

**CREDIT RISK MANAGEMENT AND PERFORMANCE OF LOAN PORTFOLIOS
OF DEPOSIT TAKING SAVINGS AND CREDIT CO-OPERATIVE SOCIETIES IN
GARISSA COUNTY, KENYA**

**ISMAIL ABDULLHI BURO
D53/OL/GAR/32373/2016**

**A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF BUSINESS IN
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF
DEGREE OF MASTER OF BUSINESS ADMINISTRATION-FINANCE OPTION, OF
KENYATTA UNIVERSITY.**

APRIL, 2019

DECLARATION

Declaration by Student

I declare that the project is my original work and has not been presented for any award in any other university. No part of this document should be reproduced or duplicated without the consent of the author or/and Kenyatta University.

Signature: Date:

Ismail Abdullhi Buro

D53/OL/GAR/32373/2016

Declaration by Supervisor

This project was submitted for examination with my approval as the candidate supervisor.

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

Dr. Jeremiah Koori

Department of Accounting and Finance,

Kenyatta University.

DEDICATION

The study is dedicated to the all-powerful God. He had been my source of wisdom and strength without him I would not have made it.

ACKNOWLEDGEMENT

First and foremost I acknowledge the Almighty and Everlasting God for enabling me to carry out my studies and giving me the strength and finances to complete them. I express my gratitude to my supervisor Dr. Jeremiah Koori for his time, patience and continuous guidance to ensure a good research proposal. Thank you for providing me with a positive outlook on the research proposal. I thank also the lecturers in the school of business for their valuable contribution in my studies. I appreciate the constant love, moral support and encouragement of my family. Last but not least my appreciation goes to my colleagues from the university as well as friends for valuable discussions held and positive criticisms offered. Thanks for your time, knowledge and constant support.

May the Almighty God bless you all.

TABLE OF CONTENTS

DECLARATION.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
TABLE OF CONTENTS	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
OPERATIONAL DEFINITIONS OF TERMS	x
LIST OF ABBREVIATIONS	xi
ABSTRACT.....	xii
CHAPTER ONE: INTRODUCTION.....	1
1.1 Background of the Study	1
1.1.1 Credit Risk Management.....	4
1.1.2 Performance of Loan Portfolios	5
1.1.3 SACCO's in Garissa County, Kenya.....	8
1.2 Statement of the Problem	9
1.3 Objectives of the Study	11
1.3.1 General objectives	11
1.3.2 Specific Objectives	11
1.4 Hypotheses	12
1.5 Significance of the study	12
1.6 Scope of the study	13
1.7 Limitation of the Study.....	13
1.8 Organization of the study	14
CHAPTER TWO: LITERATURE REVIEW.....	15
2.1 Introduction	15
2.2 Theoretical Review.....	15
2.2.1 Asymmetric Information Theory.....	15
2.2.2 Principal-Agent Theory	16
2.2.3 Credit Risk Theory	18
2.3 Empirical Review	19
2.3.1 Credit Risk Monitoring and Performance of Loan Portfolios	19

2.3.2 Credit Approval and Performance of Loan Portfolios.....	21
2.3.3 Credit Risk Identification and Performance of Loan Portfolios	23
2.3.4 Credit Analysis and Performance of Loan Portfolio	25
2.4 Summary of Literature Review and Research Gaps.....	28
CHAPTER THREE:RESEARCH METHODOLOGY	32
3.1 Introduction	32
3.2 Research Design	32
3.3 Target Population	32
3.4 Data Collection Tools.....	33
3.5 Validity and Reliability of Research Instruments.....	33
3.5.1 Validity	33
3.5.2Reliability	33
3.6 Data collection Procedures	34
3.7 Data Analysis and Presentation	34
3.8 Ethical Considerations.....	35
CHAPTER FOUR:DATA ANALYSIS AND PRESENTATION.....	36
4.1Introduction	36
4.11 Study Response Rate	36
4.2 Background Information	37
4.2.1 Gender of the Respondents.....	37
4.2.2 Age of the Respondents.....	37
4.2.3 Education Level.....	38
4.2.4 Held Position In the SACCO.....	39
4.2.5 Years of Service	39
4.3 Descriptive Analysis.....	39
4.3.1 Credit Risk Identification and Loan Portfolio Performance.....	39
4.3.2 Credit Risk Analysis and Loan Portfolio.....	41
4.3.3 Credit Risk Monitoring and Loan Portfolio	44
4.3.4 Credit Approval and Loan Portfolio.....	45
4.4 Performance of Loan Portfolios among SACCOs.....	49
4.6 Multiple Regression Analysis.....	52
CHAPTER FIVE:SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	55

5.1 Introduction	55
5.2 Summary of Findings	55
5.3 Conclusion.....	56
5.4 Recommendations of the Study.....	58
5.5 Suggestions for Further Studies.....	58
APPENDICES.....	62
APPENDIX I: RESEARCH QUESTIONNAIRE.....	62
APPENDIX II: SACCOs IN GARISSA COUNTY.....	66
APPENDIX III: AUTHORIZATION TO COLLECT DATA.....	67

LIST OF TABLES

Table 2.1 Research Gaps.....	28
Table 4.1: Years of Service.....	39
Table 4.2 Credit Risk Identification and Loan Portfolio Performance	40
Table 4.3: Credit Risk Analysis and Loan Portfolio Management.....	42
Table 4.4: Credit Approval and Loan Portfolio Management	46
Table 4.5: Performance of Loan Portfolios among Saccos.....	49
Table 4. 6:Model Summary	52
Table 4.7: ANOVA.....	52
Table 4.8: Regression Coefficients ^a	53

LIST OF FIGURES

Figure 2.1 Conceptual framework, 31

Figure 4.1 Education Level..... 38

OPERATIONAL DEFINITIONS OF TERMS

Credit Risks It is the risk associated with customers defaulting to pay loans

Credit Risk Management The process of managing, avoiding or reducing chances of customers not paying their loans as per laid down conditions agreed upon.

Loaning Portfolio The collection of credit facilities offered by SACCOs

Performance It is the process of producing gains in finances. It is indicated by the levels of profits in the firm.

Kenya Bankers Association This is the umbrella body of the banking industry in Kenya whose membership is drawn from all commercial Banks in Kenya

Risk Management The process of risk detection, mitigation and management by a SACCO put in place to control its financial exposures.

LIST OF ABBREVIATIONS

BCCI:	Bank of Credit and Commerce International
BoDs	Board of Directors
CEO	Chief Executive Officer
IMF	International Monetary Funds
KUSSCO	Kenya Union of Saving and Credit Cooperatives
LPM	Loan Portfolio Management
R&D	Research and Development
ROA	Return on Asset
ROE	Return on Equity
SACCO	Saving and Credit Cooperative Society
SASRA	SACCOs Regulatory Authority

ABSTRACT

The SACCO sector significance cannot be ignored since it helps in the growth of the economy and realization of country's vision 2030. It also contributes the growth of gross domestic product, creation of jobs and creating opportunities for the young and women. The SACCOs have experienced a tremendous reduction of total loans to total deposits for the period 2014 to 2016 according to the current SASRA report. The industry reported a total loans to total deposits percentage of 110 in 2014, 108 percent in 2015 and a further decrease of 1 percent in 2016 to 107 percent. The trend raises the problem why the decrease, what will cure the decrease and what are the causes of the major decrease in Kenya. The challenge of credit risk has dominated in all financial sector in the world and majority of the institutions having faced increase in loan default rate. The functions of credit management is to facilitate the administration of loans and loan efficient management in ensuring funds are distributed equitably and liquidity is maintained. The study aimed to assess the effects of credit risk management on the performance of loan portfolios among SACCOs licensed by SASRA in Garissa County. The study sought to determine the effect of credit risk identification, risk analysis, risk monitoring and control and credit approval on performance of loans portfolio among SACCOs in Garissa Kenya. The study was anchored on the following theories which include liquidity theory of credit, portfolio theory, credit risk theory and agency theory. The study adopted a descriptive research design. The target population for the study was 6 Deposit Taking SACCOs. The sample size were 53 credit managers in the deposit taking SACCO'S who were selected using purposive sampling. The study used primary data; primary data was obtained through questionnaires. Data collected was analyzed using descriptive statistics that yield tables, charts, mean and standard deviation that was used to give meaning to the data collected. Additionally, multiple linear regression analysis was used. The findings and recommendations of the study be invaluable to a multiplicity of players. The SACCO managers appreciated credit risk management practices impact on loan portfolio performance. Management also had opportunity to review credit risk management practices as well as their impact on financial performance. To the academicians and researchers, the study broadened the knowledge on credit risk management practices and the practice of applying modern portfolio theory to credit risk and financial performance of SACCOs in Kenya. The study concluded that the SACCO had a credit monitoring policy. The study also concluded that that the Sacco monitors cash flows of borrowers continuously. It also concluded that Sacco had constant contact with borrowers. The study concluded that Sacco had response mechanisms for anticipated credit risks. It also concluded that Sacco had mitigation strategies for anticipated losses. The study lastly concluded that the Sacco reviews client's loan repayment patterns. The studies recommended that all Sacco's should create credit risk monitoring on performance the loan portfolios as this will enable Sacco to monitors cash flows of borrowers. It would also help Sacco to be in contact with borrowers to identify and get quarries from them on the effect of credit approval on performance of loan portfolios among SACCO's in Garissa County, Kenya.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The structured risk management is necessitate by the changes in the competition, the expansion of businesses, financial activities globalization, technology, emergence of new products and level of deregulation of some the financial institutions activities. For a financial institution to do well in the current competitive market, it must ensure they monitor measure and control the credit risks facing them. The sophistication of risk management framework, the processes, controls used for used risk management depends on the size of the business and complexity of its operations. However, certain principles apply to financial institution regardless whether they are complex or huge and can be effectively utilized for the benefits of the institutions in general and help in the reduction of credit risk (Cuevas & Fischer 2006).

The composition of risk management framework entails the managed risk scope, systems of processes and the procedures of managing risks not forgetting the responsibilities and roles of individuals in managing risks (Uyemura & Deventer 2003). These frameworks should be all inclusive enough to capture all risks a financial institutions is facing and that the financial institutions must face each challenge with flexibility in accommodating the changes in the operations.

Credit cooperatives in Kenya and in the globe play a very vital role in the development of the economy and growth of the regions in Africa which are disadvantaged. They perform the function of concentrating in that niche market where people with small income, small businesses,

farmers and entrepreneurs who need funds to start or boost their businesses. They give credit without collaterals which are required by banks to secure credits (Cabo *et al.* 2006). Cooperative societies are therefore very important institutions who are able to finance a very important section in the society. They have been the leverage for many entrepreneurs and more so on agriculture sector in the country. In fact some studies show the role of credit institutions in rural poverty improvement (Singh *et al.*, 2007) or how financial activity promotes the growth of cooperatives.

Co-operatives have played an important role in the development of the economics of Kenya, Uganda and Tanzania and have led to the uplifting of the standards of living of the people. It is estimated that there are 8 million Co-operative members in Kenya and more than 3 million members in Savings and Credit Co-operatives (SACCOs) while there are about 6,000 SACCOs out of the 12,000 registered Co-operative Societies. According to the Minister of cooperatives, the co-operative movement is currently boasting of savings mobilization of Ksh 180 billion with an asset base of Sh200 billion (The Standard 24th April 2016). Loans outstanding Kshs.95 billion (US\$1.3 billion) Co-operatives have been involved in the provision of credit for the purchase of land, farm inputs, housing, education, medication and development of various business ventures (Private Sector Initiative for Corporate Governance, 2009).

The process of managing loan portfolio or loan portfolio management (LPM) entails the management and control of the risks facing various parts of the businesses. Loan portfolio management is very important and that it the main activity of every manager in the financial institutions. It involves the evaluation of steps of management of risks in identifying, control and monitoring the credit risks throughout the operations process. This involves the management

getting involved in the risk issues before they extend to affect the business operations (Owira 2011).

The process by which loan portfolio management is done is through credit risk management processes. This involves the screening of prospective loaned to ensure their credit worthiness. Credit risk management is essential to optimizing the performance of financial institutions (Richard, 2006). Given the non-uniform information gap that exists between lenders and borrowers, financial institutions must have a way to ensure that they not only evaluate default loan risk that is unknown to them before the selection in order to avoid adverse selection risks, but also that can evolve after selection in order to avoid funds diversion. It had been found out that in order to avoid much loan losses and thereby improving its financial performance, it is essential for financial institutions to have an effective credit risk management system in place (Basel, 2006).

The cooperative business normally faces the financial risks in their day to day operations. The main goal of risk management is not the reduction of risk but rather maximizing the returns from the already available risks. Since cooperatives are in the business which involves a lot risks, it should appreciate the returns which comes after venturing in to a risk activities. Choosing the right participants as a cooperative societies is the turning point where institution select them and absorb the right customers wisely and accepting those risk which are the arrays of their normal business operations (Carrasco, 2004). There is rapid growth and changes in the credit market hence the financial institutions in the globe need to identify, monitor, measure and control credit risks over the entire loan portfolio which involves monitoring every transaction in their institutions (Bluhm, *et al.*, 2003).

When the financial position of the borrower deteriorates then the financial institutions are faced with the possibility of the credit risks that it affects the value of the assets due to the increase in the non-performing loans due to the reduced financial position of the borrower. Therefore credit risk is the ability of the borrower not to meet the agreed terms on loan repayment. The aim of managing credit risk is to maintain the risk of credit to the lowest acceptable level by adjusting the rate of return and minimizing the exposure to credit risk. SACCOs need to reduce the credit risks facing the entire portfolio of loans as well as the credit given to individuals. The relationship between credit and other risks should also be considered. The credit risk management is a critical part of risk management approach and essential to the benefit of future long term operations (Kealhofer, 2003).

The management of credit risk is increasingly becoming vital because of some reasons like crisis in the economy, insolvencies in the companies, company rules infraction in auditing and accounting, off balance sheet derivative growth, volatility and declining collateral values, small firms increased borrowing and growth in financial globalization (Bofondi & Gobbi, 2003).

1.1.1 Credit Risk Management

Credit Risk management is a process of managing and administering loan portfolio in the SACCOs thus enabling equitable distribution of resources and liquidity planning. Credit management should be guided by policies and procedures, the co-operative act, strategic plan, regulatory framework and by-laws which are clearly spelt out in order to achieve prudence and accepted best practice. Three operational aspects of the savings and credit co-operative are savings, credit and external funds channeling to members (Kealhofer, 2003).

The SACCO management committee is mandated to formulate, review and amend the policy of the loans. The committee on supervisory is mandated to ensure that the policy on loans is adequately exercised and it achieves the aim it is supposed to achieve. The SACCO committee occasionally determines whether the policy is being complied with by reviewing a sample of issued loans to the members. Some of the major goals the policy is supposed to achieve are; efficient establishment of credit administration procedures, recovery of loans funds, developing a fair loaning system and guiding the board members and staff on process of giving loans (Kealhofer, 2003).

Quantitative techniques and qualitative techniques can be used to evaluate the performance of borrowers. The subjective nature of qualitative models makes it a challenge. However, qualitative models can assess the attributes of the borrowers by assigning numbers to the rating and the rating compared with the threshold. This technique does not only reduce the cost of processing but also reduces the possible biases and judgement subjectively (Barth *et al.*, 2004). This systems of rating should be able to identify changes and signal possible changes in the loss of the loans. Quantitative models are good in establishing factors which are important in explaining the rate of default, evaluating the degrees of the contributors, default risk rate pricing, ability to screen out applicants who are bad and calculating the possible funds that will meet future customer loans demands (Moore, 2007)

1.1.2 Performance of Loan Portfolios

According to Kurui and Kalio (2014) Loan portfolio entails the loaned funds inform of various products to various customers. It entails the loans to individuals, salary loans, loaned to groups, and loans advanced to companies (murugu, 2010). According to Crabb and Keller (2006) loan portfolio refers to the loans advanced to the customers of the bank and the amount of money

loaned out. Kurui and Kalio argued that to ensure survival of majority of the financial institutions, majority have relied on the pattern of giving out loans at the same time considering the agreement with the customers thus ensuring loans are paid in time. Kipchumba (2015) posited that these calls for restrictive policy on credit control to reduce the unnecessary lending of funds in order to improve the financial institutions financial performance.

Financial institutions loan portfolio major concern has been the management of credit risk and this has greatly affected the process and techniques of the financial institutions in attempt to improve financial performance. Management of credit risk is a well detailed approach of dealing with emerging issues and untold issues which is done through risk assessment and financial institutions coming up with better ways of handling such risks and to reduce the same in the future through utilization of resources available. Huizinga and Demirguc (2010) some of the strategies used by the financial institutions in managing of risk include; transferring the risk to other parties, risk avoidance, risk reductions and many more. The author also argued that for successful credit management, good governance, proper risk management and good policies and procedures need to be put in place.

The study is guided by portfolio theory which deals with choosing of the loans that consistent maximize the expected returns and reduction of the individual risks. The theory deals with providing a framework for companies and financial institutions in dealing with risks in attempt to maximize the expected returns on assets. The basic assumption of this theory is that the companies and financial institutions work hard in an attempt to maximize risks returns on investments under a certain levels of risks. The full understanding of this theory is that financial

institutions have the liberty to choosing different classes of risks considering the rate of return on investments as the driving force (Reilly & Brown, 2011).

Markowitz developed portfolio model in the years 1950s and 1960s and was considered the father of modern portfolio theory. The theory considers the expected returns of the portfolio and classes of different assets considering the risk facing the different forms or combination of assets. He established that under certain conditions and assumptions the meaningful measure of the expected rate of return of portfolio risks was the standard deviation or the standard deviation squared (variance). It is evidenced that the model evaluates the expected returns of assets as the weighted average of the individual expected return of individual portfolio sets.

Loan portfolio is the largest source of credit risks for any financial institutions. Loans are the expected largest asset in any bank and therefore demands proper care and protection. The quality of loans in a Sacco is very crucial since the loans in a SACCO are not supported by any collateral but on trusts and character of the individual customers. A well-functioning loan portfolio starts with individual loans oversight by the management. To maintain loan quality prudence in risk selection is very important. The financial institutions historical ability to control and manage risks is a plus to maintaining the quality of loans advanced to individuals groups and companies. Risks management has been supported by the advancement of technology and better management control methods. According to Ogilo (2011) it is now possible for the portfolio manager to obtain early signs of the increasing risk and this helps him come up with early comprehensive management and control of loan portfolio.

1.1.3 SACCO's in Garissa County, Kenya

The core function for every savings and cooperative society is the provision of credit. For equitable distributions of funds and planning for liquidity, it is prudent for SACCO managers to ensure that loan portfolio is efficiently managed and administered. Credit management should be guided by clear policies and procedures, regulations of the SACCOs, by-laws, cooperative act for in order to achieve best practice and prudence. Three operational aspects are clear in the normal operations of the SACCO that is; giving credit, saving services and channeling of external funds (Ogilo, 2011).

The SACCO committee on management is mandated to formulating, review and loan policy amendments. The work of the supervisory committee is to ensure that loan policy is adequately adhered to and that the management achieves the yearly goals. The committees establishes if the loan policy was followed in giving and collected the loans from customers. The committees periodically reviews a sample of loans issued to customers in ensuring the policy and procedures were followed to the later. The policy on loans is supposed to ensure the following; determine whether proper loaning system was used, help in loan recovery, ensure proper credit administration procedures are followed and guiding the employees and members of the board on the loaning process (Lapie, 2008).

Ownership of SACCOs, governance and management is done by the members who have a common characteristics. The characteristic could be employer, social fraternity, geographical among others. Unlike commercial banks, SACCOs are member owned and provide credit facilities which are guaranteed by members. In addition, SACCOs do not offer current accounts as they are not in the clearing house. In developing economies SACCO represents one of the

most important source of finance to the entrepreneurs over the last decade, but they have faced a variety of challenges in their attempt to grow. The challenges have been researched by various researchers and scholars and similar studies have portrayed a contradicting results. Their active roles in the support of the economy has not been ignored at all with many researchers interested in their financial performance (Labie & Périlleux, 2008; Armendariz & Morduch, 2005; Magill, 1994).

Despite SACCOs offering variety of loans to their SACCO members in small amounts, they have recorded high default rate as compared to other financial institutions in Garissa County (Karumuna & Akyoo 2011). This trend really threatens financial viability and SAACOs sustainability and prevents the achievement of their aim which is maximizing benefits to members which may include the social role of providing loans to help members achieve their living standards (Lagat, Mugo, &Otuya, 2013). Although many numerous studies have been done on SACCO's in Kenya the county of Garissa had been largely overlooked. This being a vibrant county that boasts small and medium sized businesses the management of SACCO's in the county hence is keen to driving a thriving economy in the county.

1.2 Statement of the Problem

The SACCO sector significance cannot be ignored since it helps in the growth of the economy and realization of country's vision 2030. It also contributes the growth of gross domestic product, creation of jobs and creating opportunities for the young and women. The SACCOs have experienced a tremendous reduction of total loans to total deposits for the period 2014 to 2016 according to the current SASRA report (2017). The industry reported a total loans to total deposits percentage of 110 in 2014, 108 percent in 2015 and a further decrease of 1 percent in 2016 to 107 percent (Maiti, 2015). The trend raises the problem why the decrease, what will cure

the decrease and what are the causes of the major decrease in Kenya. The challenge of credit risk has dominated in all financial sector in the world and majority of the institutions having faced increase in loan default rate.

A study by Esendi (2013) and Kimeu (2008) found that the managing credit risks process in commercial banks was not effective in securing bank loans. The study presented a gap in the failure to show the relationship between credit risk management and loan portfolio performance. The Stulz (1996) study found that some risks present opportunities through which the firm can acquire comparative advantage, and hence enable it to improve on financial performance. Generally, review of the literature on risk management seems to suggest that better risk management practices result in improved financial performance of the firm. By linking risk management and performance, insurance firms can more effectively and efficiently understand the value of implementing a risk management framework.

Silikhe (2008) studied the effect of credit risk management on loan default and found that loan recovery in the financial institutions is a challenge despite strict measures on credit risk management. The same challenges afflict loaning by SACCOs. The Aon Risk Solutions and Wharton School (2011) study found the existence of a positive relationship between the maturity of a firm's risk management framework and its financial performance. The findings of the study reflect that higher risk maturity is associated with improved ROA and stock performance for most firms. Ernst and Young (2012) also reinforces this point of view by suggesting that companies with more mature risk management practices outperform their peers financially, and tend to generate the highest growth in revenue.

A study on the impact of credit risk management practices on the commercial bank's financial performance in Kenya by Mwangi (2010) showed evidence that risk management and the related practices are considered significantly important to the operations and financial performance of these financial institutions in Kenya. The study indicates that credit management practices significantly affects financial performance. The study presents contextual gap in that the current study focuses on loan portfolio while this study concentrated on financial performance. This study filled this empirical gap by determining the effectiveness of credit risk management practices on loan portfolios performance of SACCOs in Garissa town.

1.3 Objectives of the Study

1.3.1 General objectives

The general objective of the study was to establish the effect of credit management on performance of loan portfolios among SACCOS in Garissa County, Kenya.

1.3.2 Specific Objectives

The study was guided by the following objectives;

- i. To determine the effect of Credit risk monitoring on performance the loan portfolios of SACCO's in Garissa County, Kenya
- ii. To establish the effect of credit approval on performance of loan portfolios among SACCO's in Garissa County, Kenya
- iii. To establish the effect of credit risk identification on performance of loan portfolios of SACCO's in Garissa County, Kenya

- iv. To assess the effect of Credit risk analysis on performance of loan portfolios of SACCO's in Garissa County, Kenya

1.4 Hypotheses

The study tested the following null hypotheses:

H₀₁: Credit risk monitoring had no significant effect on performance of loan portfolios of SACCO's in Garissa County, Kenya.

H₀₂: Credit approval had no significant effect on performance of loan portfolios of SACCO's in Garissa County, Kenya.

H₀₃: Credit Risk identification does not have significant effect on performance of loan portfolios of SACCO's in Garissa County, Kenya.

H₀₄: Credit risk analysis had no significant effect on performance of loan portfolios of SACCO's in Garissa County, Kenya.

1.5 Significance of the study

The management of SACCOS stood to benefit from this study. The study provided the management with an independent unbiased view of credit risk management status of their organization. It helped them to be aware of their approaches to credit risk management. It was also highlight on the practices that are hindering effective implementation of CRM in their cooperatives so that managers can therefore work on those areas. The government is formulating policies that relate to the regulatory environment of the country as far as SACCOS offering FOSAs services are concerned. As the sector grows the government had to come up with policies that address the various challenges within the sector, so as to reduce any resultant chaos and to facilitate faster growth with minimum drawbacks. Scholars and academicians benefited from this

study as it opens up new areas for research; these include determining how the findings of this study compared with credit risk management of a commercial bank, and CRM between the financial sector and other sectors. The study was also contribute to the general body of knowledge on credit risk management in SACCOs offering FOSA services.

1.6 Scope of the study

The study was conducted among deposit taking SACCOs licensed by SASRA in Garissa County, Kenya. The study on the effects of credit risk management on performance of loan portfolios was constrained by the study variables of risk identification, risk analysis, risk monitoring and credit approval. The population consisted of Savings and Credit Cooperative Societies licensed by SASRA as at December 2017 in Garissa County, Kenya. There were 6 Deposit Taking SACCOs licensed by SASRA in the Garissa County (SASRA, 2015). Therefore the target population for the study was 6 Deposit Taking SACCOs. The performance of the SACCOs was assessed for the period 2013 to 2017.

1.7 Limitation of the Study

The study was limited to Garissa County SASRA licensed deposit taking SACCOs. Some of the respondents were not willing to provide the required data. The researcher created a good rapport with them and ensured that voluntarily the respondents answered the questionnaire. The respondents were also reluctant to give sensitive data but the researcher assured them of the confidentiality and also explained the aim behind the study. Some of the respondents were busy and had limited time to answer the questionnaire. The researcher gave them time to fill the questionnaire and collected after 5 days.

1.8 Organization of the study

The study had five chapters. The first chapter presents the study background information, the motivation behind the study, objectives of the study, research question, study significances, limitations of the study and the study organization. The second chapter presents the literature reviewed relating to the dependent and independent variables of the study. The empirical review is also presented showing the correlation between the study variables. The third chapter presented the methods used to collect data. Research design, target population, sampling technique, tools of collecting data, data analysis and data presentation was covered in this chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature from other scholars on the aspect of credit risk management. The literature covers the theoretical and empirical studies on credit risk in financial institutions. Theoretical review covers Credit risk theory, Asymmetric Information theory and the Principal agent theory while empirical studies relate to credit risk management.

2.2 Theoretical Review

The study was anchored on asymmetric information theory, principal-agent theory and credit risk theory.

2.2.1 Asymmetric Information Theory

The asymmetric information concept was introduced by Akerlof in 1970s. The author used the paper “The market of Lemons”. The theory postulates that in majority of markets the consumers of services and goods use market available statistics or information to measure the value attributed with certain goods. The seller on the other hand sees the market with a specific knowledge on specific item the seller is presenting in the market. The author argued that information asymmetry gives an incentive to the seller to sell goods of low quality than the market goods. These results to the average quality of goods presented in the market to reduce as the market size increases. Such differences in market quality can be increased by sellers supplying goods of high quality in large quantities.

The Asymmetric Information Theory argues that to distinguish bad borrowers from good borrowers is a tasking job (Auronen, 2003). This may result to moral hazards problem- that is the borrowers directing the funds to other activities and adverse selection problem- selecting bad borrowers. This results to the accumulation of non-performing loans in the books of the SACCOs in Kenya (Bester, 1994; Bofondi & Gobbi, 2003). The ability to interpret three forms of problems facing asymmetry information such as ex ante, interim and ex post predicts the existence and survival of cooperatives in the long run (Uyemura & Deventer, 1993). It is true that the credit management process in the banks follow the process of risk identification, measurement, assessment, monitoring and control. Identification of risks involves identifying potential factors and monitoring the consequences in the identified factors. The identified factors are measured and control depending on the size and the industry the company is operating in and this is applied in the operational and strategic areas of the financial institutions.

2.2.2 Principal-Agent Theory

Agency theory was first developed by Stephen Ross & Barry Mitnick (1973). It was developed as a guide for analysing the conflict between various stakeholders. The theory postulates that there exist a conflict of interest between the agent and the principal in the management of resources belonging to the principal (Tipuric, 2008). Besides its applicability in corporate governance , the theory has been used and applied in various studies; it may be applicable in a setting where the principals instructs the agent to carry duties on his behalf who performs the duties assuming the responsibilities of the principal. Agency theory describes a mutual relationship between two parties who through trust manages to work with the common purpose of improving the principal welfare. The motivation behind the agency theory was to show the relationship between the agent and the principal in the larger corporations.

Agency theory reduces the entities into two participants, the owners/shareholders and the managers. The theory suggests that employees and managers in the societies can have self-interests but shareholders or the owners expect the managers and the employees to make decision on the best interests of the shareholders. Padilla (2002) argued that the agents may not always make decisions to the best interest of the principals. The managers or the employees may face self-interests, may fall short of the agreement, succumb to opportunities, and acting in a way to benefits an individual rather than the shareholders in general (Bhimani, 2008). Therefore agency theory can be used to explain the relationship between parties, with one party assuming the responsibilities of the other in the management and management structure. The theory, however can be used to align the goals of the managers with that of the principal. According to Jensen and Meckling (1976) agency theory portrays the self-interest, individualistic behaviour which are bound by the rewards and punishments and that their beneficial actions take priority. The theory argues that the managers and employees contributes a lot to the good governance structure as they are held accountable in their responsibility and tasks. This theory will help in identifying and describing the parties involved in the SACCO.

This theory had however been criticized. Agency theory assumptions were rejected by the steward ship theory and does not support the preposition that the managers attempt to satisfy the shareholders is distracted by their personal ambitions and interests. Donaldson and Davis (1991) stewardship theory supports that the separations of ownership of corporate and control does not necessary results to the conflicts of interests between managers and owners.

The theory is instrumental in assessing the effect of the motivation and motives of the credit officers who are instrumental in ensuring that risk management practices work and who are appraised and remunerated on the strength of their effectiveness on these tasks. The study will assess if the credit officers and committees always act on the best interest of the owners of SACCO or if there are cases of unethical practices in loaning and other agency cost challenges in the loaning by SACCOs.

2.2.3 Credit Risk Theory

This theory was proposed by Merton in 1974. The theory postulates that the default occasions comes from the company's evolution of assets modelled by the process of diffusion with constant parameters. Those evolution models are also called structural models and are based on models related to a particular issuer. Asset model represent an evolution of this category where default loss is caused by exogenous factors. Long staff and Schwartz (1995) argue that the default may occur throughout the life of a particular bond but not only in the maturity

Since early ages individuals, companies and entrepreneurs have been facing credit risks but the area has not been widely studied until recently. Years before 1974 the literature on credit risk used traditional methods of analyzing credit risks which relied heavily on historical data. Current there are modern approaches of analyzing credit risks that is the structural approach, incomplete information approach and reduced form approach (Crosbie *et al.*, 2003).

In 1974 Merton introduced credit risk theory also known as structural theory which bases its argument on the firm's assets evolution and default. Such models are commonly defined "structural models" and based on variables related to a specific issuer. Development of this class

is represented by a set of replicas where the loss conditional on default is exogenously caused or can be determined separately by maintaining the endogenous nature of event of default. According to Long staff and Schwartz (1995) these models presents that the default of bonds can happen in the whole life of the corporate bond and but not only in the maturity. According to Saa-Requejo and Santa Clara (1997) the changes in assets is generally constrained by the changes in the risks facing a particular organization and these in the end justifies the default rate of the majority of the institutions loans. The second approach of reduced for models, the event of the default and the default rate is determined solely the pricing of the assets and mostly the credit derivatives and the probabilities of the occurrence of default determined by exogenous factors. The most liquid bonds are said to be more marketable and attractive to many investors according to studies by Jarrow and Turnbull (1995); Jarrow et al., (1997): Duffie and Singleton (1999).

This theory will guide the study in evaluating the modalities of risk assessment especially the source and effectiveness of information used by SACCOs to assess the creditworthiness of individuals in the various credit risk assessment stages.

2.3 Empirical Review

Empirical literature reviews various studies in view of the study variables and objectives. The studies are reviewed hereunder.

2.3.1 Credit Risk Monitoring and Performance of Loan Portfolios

A Sacco must have in place a credit system for monitoring the terms of individual credits. Key indicators of credit terms should be specified and checked to identity and report potential credit problems. It entails indicators from the various areas such as: balances of assets and creditors and conditions of operations; how the account has been operated. The agreements in a loan, a market

prices and external requirements. According to Al-Tamimi and Al-Mazrooei (2007) Moral hazard of the borrowers must also be monitored to ensure that funds are directed to the intended use without diversions.

SACCOs need to learn the process of risk identification which is vital for managing effectively the risk. Credit risk need to be identified appropriately by the SACCO management. The steps in risk identification involves; identifying and prioritizing major risks approved by the committee, determine the degree of risk the management committee will be able to handle, determine the risks negative impact if not controlled in time and analyze the risk faced by the SACCO in liquidity, credit, strategic and operations and interest rate risk (CBK Sacco, 2016).

The study by Parrenas (2009) found that the owners and members of financial institutions demands financial information as their right to evaluate risk management efficiency levels. The reports provided by the principals enables the owners to determine the corporation status and risk exposure levels. Ahmad and Khan (2010) studied the practices in risk management and found that majority (82.4%) of the firms utilize policies and procedures in minimizing risks, 76% of the banks use internal control methods while the minority (69%) establish risk by measuring, mitigate and monitoring techniques. Al-Mazrooei (2014) study reported a significant differences in risk control and monitoring between foreign banks and the local banks in UAE. The study established that the commercial banks in UAE have an effective and efficient control and monitoring systems. The study found that monitoring and control systems has a positive effects on risk management practices.

A study by Muasya (2013) assessed relationship between loan losses and credit risk management. The target population was the 44 commercial banks in Kenya. The study utilized descriptive research design. The objective of the study was to establish the relationship between risk management practices and the loan losses. The findings indicate that majority of the commercial banks in Kenya utilized to a great extent the risk management practices method of measuring, monitoring, identifying and control. Information sharing amongst the banks was found to significantly contributing to reducing the risk exposure levels in the banks. The study concluded that in majority of the commercial banks the aspect of risk management practice is commonly practiced and the government legislation on information sharing act to credit risk management is appreciated by the management of most banks. The study found that there is a negative significant relationship between loan portfolio losses and credit risk management practices in Kenyan commercial banks.

2.3.2 Credit Approval and Performance of Loan Portfolios

Chilukuri and Rao (2015) conducted a study on appraisal and credit approval effectiveness and loan review in commercial banks. The study found that credit risk is the greatest risk faced by many commercial banks in the world. The study found that many banks face the uncertainty that some of its customers may fail to pay in the required time or may fail to pay at all, it is therefore the obligation of many banks to monitor and appraise each and every loan on a frequent basis to gauge the borrower's current and future ability to fulfill its interest and principal repayment. The study found that the loan review mechanism should aim at enabling improvement in terms of the unpaid interest and the level of non-performing loans in the books of account. The process of application, processing to disbursement must be smooth and predictable by many borrowers in the country. Banks facing high non-performing loans should intensify on loan recovery.

According to Iqbal and Mirakhor (2017) study, all the institutions studied had a policy on investment. The policy defined a group of allowable assets and limits in the commercial banks participation. The study found that majority of the financial institutions restrict majority of the activities by the treasury in employing change to their normal operations and in the attempt to change the bank lending rates in both the forward and cash market. The study found that some banks are unwilling to venture into in any derivative activity such as swaps caps, floor market, contracts and options in attempt to reduce unexpected surprises. Majority of the banks reported losses who ventured in the financial derivatives which in the current practice is considered different. The explanation of this was the variety of the franchises in the banking industry today. He study found that majority of the financial institutions see the activities regarding foreign exchange beyond the franchise agreements. Many of the banks therefore will opt out of the complicated instruments such as financial derivatives which a quite involving and complex.

Githinji (2010) conducted a study on the relationship between credit scoring practices by commercial banks and access to credit by small and medium enterprises. Data was collected from the owners of the small and medium enterprises through a questionnaire. Statistical package of social sciences was used to analyze data. Multiple regression analysis was used to determine the relationship amongst access of credit by SME and credit scoring. The study concluded that there is the relationship between access to credit and credit scoring by SMEs was found to be significant and strong. The study found that there are benefits associated with credit scoring among them is the accuracy in making decision. The accuracy is attributed to the adverse selection reduction which help in better assessment in regard to the application made by the

customers. The study recommended various approaches in credit assessment before and after giving loans to the customers.

Kwagara (2006) studied the credit risk management practices by microfinance firms in Kenya. The study indicated that majority of the firms have different separate departments capable of handling micro activities relating to credit. This indicated the growth of microcredit institutions in Kenya. The study also found that most micro institutions work with already determined targets which are monitored closely by the credit officers in various departments. Further the results indicated that majority of the institutions were highly concerned with a default of one customers and that the credit officers intensified the collection. This is an explanation of low default rate recorded by majority of microfinance institutions in Kenya. The study found that the preferred method in dealing with difficult to pay clients was to sale the asset or property used as collateral to recovery the outstanding amounts plus interests. The last method used is write off method which could be completely write off or partial write off.

2.3.3 Credit Risk Identification and Performance of Loan Portfolios

Risk identification is a process that reveals and determines the possible organizational risks as well as conditions, arising risks. By risk identification the organization is able to study activities and places where its resources are exposed to risks (Williams, 2016). Risk management first stage was risk identification which developed the basis for the second stage of control and analysis. The study found that risk identification ensures effective risk management. The study found that risk managers may not succeed in possible losses identification and this may become unmanageable in the long run and possible losses. Identification of risks can be described by the following basic elements: sources of risks; hazard factors; perils and exposures to risk.

AL-Tamini (2012) studied the commercial banks' practice on risk management in UAE. The findings presented that all the commercial banks were facing a major risk on credit. The study found that risk identification was mostly done by inspecting the financial statement by the branch managers on a weekly basis. Other techniques used by the branch managers were credit scoring, analysis of customer credit worthiness, collateral used, risk class and establishing standards. Further AL-Tamini and AL-Mazrooei (2017) explored the national and foreign commercial banks risk management practices in UAE. The findings indicated that foreign exchange risks, credit risk and operational risks greatly affect the banks greatly.

Studies by Haron and Hin Hock (2014) on risk identification effect on risk management indicated that risk identifications influences risk management practices positively and significant. The studied explained the need to control the credit risk, operation risk and that banks have a notion of displaced commercial risks. The study concluded that certain risk class are considered important in the conventional banking world. The study found that though the risk exposure may differ in both complex and conventional banks but the handling of the market risks and credit risks practices is similar to both.

Haneef (2012) investigated the effects of risk management on profitability and loan performance of commercial banks in Pakistan. The study collected secondary data from 5 commercial banks. The results indicated that risk management is complex decision and there is no better way to manage risk. The study concluded that due to the increase in the non-performing loans, it threatens the profitability of many banks in Pakistan. The study further concluded that management of risk entails; identification of risk, assessing, measuring, monitoring and control

of risk facing the commercial banks.

Gakure (2012) studied the effect of credit risk management practices on unsecured loans performance by commercial banks in Kenya. Target population was the top level managers, middle level managers and lower level managers. The findings indicated that performance of the non-secured loans are moderately affected by risk identification. The study found that branch managers' inspection greatly affects the performance of unsecured loans in Kenya. The study concluded that performance of unsecured loans is greatly affected by inspection by the branch manager while risk identification procedures moderately affects the non-secured loans moderately. The study found that measurement of risk greatly affects performance of loans, risk analysis and assessment also moderately affects the performance of unsecured loans to a great extent.

2.3.4 Credit Analysis and Performance of Loan Portfolio

Strutt (1993) defined risk analysis as concept containing seven phases; systematic assessment which entails questioning every part of the system, risk identification which involves both global and local risk identification, risk assessment which involves frequencies of risk occurrence and consequences. This involves various analysis such as establishing tolerance risk levels, risk evaluation, determining whether risk is at minimum tolerable levels and determine risk reduction measures.

A study by Sundararajan (2017) on risk assessment and measurement found that a risk mitigating methods and measurement methods maybe applicable differently in different environments and the activities matters from time to time. The study concludes that modern approaches to measurement of risk, and mainly for credit in financial institutions is recommended. The study

recommends the need to adopt modern risk measurement approaches especially in the financial institutions such as SACCOs since they face a combination of a multiple of risks.

Fuser (2015) study found that it essential to identify and classify different risks according to the possible damages. The study found that these will make possible for the managers to classify risks in accordance to the risks severity and class. Risks which may cause a slight damage may be ignored and priority given to much severe risks. The study found that there are negative and insignificant relationships between the amount expected from losses and the performance of the firms. Some of risks said to be causing high and unexpected damages are risks caused by fire, which seldomly occur or foreign exchange risks. This also calls for development of risk measures Drzik (2013). A survey by BAI management of risk survey indicated that big banks or banks in Tier I had made a great progress in the implementation and development of measures of risks. These measures are not only used for purposes of control of risk but also for measurement of performance and setting prices.

Gwenyi (2013) argued that risk analysis concept contains seven phases; systematic assessment which entails questioning every part of the system, risk identification which involves both global and local risk identification, risk assessment which involves frequencies of risk occurrence and consequences. This involves various analysis such as establishing tolerance risk levels, risk evaluation, determining whether risk is at minimum tolerable levels and determine risk reduction measures.

Mwithi (2010) assessed the relationship between the risk management practices on non-performing loans of the microfinance institutions in Nyeri County, Kenya. The findings indicated

that credit risk assessment level and management of risk was high in the microfinance institutions. The study also found that the management of risk is greatly affected by profitability and liquidity and that lack of uniform information in the market for loans influences NPLs effective management in the MFIs. The study found that lack of ability to enforce agreements causes the MFIs to have an increasing NPLs in Nyeri County. The study made a conclusion that there exist a negative correlation between credit risk management and non-performing loans level in the Microfinance institutions in Nyeri County.

A study by Negera (2012) studied the contributors of nonperforming loan in Ethiopia. The researcher conducted a survey on the professionals in both state owned banks and private banks. Data was collected using a questionnaire which were self-administered. The study collected data from reviewed documents, records and interviews from the senior management from the banks. The study presented that there was undeveloped culture on credit, poor method of credit assessment, credit terms which are unprofessional, lending aggressively, poor integrity, unfair competition, poor knowledge by defaulters, high default rate, weak capacity, loan fund diversion. The study left a gap in that it failed to show the relationship between size of the bank, rate of interest, ownership type and the performance of loans.

Ntiamoah, Egyiri, Fiaklou and Kwamega (2014) assessed the relationship between credit management practices and performance of loans in Ghana. Data was collected from 400 selected financial institutions in Accra Ghana. Quantitative and qualitative methods of analyzing data was used. The study adopted both qualitative and quantitative methods respectively. Questionnaire was used as the only tool of collecting the primary data and data collected from both non-management and management staff. The correlation results showed that the relationship between loan portfolio performances and credit risk management was significant.

2.4 Summary of Literature Review and Research Gaps

Table 2.1: Research Gaps

Table 2.1: Summary of Literature Review and Research Gap

Authors	Title	Methodology	Major Findings	Gaps Identified	Gap Filled
Parrenas (2015)	Effects of credit risk on performance of commercial banks	Descriptive analysis was used.	Financial institutions demands financial information as their right to evaluate risk management efficiency levels.	Only descriptive analysis was used, correlation and regression analysis was not presented.	Descriptive, inferential analysis and explanatory research design was used.
Al-Mazrooei (2014)	Risk control and monitoring between foreign banks and the local banks in UAE	Descriptive analysis was used.	Reported a significant differences in risk control and monitoring between foreign banks and the local banks in UAE	Cross country analysis was used	Local bank analysis was used in the current study.
Muasya (2013)	Assessed the relationship between loan losses and credit risk management	descriptive research design was used	Majority of the commercial banks in Kenya utilized to a great extent the risk management practices method of measuring, monitoring, identifying and control.	The conceptual gap identified was that the study concentrated on loan losses and credit risk	The current study filled the gap (conceptual gap) as it focused on performance of loan portfolio in commercial banks Kenya.
Chilukuri and Rao (2015)	Appraisal and credit approval effectiveness and loan review in Banks	Cross-sectional analysis was used	Credit risk is the greatest risk faced by many commercial banks	Cross country analysis was used and the findings may not be applicable in Kenyan banks	This study focused on local analysis hence the results was Kenyan specific

Iqbal and Mirakhor (2017)	Institutions policy on investment	Descriptive analysis	All the institutions studied had a policy on investment	The study dependent variable was investment	The current dependent variable of the study was loan portfolio
Githinji (2010)	Relationship between credit scoring practices by commercial banks and access to credit by small and medium enterprises	Descriptive and inferential analysis was used	There was significant relationship between variables	The study context was on access of loan by small and medium enterprises	This study focused on loan portfolio performance
Haron and Hin Hock (2014)	Risk identification effect on risk management	Descriptive was used	Risk identifications influences risk management practices positively and significant	Only Descriptive was used	Descriptive and inferential analysis were used
Haneef (2012)	Risk management on profitability and loan performance of commercial banks in Pakistan.	Descriptive was used	Risk management is complex decision and there is no better way to manage risk	The study was done in Pakistan	The current study was done in Kenya
Gakure (2012)	Effect of credit risk management practices on unsecured loans performance by commercial banks in Kenya	Descriptive and inferential analysis	The findings indicated that performance of the non-secured loans are moderately affected by risk identification.	The study concentrated on unsecured loans as the independent variable	The current study concentrated on loan portfolio performance
Sundarajan (2017)	Risk assessment and measurement in Commercial	Cross-sectional research design	Risk mitigating methods and measurement methods maybe applicable	A cross sectional research design was used	Descriptive and inferential research designs will be used

	banks		differently in different environments and the activities matters from time to time.		
Mwithi (2010)	Relationship between the risk management practices on non-performing loans of the microfinance institutions in Nyeri County, Kenya.	Descriptive research design	Indicated that credit risk assessment level and management of risk was high in the microfinance institutions	The study utilized only descriptive methods	Both descriptive and inferential statistics was used
Ntiamoa h, Egyiri, Fiaklou and Kwameg a (2014)	Relationship between credit management practices and performance of loans in Ghana	Descriptive Research design	The relationship between loan portfolio performances and credit risk management was significant.	The study was done in Ghana	The findings related to Kenyan Banks

Source: Researcher's Literature Review (2019)

2.5 Conceptual Framework

As a study by Sammy (2013) indicates that a conceptual framework represents a group of related variables that are arranged systematically with a focus to show relationship between variables. The credit risk management indicators and loan portfolio management indicators were presented in figure 2.1.

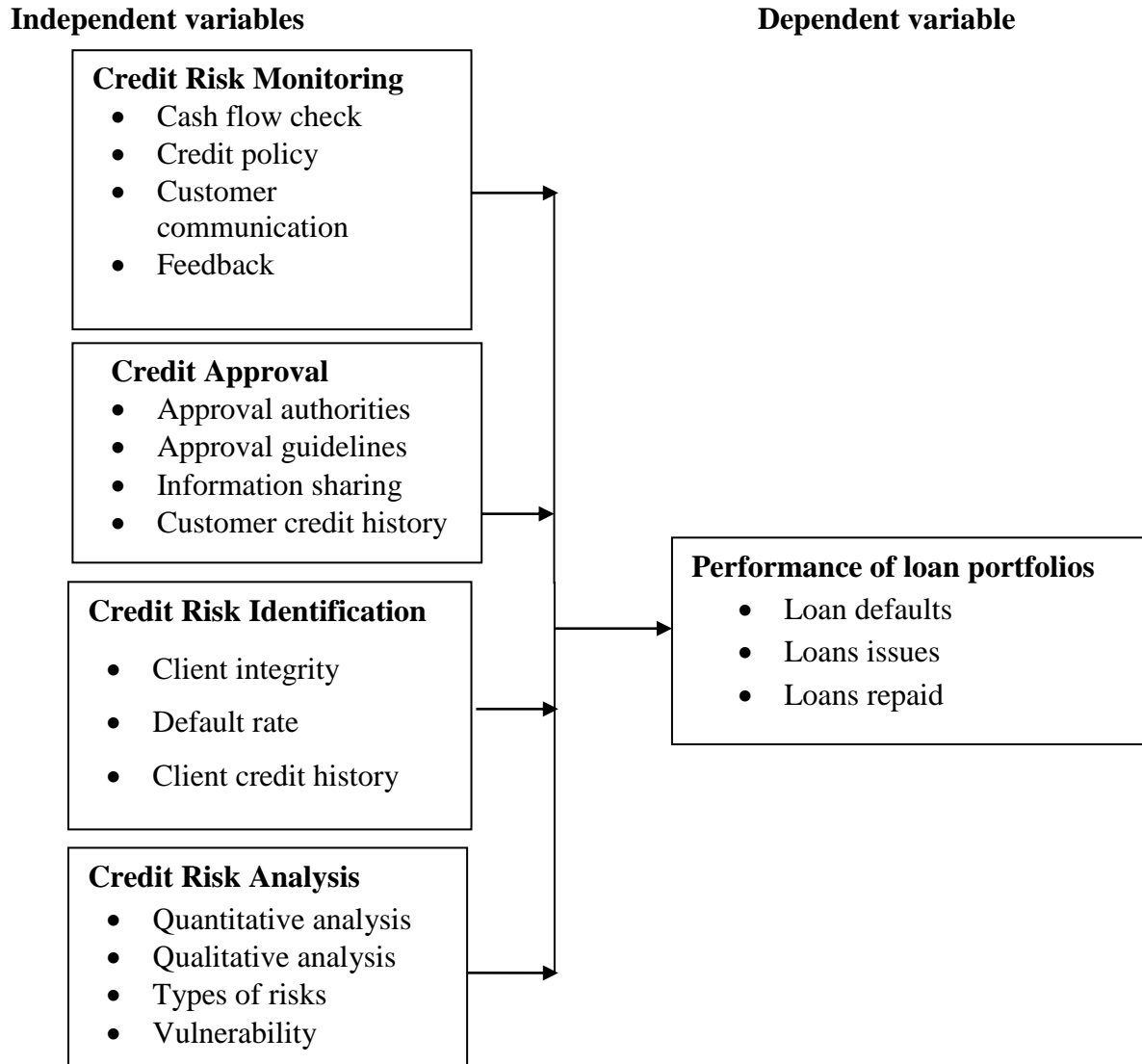


Figure 2.1: Conceptual Framework

Source: Researcher (2019)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter begins by addressing the research design of the study. It then goes ahead and discusses the population and sample size and procedures. Research procedures are also discussed. A method of pretesting was reviewed and finally discusses the methods of data collection and data analysis used

3.2 Research Design

The study used descriptive research approach. This research design was used because it provided a means to interpret the concept of credit risk management in the SACCOs in Kenya. It describes the phenomenon, attitudes and conditions under study through observation techniques and interpretation. The study was able to generalize the effects of credit management practices in SACCOs in Kenya on loan portfolio.

3.3 Target Population

A population consists of a set of individuals, elements, events, things, household that are being studied. The Savings and Credit Cooperative Societies licensed by SASRA as at 2017 December in Garissa County, Kenya. The target population was the 6 Deposit Taking SACCOs licensed by SASRA in the Garissa County (SASRA, 2017). Data was collected from 56 managers from the Deposit Taking SACCOs in Garissa County. Since the population was small and of manageable size a census was used. The researcher collected data from every element of the entire target population.

3.4 Data Collection Tools

The Study used semi-structured questionnaires to collect primary data from the respondents. A questionnaire is an instrument used carefully to capture data for analysis, and it allows the researcher to collect data guided by the objectives. The instruments are simple to answer, easy to administer and gives the respondents enough time to respond to the requirements thus reducing bias. The researcher preferred drop and pick later method which gave the respondents enough time to respond. The questionnaires were collected after 5 working days which gave the respondents enough time to answer the questions presented in the questionnaires.

3.5 Validity and Reliability of Research Instruments

3.5.1 Validity

It is the degree to which the data captured by the research instruments represents accurately the theoretical concepts and measurements required for the variables. According to Mugenda and Mugenda (2003) where validity has been established any inferences are sought from the data to check whether they are meaningful and accurate. Various sources of evidence is also used in this study. A pre-test was conducted at the Garissa County Youth Bunge SACCO which will not be included in the main study. This will enable refine the study questionnaire for the main research.

3.5.2 Reliability

To test reliability Cronbach's Alpha was used and the coefficient generated used to interpret the level of instruments reliability. The Cronbach Alpha will be based on internal consistency of the questionnaires. It measures the correlation and averages of units being measured. Reliability of the collected data was also verified through SPSS version 24. A rate above 0.7 was deemed acceptable in this study which is desirable state according to Hair *et al.*, (1998).

3.6 Data collection Procedures

Data collection is an important exercise to the researcher as it allows the communication of the data required for analysis. The data must be accurate and complete for it to be useful for interpretation and comparison. Questionnaires ensures success in the collection and communication of the required data for analysis. Drop and pick later method was used in the study.

3.7 Data Analysis and Presentation

Before the analysis, the completed questionnaires were edited to ensure consistency and completeness. Descriptive analysis was used to analyse quantitative data using SPSS version 22. Means, frequencies, standard deviation and percentages was used to analyse the descriptive data. The data was presented in graphs, pie charts, prose-form and bar chart. The data was computed to arrive at percentages, variations and response rate using SPSS to arrive at the study objectives thus enabling communication of findings. Qualitative data was analysed through the use of content analysis. A multiple regression analysis was used to present the relationship between variables. In addition, the study conducted regression analysis to show the relationship between variables.

The multiple regression model was used;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \alpha$$

Where Y is loan portfolio performance in Garissa County

β_0 is the constant of the model

$\beta_1, \beta_2, \beta_3$ and β_4 are the slopes of the regression equation,

X_1 =Credit Risk Monitoring

X_2 =Credit Approval

X_3 =Credit Risk Identification

X_4 =Credit Risk Analysis

α =

Error term

3.8 Ethical Considerations

The study obtained an informed consent from the participants. The study gave freedom of the respondents to willing respond to the required data. Those who felt uncomfortable not to participate were free to do so. The researcher did not require the name of the respondents indicated in the questionnaires to ensure confidentiality of the data collected and promised the information collected was only used for education purposes only. Necessary authorities from NARCOSTI and Kenyatta University was sought.

CHAPTER FOUR
DATA ANALYSIS AND PRESENTATION

4.1 Introduction

The chapter shows the analysed data and the interpretation of data presented in tables and charts. The study purposed to establish the influence of credit management on performance of loan portfolios among SACCOS in Garissa County, Kenya. Data was collected through a structured questionnaire. SPSS version 22 was used to code the data. Descriptive and inferential analysis were used to analyse qualitative data. Tables and figures were used to present data.

4.11 Study Response Rate

The population of the study was the licensed cooperative societies by SASRA operating in Garissa County as at December 2017.

Table 4.1: Response Rate

	Frequency	Percentage
Filled Questionnaire	44	78%
Unfilled Questionnaire	12	22%

Source: Field Data (2019)

The researcher issued 56 questionnaires and 44 of them were completed fully and availed to the researcher for analysis. A response rate of 78% was evidenced which according to Mugenda and Mugenda response rates above 50% is adequate for carrying out data analysis, above 60% is regarded as good response while a rate above 70% is a very good response. The was echoed by

Babbie (2010) who argued that a response above 70% is an excellent response and thus the current study response of 78% was excellent in analyzing and presenting the data.

4.2 Background Information

The Bio-data of the respondents was sought by the researcher which included the gender of the respondents, level of education, use of credit risk and years of being served by Sacco.

4.2.1 Gender of the Respondents

Gender of the responded were presented and interpreted in table 4.1.

Table 4.2 Gender of the Respondents

	Frequency	Percent
Male	25	56.8
Female	19	43.2
Total	44	100.0

Source: Field Data (2019)

As per the results in Table 4.2, above 56.8% of the respondents were male while 43.2% were female. The researcher therefore involved all the gender as it is consistence with the third gender rule as presented in the constitution of Kenya.

4.2.2 Age of the Respondents

The study determines the viability of the response by determining age of the respondents.

Respondent age were determine and presented in the subsequent Table 4.2

Table 4.3 Respondents Age

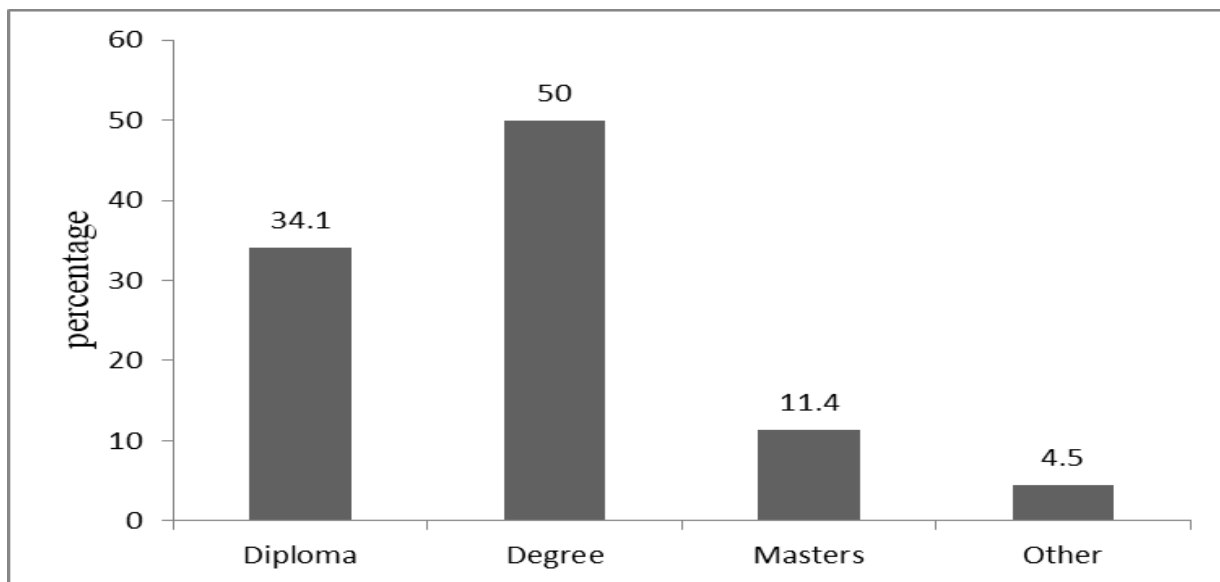
	Frequency	Percentage
25-34 years	3	6.8
35-44 years	11	25.0
45-54 years	12	27.3
55-64 years	8	18.2
65 years and above	10	22.7
Total	44	100.0

The study indicated that the age group between 45-54 years were the majority with 27.3% followed by 35-44 years with 25.0%, 65 years and above had 22.7%, 55-64 years with 18.2% and 25-34 years with 6.8%. The ages were considerably distributed in all age groups therefore the researcher concluded that the respondents valid because the respondent are distributed from youths to mature to know all the information needed for the case study.

4.2.3 Education Level

The study determines the viability of the response by determining Education Level of the respondents. Respondent education level were determine and presented in the subsequent Figure 4.1

Figure 4. 1: Education Level



Source: Field Data (2019)

The study indicated that degree level were the majority with 50%, followed by diploma with 34.1%, masters were 11.4% and lastly other with 4.5% (which many respondents stated to be PhDs)

4.2.4 Held Position In the SACCO

The researcher required the respondents to indicate the held position in the SACCO. The findings are shown in table 4.3.

Table 4.4 Position Held

	Frequency	Percent
Credit Manager	13	29.5
Branch Manager	16	36.4
Managing Director	14	31.8
Other	1	2.3
Total	44	100.0

The findings indicated that branch manager were the majority with 36.4% followed by managing director with 31.8%, credit manager with 29.5% and lastly other position with 2.3%.

4.2.5 Years of Service

The respondents were asked to indicate years they had been in the SACCO industry. The findings in Table 4.5

Table 4.1: Years of Service

	Frequency	Percent
1-5 years	6	13.6
6-10 years	9	20.5
11-15 years	11	25.0
16-20 years	15	34.1
21 years and above	3	6.8
Total	44	100.0

Source: Field Data (2019)

The findings indicated that between 16-20 years were the majority with 34.1% followed by 11-15 years with 25.0%, 6-10 years with 20.5%, 1-5 years with 13.6% and lastly above 21 years with 6.8%.

4.3 Descriptive Analysis

4.3.1 Credit Risk Identification and Loan Portfolio Performance

The respondents were asked to indicate the extent of credit risk identification and loan portfolio performance. The findings in Table 4.6

Table 4.2 Credit Risk Identification and Loan Portfolio Performance

	Mean	Std. Deviation
The SACCO identifies credit risks in time and mitigate them	3.4545	.99894
The SACCO engages both internal and external auditors to help identify, mitigate and manage credit risks	3.6818	.82892
The SACCO relies on customer credit history to identify credit risk	3.5227	1.43848
The SACCO relies on credit information sharing to identify credit risks among its clients	3.8409	.96311
The Sacco quantifies the organizations risk profile	3.9773	1.04522
The SACCO updates client financial records to help risk identification	3.4545	1.13002

Source: Field Data (2019)

The findings indicated that the SACCO identifies credit risks in time and mitigate them with a mean of 3.4545. This finding is consistent with Williams (2016) who identified that Risk identification is a process that reveals and determines the possible organizational risks as well as conditions, arising risks. By risk identification the organization is able to study activities and places where its resources are exposed to risks. The findings also identified that the SACCO engages both internal and external auditors to help identify, mitigate and manage credit risks with 3.681. This finding is consistent with Greene and Trieschmann, (2014) who found that the first stage of risk management was risk identification which develops the basis for the next step, analysis and control of risk management. Proper risk identification ensures risk management is done effectiveness. That risk managers may not succeed in possible losses identification and this may become unmanageable in the long run and possible losses.

The study indicated that The SACCO relies on customer credit history to identify credit risk with 3.5227. This finding is consistent with Al-Tamimi (2012) found that branch managers risk inspection being the commonly practiced method is facing lots of challenges. The findings

identified that the SACCO relies on credit information sharing to identify credit risks among its clients with a mean of 3.8409 .This finding is consistent with Al-Tamimi and Al-Mazrooei (2014) conducted on banks' risk management in UAE national and foreign banks. Their findings reveal that three most important types of risks encountered by UAE commercial banks are foreign exchange risk, followed by credit risk, then operating risk. The findings indicated that the Sacco quantifies the organizations risk profile with a mean of 3.9773. This finding is consistent with Haron et al Hock (2014) who explained the inherent risk; credit and market risk exposures in Banks.

Lastly the study indicated that the SACCO updates client financial records to help risk identification with a mean of 3.4545. This finding is consistent with Haneef (2012) investigated the impact of risk management on non-performing loan and profitability of banking sector of Pakistan. The result of this study revealed that there is no proper mechanism for risk management in banking sector of Pakistan in general. Study also concluded that non-performing loans are increasing due to lack of risk management which threatens the profitability of the majority of banks.

4.3.2 Credit Risk Analysis and Loan Portfolio

The researcher sought to determine the extent of credit risk identification and loan portfolio Management. The findings in Table 4.7

Table 4.3: Credit Risk Analysis and Loan Portfolio Management

	Mean	Std. Deviation
The SACCO analyses customer credit history regularly	3.5682	1.31887
There had been analysis of credit risk based on the SACCO credit policy	3.2273	1.49205
The SACCO uses client financial records to analyses credit risk	3.9545	1.03327
Our Sacco had been weighing and prioritizing risk events and clients	3.0682	1.20845
The SACCO had a risk analysis policy	3.8409	.96311
Scientific method is used to analyze the credit risk among its borrowers	3.1818	1.12628

Source: Field Data (2019)

The study indicated that the SACCO analyses customer credit history regularly with a mean of 3.5682. This finding is consistent with Strutt (1993) who defined risk analysis as concept containing seven phases; systematic assessment which entails questioning every part of the system, risk identification which involves both global and local risk identification, risk assessment which involves frequencies of risk occurrence and consequences. This involves various analysis such as establishing tolerance risk levels, risk evaluation, determining whether risk is at minimum tolerable levels and determine risk reduction measures.

The study established that there had been analysis of credit risk based on the SACCO credit policy with a mean of 3.2273. This finding concurred with Sundararajan, (2017) who found that a risk mitigating methods and measurement methods maybe applicable differently in different environments and the activities matters from time to time. The study also identified that the SACCO uses client financial records to analyses credit risk with a mean of 3.9545. This finding is consistent with Fuser (2015) who found that it is useful to classify the different risks according to the amount of damage they possibly nature.

The study indicated that respondents Sacco had been weighing and prioritizing risk events and

clients with a mean of 3.0682 .This finding is consistent with Drzik (2013) who identified that a survey by BAI management of risk survey indicated that big banks or banks in Tier I had made a great progress in the implementation and development of measures of risks. The study established that the SACCO had a risk analysis policy with a mean of 3.8409. It concurs with Gwenyi (2013) who gave Gwenyi (2013) argued that risk analysis concept contains seven phases; systematic assessment which entails questioning every part of the system, risk identification which involves both global and local risk identification, risk assessment which involves frequencies of risk occurrence and consequences. This involves various analysis such as establishing tolerance risk levels, risk evaluation, determining whether risk is at minimum tolerable levels and determine risk reduction measures.

Lastly the study indicated that scientific method was used to analyze the credit risk among its borrowers with a mean of 3.1818. This is consistent with Mwithi (2010) who sought the effects of credit risk management practices on non-performing loans of the microfinance institutions in Nyeri County, Kenya. The findings indicated that credit risk assessment level and management of risk was high in the microfinance institutions. The study also found that the management of risk is greatly affected by profitability and liquidity and that lack of uniform information in the market for loans influences NPLs effective management in the MFIs. The study found that lack of ability to enforce agreements causes the MFIs to have an increasing NPLs in Nyeri County. The study made a conclusion that there exist a negative correlation between credit risk management and non-performing loans level in the Microfinance institutions in Nyeri County.

4.3.3 Credit Risk Monitoring and Loan Portfolio

The study collected data on credit risk monitoring credit risk Monitoring and loan portfolio Management. The results were indicated in Table 4.8.

Table 4.8 Credit Risk Monitoring and Loan Portfolio Management

	Mean	Std. Deviation
The SACCO had a credit monitoring policy	3.2727	1.22690
The Sacco monitors cash flows of borrowers continuously	3.5455	1.43793
The Sacco had constant contact with borrowers	3.7500	.81054
The Sacco had response mechanisms for anticipated credit risks	3.0789	1.32301
The Sacco had mitigation strategies for anticipated losses	3.5909	1.04143
The Sacco reviews clients loan repayment patterns	3.7727	1.00842

Source: Field Data (2019)

The findings indicated that the SACCO had a credit monitoring policy with a mean of 3.2727. It concurs with Al-Tamimi and Al-Mazrooei, (2007) who indicated that Financial Position and Business Conditions; Conduct of Accounts. Loan Covenants; External Rating and Market Price. In addition to monitoring the above risk indicators, an institution should also monitor the use of funds to determine whether credit facilities are drawn down for their intended purposes. The findings also indicated that the Sacco monitors cash flows of borrowers continuously with a mean of 3.5455. This finding concurred with Parrenas (2009) who found that the owners and members of financial institutions demands financial information as their right to evaluate risk management efficiency levels. The reports provided by the principals enables the owners to determine the corporation status and risk exposure levels. The study identified that the Sacco had constant contact with borrowers with a mean of 3.7500. This finding is consistent with Khan and Ahmad (2010) studied the practices in risk management and found that majority (82.4%) of the firms utilize policies and procedures in minimizing risks, 76% of the banks use internal control

methods while the minority (69%) establish risk by measuring, mitigate and monitoring techniques. The finding established that the Sacco had response mechanisms for anticipated credit risks with a mean of 3.0789. This finding concurred with Al-Mazrooei (2014) study reported a significant differences in risk control and monitoring between foreign banks and the local banks in UAE. The study established that the commercial banks in UAE have an effective and efficient control and monitoring systems. The study found that monitoring and control systems has a positive effects on risk management practices.

The study also indicated that The Sacco reviews client's loan repayment patterns with a mean of 3.7727. This finding concurred with Muasya (2013) assessed relationship between loan losses and credit risk management. The target population was the 44 commercial banks in Kenya. The study utilized descriptive research design. The objective of the study was to establish the relationship between risk management practices and the loan losses. The findings indicate that majority of the commercial banks in Kenya utilized to a great extent the risk management practices method of measuring, monitoring, identifying and control.

4.3.4 Credit Approval and Loan Portfolio

The study investigated the level of credit approval and loan portfolio management. The findings were presented in the below table.

Table 4.4: Credit Approval and Loan Portfolio Management

	Mean	Std. Deviation
The SACCO engages both internal and external auditors to help identify, mitigate and manage credit risks	3.6818	.82892
The SACCO had a standard policy for credit approval	3.7273	1.14858
The firm had a laid down procedures for credit approval	3.5455	1.45402
There are selected credit approval authorities in the SACCO management	3.2500	1.31406
The Sacco ensures there are visits to the clients premises for their credit approval	3.5227	.97620
The Sacco had pre-set templates on maximum amount to loan on any class of loan	4.0000	1.03430
The Sacco credit approval guidelines are always followed by credit officers	3.5227	.97620
Credit analysis informs approval	3.0455	1.29318

Source: Field Data (2019)

The study indicated that the SACCO engages both internal and external auditors to help identify, mitigate and manage credit risks with a mean of 3.6818. This finding concurred with Chilukuri and Rao (2014) who conducted a study on effective appraisal system and credit approval. The study found that the biggest risk faced by commercial banks is the credit risk, which is associated with the uncertainty of loaners default to pay the amount borrowed. The study found that the obligation of bankers is to adopt the effective credit approval and appraisal mechanism while giving out the loans. The study also indicated that the SACCO had a standard policy for credit approval with a mean of 3.7273. This finding agrees with Iqbal and Mirakhor, (2017) who found that the financial institutions restrict majority of the activities by the treasury in employing change to their normal operations and in the attempt to change the bank lending rates in both the forward and cash market. The study found that some banks are unwilling to venture into in any derivative activity such as swaps caps, floor market, contracts and options in attempt to reduce unexpected surprises. Majority of the banks reported losses who ventured in the financial derivatives - In this area there is considerable difference in current practice. This can be explained by the different franchises that coexist in the banking industry. Most banking

institutions view activity in the foreign exchange market beyond their franchise. The study identified that the firm had a laid down procedures for credit approval with a mean of 3.5455.

This finding is consistent with Githinji (2010)) who conducted a study on the effects of credit scoring practices and access of credit by commercial banks in Kenya by small and medium enterprises. The relationship between access to credit and credit scoring by SMEs was found to be significant and strong. The study found that there are benefits associated with credit scoring among them is the accuracy in making decision. The accuracy is attributed to the adverse selection reduction which help in better assessment in regard to the application made by the customers.

The study established that there were selected credit approval authorities in the SACCO management with a mean of 3.2500. This findings concurs Kwagara (2006) study indicated that majority of the firms have different separate departments capable of handling micro activities relating to credit. This indicated the growth of microcredit institutions in Kenya. The study also found that most micro institutions work with already determined targets which are monitored closely by the credit officers in various departments

The study indicated that the Sacco ensures there were visits to the client's premises for their credit approval with a mean of 3.5227. The findings concurs with Kwagara (2006) who found majority of the institutions were highly concerned with a default of one customers and that the credit officers intensified the collection. This is an explanation of low default rate recorded by majority of microfinance institutions in Kenya. The study found that the preferred method in dealing with difficult to pay clients was to sale the asset or property used as collateral to recovery

the outstanding amounts plus interests. The last method used is write off method which could be completely write off or partial write off.

The study indicated that the Sacco had pre-set templates on maximum amount to loan on any class of loan with a mean of 4.0000. The study established that the credit approval guidelines are always followed by credit officers in the SACCO with a mean of 3.5227. This finding is consistent with Iqbal and Mirakhor (2017) who found all the institutions studied had a policy on investment. The policy defined a group of allowable assets and limits in the commercial banks participation. The study found that majority of the financial institutions restrict majority of the activities by the treasury in employing change to their normal operations and in the attempt to change the bank lending rates in both the forward and cash market. The study found that some banks are unwilling to venture into in any derivative activity such as swaps caps, floor market, contracts and options in attempt to reduce unexpected surprises.

The study also established that credit analysis informs approval with amen of 3.0455. This finding is consistent with Iqbal and Mirakhor (2017) who indicated that majority of the banks reported losses who ventured in the financial derivatives which in the current practice is considered different. The explanation of this was the variety of the franchises in the banking industry today. He study found that majority of the financial institutions see the activities regarding foreign exchange beyond the franchise agreements. Many of the banks therefore will opt out of the complicated instruments such as financial derivatives which a quite involving and complex.

4.4 Performance of Loan Portfolios among SACCOs

The study sought to indicate the Performance of Loan Portfolios among SACCOs. The finding in Table 4.

Table 4.5: Performance of Loan Portfolios among SACCOs

	Mean	Std. Deviation
There had been an increase in profitability of the SACCO with diligent credit risk management	3.3864	1.22410
The loan default rate had reduced with solid credit risk management in the SACCO	3.5455	.99894
The SACCO detects, mitigates and manages credit risk in time	3.6818	1.21565
There is sufficient financial information available for the SACCO	3.5682	.99762
The organization had experienced an improvement in customer satisfaction	3.0000	1.14119
The volume of loans extended to clients had increased	3.4545	1.37172

Source: Field Data (2019)

The findings indicated that there had been an increase in profitability of the SACCO with diligent credit risk management with a mean of 3.3864. This study findings agrees with Negera (2012) who studied the contributors of nonperforming loan in Ethiopia. The researcher conducted a survey on the professionals in both state owned banks and private banks. Data was collected using a questionnaire which were self-administered. The study collected data from reviewed documents, records and interviews from the senior management from the banks The study presented that there was undeveloped culture on credit, poor method of credit assessment, credit terms which are unprofessional, lending aggressively, poor integrity, unfair competition, poor knowledge by defaulters, high default rate, weak capacity, loan fund diversion. The finding had also indicated that the loan default rate had reduced with solid credit risk management in the SACCO with a mean of 3.5455. This finding concurred with Mwithi (2010) sought determine the effects of credit risk management practices on non-performing loans of the microfinance institutions in Nyeri County, Kenya. The findings indicated that credit risk assessment level and

management of risk was high in the microfinance institutions. The study also found that the management of risk is greatly affected by profitability and liquidity and that lack of uniform information in the market for loans influences NPLs effective management in the MFIs. The study found that lack of ability to enforce agreements causes the MFIs to have an increasing NPLs in Nyeri County. The study made a conclusion that there exist a negative correlation between credit risk management and non-performing loans level in the Microfinance institutions in Nyeri County.

The study established that the SACCO detects, mitigates and manages credit risk in time with a mean of 3.6818. The study indicated that there is sufficient financial information available for the SACCO with a mean with 3.5682. This finding is consistent with Ntiamoah (2014) who indicated that indicated that there was high positive correlation between the credit terms and policy, lending, credit analysis and appraisal, and credit risk control and loan performance. The study had also indicated that the organization had experienced an improvement in customer satisfaction with a mean of 3.0000. The study established that the volume of loans extended to clients had increased with a mean of 3.4545. This finding is consistent with Kwagara (2006) on credit risk management practices by microfinance firms in Kenya. The study indicated that majority of the firms have different separate departments capable of handling micro activities relating to credit. This indicated the growth of microcredit institutions in Kenya. The study also found that most micro institutions work with already determined targets which are monitored closely by the credit officers in various departments

4.5 Inferential Analysis

4.5.1 Correlation Analysis

The study sought to determine whether there exist any autocorrelation between variables. Autocorrelation is the level of similarity between variables or that values of the same variable is based on related objects. A significant value of 0.8 or more indicates a possibility of autocorrelation.

Table 4.11 Correlation Co-efficient

		Correlations				
		Loan Portfolio	Credit Approval	Risk Monitoring	Risk Analysis	Risk Identification
Loan Portfolio	Pearson Correlation	1	-.107	.111	-.067	.038
	Sig. (2-tailed)		.359	.341	.567	.746
	N	44	44	44	44	44
Credit Approval	Pearson Correlation	-.107	1	.104	.066	-.182
	Sig. (2-tailed)	.359		.371	.570	.116
	N	44	44	44	44	44
Risk Monitoring	Pearson Correlation	.111	.104	1	.048	.104
	Sig. (2-tailed)	.341	.371		.679	.372
	N	44	44	44	44	44
Risk Analysis	Pearson Correlation	-.067	.066	.048	1	.127
	Sig. (2-tailed)	.567	.570	.679		.276
	N	44	44	44	44	44
Risk Identification	Pearson Correlation	.038	-.182	.104	.127	1
	Sig. (2-tailed)	.746	.116	.372	.276	
	N	44	44	44	44	44

Source: Field Data (2019)

The findings in table 4.11 shows no possibility of autocorrelation since all significant values are less than 0.8. The highest significant value is presented between performance of loan portfolio and risk identification (0.746).

4.6 Multiple Regression Analysis

The multiple regression co-efficient indicated how independent variables affected the dependent variable. The main objective of the study was to establish the influence of credit management on performance of loan portfolios among SACCOS in Garissa County, Kenya. The result in Table4

Credit Risk Monitoring

X₂ = Credit Approval

X₃ = Credit Risk Identification

X₄ = Credit Risk Analysis

Table 4. 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.835 ^a	.698	.646	1.95835

Source: Field Data (2019)

Findings in Table 4.14 indicates the model of fit. It shows whether the model is fit to predict the results. The adjusted R² was used to determine the extent to which the independent variables affects the dependent variables. A score of 64.6% indicated that changes in performance of loan portfolios was explained by credit Approval, credit risk Identification, credit risk analysis and credit risk analysis leaving 35.6% unexplained.

Table 4.7: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	215.246	4	53.812	28.891	.000 ^b
Residual	93.129	40	1.8626		
Total	308.375	30			

a. Dependent Variable: Performance of loan portfolios among SACCOS

b. Predictors: (Constant), credit Approval, credit risk Identification, credit risk analysis and credit risk analysis

The probability value of 0.000 indicates that the regression relationship was highly significant in predicting credit approval, credit risk identification, credit risk analysis and credit risk analysis influenced performance of loan portfolios among SACCOS. The F calculated at 5 percent level

of significance was 28.891 since F calculated is greater than the F critical (value = 2.6060), this shows that the overall model was significant.

Table 4.8: Regression Coefficients^a

	Unstandardized Coefficients		Standardized	t	Sig.
	B	Std. Error	Coefficients		
(Constant)	6.729	2.158		3.118	.000
Credit Risk Monitoring	.230	.077	.184	2.985	.004
Credit Approval	.255	.092	.238	2.784	.003
Credit Risk Identification	.736	.230	.707	3.201	.008
Credit Risk Analysis	.461	.124	.312	3.708	.001

The established model for the study was:

$$Y = 6.729 + 0.230X_1 + 0.255X_2 + 0.736X_3 + 0.461X_4$$

The regression equation above had established that taking all factors into account (credit risk monitoring, credit approval, credit risk identification, credit risk analysis and credit risk analysis), performance of loan portfolios among SACCOs was 6.729. The study also found that one unit change of credit risk monitoring would lead to a 0.230 increase Performance of loan portfolios among SACCOs. The variable was significant since P value $0.004 < 0.05$. Further the study found that a unit increase in credit approval would lead to a 0.255 unit increase Performance of loan portfolios among SACCOs. The variable was significant since P value $0.003 < 0.05$. Further, the findings showed that a unit increases in credit risk identification lead to a 0.736 unit increase performance of loan portfolios among SACCOs. The variable was significant since P value $0.008 < 0.05$. Further, the findings showed that one unit increase of credit risk analysis would lead to a 0.461 unit increase in performance of loan portfolios among SACCOs. The variable was significant since P value $0.001 < 0.05$. The study established that there was a significant positive relationship between credit approval, credit risk identification, credit risk analysis and credit risk analysis and performance of loan portfolios among SACCOs.

The study concurs with Ntiamoah, Egyiri, Fiaklou and Kwamega (2014) study on relationship between credit management practices and performance of loans in Ghana. The correlation results showed that the relationship between credit approval and loan performance was significant. The correlation results showed that the relationship between credit risk identification was positive and significant. The correlation results showed that the relationship between credit risk analyses was positive and significant.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This section of the chapter presented a summary of major findings, conclusions based on the objectives and recommendations based on the conclusions made.

5.2 Summary of Findings

The study aimed to determine the effects of Credit risk monitoring on performance the loan portfolios of SACCO's in Garissa County, Kenya. The first objective of the study was to establish the effect of credit monitoring on performance of loan portfolio. The study found that the SACCO had a credit monitoring policy. The study also found that the Sacco monitors cash flows of borrowers continuously. The study identified that the Sacco had constant contact with borrowers. The study also found that the Sacco had response mechanisms for anticipated credit risks. The study identified that that the Sacco had mitigation strategies for anticipated losses. The study also indicated that the Sacco reviews client's loan repayment patterns.

The second objective of the study was to establish the effects of credit approval on performance of loan portfolio. The study found that the SACCO engages both internal and external auditors to help identify, mitigate and manage credit risks. The study also found out that the SACCO had a standard policy for credit approval. The study identified the firm had a laid down procedures for credit approval. The study also found that there were selected credit approval authorities in the SACCO management. The study identified that the Sacco had pre-set templates on maximum amount to loan on any class of loan. Lastly the study identified that that the credit approval guidelines are always followed by credit officers in the SACCO

The third specific objective was to establish the effects of credit risk identification on performance of loan portfolios of SACCO's in Garissa County, Kenya. The study found that the SACCO identifies credit risks in time and mitigate. The study also found out that the SACCO engages both internal and external auditors to help identify, mitigate and manage credit risks. The study identified that the SACCO relies on credit information sharing to identify credit risks among its clients. The study also identified that the Sacco quantifies the organizations risk profile. The study established that the SACCO updates client financial records to help risk identification.

The fourth specific objective of the study was to assess the effect of Credit risk analysis on performance of loan portfolios of SACCO's in Garissa County, Kenya. The study found that the SACCO analyses customer credit history regularly. The study also found out that there had been analysis of credit risk based on the SACCO credit policy. The study also indicated that the SACCO uses client financial records to analyses credit risk. The study identified that that respondents Sacco had been weighing and prioritizing risk events and clients. The study established that the SACCO had a risk analysis policy. Lastly the study identified that scientific method was used to analyze the credit risk among its borrowers.

5.3 Conclusion

Based on the findings on the effects of Credit risk monitoring on performance the loan portfolios of SACCO's in Garissa County, Kenya. The study concluded that the SACCO had a credit monitoring policy. The study also concluded that that the Sacco monitors cash flows of borrowers continuously. It also concluded that Sacco had constant contact with borrowers. The study concluded that Sacco had response mechanisms for anticipated credit risks. It also

concluded that Sacco had mitigation strategies for anticipated losses. The study lastly concluded that the Sacco reviews client's loan repayment patterns.

From the findings on the effect of credit approval on performance of loan portfolios among SACCO's in Garissa County, Kenya, the study concluded that SACCO engages both internal and external auditors to help identify, mitigate and manage credit risks. It also concluded that the SACCO had a standard policy for credit approval. The study concluded that the firm had a laid down procedures for credit approval. The study also concluded that there were selected credit approval authorities in the SACCO management. The study also concluded that the Sacco had pre-set templates on maximum amount to loan on any class of loan. Lastly the study concluded that the credit approval guidelines are always followed by credit officers in the SACCO.

Based on the findings on the effects of credit risk identification on performance of loan portfolios of SACCO's in Garissa County, Kenya, the study concluded that SACCO identifies credit risks in time and mitigate. The study also concluded that the SACCO engages both internal and external auditors to help identify, mitigate and manage credit risks. The study also concluded that SACCO relied on credit information sharing to identify credit risks among its clients. The study also concluded that the Sacco quantifies the organizations risk profile, lastly the study concluded that SACCO updates client financial records to help risk identification.

Based on the findings on the effect of Credit risk analysis on performance of loan portfolios of SACCO's in Garissa County, Kenya, the study concluded that SACCO analyses customer credit history regularly. The study also concluded that there had been analysis of credit risk based on the SACCO credit policy. The study concluded that that the SACCO uses client financial records

to analyses credit risk. The study concluded that that respondents Sacco had been weighing and prioritizing risk events and clients. The study lastly concluded that scientific method was used to analyze the credit risk among its borrowers.

5.4 Recommendations of the Study

Based on the conclusion on the effects of credit risk monitoring on performance the loan portfolios of SACCO's in Garissa County, Kenya. The study recommended that all Sacco's should create credit risk monitoring on performance the loan portfolios as this will enable Sacco to monitors cash flows of borrowers. It would also help Sacco to be in contact with borrowers to identify and get quarries from them

Based on the conclusions on the effect of credit approval on performance of loan portfolios among SACCO's in Garissa County, Kenya, the study recommended that all Sacco's should reduce credit loan approval time as this would enhance both internal and external auditors to help identify, mitigate and manage credit risks. The studies recommend that the government to formulate policies which facilitate growth of Sacco's to increase their market values

5.5 Suggestions for Further Studies

The current study was limited to national police service in Garissa County, Kenya, future studies should sample out on a large population to increase scope. Regression results indicated that 64.6% of the variations on the performance of loan portfolios among SACCOs were explained by credit Approval, credit risk Identification, credit risk analysis and credit risk analysis leaving 35.6% unexplained. Future studies should therefore be done to assess these other factors.

REFERENCES

- Akperan, J. (2005). Bank Regulation, Risk Assets and Income of Banks in Nigeria (Online)
Available at: <http://www.ndic-ng.com/pdf/adam.pdf> (Accessed 08 March 2010).
- Alexandra, F. (2006). Effect of wholesale lending to SACCOs in Uganda. Retrieved from
www.LSBF.org.uk/Finance.
- Basel, (1999). *Principles for the Management of Credit Risk*. Basel Committee on Banking
Supervision, Basel
- Bosek, J. C. (2016). *Credit risk evaluation systems and non-performing loans among SACCOs in
Bomet county, Kenya* (doctoral dissertation, department of finance and accounting in
partial fulfillment of the requirements for the award of the degree of master of business
administration (MBA), University of Nairobi)
- Cheron, E.J., Boidin H. &Daghfous, N. (1999), Basic financial services of low income
individuals comparative study in Canada. *International journal of Bank Marketing*, 17(2),
49-64.
- Chilukuri, S., &Rao, K. S. (2015). Effective Credit Approval and Appraisal System: Loan
Review Mechanism of Commercial Banks. *International Journal of Innovative Research
and Development*// ISSN 2278–0211, 3(12).
- Chipembere. (2009). Unlocking funding opportunities for farmers through grass root SACCOs.
Available from: www.snvworld.org/en/document/mz
- Focus Group, 2007. Credit Risk Management Industry Best Practices. Available at:
<http://www.bangladeshbank.org/mediaroom/core risks/creditrisk.pdf> (Accessed 02 Oct
2012).

- Githinji, M. W. (2010). *The relationship between credit scoring practices by commercial banks and access to credit by small and medium enterprises in Kenya* (Doctoral dissertation, University of Nairobi, Kenya).
- Higgins, P (1999) Hyper competitive can lead to poor credit assessment Australian banking and finance.
- Honohan, P., & Beck, T. (2007). *Making finance work for Africa*. World Bank Publications.
- Kwagara, M. P. (2006). *An assessment of credit risk management techniques adopted by micro-finance institutions in Kenya* (Doctoral dissertation, University of Nairobi.).
- Kwamega, M., BrakoNtiamoah, E., OforiwaaEgyiri, P., &Fiaklou, D. (2015).Impact of Customer Service Practices on Customer Satisfaction and Retention.*International Journal of Management and Business Research*, 5(1), 43-52.
- Markowitz, H. M (1952) Portfolio Selection. *Journal of Finance*, Vol 7 no1.
- Mugenda, O. &Mugenda A. (2003); *Research methods: Quantitative and Qualitative approaches*.
- Mwisho, A. M. (2001) “Basic lending conditions and procedures in commercial banks “The Accountants, Vol.13 NO.3, pp.16-19
- Naceur, S. B., &Goaied, M. (2003, December). The Determinants of Bank Interest Margin and Profitability: Evidence from Tunisia. In *10th Conference of Economic Research Forum, World Bank, Marrakech* (pp. 16-19).
- Nigerian Microfinance system, Nigeria. Retrieved from www.csae.ox.ac.uk/conferences, on July, 2013
- Njoku, J. E. (1997), Determinants of loan repayment under special emergency loan scheme in Niger. *African review of money finance and banking*.

- Ogilo, F. (2011). *Impact of credit Risk Management on Financial Performance of Commercial Banks in Kenya*. Unpublished Phd Thesis.
- Olomola, S. Ade. (2000). *Determinants of small holder loan repayment, performance, Evidence, Nigerian Microfinance system*, Nigeria.
- Osoti, R. N. (2014). Effect of the growth of savings and credit co-operative societies' front office services activity on demand for credit by members.
- Owira, O. P. (2011). The determinants of financial Risks faced by SACCOs in Kenya. *Unpublished MBA proposal, University of Nairobi*.
- Owusu, K. D. (2008). Credit management policies in Rural banks in Accra Ghana.
- Reilly, F. K. & Brown, K. C.(2011). *Investment Analysis and Portfolio Management*. Australia: South-Western.
- Santomero, A. M. (1997). *Commercial Bank Risk Management: An Analysis of the Process*. A paper presented at Wharton Financial Institution Centre Conference on Risk Management in Banking.
- Sproul, (1998). The Quantity Theory Versus the Real Bills Doctrine in Colonial America. In *Economics Working Papers*.
- Uchendu, O. (2009). Monetary Policy Management in Nigeria in the Context of Uncertainty. Available at: <http://www.naijalowa.com/wp-content/uploads/2009/08/Monetary-Policy-Management-in-Nigeria-in-thecontext-of-uncertainty.pdf> (Accessed 08 Oct 2012).

APPENDICES

APPENDIX I: RESEARCH QUESTIONNAIRE

SECTION A. GENERAL INFORMATION

PART A: GENERAL INFORMATION

- 1. Gender Male () Female ()

- 2. Age bracket
25-34 years 35-44 years 45-54 years
55-64 years 65 years and above

- 3. What is your highest academic qualification?
Diploma Degree Masters
Other (specify).....

- 4. What is your current designation within the SACCO?
Credit Manager Branch Manager
Managing Director Other (specify).....

- 5. Do you have a credit risk department in the deposit taking SACCO?
Yes () No ()

- 6. How many years have you been in the SACCO industry?
1-5 years 6-10 years 11-15 years 16-20 years
21 years and above

SECTION B. CREDIT RISK IDENTIFICATION AND LOAN PORTFOLIO

PERFORMANCE

- 7. Please rate the following aspects on credit risk identification in your SACCO on a Likert Scale of 1-5 where 5) strongly Agree 4) Agree 3) Neutral 2) Disagree 1) strongly disagree.

Statement	1	2	3	4	5
The SACCO identifies credit risks in time and mitigate them					
The SACCO engages both internal and external auditors to help identify, mitigate and manage credit risks					
The SACCO relies on customer credit history to identify credit risk					
The SACCO relies on credit information sharing to identify credit risks among its clients					
The Sacco quantifies the organizations risk profile					
The SACCO updates client financial records to help risk identification					

SECTION C. CREDIT RISK ANALYSIS AND LOAN PORTFOLIO MANAGEMENT

9. Use the following scale to rate your level of agreement with the following propositions on risk analysis in your SACCO where 5) strongly Agree 4) Agree 3) Neutral 2) Disagree 1) strongly disagree

Statement	1	2	3	4	5
The SACCO analyses customer credit history regularly					
There had been analysis of credit risk based on the SACCO credit policy					
The SACCO uses client financial records to analyses credit risk					
Our Sacco had been weighing and prioritizing risk events and clients					
The SACCO had a risk analysis policy					
Scientific method is used to analyze the credit risk among its borrowers					

SECTION D. CREDIT RISK MONITORING AND LOAN PORTFOLIO PERFORMANCE

11. Please rate the following aspects on credit risk monitoring in your SACCO on a Likert Scale of 1-5 where 5) strongly Agree 4) Agree 3) Neutral 2) Disagree 1) strongly disagree.

Statement	1	2	3	4	5
The SACCO had a credit monitoring policy					
The Sacco monitors cash flows of borrowers continuously					
The Sacco had constant contact with borrowers					
The Sacco had response mechanisms for anticipated credit risks					
The Sacco had mitigation strategies for anticipated losses					
The Sacco reviews clients loan repayment patterns					

SECTION E. CREDIT APPROVAL AND LOAN PORTFOLIO MANAGEMENT

12. Please rate the following aspects on credit approval in your SACCO on a Likert Scale of 1-5 where 5) strongly Agree 4) Agree 3) Neutral 2) Disagree 1) strongly disagree.

Statement	1	2	3	4	5
The SACCO had a standard policy for credit approval					
The firm had a laid down procedures for credit approval					
There are selected credit approval authorities in the SACCO management					
The Sacco ensures there are visits to the clients premises for their credit approval					
The Sacco had pre-set templates on maximum amount to loan on any class of loan					

SECTION F: PERFORMANCE OF LOAN PORTFOLIOS AMONG SACCOs

13. Please rate the following aspects on loan portfolio performance in your SACCO on a Likert Scale of 1-5 where 5) strongly Agree 4) Agree 3) Neutral 2) Disagree 1) strongly disagree.

	Statement	5	4	3	2	1
1	There had been an increase in profitability of the SACCO with diligent credit risk management					
2	The loan default rate had reduced with solid credit risk management in the SACCO					
3	The SACCO detects, mitigates and manages credit risk in time					
4	There is sufficient financial information available for the SACCO					
5	The organization had experienced an improvement in customer satisfaction					
6	The volume of loans extended to clients had increased					

APPENDIX II: SACCOs IN GARISSA COUNTY

S/N	SACCO
1.	BEE KEEPING SACCO
2.	BURA CONSUMER SACCO
3.	GAMAMA SACCO
4.	GARISSA BUTCHERS SACCO
5.	GARISSA CAMEL MILK MARKET SOCIETY
6.	GARISSA COFFEE SACCO
7.	GARISSA DAIRY FARMERS SACCO
8.	GARISSA FARMERS SACCO
9.	GARISSA LIVESTOCK KEEPERS SACCO
10.	GARISSA LIVESTOCK PRODUCT USERS SACCO
11.	GARISSA NORTH WOMEN SACCO
12.	GARISSA TEACHERS SACCO
13.	GARISSA YOUTH BUNGE SACCO
14.	GARRISA UNIVERSITY SACCO
15.	HARAMBEE SACCO
16.	HORMAR TUKTUK SACCO
17.	IJARA TUKTUK SACCO
18.	MOTOVEHICLE SACCO
19.	MUHUMEDDAHIR WOMEN SACCO
20.	SAKA WATER SACCO
21.	SHIRIKA SACCO
22.	TAQWA SACCO
23.	TOMAKAL HUDUMA SACCO
24.	UNITED GARISSA BODABODA SACCO

APPENDIX III: AUTHORIZATION TO COLLECT DATA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349,3310571,2219420
Fax: +254-20-318245,318249
Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Wanyuki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/19/51928/26634**

Date **15th January, 2019**

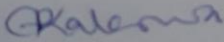
Ismail Abdullahi Buro
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Credit Risk Management and performance of loan portfolios of Savings and Credit Cooperative Societies in Garissa County, Kenya*" I am pleased to inform you that you have been authorized to undertake research in **Garissa County** for the period ending **15th January, 2020**.

You are advised to report to **the County Commissioner and the County Director of Education, Garissa County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a **copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.


GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Garissa County.

The County Director of Education
Garissa County.



KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: D53/OL/GAR/32373/2016

DATE: 29th October, 2018

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

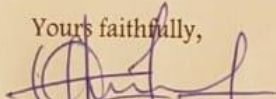
RE: RESEARCH AUTHORIZATION FOR ISMAIL ABDULLAHI BURO – REG. NO. D53/
OL/GAR/32373/2016

I write to introduce Mr. Ismail Abdullahi Buro who is a Postgraduate Student of this University. He is registered for MBA degree programme in the Department of Accounting & Finance.

Mr. Buro intends to conduct research for a MBA Project Proposal entitled, “Credit Risk Management and Performance of Loan Portfolios of Savings and Credit Cooperative Societies in Garissa County, Kenya”.

Any assistance given will be highly appreciated.

Yours faithfully,


PROF. PAUL OKEMO
DEAN, GRADUATE SCHOOL

HI/rn



KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 4150

Internal Memo

FROM: Dean, Graduate School

DATE: 29th October, 2018

TO: Ismail Abdullahi Buro
C/o Accounting & Finance Dept.

REF: D53/OL/GAR/32373/2016

SUBJECT: APPROVAL OF RESEARCH PROJECT PROPOSAL

We acknowledge receipt of your revised Project Proposal as per our recommendations raised by the Graduate School Board at its meeting of 11th October, 2018, Entitled, "Credit Risk Management and Performance of Loan Portfolios of Savings and Credit Cooperative Societies in Garissa County, Kenya".

You may now proceed with your Data Collection, Subject to Clearance with Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking Forms per semester. The form has been developed to replace the Progress Report Forms. The Supervision Tracking Forms are available at the University's Website under Graduate School webpage downloads.

Thank you.

HARRIET ISABOKE
FOR: DEAN, GRADUATE SCHOOL

C.c. Chairman, Department of Accounting and Finance

Supervisors:

1. Dr. Jeremiah Koori
C/o Department of Accounting and Finance
Kenyatta University

HI/nn