

**THE EFFECT OF CREDIT RISK MANAGEMENT ON LOANS
PORTFOLIO AMONG SACCOS IN KENYA**

BY

LILLIAN KISIVULI ESSENDI

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS OF THE DEGREE OF MASTERS OF BUSINESS
ADMINISTRATION (MBA), UNIVERSITY OF NAIROBI**

NOVEMBER 2013

DECLARATION

This project is my original work and has not been presented for award of a degree in any other University.

Signatureí í í í í í í í í í í í í í í í í .Dateí í í í í í í í í í í í í í í í .

Lillian Kisivuli Essendi

REG.D61/66681/2010

This Project has been submitted for examination with my approval as the university supervisor.

Signatureí í í í í í í í í í í í í í í í í .Dateí í í í í í í í í í í í í í í í .

Dr.Sifunjo E.Kisaka

Lecturer, Department of Finance and Accounting

School of Business

University of Nairobi

DEDICATION

This project work is dedicated to my loving husband Zablon Gichaba and my beloved daughter Faith Angelina whom I am proud of for being the sources of inspiration and joy in my entire life.

ACKNOWLEDGEMENT

The production of this project work has been the concerted efforts of well wishers, who need to be acknowledged. I first give glory and honor to the Almighty Father in heaven for enabling me to successfully accomplish this great task. I am very appreciative of the encouragement, patience and invaluable suggestions and guidance provided by my supervisor Dr. Sifunjo Kisaka. Similar sentiments are also extended to Dr. Josiah Aduda, Chairman Department of Accounting and Finance, University of Nairobi.

In a special way I too appreciate my parents and aunt who have continuously supported, encouraged and morally guided me, for without them I would not have achieved this level. Lastly I am greatly indebted to my dear Husband Zablon Gichaba and my daughter Faith Angelina for their emotional, physical and material support and encouragement they gave me throughout this research work.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
LIST OF TABLES	ix
ABBREVIATIONS	x
ABSTRACT	xi
CHAPTER ONE.....	1
INTRODUCTION	1
1.1 Background of the Study	1
1.1.1Credit Management in Saccos.....	1
1.1.2 Credit Risk	2
1.1.3 Portfolio Management	3
1.2 Research Problem.....	4
1.3Objectives of the Study	5
1.4 Value of the Study.....	5
CHAPTER TWO	7
LITERATURE REVIEW.....	7
2.1 Introduction.....	7
2.2 Review of Theories	7

2.2.1 Liquidity Theory of Credit.....	7
2.2.2 Portfolio Theory.....	7
2.2.3 Tax Theory of Credit.....	8
2.2.4 Credit Risk Theory.....	8
2.3 Credit Risk Management Practices.....	9
2.3.1 Loan Portfolio.....	9
2.3.2 Credit Risk Management.....	10
2.3.2.1 Delinquency Management.....	11
2.3.3 Risk Identification.....	11
2.3.4 Risk analysis and Assessment.....	12
2.3.5 Credit Approval.....	12
2.3.6 Credit Risk Control and Monitoring.....	12
2.3.6 Credit Risk Management Measurement.....	13
2.4 Empirical Studies.....	13
2.5 Summary.....	16
CHAPTER THREE.....	17
RESEARCH METHODOLOGY.....	17
3.1 Introduction.....	17
3.2 Research Design.....	17
3.3 Population and Sample.....	17
3.3.1 Study Setting.....	17

3.4 Data and Data Collection Techniques	18
3.5 Data Analysis	18
3.6 Validity and Reliability of the Research Instrument.....	19
CHAPTER FOUR.....	20
DATA ANALYSIS AND INTERPRETATION.....	20
4.1 Introduction.....	20
4.2 Summary Statistics.....	20
4.2.1 Credit Risk Management	22
4.3 Estimated Empirical Model	25
4.4 Discussion.....	27
4.5 Summary.....	28
CHAPTER FIVE	29
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	29
5.1 Introduction.....	29
5.2 Summary of Findings	29
5.3 Conclusions.....	30
5.4 Limitations of the Study	30
5.5 Recommendations	31
5.6 Suggestions for Further Research	31
REFERENCES	32
APPENDICES	35

APPENDIX 1: QUESTIONNAIRE35

APPENDIX2: LIST OF SACCOSí 40

LIST OF TABLES

Table 4.1: Years of Operation	20
Table 4.2: Designation	21
Table 4.3: Years of Service	21
Table 4.5: Parties Involved in Credit Policy Formulation.....	22
Table 4.6: CAMEL Rating System.....	23
Table 4.7: Loan portfolio policies.....	23
Table 4.8: Capital Adequacy Ratios	24
Table 4.9: Risk Identification	24
Table 4.10: Importance of risk identification	25
Table 4.12: Model Summary	26
Table 4.13: Model Coefficients	26

ABBREVIATIONS

BOSA	- Back office Service Activity
CAMEL	- Capital Adequacy, Asset Quality, Management, Earnings, Liquidity
CBK	- Central Bank of Kenya
CIC	- Cooperative Insurance Company
FOSA	- Front Office Service Activity
FSD	- Financial Sector Deepening
ICT	- Information Communication Technology
KIE	- Kenya Industrial Estates
LPM	- Loans Performance Management
MFI	- Microfinance Institutions
NPL	- Non Performing Loans
SACCO	- Savings and Credit Co-operative Societies
SASRA	- Sacco Society Regulatory Authority
SEFCO	- Small Enterprise Finance Company
WOCCU	- World Council of Credit Unions

ABSTRACT

The provision of credit facilities is the core function of every savings and credit co-operative society. The credit management function facilitates efficient management and administration of the SACCO loan portfolio in order to ensure equitable distribution of funds and to encourage liquidity planning.

Many researchers have attempted to answer the benefits of credit management, however it has remained unclear for the Saccos management on the effects of credit risk management on the loans portfolio. The purpose of this study was to examine the effects of credit risk management on the loans portfolio among Saccos licensed by Sasra in Nairobi County.

Descriptive research design was used with a target population of 106 licensed Saccos from which a sample of 35 Saccos was identified from Nairobi County. The study used both primary and secondary data, primary data was obtained through questionnaires and secondary data from Sasra reports. Data collected was analyzed using descriptive statistics and regression analysis.

Results indicate that formulation of the credit policy is largely done by members of the organization and regulation with moderate involvement of employees and the directors. The existing credit policy of the Sacco is the primary document upon which formulation of new credit policy is based, trends of creditors and overhead costs are also taken into account in the process of formulation. Findings further show that CAMEL rating system plays a central role in the assessment of the soundness of Saccos.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Kenya's financial sector is dominated by commercial banks, Insurance companies, Pension funds and Mortgages who have roots to the colonial period and were historically oriented towards meeting the financial needs of external trade and large scale commerce. These financial institutions do not therefore have a track record of lending to households and start-up Small Enterprises. When the Kenya Government recognized this shortfall, it embarked on initiatives such as savings and credit cooperatives (Saccos), Small Enterprises Finance Company (SEFCO), Kenya Industrial Estates (KIE) and other alternatives to fill the financing gap that was there then Kimuyu (1998).

This brought about the SACCO industry in Kenya, the largest in Africa with over 3.5 million members and a \$2 billion loan portfolio. Within the micro finance (MFI) sector, another potential 4 million clients exist with a \$300 million portfolio. Their participation goes beyond simple information exchange. Anecdotal evidence points to potential consumers who have multiple borrowings within SACCOs/MFIs and between in addition to the same consumer obtaining finance from the formal banking sector (FSD Kenya).

SACCOs are in the business of safeguarding money and other valuables for their members besides providing loans and offering investment financial services. Credit creation is the main income generating activity for the SACCOs, but this activity involves huge risks to both the lender and borrower. The risk of a member not fulfilling his or her obligation as per the contract on due date or anytime thereafter can greatly jeopardize the smooth functioning of a SACCO's business.

1.1.1 Credit Management in Saccos

The provision of credit facilities is the core function of every savings and credit co-operative society. The credit management function facilitates efficient management and administration of the SACCO loan portfolio in order to ensure equitable distribution of funds and to encourage liquidity planning. In order to achieve prudence and accepted best practice, credit management

should always be guided by clearly spelt out policies and procedures, strategic plan, by-laws , the co-operative act, the SACCO regulatory act and rules and regulations. Basically Savings and credit co-operative has three operational aspects namely; the savings, the credit and channeling external funds to members.

The management committee of the SACCO is responsible for formulation, reviewing and amending the loan policy. The supervisory committee is responsible for ensuring that the loan policy is adequately carried out and that it achieves the goals it was created. The committee determines if the policy is being complied with by periodically reviewing a sample of loans granted and denied. The policy is expected to achieve the following major goals i.e. to establish a fair loaning system, establish efficient credit admiration procedures, assist in proper recovery of loan funds and finally to guide staff and board members on the loaning process

1.1.2 Credit Risk

Credit risk is defined as the potential that a borrower or counterparty will fail to meet its obligations in accordance with agreed terms. According to Chijoriga (1997) credit risk is the most expensive risk in financial institutions and its effect is more significant as compared to other risks as it directly threatens the solvency of financial institutions. While financial institutions have faced difficulties over the years for a multitude of reasons, the major cause of banking problems continue to be directly related to lax credit standards for borrowers and counterparties, poor portfolio risk management, or lack of attention to changes in economic or other circumstances that lead to deterioration in the credit standing of financial institutions and counterparties (Basel, 1999).

Loans are the largest source of credit risk to a financial institution .However, other sources of credit risk exist throughout the activities of a financial institution including in the banking book and the trading book, and both on and off the balance sheet. The goal of credit risk management is to maximize a SACCOs risk adjusted rate of return by maintaining credit risk exposure within acceptable parameters. SACCOs need to manage credit risk inherent to the entire portfolio as well as the risk in individual credits as transaction (Sinkey.1992).

The success of Credit management is mainly determined by the level of risk management in place, policies and procedures, professionalism and governance. If there is good risk

management then it means they have been well thought by the professionals. A well working system also means that the leaders after they have come up with the policies and procedures leaves to operate an interrupted. Minimizing bad loans has benefits to all parties involved especially the lenders .First and foremost It will help in the identification of potential credit risks related to loan restructuring, underwriting and documentation. Secondly, it will help in gathering information required to monitor borrower relationships for changes in risks including determining the appropriate level of monitoring and identifying information required for both the lender and borrower. Thirdly, it will help in evaluation of changes in credit management that require action including assessing internal and external factors and recognizing and evaluating warning signals. Fourthly, it will assist in selecting appropriate solutions to solve emerging credit problems by using strategies that optimizes the outcome for the institution; it will also assist in recognition of lending institutions that entail exposure to lender liability. Lastly it will help in identification of the potential impact of bad loans to the institution Zeller (2001).

1.1.3 Portfolio Management

Portfolio theory deals with the selection of portfolios that maximize expected returns consistent with the individual acceptable levels of risk. The theory provides a framework for specifying and measuring investment risk and to develop relationships between risk and expected returns. Its main basic assumption is that investors often want to maximize returns from their investments for a given level of risk. The full spectrum of investments must be considered because the returns from all these investments interact hence the relationship between the returns for assets in the portfolio is important (Reilly & Brown, 2011).

The basic portfolio model was developed by Harry Markowitz in the 1950s and early 1960s. Markowitz is considered the father of modern portfolio theory since he originated the portfolio model that underlies modern portfolio theory. He derived the expected rate of return for a portfolio of assets and the expected risk measure. Markowitz established that under reasonable assumptions, the variance (or standard deviation) of the expected rate of return was a meaningful measure of portfolio risk. From his model, the expected rate of return of a portfolio is the weighted average of the expected return for the individual assets in the portfolio.

1.2 Research Problem

Kenya has a long history of cooperative development that has been characterized by strong growth, thus making a significant contribution to the overall economy and easy realization of its blue print vision 2030. With the total population of Kenya at approximately 40 million, it is estimated that 63% of Kenya's population participate directly or indirectly in co-operative based enterprises (CIC Kenya).

A number of studies have provided the discipline with insights into the practice of credit management within corporate institutions. Owusu (2008) on credit practices in rural banks in Ghana found out that the appraisal of credit applications did not adequately assess the inherent credit risk to guide the taking of appropriate decisions. In his recommendations he stated that Credit amount should be carefully assessed for identified projects in order to ensure adequate funding.

According to the SACCO supervision report for 2011, loans disbursed to members accounted to three quarters of the total assets. The quality of loans has therefore been a challenge as the average gross non-performing loans (NPL) stood at 9.6% for the licensed Saccos contrary to the Sasra prudential guidelines which provide that the level of non-performing debts should not be more than five percent. This level of NPL is very high and underlines the need for the Sacco subsector to enforce credit policies to minimize credit risk. The weak capital base and high indebtedness also exposes Saccos to credit risk.

According to WOCCU (2008) the financial discipline of provisioning for loan losses has not been part of the SACCO development since SACCOs have relied on the check-off system of automatic salary deductions for loan repayment for decades. The SACCOs have extremely low net institutional capital and do not meet the WOCCU prudential standard of excellence of a minimum of 10% net institutional capital.

Locally few studies have been done on credit risk management, among them includes Silikhe (2008) on credit risk management in microfinance institutions in Kenya found out that despite the fact that microfinance institutions have put in place strict measures to credit risk management ,loan recovery is still a challenge to majority of the institutions. Njiru (2003)

Surveyed on credit risk management practices adopted by farmers in cooperatives in Embu, he found out that Saccos in Embu used only qualitative methods in evaluating credit worthiness of their members. He concluded that there seems to be lack of professionalism in areas of credit risk management namely insider dealings, favourism in lending and external influence. Wambugu (2009) on credit management practices in Saccos offering front office services found out that risk identification is an important stage in credit risk management and should be applied effectively to identify the current credit risks confronting the organization, provide the likelihood of these risks occurring and reveal the type and amount of loss these risks are meant to cause if they occur. Kimeu (2008) conducted a survey of credit risk management techniques of unsecured bank loans.

While the above research outcomes provide insight on credit risk management techniques, there is no known study to the researcher which has been done on the impact of credit risk on portfolio allocation in Saccos. Therefore the knowledge gap exists as to whether Saccos portfolio allocation is determined by the level of credit risk inherent. Thus the study sought to identify the effect of credit risk on portfolio allocation in Saccos.

1.3 Objectives of the Study

- i. The objective of the study is to analyze the effect of credit risks management on the loans portfolio among Saccos in Kenya.

1.4 Value of the Study

It is anticipated that the findings of this study will be important to the following:

To the academicians and researchers they will be furnished with relevant information regarding credit management practices in savings and credit cooperative societies. The findings will stimulate other researchers to venture into credit management practices and portfolio allocation that have not been studied. This will also contribute to the general body of knowledge and form a basis for further research.

To Credit unions management and directors the study will provide an insight into the various approaches towards credit management techniques and portfolio management in the sector.

Knowledge of contemporary credit management techniques will enable them identify plan, control and effectively manage SACCOs to enhance success.

To the Government findings for research can be used to assist in policy formulation regarding taxation and other regulatory requirements of SACCOs in the country. The policy maker will know how well to incorporate the sector effectively to ensure its full participation.

To the Shareholders the findings shall create some basic awareness to the shareholders and help them in understanding the circumstances under which the SACCOs operate and hence reduce conflict between shareholders and management.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter reviews literature from other scholars on the aspect of credit risk and portfolio allocation. It specifically looks at theoretical literature in section 2.2 Credit risk management in 2.3 Empirical literature in 2.4 and lastly the chapter summary in 2.5.

2.2 Review of Theories

2.2.1 Liquidity Theory of Credit

This theory, first suggested by Emery (1984), proposes that credit rationed firms use more trade credit than those with normal access to financial institutions. The central point of this idea is that when a firm is financially constrained the offer of trade credit can make up for the reduction of the credit offer from financial institutions. In accordance with this view, those firms presenting good liquidity or better access to capital markets can finance those that are credit rationed. Several approaches have tried to obtain empirical evidence in order to support this assumption. For example, Nielsen (2002), using small firms as a proxy for credit rationed firms, finds that when there is a monetary contraction, small firms react by increasing the amount of trade credit accepted. As financially unconstrained firms are less likely to demand trade credit and more prone to offer it, a negative relation between a buyer's access to other sources of financing and trade credit use is expected. Petersen and Rajan (1997) obtained evidence supporting this negative relation.

2.2.2 Portfolio Theory

Portfolio theory of investment which tries to maximize portfolio expected return for a given amount of portfolio risk or equivalently minimize risk for a given level of expected return, by carefully choosing the proportions of various assets. Although portfolio theory is widely used in practice in the finance industry and several of its creators won a Nobel prize for the theory ,in

recent years the basic portfolio theory have been widely challenged by fields such as behavioral economics(Markowitz 1952).

Portfolio theory was developed in 1950s through the early 1970s and was considered an important advance in the mathematical modeling of finance. Since then ,many theoretical and practical criticisms have been developed against it.This include the fact that financial returns do not follow a Gaussian distribution or indeed any symmetric distribution, and those correlations between asset classes(Micheal,Sproul 1998).

2.2.3 Tax Theory of Credit

The decision whether or not to accept a trade credit depends on the ability to access other sources of funds. A buyer should compare different financing alternatives to find out which choice is the best. In trade between a seller and a buyer a post payment may be offered, but it is not free, there is an implicit interest rate which is included in the final price. Therefore, to find the best source of financing, the buyer should check out the real borrowing cost in other sources of funds.

Brick and Fung (1984) suggest that the tax effect should be considered in order to compare the cost of trade credit with the cost of other financing alternatives. The main reason for this is that if buyers and sellers are in different tax brackets, they have different borrowing costs, since interests are tax deductible. The authors hypothesis is that firms in a high tax bracket tend to offer more trade credit than those in low tax brackets. Consequently, only buyers in a lower tax bracket than the seller will accept credit, since those in a higher tax bracket could borrow more cheaply directly from a financial institution. Another conclusion is that firms allocated to a given industry and placed in a tax bracket below the industry average cannot profit from offering trade credit. Therefore, Brick and Fung (1984) suggest that firms cannot both use and offer trade credit.

2.2.4 Credit Risk Theory

Although people have been facing credit risk ever since early ages, credit risk has not been widely studied until recent 30 years. Early literature(before 1974) on credit uses traditional actuarial methods of credit risk ,whose major difficulty lies in their complete dependence on historical data.Upto now ,there are three quantitative approaches of analyzing credit risk:

structural approach, reduced form appraisal and incomplete information approach (Crosbie et al, 2003). Melton 1974 introduced the credit risk theory otherwise called the structural theory which is said the default event derives from a firm's asset evolution modeled by a diffusion process with constant parameters. Such models are commonly defined "structural model" and based on variables related to a specific issuer. An evolution of this category is represented by asset-based models where the loss conditional on default is exogenously specific. In these models, the default can happen throughout all the life of a corporate bond and not only in maturity (Longstaff and Schwartz, 1995).

2.3 Credit Risk Management Practices

2.3.1 Loan Portfolio

Loan portfolio constitutes loans that have been made or bought and are being held for repayment. Loan portfolios are the major asset of Saccos and the lending institution. The value of the loan portfolio depends not only on the interest rates earned on loans but also on the likelihood that interest and principal will be paid (Jasson, 2002). Lending is the principal business activity for most commercial banks, the loan portfolio is typically the largest asset and the predominate source of revenue. As such, it is one of the greatest sources of risk to a financial institution's safety and soundness. Whether due to lax credit standards, poor portfolio risk management, or weakness in the economy, loan portfolio problems have historically been the major cause of losses and failures. Effective management of the loan portfolio and the credit function is fundamental to a Sacco's safety and soundness. Loan portfolio management (LPM) is the process by which risks that are inherent in the credit process are managed and controlled. Because review of the LPM process is so important, it is a primary supervisory activity (Koch 2000).

Assessing LPM involves evaluating the steps the management takes to identify and control risk throughout the credit process. The assessment focuses on what management does to identify issues before they become problems. The identification and management of risk among groups of loans may be at least as important as the risk inherent in individual loans. For decades, good loan portfolio managers have concentrated most of their effort on prudently approving loans and carefully monitoring loan performance. Although these activities continue to be mainstays of

loan portfolio management, analysis of past credit problems, such as those associated with oil and gas lending, agricultural lending, and commercial real estate lending in the 1980s, has made it clear that portfolio managers should do more. Traditional practices rely too much on trailing indicators of credit quality such as delinquency, nonaccrual, and risk rating trends. (Richardson 2002).

Effective loan portfolio management begins with oversight of the risk in individual loans. Prudent risk selection is vital to maintaining favorable loan quality. Therefore, the historical emphasis on controlling the quality of individual loan approvals and managing the performance of loans continues to be essential. But better technology and information systems have opened the door to better management methods. A portfolio manager can now obtain early indications of increasing risk by taking a more comprehensive view of the loan portfolio (Koch 2000).

To manage their portfolios, bankers must understand not only the risk posed by each credit but also how the risks of individual loans and portfolios are interrelated. These interrelationships can multiply risk many times beyond what it would be if the risks were not related. Until recently, few banks used modern portfolio management concepts to control credit risk. Now, many banks view the loan portfolio in its segments and as a whole and consider the relationships among portfolio segments as well as among loans. These practices provide management with a more complete picture of the bank's credit risk profile and with more tools to analyze and control the risk. (Sinkey, 1992)

2.3.2 Credit Risk Management

When a Sacco grants credit to its customers, it incurs the risk of nonpayment. Credit risk management refers to the systems, procedures and controls which a Sacco puts in place to ensure the efficient collection of customer payments and minimize the risk of non-payment (Naceour and Goaid 2003) Credit risk management forms a key part of a company's overall risk management strategy. Weak credit risk management is a primary cause of many business failures. Many small businesses have neither the resources nor the expertise to operate a sound credit management system (Richardson, 2002).

2.3.2.1 Delinquency Management

A delinquent loan is defined as any loan in which the full payment has not been received per the loan contract. For purposes of managing delinquent loans, SACCOs should categorize loans and provide for bad debts where the loans should be described as defaulted, performing, watch, substandard, doubtful and bad debts then a specific provision should be set for each category. Saccos are expected to submit returns on capital adequacy to Sasra every month and not less 15th of the subsequent month. Inability to do these will attract financial and subsequently administrative sanctions which include suspension of investments, lending, purchase of property and accepting deposits by the Sacco. For delinquency management on loans portfolios to be effective loans are classified into five categories which include performing, watch-unpaid upto 30days, substandard unpaid up to 180 days, Doubtful-unpaid up to 360days and Loss-unpaid for over 360days. (Sasra report)

2.3.3 Risk Identification

Risk identification is vital for effective risk management, for Saccos to manage risks facing them effectively they need to know how to identify the credit risks. The first step in risk identification identifying and prioritizing key risks which are reviewed and approved by the management committee. There is also need to determine the degree of risk the Sacco should tolerate and to conduct assessments for each risk of the potential negative impact if it is not controlled. Finally analyze the risk faced by the Sacco in the areas of interest rates risk, liquidity, credit, operations and strategic risks (CBK Sacco)

2.3.4 Risk analysis and Assessment

(Fatemi, 2000). Atypical risk analysis process consists of two components; financial analysis (quantitative analysis) and qualitative analysis. Financial analysis consists of analysis of financial; data available for the credit applicant, the analysis of annual financial statements has a central position in this context. Mostly financial analysis is carried out by credit analysts, there should be a general guideline stipulating that the analysis is confirmed by the person in charge of the organizational unit supplying the module for credit analysis when this module is handed over to the credit officer managing the exposure. (Eldelshain 2005)

2.3.5 Credit Approval

Clear established processes of approving new creditors and extending the existing credits has been observed to be very important while managing credit risks in Saccos. Credit unions must have in place written guidelines on credit approval processes and approval authorities. The board of directors should always monitor loans, approval authorities will cover new credit approvals, renewal of existing credit changes in terms and conditions of previously approved credits particularly credit restructuring which should be fully documented and recorded. Prudent credit practice requires that persons empowered with the credit approval authority should have customer relationship responsibility. Approval authorities of individuals should be commensurate to their positions within the management ranks as well as their expertise (Mwisho, 2001)

2.3.6 Credit Risk Control and Monitoring

The importance of monitoring risks is to make sure that they can be managed after identification. The Saccos play an increasingly important role in local financial economies where competition for customers and resources with Micro Finance Institutions and other commercial banks is high therefore they require effective and efficient risk control and monitoring systems.

The risk management feedback loop will involve the management and senior staff in the risk identification and must assess, process, as well as to create sound operational policies, procedures and systems. Implementation and designing of policies, procedures and systems will integrate line staff into the internal control processes, thus providing feedback on the Saccos

ability to manage risk without causing operational difficulties. The committee and the manager should receive and evaluate the results on an ongoing basis. Most risk management guidelines in Saccos will be contained in the policy manuals eg the credit manual. (CBK, 2010)

2.3.6 Credit Risk Management Measurement

Operating and financial ratios have long been considered as tools for determining the condition and the performance of a firm. Modern warnings models for financial institutions gained popularity when Sinkey(1975) utilized discriminant analysis for identifying and distinguishing problem banks and Altman (1977) examined the saving and loan industry. The procedures to identify financial institutions approaching financial distress vary from country to country, they are designed to generate financial soundness ratings and are commonly referred to as the CAMEL rating system (Gasbarro et al.2002).In Kenya the central bank applies the CAMEL rating system to assess the soundness of financial institutions which is an acronym for Capital Adequacy, Asset Quality, Management Quality, Earnings and Liquidity (CBK, 2010).

According to Sasra, CAMEL as an offsite evaluation tool has been adopted to identify Saccos that are financially vulnerable and therefore need increased supervisory attention. The rating scale is from 1 to 5 with 1 being the strongest and 5 being the weakest. Saccos with rating of 1 are considered more stable, those with 2 and 3 are considered average and those with rating of 4 or 5 are considered below average and are monitored to ensure their viability.

2.4 Empirical Studies

According to WOCCU the financial discipline of provisioning for loan losses has not been part of the SACCO development since SACCOs have relied on the check-off system for decades. SACCOs therefore end up having extremely low net institutional capital and fail to meet the WOCCU prudential standard of excellence of a minimum of 10% net institutional capital. Institutional capital is a critical second line of defense after loan loss provisions from losses incurred by the credit union related to increasing delinquency and defaults.

Silikhe (2008) on credit risk management in microfinance institutions in Kenya found out that despite the fact that MFIs have put in place strict measures to credit risk management, normal

loan recovery is still a challenge to majority of the institutions. This explains the reasons why most financial institutions are either not growing or about to close down.

Dhakal (2011) on risk management in SACCOs found out that risk management is not imbedded into the SACCOs institutional cultures and its value is not shared by all employees. He also noted that given the capacity, introduction of sophisticated systems and technical tools risk management does not work in SACCOs and therefore they lack the capacity required for risk management.

Gaitho (2010) surveyed on credit risk management practices by Saccos in Nairobi, findings revealed that majority of Saccos used credit risk management practices to mitigate risks as a basis for objective credit risk appraisal. She also found out that majority of Saccos relied heavily on the discretion and ability of portfolio managers for effective credit risk management practices as opposed to a system that standardizes credit and credit risk decisions.

Owusu (2008) on credit practices in rural banks in Ghana found out that the appraisal of credit applications did not adequately assess the inherent credit risk to guide the taking of appropriate credit decision he also found out that the drafted credit policy documents of the two banks lacked basic credit management essentials like credit delivery process, credit portfolio mix, basis of pricing, management of problem loans among others to adequately make them robust. In his recommendations he stated that credit amount should be carefully assessed for identified projects in order to ensure adequate funding. This situation provides the required financial resources to nurture projects to fruition, thus forestalling diversion of funds to other purposes, which may not be economically viable.

Githingi (2010) surveyed on operating efficiency and loan portfolio indicators usage by microfinance institutions found out that most microfinance institutions to a great extent used operating efficiency indicator as a credit risk management practice. Efficiency and productivity ratios are used to determine how well microfinance institutions streamline their credit operations. He also noted that microfinance institutions need to employ a combination of performance indicators such as profitability, operating efficiency and portfolio quality indicators to measure their overall performance.

Asiedu-Mante (2002), has asserted that very low deposits and high default rates have plunged some rural banks into serious liquidity problems, culminating in the erosion of public confidence in these banks. He indicated further that a combination of poor lending practices and ineffective monitoring of credit facilities extended to customers has contributed to high loan delinquency in some banks.

Gisemba (2010) researched on the relationship between risk management practices and financial performance of Saccos found out that the Saccos adopted various approaches in screening and analyzing risk before awarding credit to client to minimize loan loss. This includes establishing capacity, conditions, use of collateral, borrower screening and use of risk analysis in attempt to reduce and manage credit risks. He concluded that for Saccos to manage credit risks effectively they must minimize loan defaulters, cash loss and ensure the organization performs better increasing the return on assets.

Wambugu (2009) on credit management practices in Saccos offering front office services found out that risk identification is an important stage in credit risk management and should be applied effectively to identify the current credit risks confronting the organization, provide the likelihood of these risks occurring and reveal the type and amount of loss these risks are meant to cause if they occur. He concluded that the establishment of a review system that provided accurate timely and relevant risk information in a clear, easily understood manner is key to risk monitoring.

Griffin et al (2009) investigated the risk management techniques of twenty eight Islamic banks by examining the perception of senior Islamic banker toward risk. The result revealed that, Islamic banks are typically exposed to the same types of risk in conventional banks with different levels of the risks. Olomola (2002) found that repayment performance is significantly affected by borrower's characteristics, lenders characteristics and loan characteristics. Repayment problems can be in form of loan delinquency and default. Whatever the form however, the borrowers alone cannot be held responsible wherever problems arise, it is important to examine the extent to which both borrowers and lenders comply with the loan contract as well as the nature and duties, responsibilities and obligations of both parties as reflected in the design of the credit programme rather than heaping blames only on the borrowers.

2.5 Summary

The literature review outlined the need to adopt sound credit risk management practices and portfolio management in order to achieve the ultimate goal of good recovery and to maintain good loan asset quality. This places a SACCO on a pedestal to achieve a sustainable growth and development by deepening financial intermediation as well as maximizing shareholders' wealth.

Sound credit risk management entails critical assessment of credit risk and control, structured credit delivery process, effective monitoring/supervision regime, institution of oversight mechanism by the Board of Directors in terms of policy measures and supervisory control by the regulator in respect of credit limits, classification and provisioning of credits. The theoretical expositions and practices highlighted in this chapter by various experts and authorities on the basic credit management principles provided pertinent guide for the research.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology, sections 3.2 discusses research design, section 3.3 discusses population and sample of the study, section 3.4 discusses data collection techniques used in this study; section 3.5 discusses data analysis and presentation, and section 3.6 discusses data reliability and validity.

3.2 Research Design

A descriptive survey was employed in this study, the design was chosen because it provided a means to contextually interpret and understand credit risk and portfolio management in Saccos. According to Cooper and Schindler (2003) a descriptive study describes the existing conditions and attitudes through observation and interpretation techniques. The study will therefore be able to generalize the findings to all Saccos licensed by Sasra in Nairobi.

3.3 Population and Sample

The population consisted of all savings and credit cooperative societies licensed by Sasra as at December 2012. According to Sasra there were 106 deposit taking Sacco licensed by Sasra. A sample of 35 Saccos was taken from the whole population, this constituted 33% of the entire population. The sample period was 2009-2012, this sample fairly represents the whole population and was considered large enough to provide a general view of the entire population and serve as a good basis for valid and reliable conclusions.

3.3.1 Study Setting

The geographical area within which the study was conducted consisted of all Saccos licensed by Sasra operating in Nairobi County. This is because majority of the licensed Saccos have headquarters in Nairobi. Nairobi also gave a good sample which represents the entire population. This setting is considered sufficient and appropriate for examination of the research objectives guiding this study. The list of Saccos considered is documented in appendix 2.

3.4 Data and Data Collection Techniques

The study used primary data which was collected by way of structured and semi structured questionnaires with both open ended and closed ended questions, secondary data was collected from Sasra publications and the respective Saccosø Credit Policy documents and financial statements. The focus of primary data was on the techniques used by SACCOs in implementation of the credit management policies .The questionnaires were administered by multiple approaches that include drop and pick later basis and use of emails to contact the respondents. To increase the response rate, a follow up was done by use of telephone calls.

3.5 Data Analysis

Quantitative data was analyzed based on Pearson correlation analysis and multiple regression model, which took the form of:

$$Y = 0 + 1X_1 + 2X_2 + 3X_3 + 4X_4 + 5X_5$$

+

Where: Y = Loans portfolio

X₁, X₂, X₃, X₄ and X₅ = Independent Variables

X₁=Capital adequacy

X₂=Asset quality

X₃=Management efficiency

X₄=Earnings

X₅=Liquidity

0 = Constant

1, 2, 3, 4, 5 = Regression coefficients or Change included in Y by each X value

= error term

The dependent variable was the loans portfolio of the Saccos while the independent variables were the CAMEL components of Capital adequacy, Asset quality, Management efficiency, Earnings and Liquidity.

The loan portfolio was measured by Gross loans /Total assets, capital adequacy was measured by institutional capital/Total assets, asset quality was measured in terms of non-performing loans less provisions as percentage of loans, management efficiency was measured through the policies, procedures and risk monitoring systems of the Sacco, earnings were measured in terms of return on assets expressed as profit before interest on deposits and tax as a percentage of total assets, while liquidity was measured in terms of the ratio of liquid assets to deposits and short term liabilities.

3.6 Validity and Reliability of the Research Instrument

Content Validity was employed by this study as a measure of the degree to which data collected using a particular instrument represents a specific domain or content of a particular concept, Mugenda and Mugenda (1999) contend that the usual procedure in assessing the content validity of a measure is to use a professional expert in a particular field.

The researcher also sought expert opinion in the field of study especially the researcher's supervisor and lecturers in the school of business, this enhanced the validity of the study. Reliability refers to the consistency of measurement and it was enhanced through a pilot study before the actual study took place. The sample of the pretest was a total of 5 Saccos and the result of the pretest was included in the final results.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

The purpose of this study is to establish the effect of credit risk management on loans portfolio among Saccos in Kenya. The study used both primary and secondary data. The primary data was obtained through questionnaires from a total of 25 Saccos out of the sample size of 35 Saccos. This is an indication that the study was able to achieve a response rate of 71.4%. The study also made use of secondary data that was obtained from Sasra publications and the respective Saccos' Credit Policy documents and financial statements. The data was finally subjected to data analysis and the findings are presented next in the following format: 4.2 provides summary statistics General information; 4.3 analysis on Credit Risk Management and 4.4 Effect of Credit Risks Management on Loans Allocation.

4.2 Summary Statistics

The study sought to obtain information on the respondents as well as the organizations. The purpose of seeking this information was to enable the researcher to understand whether the respondents had the necessary experience to be able to provide relevant and reliable information for this study.

Table 4.1: Years of Operation

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1-20 years	4	16.0	16.0	16.0
21-40 years	20	80.0	80.0	96.0
Above 40 years	1	4.0	4.0	100.0
Total	25	100.0	100.0	

Source: Research data

The study sought to find out the duration the Saccos have been in operation since they were established. It is evident from the findings tabulated above that 80% of the SACCOs have been in operation for more than 20 years. This is an indication that most of the SACCOs have been in operation long enough and have enough experience in credit risk management hence can be able to provide relevant and reliable information for the study.

Table 4.2: Designation

	Frequency	Percent	Valid Percent	Cumulative Percent
Accountant	12	48.0	48.0	48.0
Credit Manager	13	52.0	52.0	100.0
Total	25	100.0	100.0	

Source: Research data

It was established from the study that 52% of the respondents who were picked from the SACCOs work as credit managers with the respective SACCOs. Credit managers are charged with the responsibility of lending as well as management of the loan portfolio in most SACCOs. The remaining 48% of the respondents work as accountants who are also custodians of data on the various transactions that are carried out by the SACCOs.

Table 4.3: Years of Service

	Frequency	Percent	Valid Percent	Cumulative Percent
1-5 years	12	48.0	48.0	48.0
6-10 years	13	52.0	52.0	100.0
Total	25	100.0	100.0	

Source: Research data

The study sought to establish the duration each of the respondents had worked with the current SACCO. The results in Table 4.3 above confirm that 52% of the respondents have worked with the current SACCO for duration of between 6 to 10 years. This is a confirmation that most of the respondents have been in this sector for long hence have more experience in credit risk management and loan portfolio management.

4.2.1 Credit Risk Management

The study sought to establish the various approaches that are used by the SACCOs in credit risk management. The respondents were required to indicate how the credit risk policies are developed and managed within their SACCOs. The study also expected the respondents to indicate how their organizations identify various credit risks. The study also sought to investigate from the respondents whether their respective SACCOs have a loan risk management policy in place. The findings from the study confirm that all the SACCOs involved in this study have developed a loan risk management policy that guides the management of their loan portfolio.

Table 4.5: Parties Involved in Credit Policy Formulation

	N	Minimum	Maximum	Mean	Std. Deviation
Involvement of members	25	1	4	2.24	1.128
Employees and staff	25	1	5	3.08	1.730
The Director	25	1	5	3.56	1.685
The regulator	25	1	5	2.84	1.463
Valid N (listwise)	25				

Source: Research data

The researcher wanted to establish the extent to which SACCOs in Kenya involve various stakeholders in formulation of credit policy. The respondents were required to rate four types of stakeholders using the scale of 1 to 5 where 1 represented very great extent and 5 no extent at all. The results that are tabulated in Table 4.5 above confirm that members and the regulator are involved in formulation of credit policy to a great extent. This is supported by mean responses of 2.24 and 2.84 for each of the stakeholders. Employees of the SACCOs and the Director are involved in credit policy development only to a moderate extent as indicated by a mean of 3.08 and 3.56 respectively.

Table 4.6: CAMEL Rating System

	N	Minimum	Maximum	Mean	Std. Deviation
Capital adequacy	25	1	5	1.80	1.472
Asset quality	25	1	5	2.12	1.364
Management quality	25	1	5	2.28	1.400
Earnings	25	1	5	1.80	1.472
Liquidity	25	1	5	1.96	1.428
Valid N (list wise)	25				

Source: Research data

On the use of CAMEL rating system by the SACCOs, the respondents were required to indicate the extent to which they used the rating system to assess its soundness. The respondents were required to rate four types of stakeholders using the scale of 1 to 5 where 1 represented very great extent and 5 no extent at all. The findings as illustrated in Table 4.6 above reveal that three components of CAMEL that is: capital adequacy; Earnings and Liquidity have a mean of 1.8, 1.8 and 1.96 respectively. This is an indication that capital adequacy, Earnings and Liquidity are used to a very great extent in assessing the soundness of the SACCOs. It was also clear that Asset quality and Management quality have a mean of 2.12 and 2.28 respectively. This implies that Asset quality and Management quality are used to a great extent in assessing the soundness of the SACCOs.

Table 4.7: Loan portfolio policies

	N	Minimum	Maximum	Mean	Std. Deviation
Existing Credit policy	25	1	4	1.64	1.114
General state of economy	25	2	5	3.12	1.092
Trends of creditors	25	1	4	2.16	.898
Overhead cost	25	1	5	2.28	1.400
Valid N (list wise)	25				

Source: Research data

The study also sought to investigate the factors that are considered by SACCOs in Kenya to develop their loan portfolio policies. On a scale of 1 to 5 where 1 represented very great extent and 5 no extent at all, the findings reveal that only one of the factors is considered to a very great

extent when developing a credit policy. This factor is the existing credit policy with a mean of 1.64. It was further established that two other factors are considered to a great extent when developing a credit policy. These two factors are: trends of creditors and overhead cost with a mean of 2.16 and 2.28 respectively. The general state of the economy received the least support as a factor since it has a mean of 3.12 an indication that most of the SACCOs in Kenya consider the general state of the economy to a moderate extent when developing their credit policies.

Table 4.8: Capital Adequacy Ratios

	N	Minimum	Maximum	Mean	Std. Deviation
Core capital /total assets min 10%	25	1	5	2.12	1.481
Core capital/Total deposits min 8%	25	1	5	2.28	1.514
Institutional capital/Total assets min 8%	25	1	5	3.08	1.525
Valid N (listwise)	25				

Source: Research data

The researcher investigated whether the SACCOs meet various capital adequacy ratios. The findings reveal that the SACCOs meet two capital adequacy ratios to a great extent. These ratios are the core capital/total assets ratio and the core capital/total deposits ratio with a mean of 2.12 and 2.28 respectively. However the findings reveal that the SACCOs meet the institutional capital/total assets ratio to a moderate extent as can be confirmed from a mean of 3.08.

Table 4.9: Risk Identification

	N	Minimum	Maximum	Mean	Std. Deviation
Executive management	25	1	5	2.64	1.705
Board of Directors	25	1	5	1.96	1.428
Credit committee	25	1	5	2.44	1.828
Credit managers	25	1	5	2.12	1.481
Employees	25	1	4	2.32	.945
Valid N (listwise)	25				

Source: Research data

It was also important for the study to establish the various parties who are involved by the SACCOs in the risk identification process. The findings reveal that the board of directors of the SACCOs is involved to a very large extent in the risk identification process. This is evident from the mean of 1.96 in the table above. The executive management, credit committee, credit managers and employees had a mean of 2.64, 2.44, 2.12, 2.32 respectively and this is a confirmation that they are involved in the risk identification process to a greater extent.

Table 4.10: Importance of risk identification

	N	Minimum	Maximum	Mean	Std. Deviation
Establishment of risk management	25	1	5	1.96	1.428
Helps in risk assessment	25	1	5	1.96	1.428
Risk identification helps develop risk management strategy	25	1	5	2.16	1.344
Valid N (listwise)	25	1			

Source: Research data

It was evident from the findings of the study that the most important reasons of risk identification among SACCOs in Kenya is to ensure that the risk management is established throughout the whole organization and that identification of risk helps to assess risks according to their importance. These two factors had a mean of 1.96 each. It was further confirmed that risk identification is important in assisting SACCOs in developing risk management strategies to a great extent. This was supported by a mean of 2.16.

4.11: Review of ICT

The study confirmed that all the SACCOs review their ICT policy to a very great extent in order to manage their loan portfolio better.

4.3 Estimated Empirical Model

The main objective of the study was to establish the effect of credit risks management on loans allocation among SACCOs in Kenya. The study used multivariate regression analysis in

establishing this relationship. The dependent variable of the study was the loan portfolio of the SACCOs while the independent variables were: Capital adequacy, Asset quality, Management efficiency, Earnings and Liquidity. The results from the regression analysis are discussed next.

Table 4.12: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
	.75(a)	.563	.513	1356.26	.513	17.22	1	64	.000

Source: Research data

From the results in Table 4.12 above, it is clear that the independent variable that is, capital adequacy, asset quality, management quality, earnings and liquidity of the SACCOs explain 56.3% of the variance in their loan portfolio. This indicates that the remaining variance that is unexplained by these independent variables is 43.7% which is explained by other factors that are beyond the scope of this study.

Table 4.13: Model Coefficients

Model Coefficients	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
(Constant)	154.24	3137.67	.523	2.653	.000
Capital adequacy	13.356	5.631	.050	2.523	.006
Asset quality	-.896	.201	-.086	-.952	.544
Management efficiency	24.387	28.653	.071	.452	.442
Earnings	17.621	24.364	.052	.322	.000
Liquidity	33.241	39.321	.080	11.231	.005

Source: Research data

The table of coefficients above reveals that capital adequacy has a positive coefficient of 13.356; management efficiency has a positive coefficient of 24.387; Earnings also has a positive coefficient of 17.621 whereas Liquidity has a positive coefficient of 33.241. However asset quality was found to have negative coefficient of -.896. The findings further indicate that if the

independent variables assume a value of zero, then the loan portfolio constant will be 154.24. From the table of coefficients it is possible to come up with a multivariate regression equation that will explain the effect of credit risks management on loans allocation among SACCOs in Kenya. The equation derived from the above regression results will therefore take the form of: $Y = 154.24 + 13.356X_1 - .896X_2 + 24.387X_3 + 17.621X_4 + 33.241X_5$. This equation successfully explains the effect of credit risks management on loans allocation among SACCOs in Kenya.

4.4 Discussion

The findings indicate that confirm that members and the regulator are involved in formulation of credit policy to a great extent. The other stakeholders are involved in policy formulation to a moderate or less extent. This position is also held by Altman (1977) who indicates that involvement of stakeholders in the formulation of the credit policy is an important step in credit risk management. It was further revealed that three components of CAMEL that is: capital adequacy; Earnings and Liquidity are used to a very great extent in assessing the soundness of the SACCOs in Kenya. These findings agree with Gasbarro et al. (2002) who indicate that the procedures to identify financial institutions approaching financial distress vary from country to country; they are designed to generate financial soundness ratings and are commonly referred to as the CAMEL rating system.

The study further established that the existing credit policy was very important in developing a credit policy for a SACCO. The study also reveals that trends of creditors and overhead cost are also considered when drafting a credit policy. This is in line with the findings of Richardson (2002) who indicates that analysis of past credit problems, such as those associated with oil and gas lending, agricultural lending, and commercial real estate lending in the 1980s, has made it clear that portfolio managers should do more. Traditional practices rely too much on trailing indicators of credit quality such as delinquency, nonaccrual, and risk rating trends.

It is also evident that the board of directors of the SACCOs is involved to a very large extent in the risk identification process. The executive management, credit committee, credit managers and employee are also involved to a large extent. These findings confirm the position held by CBK (2010) that various stakeholders such as the directors and the management committee

should be actively involved in the risk identification and management process in order to ensure that losses are addressed even before they occur.

4.5 Summary

This chapter has presented an analysis and discussion of the data collected on the effect of credit risk management on loans portfolio among sacco's in Kenya. The chapter has presented the summary of the various statistics that were important in establishing the relationship that exists. The chapter has also established the empirical model that can be used to illustrate this relationship.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The main objective of this study was to establish the effect of credit risks management on loans allocation among SACCOs in Kenya. This chapter presents a summary of the findings in 5.2 conclusions in 5.3 limitations in 5.4 recommendations in 5.5 and Suggestions in 5.6.

5.2 Summary of Findings

The study revealed that all the SACCOs that participated in the study have a loan risk management policy that is in operation. This implies that all these SACCOs have clear guidelines on how to approach and manage the loan risks that they may encounter from time to time. It is also evident from the findings that the SACCOs involve various stakeholders in varying degrees in the formulation of a credit policy. The stakeholders who are involved in credit policy formulation to a great extent are the members of these organizations and the regulator while the employees and the directors are involved in the credit formulation process only to a moderate extent. The study confirmed that the existing credit policy of the organization forms the basis for developing a new credit policy that is used by the organization. The other factors that are considered as revealed from the findings include trends of creditors and overhead costs. The general state of the economy was found to be of moderate significance when developing a credit policy.

It was certain from the study findings that the CAMEL Rating System plays a very significant role in rating the soundness of the SACCOs. Among the components of this system that were found to be of very great significance in rating the soundness of the organizations are the capital adequacy, earnings and liquidity. Management and asset quality were also established to be important but not as equally important as the first three components that are mentioned above. On the parties that are involved in the risk identification process, the boards of directors of the various SACCOs were found to play a very critical role. The board of directors is followed by the credit managers, employees, credit committee and executive management.

The study further established that the main significance of risk identification in the SACCOs is to ensure that risk management is practiced throughout the entire organization and it is one of the ways through which the SACCOs can conduct effective risk management in their organizations. The findings also indicated that most of the SACCOs conduct a review of their information communications technology with the aim of enhancing the management of their loan portfolio. The study established that capital adequacy, earnings, liquidity and management quality have positive coefficients in relation to loan allocations. Asset quality was however found to have a negative coefficient.

5.3 Conclusions

Most SACCOs in Kenya have a loan risk management policy in place. This policy is very crucial in providing guidelines on how to manage the various risks these organizations encounter in their lending activities. Formulation of the credit policy is largely done by members of the organizations and the regulation with moderate involvement of employees and the director. The existing credit policy of the SACCO is the primary document upon which formulation of a new credit policy is based. The people in charge of credit policy formulation also take into account the trends of creditors and overhead costs in the process of formulation. The CAMEL rating system plays a central role in the assessment of the soundness of the organizations. The main reason why risk identification is important in SACCOs is to enable them practice risk management in the entire organization thus promoting effective risk management practices. Capital adequacy, management quality, earnings and liquidity were found to have positive coefficients in relation to loan allocations while asset quality was found to have a negative coefficient.

5.4 Limitations of the Study

The findings of this study can only be directly applicable to SACCOs in Kenya hence may not be directly applicable to any other industry since the setting may be different.

It is also important to note that the relevance of this information is limited to the duration within which the study was carried out. Changes are bound to occur that may transform the way activities are carried out in the SACCOs thus making significant changes in future

5.5 Recommendations

The study has revealed that three components that is capital adequacy, management quality, earnings and liquidity have a positive relationship with loan allocations. SACCOs in Kenya should ensure that the management of these three variables is enhanced in order to improve their loan portfolios.

It is also clear that the SACCOs use the existing credit policy as the primary document for formulating a new credit policy. It will also be important if the SACCOs can also consider using credit policy documents from other successful similar organizations as a benchmark for best practices.

5.6 Suggestions for Further Research

Since the business environment is dynamic and presents new challenges and opportunities, it will be important to replicate this study after a duration of five years and establish the position as at that time.

This study should be compared with findings from other industries in order to establish the similarities and differences that may be evident. This will assist the SACCOs to benchmark with other organizations.

REFERENCES

Asiedu-Mante, E. (2002). "Silver Jubilee Celebration of the Rural Banking in Ghana", *The Rural Banker*, January to June, 2002

Basel Committee on Banking Supervision, "Principles for the Management of Credit Risk", September 2000.

Basel. (1999). *Principles for the Management of Credit Risk*. Basel Committee on Banking Supervision, Basel

Chijoriga, M. M. (1997). *Application of Credit Scoring and Financial Distress Prediction Models to Commercial Banks Lending: The Case of Tanzania*. Ph.D Dissertation, Wirtschaftsuniversität Wien (WU), Vienna.

Christen R. and D.Pearse, (2005) *Managing Risks and Designing Products for Agricultural Microfinance: Features of an Emerging Model*. Occasional Paper NO: 11 Consultative Group to assist the Poor. Vol 8.

Eldelshain, D. (2005) "British Corporate Currency exposure and Foreign Exchange risk Management" London Business School. London Phd Thesis

Gaitho, M. (2010). *Credit risk management practices by Saccos in Nairobi*. Unpublished MBA project.

Gasbarro, D., Sadguna I. M., & Zumwalt J. K. (2002). *The Changing Relationship between CAMEL Ratings and Bank Soundness during the Indonesian Banking*

Gisemba, P. N. (2010). *The Relationship between Credit Risk Management Practices and Financial Performance of SACCOs in Kenya*. Unpublished MBA Dissertation, University of Nairobi

Jansson, T. (2002), *Performance Indicators for MFIs: Technical Guide*. Micro Rate and Inter-American Development Bank, Washington, DC available at www.microrate.com

Kimuyu, P. (1998). Industrial Policies for the Twenty First Century: Productivity, Competitiveness and Export Participation by Manufacturing Enterprises in Kenya, paper presented at IPAR National Conference, Nairobi

Long staff, P., Schwartz, E. (1995) ðA simple approach to valuing risky fixed and floating rate debtöJournal of Finance, Vol.5pp789-819

Mugenda.O and Mugenda A. (2003); Research methods: Quantitative and Qualitative approaches.

Michael, Sproul. (1998).The Quantity Theory Versus the Real Bills Doctrine in Colonial America. In Economics Working Papers.

Markowitz H.M (1952), Portfolio Selection. Journal of Finance, Vol 7 no1.

Mwisho .A.M (2001) ðBasic lending conditions and procedures in commercial banks öThe Accountants, Vol.13 NO.3, pp.16-19

Ogilo. F (2011). Impact of credit Risk Management on Financial Performance of Commercial Banks in Kenya. Unpublished Phd Thesis.

Olomola,S. (2000) Determinants of small holder loan repayment, performance, Evidence, Nigerian Microfinance system, Nigeria. Retrieved from www.csae.ox.ac.uk/conferences, on 21 July, 2013

Owusu K.D (2008) ðCredit management policies in Rural banks in Accra Ghanaö

Reilly, F. K. and Brown, K. C.(2011). *Investment Analysis and Portfolio Management*. Australia: South-Western.

Richardson, D.C (2002) PEARLS Monitoring system World Council information center.Maddison, WI, WOCCU Toolkit series NO.4

SASRA (2001) Summary of SASRA Required Reports:.Retrieved from<http://www.sasra.go.ke>

Sinkey, J.F. (1975).A Multivariate Statistical Analysis of the Characteristics of Problem banks, of Journal 30(1), 21-36.

Silikhe.S (2008) "Credit risk management in Microfinance Institutions in Kenya" Unpublished MBA Project.

www.fsdkenya.com

Wall, Larry D., and Timothy W. Koch. 2000. Bank loan loss accounting: A review of theoretical and empirical evidence. Federal Reserve Bank of Atlanta Economic Review 85, no. 2:1619.

Zeller,M.(2001) "Solidarity groups reaching poor clients with high repayment rates" Focal point for Microfinance, Vol 2.No.1 pp. 4-6

APPENDICES

APPENDIX 1: QUESTIONNAIRE

Part A: General information

Name of Sacco (optional) í í í í í í í í í í í í í í ..

Number of years the Sacco has been Operatingí í í í í

Current designation in the Saccoí í í í í í í í í í ..

Years of service in the Saccoí í í í í í í í í í í í

Type of loan products offered by the Sacco:

Normal loan[]Instant loans []

Development loan [] Emergency loan []

School fees loan [] Others (specify) []

Part B: CREDIT RISK MANAGEMENT

LOAN PORTFOLIO

1. Does the Sacco have specific policies for managing loan risks?

Yes [] NO []

If yes to what extend do you involve the following parties in formulating the loanportfolio policies? Use a scale of 1 to 5 where 1 is to any great extent and 5 it to no extent.

Parties involved in credit policy formulation	1	2	3	4	5
The members					
Third employees/staff					

The director					
The regulator					
Others please specify					

2. How regularly do you review your credit policy?

Quarterly []

Semiannually []

Annually .. []

Others specify .. []

3. To what extent does Your Sacco use the following rating system to assess its soundness? Use a scale of 1 to 5 where 1 is to any great extent and 5 it to no extent.

CAMEL rating system	1	2	3	4	5
Capital adequacy					
Asset quality					
Management quality					
Earnings					
Liquidity					

4. To what extend does your Sacco consider the following factors in establishing a loan Portfolio policy? Where 1 is to a very great extent and 5 is to no extent.

Loan Portfolio Policies	1	2	3	4	5
Existing credit Policy					
General state of the economy					
Trend of creditors					
Overhead cost					
Others specify					

5. To what extent does your Saco meet the following financial requirements in delinquency management? Where 1 is to a very great extent and 5 is to no extent

Capital adequacy ratios	1	2	3	4	5
Core capital /Total assets min 10%					
Core Capital/Total deposits min 8%					
Institutional capital/Total assets min 8%					

RISK IDENTIFICATION

6. To what extent does your Sacco involve the following parties in formulating credit risk management policies? Use scale 1 to 5 where 1 is to a lesser extent and 5 to a greater extent.

Parties	1	2	3	4	5
Executive management					
Board of directors					

Credit committee					
Credit managers					
Employees					

7. To what extent do you agree with the following statement about the importance of risk identification in credit risk management? Rate using scale of 1 to 5 where 1 is strongly agree and 2 is agree 3 Neutral, 4 is disagree and 5 is strongly disagree.

Importance of risk identification in credit risk management	1	2	3	4	5
Ensures that the risk management is established throughout the whole organization					
It helps to assess risks according to their importance					
Risk identification assists the management to develop risk management strategy to allocate resources efficiency					
Others please specify					

8. To what extent do you Sacco review its information communication technology to manage its loan portfolio better? Use scale 1 to 5 where 1 is to a lesser extent and 5 to a greater extent

Review of ICT	1	2	3	4	5

APPENDIX 2:

DEPOSIT TAKING SACCOS LICENCED BY SASRA BY 31ST DEC 2012

1. AFYA SACCO
2. AIRPORTS SACCO
3. ASILI SACCO
4. CHAI SACCO
5. CHUNA SACCO
6. COMOCO SACCO
7. FUNDILIMA SACCO
8. HARAMBEE SACCO
9. HAZINA SACCO
10. JAMII SACCO
11. KENPIPE SACCO
12. KENVERSITY SACCO
13. KENYABANKERS SACCO
14. KENYA POLICE STAFF SACCO
15. KINGDOM SACCO
16. MAGEREZA SACCO
17. MAISHA BORA SACCO
18. MWALIMU NATIONAL SACCO
19. METROPOLITAN TEACHERS SACCO
20. MWITO SACCO
21. NACICO SACCO
22. NAFAKA SACCO
23. NAKU SACCO
24. NASSEFU SACCO
25. NATION SACCO
26. ORTHODOC DEVELOPMENT SACCO
27. SAFARICOM SACCO
28. SHERIA SACCO
29. STIMA SACCO
30. TEMBO SACCO
31. UKULIMA SACCO
32. UNITED NATIONS SACCO
33. WANAANGA SACCO
34. WANANDEGE SACCO
35. WAUMINI SACCO