi).
- Mishkin, F. S. (2009). *Is monetary policy effective during financial crises?* (No. w14678). National Bureau of Economic Research.
- Modigliani, F., & Miller, M. H. (1963). Corporate income taxes and the cost of capital: a correction. *The American economic review*, 53(3), 433-443.
- Mugenda, A. G. (2008). *Social science research: Theory and principles. Nairobi: Applied*.
- Muriuki, M. (2010). *Factors affecting sacco performance in Meru South district: a case of Tharaka Nithi Teachers Sacco* (Doctoral dissertation, University of Nairobi, Kenya).

- Mwandia, J.M. (2014). The effect of funding structure and liquidity on financial performance of savings and credit cooperative societies in Murang'a County, Unpublished paper, University of Nairobi.
- Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of financial economics*, 5(2), 147-175.
- Ndwiga, J. M. (2010). *Relationship between credit risk management practices and financial performance of microfinance institutions in Kenya* (Doctoral dissertation, University of Nairobi, Kenya).
- Ngaira, I. (2011). *The impact of SACCO regulatory authority guidelines on SACCO operations in Kenya-the case of Nairobi deposit taking SACCOS* (doctoral dissertation, school of business, university of nairobi).
- Nichols, J. J., Mitchell, G. L., Nichols, K. K., Chalmers, R., & Begley, C. (2002). The performance of the contact lens dry eye questionnaire as a screening survey for contact lens-related dry eye. *Cornea*, 21(5), 469-475.
- Njeri, M. M. (2014). *The Effects Of Liquidity On Financial Performance Of Deposit Taking Microfinance Institutions In Kenya* (Doctoral dissertation, School Of Business, University Of Nairobi).
- Njeru, M. D. (2016). *Effect of Liquidity Management on Financial Performance of Deposit Taking Saving and Credit Co-operative Society in Kenya* (Doctoral dissertation, Business Administration (Finance), JKUAT).
- Ochanda, M. M. (2014). Effect of financial deepening on growth of small and medium sized entities in Kenya: A case of Nairobi County. *International Journal of Social Sciences and Entrepreneurship*, 1(11), 191-208.
- O'Connor, P., & Kleyner, A. (2011). *Practical reliability engineering*. John Wiley & Sons.
- Omino, P. A. (2014). *Liquidity risk mitigation measures and financial performance of savings and credit co-operative societies (saccos) in Kisumu County-Kenya* (Doctoral dissertation, University of Nairobi).
- Owolabi, S. A., & Obida, S. S. (2012). Liquidity management and corporate profitability: Case study of selected manufacturing companies listed on the Nigerian stock exchange. *Business Management Dynamics*, 2(2), 10-25.
- Patton, M. Q. (2002). Two decades of developments in qualitative inquiry a personal, experiential perspective. *Qualitative Social Work*, 1(3), 261-283.
- Patton, M. Q. (2005). *Qualitative research*. John Wiley & Sons, Ltd.

- Randall, W. S. & Farris, M. T. II (2009). Supply chain financing: Using cash-to-cash variables to strengthen the supply chain. *International Journal of Physical Distribution & Logistics Management*, 39(8), 669-689
- Resnik, D. B. (2011). What is ethics in research & why is it important. *Research Triangle Park, North Carolina: National Institute of Environmental Health Sciences/National Institute of Health*.
- Ricardo, D. (1891). *Principles of political economy and taxation*. G. Bell and sons.
- Schwert, G. W. (2003). Anomalies and Market Efficiency. *Handbook of the Economics of Finance*, 1, 939-974.
- Sensarma, R., & Jayadev, M. (2009). Are bank stocks sensitive to risk management?. *The journal of risk finance*, 10(1), 7-22.
- Sharpe, W. F. (1964). Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk. *The Journal of Finance*, 19(3), 425-442.
- Smith, A. (1776). *The wealth of nations*. New York: *The Modern Library*.
- Song'e, H. K. (2015). *The effect of liquidity management on the financial performance of deposit taking Saccos in Nairobi county* (Doctoral dissertation, University of Nairobi).
- Titman, S., Keown, A. J., & Martin, J. D. (2015). *Financial management: Principles and applications*. Pearson.
- Toby, A. (2014). Working capital management policy and corporate profitability of Nigerian quoted companies: A sectoral analysis. *International Journal of Financial Mangement*, 3(1), 9-20.
- Trkman, P. (2010). The critical success factors of business process management. *International journal of information management*, 30(2), 125-134.
- Woodford, M. (2011). *Interest and prices: foundations of a theory of monetary policy*. Princeton University Press.
- Zikmund, W., Babin, B., Carr, J., & Griffin, M. (2012). *Business research methods*. Cengage Learning.

APPENDICES

APPENDIX I: QUESTIONNAIRE

You have been selected as a respondent in this study titled: **LIQUIDITY MANAGEMENT AND FINANCIAL PERFORMANCE OF SAVINGS AND CREDIT COOPERATIVE ORGANIZATIONS IN KENYA (A SURVEY OF SACCOS IN NAIROBI COUNTY)**.

Note that the information availed will be strictly used for the purpose of the study and shall be confidential.

SECTION A: DEMOGRAPHIC INFORMATION

Please tick in the appropriate box

1. Please indicate your gender: Male Female
2. What is your age group?
Below 18-25 26 – 30
30 – 35 35 – 40 Over 40
3. How long have you worked in the SACCO?
Less than 2 years 2-5 years 6–10years
10 -20 years Over 20 years

SECTION B: EFFECT OF CREDIT RISK MANAGEMENT ON THE FINANCIAL PERFORMANCE OF SACCOS IN KENYA.

4. Below are several statements on the effect of credit risk management on financial performance of SACCOs in Kenya. Kindly indicate your rating based on the scale of 1-5 where: 1= Not at all, 2. Little Extent 3. Moderate Extent 4. Large Extent 5. Very large extent

Statement	1	2	3	4	5
Credit risk is considered as the most important of all risks affecting financial performance of the SACCO I work for.					
Credit risk leads to non-performance of loans and non performance of assets which affects the financial institutions liquidity position.					
The SACCO I work for has adopted a management policy regarding loan risks					

SACCO work with stakeholders during the process of formulation of appropriate credit policies					
Credit risk is difficult to eliminate completely because it depends on a number of borrower-specific factors and of systemic risk.					
SACCOs constantly review ICT so as to enhance better management of their loan portfolio					
Credit risk can result into a decline of the credit standing of an obligor of the issuer of a bond or stock.					
Credit risk increases the probability of default					
Credit risk is not easily transferred, and accurate estimates of losses are difficult to obtain					
SACCOs are exposed to credit risk whenever it enters into a loan agreement to a third party					
Credit risk affects portfolio performance from its expected value of the SACCO					

6. To what extent does credit risk management affect financial performance of SACCOS in Kenya?

Not at all []

Little Extent []

Moderate Extent []

Large Extent []

Very Large Extent []

SECTION C: EFFECT OF CASH FLOW MANAGEMENT ON FINANCIAL PERFORMANCE OF SACCOs IN KENYA.

7. Below are several elements of Cash Flow Management. Kindly indicate the extent to which each of these has an effect on Financial Performance of SACCOs in Kenya. Use 5 scale rating whereby: 1= Not at all, 2. Little Extent 3.Moderate Extent 4.Large Extent 5. Very Large Extent

Statement	1	2	3	4	5
Cash flow management affects financial performance of the SACCO					
Weak cash flow makes it difficult to hire and retain good employees leading to high employee turn-over					
SACCOs suffer from cash flow problems because of lack of margin					

of safety in case of anticipated expenses					
If SACCOs spend a lot of cash to pay for fixed assets, they may face a cash crunch which affects operational expenditures					
Proper cash flow management is crucial to the survival of SACCOs					
Proper cash flow management enables SACCOs to easily obtain loans					
Proper cash management strategies help SACCOs maintain a level of working capital during crunch times					
SACCOs solves cash flow problems by postponing capital expenditure that eases cash shortage.					
Cash flow management encompasses a SACCO's level of liquidity					

8 To what extent does cash flow management affects financial performance of SACCOs in Kenya?

- Not at all []
- Little Extent []
- Moderate Extent []
- Large Extent []
- Very Large Extent []

SECTION D: EFFECT OF CONTINGENCY FUNDING MANAGEMENT ON FINANCIAL PERFORMANCE OF SACCOs IN KENYA.

11. Kindly indicate your rating on the below statements of the effect of Contingency Funding Management on the Financial Performance of SACCOs in Kenya by applying a 5 scale rating whereby: 1= Not at all, 2. Little Extent 3. Moderate Extent 4.Large Extent 5. Very Large Extent (Tick only what applies to your SACCO)

Statement	1	2	3	4	5
My SACCO has a formal contingency funding plan in place					
The funding plan helps my SACCO to clearly define strategies for addressing liquidity shortfalls in emergency situations					
The contingency plan in my SACCO is regularly tested to ensure that it is operationally sound					
Senior management team are charged with coordinating liquidity risk plans					
The major aim of having a contingency funding plan is to provide a framework for analyzing a liquidity crisis situation					
SACCOs formulate policies to manage a range of stressful financial					

environments in current or future times					
---	--	--	--	--	--

12. To what extent does contingency funding management affect financial performance of SACCOs in Kenya?

Not at all []

Little Extent []

Moderate Extent []

Large Extent []

Very Large Extent []

SECTION E: FINANCIAL PERFORMANCE OF SACCOs

13. Kindly indicate your rating on the below statements on the Financial Performance of SACCOs in Kenya by applying a 5-scale rating whereby: 1= Not at all, 2. Little Extent 3. Moderate Extent 4. Large Extent 5. Very Large Extent (Tick only what applies to your SACCO

Statement	1	2	3	4	5
Maximum returns on the capital employed in the business					
Increase in asset base of the SACCOs					
Better performance of the SACCO's loan book					
Reduced liabilities of the SACCOs					
High returns on investment					

THANK YOU.

Appendix II: Budget

Research Item	Cost
Research Assistants wages (2)	5000.00
Printing and binding	1200.00
Travelling allowance	8000.00
Internet costs	2500.00
Telephone bills	1500.00
Photocopying	1500.00
Contingency	3000.00
Total	22700.00

Appendix III: Work plan

RESEARCH ACTIVITIES	TIME
Proposal development	April –May 2016
Presentation of proposal to panelist at the University	June 2016
Data Collection (Field Work)	June - July 2016
Data Analysis and presentation	July -August 2016
Report writing	August 2016
Final Thesis & Presentation	September 2016

Appendix IV: List of Registered SACCOs in Nairobi

NO.	NAME OF SOCIETY	POSTAL ADDRESS
1	AFYA SACCO SOCIETY LTD	P.O.BOX 11607 - 00400, NAIROBI.
2	CHAI SACCO SOCIETY LTD	P.O.BOX 47815 - 00100, NAIROBI.
3	CHUNA SACCO SOCIETY LTD	P.O.BOX 30197 - 00100, NAIROBI.
4	ARDHI SACCO SOCIETY LTD	P.O. BOX 28782-00200, NAIROBI.
5	ASILI SACCO SOCIETY LTD	P.O.BOX 49064 - 00100, NAIROBI.
6	ELIMU SACCO SOCIETY LTD	P.O BOX 10073-00100, NAIROBI.
7	Fundilima SACCO Society LTD	P.O.BOX 62000 - 00200, NAIROBI.
8	Harambee SACCO Society LTD	P.O.BOX 47815 - 00100, NAIROBI.
9	Hazina Sacco Society LTD	P.O.BOX 59877 - 00200, NAIROBI.
10	Jamii Sacco Society LTD	P.O.BOX 57929 - 00200, NAIROBI.
11	Kenpipe Sacco Society LTD	P.O.BOX 314 - 00507, NAIROBI.
12	Kenversity Sacco Society Ltd	P.O.BOX 10263 - 00100, NAIROBI.
13	Kenya Bankers Sacco Society Ltd	P.O.BOX 73236 - 00200, NAIROBI.
14	Kenya Police Sacco Society Ltd	P.O.BOX 51042 - 00200, NAIROBI.
15.	KINGDOM SACCO SOCIETY LTD	P.O.BOX 8017 - 00300, NAIROBI.
16.	Magereza Sacco Society LTD	P.O.BOX 53131 - 00200, NAIROBI.
17.	Maisha Bora Sacco Society LTD	P.O.BOX 30062 - 00100, NAIROBI.
18.	Miliki Sacco Society LTD	P.O.BOX 43582 - 10100 NAIROBI
19.	Mwalimu National Sacco Society LTD	P.O.BOX 62641 - 00200, NAIROBI.
20.	Mwito Sacco Society Ltd	P.O.BOX 56763 - 00200, NAIROBI.
21.	NACICO Sacco Society Ltd	P.O.BOX 34525 - 00100, NAIROBI.
22.	Nafaka SACCO SOCIETY LTD	P.O.BOX 30586 - 00100, NAIROBI.
23.	NASSEFU SACCO SOCIETY LTD	P.O.BOX 43338 - 00100, NAIROBI.
24.	Nation Sacco Society LTD	P.O.BOX 22022 - 00400, NAIROBI.
25.	NYATI SACCO SOCIETY LTD	P.O. BOX 7601 - 00200, NAIROBI
26.	Safaricom Sacco Society Ltd	P.O.BOX 66827 - 00800, NAIROBI.
27.	SHERIA SACCO SOCIETY LTD	P.O.BOX 34390 - 00100, NAIROBI.

28. SHIRIKA SACCO SOCIETY LTD P.O BOX 43429-00100, NAIROBI.
29. SHOPPERS SACCO SOCIETY LTD P.O. BOX 16 - 00507, NAIROBI
30. STIMA SACCO SOCIETY LTD P.O.BOX 75629 - 00100, NAIROBI.
31. Tembo Sacco Society Ltd P.O.BOX 91 -00618, Ruaraka, Nairobi
32. UFANISI SACCO SOCIETY LTD P.O BOX 2973-00200, NAIROBI.
33. UKRISTO NA UFANISI WA ANGALICANA
SACCO SOCIETY LTD P.O BOX 872-00605, NAIROBI.
34. UKULIMA SACO SOCIETY LTD P.O.BOX 44071 - 00100, NAIROBI.
35. UNAITAS SACCO SOCIETY LTD P.O.BOX 38791- 00100, NAIROBI.
36. United Nations Sacco Society LTD P.O.BOX 30552 - 00100, NAIROBI.
37. Wanaanga Sacco Society LTD P.O.BOX 34680 - 00501, NAIROBI.
38. Wanandegge Sacco Society LTD P.O.BOX 19074 -00501, NAIROBI.
39. Waumini Sacco Society LTD P.O.BOX 66121 - 00800, NAIROBI.
40. Airports Sacco Society LTD P.O. BOX 19001-00501, NAIROBI
41. COMOCO SACCO SOCIETY LTD P.O. BOX 30135 - 00100, NAIROBI
42. Telepost Sacco Society LTD P.O. BOX 49557 - 00100, NAIROBI