EFFECT OF CREDIT RISK MANAGEMENT PRACTICE ON FINANCIAL PERFORMANCE OF DEPOSIT TAKING SAVINGS AND CREDIT COOPRATIVES IN MOMBASA COUNTY, KENYA

LORNA NYAKERARIO RIASI

A Research Project Presented on Partial Fulfillment of the Requirement of an Award of Degree of Masters in Business Administration at the University of Nairobi

2018

DECLARATION

This research project proposal is my original work and has not been presented for a degree at any other University.

Signed………………………………….   Date……………………………..

Lorna Nyakerario Riasi

D61/82713/2015

This research project proposal has been presented for an examination, with my approval as a University supervisor

Dr. Onesmus Mutunga

Department for finance and accounting

Signed…………………………………………….. Date…………………………

DEDICATION

This work is dedicated to my father Riasi, for continuous encouragement throughout my study.

To my husband Robin, children Brenda, Teddy, Polycarp and Hope.

ACKNOWLEDGEMENT

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS AND ACRONYMS

DT- SACCOs :   Deposit taking saving and credit cooperatives

NPLs: Non-performing loans

SACCOs: Savings and Credit Cooperatives

SPSS: Statistical package for social scientist

ROA: Return on assets

SASRA: Saving and credit cooperatives society regulatory Authority

ABSTRACT

This study was conducted to find out the connection in credit risk management practice and financial performance of Sacco's in Mombasa County, Kenya. The main objective was to find out the effect of credit risk management practice in financial performance of deposit taking Sacco's. The research design which was used for this study was descriptive design. Research was based on 18 Sacco's in Mombasa County whose performance was analyzed for a period of two years from 2014 to 2015. Information for this study was ancillary data collected from Sacco's and regulator websites. Data was obtained from financial statements of the Sacco's and was explored using multiple regression analysis, to establish the effect of credit risk management practice in financial performance of Sacco's. Data was evaluated using descriptive statistics by Microsoft excel and SPSS. It was noted that, there was a positive correlation among credit risk management practice and financial performance. The four independent variables had positive coefficient indicating that an increase in credit policy, credit appraisal, monitoring and restrictive covenant and credit collateral and agreement result to increase in financial performance. This study recommends that, Sacco's should commit resources in credit policy since it has shown that it is affecting the financial performance positively. The study also recommend that the Sacco's should devote on credit appraisal by knowing their buyer. Monitoring and restrictive covenants and credit collateral agreements in the study is evidenced that the Sacco's should evaluate the capacity of their client to pay back the obligations when it falls due. Further, the study recommends that SASRA should offer an atmosphere where the Sacco processes are not hampered with. For example, Central Bank should ensure steadiness of interest rates so as to encourage lending.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Credit risk means, a loss arising from a member being unable to honor his /her debt obligations when due (Coyle, 2000). It is the probability that a counterparty or borrower will default payment. Credit risk management entails review of the specific and policy measures for establishing and developing an adequate management system with a full understanding of the type, scope and it involves control, monitoring, and assessment regarding credit risk. Sacco's are owned, run and managed by members who have a common goal. Empowering the poor through utilization of limited resource by the poor led to the formation of SACCOs. Credit risk management means overseeing Sacco's peril accustomed rate of return by retaining credit risk unmasking within acceptable parameters. There are 12,000 registered Cooperative society of which 5,000 and Sacco's. A report by Sacco society regulatory authority (SASRA 2017) describes credit risk as the likelihood that an outstanding loan will either be wholly or partially lost due to default risks. How well a firm uses its assets to create income from its primary approach of business refers to financial performance which results in measurement of condition of the organization. Some common indicators of financial performance are; operating cash flow, working capital, current ratio and debt to equity ratio among others. To improve the sustainability of organization financial performance guides management on the strategies and policies (Almazari, 2011).

The study was anchored on two theories. Asymmetric information theory and modern portfolio theory. Asymmetric information theory postulates that it's difficult to distinguish bad from good borrowers (Auronen, 2003) and thus moral hazard and adverse selection problems. Adverse

selection arises due to lack of perfect information on the borrower, higher interest rates attracts individuals with highly risky projects. Modern portfolio theory (Markowitz, 1959), used the variance and standard deviation as a measure of risk. He eludes that, for diversification to be effective, investors must be in a position to know exactly how to reduce the standard deviation of a portfolio by capitalizing a negative correlation of coefficient (i.e. choosing investment options/stocks that move together. For each risk level, there exists an "optimal" asset allocation which yields the best balance of risk and return.

The best credit risk management practice in financial institutions is to know your client. This is good practice, since it is the basis of all subsequent stages in credit risk management process. Secondly, the other best practice is analyzing non-financial risks. This is because the information gathered is dire to placing yourself as a financial consultant to your customer and members of financial institution. Thirdly, is to appreciate the methods of identifying, categorizing, and prioritizing all the risks.

The Deposit taking subsector in Kenya play vital roles in mobilizing savings, improving financial deepening through financial inclusion and improving access to credit facilities. Therefore, the cooperative sector makes a major offering to the economy of the country which rises the Gross Domestic Product of the Nation. According to (Kivuvo Olweny 2014) the management is faced with the challenge of increasing returns as this comes with increased risks. Deposit taking sectors are considered as accelerators of economic growth due to their critical role in sustaining economic development (Accosca, 2011). Co-operatives play a big role in the economic strategy to open up income generating opportunities both in urban and rural areas (Murungi, 2014). There are 12,000 registered Cooperative society of which 5,000 and Sacco's. Credit offered to borrowers face high risks of default since banks issue credit with the

presumption that it will be repaid by the borrowers. Borrowers often default thus decreasing the Saccos' income due to need loan provisions. When a financial institution is not in a position to precisely state the number of borrowers that will default, there will be a variation in earnings which exposes the institutions to inconsistencies in profit margins. Every financial institution is exposed to some level of risk the moment lends to consumers and business and thus experience loan losses when borrowers default the loan repayments.

1.1.1 Credit risk management practice

Credit risk is defined as a likelihood of failing to meet obligations by a borrower as per the agreements of credit. Chijoriga (2017) states that credit risk is costly in financial institutions and its impact is more significant compared to other risks, since its effect is direct to the financial institutions' solvency. Whereas different impediments have affected financial institutions over time for various reasons, most institutions problems have been, failure to respond to change in economic environment. Credit risk management and tax credit standard for borrowers and other situations has led to deteriorations in credit position of counterparties of financial institutions (Basel, 2016). Credit risk management is inherent to entire portfolio as well as individual credit risk per a transaction (Sinkey 2016).

Credit risk management ensures policy reviews and development of measures for establishing and developing effective credit risk management system that fully understands the scope nature of risks, identification techniques, assessment, monitoring and control in respect to credit risk and importance of credit risk management with specific recollection of the current credit risk management status in financial institutions based on these understanding. For instance, does the responsible understand the weaknesses and limitations of the existing mechanisms for credit risk measurement and analysis (including the assumptions and techniques, etc.) and consider

solutions to these shortcomings which should have a formal credit grading system based on quantitative data (Basel, 2016)

Effective credit risk management measures entail four types of policies. The first is completely avoiding tasks that could result in any level of risk for instance by only lending to specific sectors. Although avoiding risks seems the best option although it reduces the firm's capacity to leverage on the available market opportunities and maximize on profitability. Another method is developing policies that mitigate chances of loss or the intensity when it becomes a reality. Risk retention is the third set of policies which is accepting of loss and is a good strategy for curbing small risks where the risk control costs exceed the expected benefits. The last set of policies is the risk transfer policies which entail compelling a third party to typically accept the risk by contract, insurance or either means of risk transfer (Dorfman, 1997)

Among the credit risk management practices adopted by SACCOs are collateral requirements, monitoring, screening and credit limiting for existing and potential clients. The risk management strategies are important for the firms' achievement since they control its solvency productivity and liquidity.

1.1.2 Financial performance

The extent to which firm's financial objectives have been attained is described as financial performance (Yahaya & Lamidi, 2015). The financial performance of a company defines the firm's efficiency in utilizing its assets to undertake various business activities so as to generate performance with those of others across the same industry.

There are various methods to measure the financial strength of a business in general and Sacco's in particular. The approaches of measuring financial performance of Sacco's include the forms

that are filled such as capital adequacy, asset quality, profitability rating investment and liquidity (Opiyo, 2015).

1.1.3 Capital Adequacy

Capital is a significant feature of SACCOs that affects the profitability level in banks. Capital is owner funds existing to sustain the business of banks and acts as a caution in events of unfavorable situation (Athanasoglou et al., 2005). It was noted that higher capital leads to high income because SACCOs with a huge capital ratio are risk-takers, they overlook possible risk investment prospects and thus leading shareholders to demand less return in exchange of lower risks(Beckmann ,2008)

The measure capital adequacy ratio, it is calculated as total capital to total assets. Dang (2011) noted that the suitability of capital is decided according to its capital adequacy ratio (CAR), which demonstrates the core strength of the SACCOs to endure losses during financial crisis.

1.1.4 Effect of credit risk management practice on financial performance

A credit risk management is a technique used to make a choice on how to reduce losses from defaulters and reducing the chances of debt collection while maximizing the profits. Financial performance is an operating power of a Sacco in relative to its income and expenses exposed by its financial statements. There is an important link between Sacco performances in return on investment and credit risk management in loan presentation (Achou, Tenguh 2008). Good credit risk management contributes to higher Sacco performance. Thus, it is significant that Sacco's exercise vigilant on credit risk management practice and protection of the resources of the Sacco's depositors' wellbeing. Some of the risk management practice by Sacco's are discussed as:

Risk management in a dynamic environment entails a detailed review of the entire system. The recent global financial crisis exposed much weakness in risk management in financial services. Many financial institutions are exposed to similar risks although this fact is not fully considered. Institutions undertake nearly similar investments, mostly employ short- term funding in financing themselves and majority employ high degree of leverage. Therefore, when liquidity declined due to fall of housing prices and coherently the financial assets linked to mortgages, simultaneous losses were experienced by financial institutions and resolves to close similar positions (World Economic (Forum, 2010).

1.1.5 Deposit taking savings and credit cooperative in Kenya

During the year ended 2016, a sum of 177 Deposit Taking Saving and credit Cooperative were registered to carry out deposit-taking Sacco enterprises in Kenya in line with the Act, but two Deposit Taking Saccos were deregistered during the year leaving behind a cumulative of one hundred and seventy five (175) cooperatives still in operation by the end of the year 2016. By 2017, the total Licensed were only 176 (1) new society was registered and licensed during the year 2017 bringing them to a total number of 176 Deposit taking societies, operating under the supervision and jurisdiction of the(SASRA 2017).

Wambua (2011) noted that Deposit taking institutions are a precondition for mobilization of savings among the low-income households in Kenya who have got limited access to mainstream commercial banks which are rigid in their operation. They represent a key component of the financial system and make services available to a majority of low income households in Kenya especially those living in the rural areas. They have a unique merit in that, their clients are also their shareholders. Their members ought therefore to undertake serious mobilization of deposit, insurance programs to cover member's savings and loans and creation of internal incentives to

attractive savings. Financial risk management practices in the deposit taking Saccos should ensure better performance. Financial risk management practices have been argued by researchers to be the driver of survival of Saccos in Kenya (Wambua, 2016).

The financial deepening and broadening has been shown by the average growth in total membership of the deposit taking Sacco segment which had 3.6 Million people in 2016 from 3.1 Million in 2015. On the other hand the deposits and saving increased to Kshs 272.56 Billion in 2016 from K.shs 237.44 Billion realized in the year 2015. The growth has continued to clearly state the crucial role of societies as alternative financial service provider in Kenya; and with the main segment stability being continuously attained. The main focus of the authority in the short and longrun is to leverage on the gains made while addressing major challenges at the same time. To solve this challenge, the Sacco Societies (Amendment) Bill, 2016 was published and tabled by the Kenyan government to steer some crucial reforms directed at improving confidence of the Deposit taking segment and strengthen the corporate governance and management systems of societies in Kenya to ensure propriety and integrity in persons holding big positions. (SASRA, 2017).

1.2 Research Problem

Credit to the members is an important activity of the Sacco's hence the importance of credit risk management. The primary cause of Saccos failing, is because of weak risk management. The returns from investing in business are a compensation for the risk born by the owner of the business. Good credit risk management practice can enable DT-Saccos to lower their overall exposure to risks of financial nature. These will ensure that, they are able to readily compete in financial sector with other well-established commercial banks. DT-SACCOs in Kenya just like other businesses are facing a number of credit risks in their daily operations.

There are a number of societies in Kenya that have been deregistered by SASRA while others place under statutory management due to poor performance. In the 2017 financial year alone Banana Hill Sacco Society Limited license was revoked and Jitegemee Sacco Society Ltd put under Statutory Management. The market regulator, the Sacco Societies Regulatory Authority (Sasra) says in its report for the period ending December 31, 2016 that only 69 of the 175 deposit-taking Saccos met and maintained the prescribed minimum institutional capital adequacy (ICA) ratio of eight per cent, meaning more than half the lenders are in breach of the law. The poor performance has been partly been blamed on financial risks like credit risk and market risk, but few studies have been done to prove this assertions.

Studies were conducted globally and locally between credit risk management strategies and firms financial management. Lagat, Mugo and Otuya (2016) studied the effect of credit risk management practice in loaning Sacco's in Kenya. Amambia, Kalio and Kwasira (2014) examined the implication of credit risk management on performance in Kenya Power with emphasis on credit risk. It was concluded from the study, that credit risk management greatly impact on financial performance of the Company. According to (Silikhe, 2016),credit risk management in Kenya found that despite the strict measures put in place by microfinance institutions with respect to credit risk management, most of these institutions still face loan recovery as the main challenge. Kariuki (2017) examined the effect of credit risk management practice in financial performance of deposit taking Saccos in Kenya and found that credit risk identification, credit analysis, credit monitoring and credit mitigation are measures in financial performance of DTSs.

Most of the studies have been done in commercial banks and insurance firms in Kenya with few studies done in Saccos. The few studies done have largely concentrated on credit risk management generally in Kenya, in all Saccos and others done in other counties. There exist a few studies on credit risk management practice in financial performance with deposit taking societies in Mombasa County. Thus the research gap which the current study intends to fill is by responding to the question; what is the outcome in credit risk management practice in financial performance of deposit taking Sacco's in Mombasa County, Kenya? Establishing an effect of credit risk management practice in financial performance of deposit taking Sacco's in Mombasa County, Kenya.

1.3 Objective of the study

The main objective of the study is to ascertain whether there is aneffect of credit risk management practice in financial performance of deposit taking Sacco's in Mombasa County, Kenya.

1.4 Value of the study

It was established that the study was timely as the recommendations will be useful to many groups. Management of Cooperatives in Mombasa will find this study useful in establishing some of the major credit risk management practices they could employ to handle credit risk which is a major threat in their operations. Based on the recommendations of this study, the chief finance officers of various deposit taking Saccos can develop an inside efficiency of various credit risk management practice so as to make candid policy recommendations to the top management.

The government regulatory bodies involved in regulating firms will draw inferences from the study. This study will enable Sasra to assess the contribution of credit risk management practice

and its value to the society leading to a boost in investor confidence and informed decision. Sasra will find the recommendations of the study useful in drawing policy inside in the management of credit risks bewildering societies with a view to improve stability.

The learning will also assist scholars in identifying areas of more research in credit risk management and will help in giving more information to facilitate research on techniques for effective credit risk management in deposit taking Saccos. The students and scholars will also find the usage of this study as a base literature for additional studies when carrying out research.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter presents academic review, determinant of financial performance of Sacco's and finally a summary of reviewed literature.

2.2 Theoretical review

There are two theories that have been advanced which have implications on credit risk management. The theoretical review covered in this chapter include: Modern Portfolio theory and Asymmetrical Information theory.

2.3 Asymmetrical information theory

The theory was advanced by Michael Spence, Joseph Stiglitz and George Akerlof, whose contribution to this economic theory earned them a Nobel Prize. Akerlof (1970) purported that market failure is likely to occur in circumstances where both parties possess asymmetric information. Mirrlees and Vickrey, also Nobel winners examined economic transactions in the actual world, where the players exhibit different information regarding the costs and benefits of specific transactions. A situation whereby the business owners understand the dynamics and risks facing the business than the lenders is referred to as information asymmetry (Eppy 2005).

Information asymmetry describes a scenario whereby all parties involved in a transaction lack relevant facts. Information asymmetry arises in debt markets when a loaner who intends to advance a loan possesses better information regarding potential returns and risks linked to asset developments on which funds are benchmarked. Similarly, the lender lacks adequate facts about the borrower (Edwards and Turnbull, 1994). According to Ennew and Binks (1997), perceived information asymmetry subjects banks to two major problems adverse selection (making poor lending decisions) and moral hazard (monitoring entrepreneurial behavior). Stiglitz and Weiss

(1981) postulates the lender is not able to discriminate between various types of borrowers in a market with imperfect information. Financial institutions find it difficult to overcome these challenges since monitoring and appraisal require a massive resource which might be expensive when it entails a small amount of money. This is mainly because the bank lenders lack the correct information required to screen credit applications and monitor borrowers. According to (Binks and Ennew1997), often experience the challenge of information asymmetry when evaluating lending applications. The information needed to assess an entrepreneurs'' commitment and competence and business prospects is either unavailable, expensive to gather or hard to interpret which subject the banker to the two types of risks (Hussain, Deakins 1999).

2.3.1 Modern portfolio theory

Markowitz in 1952 and 1959 formulated a portfolio problem in order to provide evidence that by combining a number of assets to form a portfolio, an organization/business is able to maximize expected returns and eventually minimize the risk (variance) (Fabozzi, Gupta, & Markowitz 2002). Under this theory, Markowitz uses the variance and standard deviation as measures of risk. He eludes that, for diversification to be effective/work, investors must be in a position to know exactly how to reduce the standard deviation of a portfolio by capitalizing a negative correlation of coefficient (i.e. choosing investment options/stocks that move together. For each risk level, there exists an "optimal" asset allocation which is profitable. A good portfolio should achieve the highest return for an acceptable risk level and balance the lowest risk for a given level of return. Entire investments spectrum must be considered since there is an interaction of returns from the investments.

To manage the portfolio, Sacco's must understand both the risk associated with each credit and the correlation between individual loans. These interdependencies increase the risks levels to

levels that they wouldn't have been if they were unrelated. These actions confer the management with a detailed reflection of the credit risk profile of the bank and more tools of risk analysis and control (Sinkey, 1992). Diversification of loan products enables the financial institutions to minimize their risk exposure. Westernhagen (2005) describes diversification as a credit risk handling tool for the entire portfolio.

2.3.2 Determinant of financial performance

Performance is affected by the quality of Sacco loans and thus the quality of loans is a key factor to consider. According to (Miller and Noulas1997) greater exposure to great-risk loans increases the accumulation of defaulting loans which decrease income. Poor asset quality is presumed to increase capital and credit risks and cause capital erosion (Hassan and Bashir, 2004). Financial Performance may also be affected by external variables e.g. Inflation, Gross Domestic Product, Political instability and interest Rates. The GDP trend for instance influences the demand for SACCO products. During periods of declining GDP growth credit demand declines which negatively influences the SACCOs' profitability. Conversely, growing economies depict a positive GDP growth since there is high credit demand due to the type of the business cycle.

2.3.3 Credit policy

The credit policy stipulates the rules, framework and authority for the effective administration and operation of credit portfolio. A well-structured credit policy is a prerequisite that is able to define the stability and continued profitability, while a poor formulated credit policy could cause a negative financial performance for any financial institution (Agola, 2014). It should demonstrate the guidelines and criteria for maintenance, granting, monitoring and credit management at the portfolio and individual levels. Policies ensure that the operations remain consistent and adhere to the generally accepted principles. It is important to establish a sound

credit granting processes, a proper credit risk environment, appropriate measurement, credit management, checking and switch over credit risk through optimum credit policies (Basel, 1999). Credit policy directly influences the cash flow of each business. Potential customers often run away from highly strict credit policy thus reducing sales and consequently the amount of cash inflows into the business. Similarly, a highly liberal credit policy will attract customers with defaulting tendencies, increase the cash conversion cycle of the business thus leading to cash inflow issues. It should be noted that, a business could be documented as profitable but still lack working capital to be continue its operations (Edward, 1997). A credit policy has three main variables which are credit terms, credit procedures and credit standards (Hulmes, 1992).

A good credit policy for SACCOs constitute the types of credit facilities offered, ceilings for the total loan portfolio and for categories of borrower/counterparty, types of acceptable collateral, delegation of credit authority to staff and management, loans review procedures such as a grading/rating system, authorization levels/limits, problem credit administration and identification as well as the minimum information required from loan applicants. Credit policies should be properly communicated in the organization, adequately implemented and continuously revised to adapt to the changing external and internal circumstances.

2.3.4 Credit appraisal

Credit Appraisal means, establishing the risks linked with the issue of credit facility. At this stage, all the necessary credit information is gathered and credit applicants properly screened. The nature of credit appraisal processes from a risk perspective is established in the best way possible evaluation and identification of the credit risk arising from possible exposures (Raaij, 2005). According to (Mishkin, 2010) effective information collection and screening form an integral part of credit risk management. Funds should never be disbursed before full compliance

with the stipulated conditions proposed by relevant authorities (Sinkey, 1992). Weak credit appraisal process is one of the factors that lead to high levels of nonperforming loans (Kanyiri, 2005).

The 7Cs credit appraisal model: character, capacity, collateral, contribution, control, condition and common sense has elements that comprehensively cover the entire areas that affect risk assessment and credit evaluation. These elements could either be used in combination or individually, depending on credit appraisal quality levels required the amount of credit involved (Abedi, 2000). Credit customers should be thoroughly scrutinized, analyzed and monitored so that no senior person in the management overrides the established rules for granting credit (Bank of Mauritius Credit Risk Management Guideline, 2003).

2.3.5 Monitoring and restrictive covenant

A Sacco must have a platform where individual credit status is monitored. Monitoring of borrowers is crucial since both the current and potential customers, exposures change over the period and change inherent variables (Mwisho, 2001 and Donaldson, 1993). Key credit condition indicators should precisely identify and report potential credit problems. These constitute indicators from profitability, equity, leverage and liquidity of the borrower and monitor the borrower's account activity, principal and interest repayments and the circumstances of excessive credit limits. Failure to properly monitor leads to the borrower's inability to repay loan (Ellis, 2010).

The ability of the borrower to adhere to financial covenants and pledges stipulated in the loan agreement must be examined and the impediments established solved. Apart from monitoring the above indicators of risk, a Sacco must further monitor the utilization of funds to establish whether credit facilities are used for the intended reasons. When the funds are utilized by the

borrower contrary to the reasons stated in the loan application, the borrower creditworthiness'

should further be evaluated by the Sacco.

2.3.6 Credit collateral and guarantee

Collateral is basically divided into physical or personal collateral. In personal collateral, the

entire fortune rests on the provider, for example, surety or guarantee. Under this arrangement, a

different individual signs a guarantee document with a promise to make loan repayments if the

borrower fails. In the case of physical collateral property is promised to the lender as

compensation if the borrower defaults. Collateral 21 values cover the loan amount, the due

interest, interest of foreclosure proceedings and legal costs of foreclosure (Yeager et, al 1989).

Moral hazard is reduced through collateral since the borrower since defaulting subjects the

borrower to more lose (Mishkin, 2010).Johnson and Stulz (1985) purport that collateral is vital in

mitigating asset substitution. It is important that the Sacco should ideally assess the capacity of

the borrower to repay and never use collateral as a substitute for insufficient information. A

study by Jiménez, Saurina and Salas (2006), found that banks with low levels of experience in

small business lending compensate for their poor evaluation capabilities through use of

collateral.

2.3.7 Capital adequacy

It means the amount of funds needed by the SACCO so that it can conduct their operations

smoothly despite uncertainties in their business environment. Capital adequacy has an impact on

the entities' profitability by establishing its increase to risky and profitable areas (Nazir and

Sangmi, 2010). Capital means, funds available to facilitate the business and provide solutions in

adverse circumstances (Athanasoglou et al. 2005). The size of the SACCO may also impact on

its performance. Large entities mostly enjoy higher economies of scale and thus able to provide

services more efficiently and cheaply than can small entities which positively influence the profitability.

Demnirguc-Kuntand Huizinga (2000) reported that larger financial institutions tend to have higher margins. Short (1979) purports that large financial institutions generally able to raise cheaper capital which positively influence profitability. Flamini et al, (2009) opines that bigger banks with huge domestic market share operating in less competitive environments incur high profits due to lower deposit rates issued to depositors who require lower deposits rates due to they consider big banks to be safer. Liquidity means capacity of a company to meet its obligations(Puneet & Parmil, 2012) and has a direct impact on performance.Adequate investments in liquid assets increase the SACCOs' investments during short term liquidity crisis. Furthermore, with inadequate resources liquidity requirements in the short run, it will be impossible for the Sacco to continue its operation even if its solvency or capital remains standard. The challenge is to maintain an acceptable balance of liquid assets as per the risk-return trade-off with higher proportions of liquid assets. Ideally, high liquidity levels reduce the chances of failure by Saccos and are also linked with lower rates of return and loss of profitable investment opportunities which negatively affect profitability.

2.3.8 Firm liquidity

Liquidity of an organization is another determinant of the capital mix decisions in an organization. This is basically the ease with which an organization services its short-term obligations. It also refers to how easily an organization can liquidate its assets into cash (Vries, 2012). As with the other determinants of capital structure, two opposing views exist in describing the correlation between liquidity and the organizations' capital combination. In the trade off theory, the debt level that an organization holds is positively correlated to how liquid the

organization is. Organizations that are not liquid encounter a lot of restrictions in attracting financing in form of debt because their bankruptcy costs are high (Degyrse, 2010).

Conversely, other empirical studies have shown that highly liquid organizations tend to borrow less and therefore the association between the liquidity of an organization and level of debt is negative. This observation lends support to the pecking order theory which predicts that an organization would utilize its reserves that were generated internally first before borrowing debt and finally before issuing equity. Studies that have previously been conducted and reveal the negative relationship are by Aggrawal & Nagarajan (1991), Eriotis et al., (2008) and Rao et al., (2006).

2.4 Empirical review.

The causal-comparative and descriptive research design was used. Data was obtained from 14 banks for period between the years 2010 - 2015. The study established that defaulting loans had a negative effect on performance while the cost of a loan asset had a positive significance on the overall performance of the Saccos. It was found that indicators of credit risk, size of the Sacco had a positive significance on the Saccos' performance.

Alshatti (2015) assessed credit risk management effects on Sacco performance in Jordan with a financial perspective. They sampled thirteen banks for the years 2005 – 2013 and established that credit risk management practice has effect on banks performance on financial aspect. The study resolved that credit risk management pointers, have a significant impact in Saccos' financial performance. The study recommends that banks should develop or adopt a good credit risk management system to help them improve or enhance their profits. The study focused on credit risk indicators including nonperforming loans, leverage and loss provision on facilities on banks

and not Saccos which need risk management practices like credit risk identification, appraisal, control and monitoring.
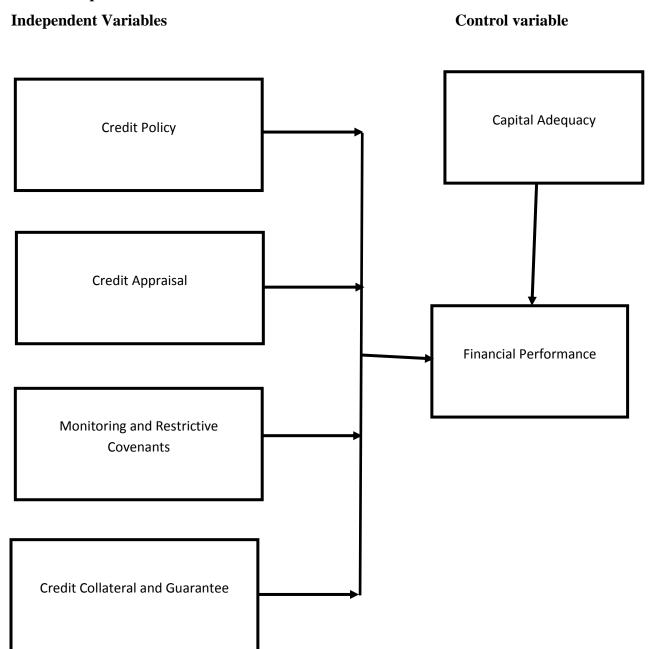
Tanui, Wanyoike and Ngahu (2015) explored the impact of credit administration and credit scoring on performance in financial perspective of Saccos in Nakuru County government. The design used was descriptive and selected credit managers and credit officers in those selected Saccos. Questionnaires were used in data collection from the sample of 90 respondents. The study findings showed a significant connection between the credit scoring and performance in financial perspective of the Saccos and found that credit administration Saccos that take deposits had relationship with financial performance. The study suggested the necessity for SACCO's credit administration to be improved and credit scoring which are part of practices of credit management so that financial performance will improve and stick to SACCOs and not the Kenyan commercial banks.

Olomola (2002) established that the borrower's characteristics, loan characteristics and lenders characteristics significantly influence the repayment performance. Repayment challenges are mainly presented in form of loan default or loan delinquency. Regardless of the form, the full burden of the issues that may arise must not be subjected to the borrower but the degree to the both lender and borrower comply with the loan contract and the type of both parties' duties, obligations and responsibilities as reflected in the credit design programme.

Moti, Masinde, Mugenda, Sindani (2012) conducted a study on efficiency of management system and performance of loans. Empirical evidence from the Kenyan microfinance sector established that credit risk measured by entities in the microfinance significantly affect performance of the loans. Customers signing covenants, credit insurance, credit rating of customers, Loan diversification, refrain borrowing and financial conditions' reports significantly

influenced loan performance. The collection policies employed microfinance had a significant impact on performance and strict policies significantly influenced loan performance. Kalui and Kiawa (2015) studied credit risk management processes and procedures used for performance of Kenyan microfinance organizations. A descriptive design was 17 employed in the study. Population of the survey comprised of credit officers and managers of the 54 Micro financial institutions in Nairobi County. It was found that the sampled organizations considered risks; identification, monitoring, assessment and risk analysis as the ideal management of the credit risk. It was noted that all procedures were vital to ensure management of risks as they ensured functioned present in all institution. However, the study solely focused on microfinance institutions in Kenya and not commercial banks.

2.4.1 Conceptual framework

Independent Variables   **Control variable**

Dependent variable

Figure 2.1 Conceptual Framework

2.5 Summary of literature review and research gap

This section did a review on various studies, on credit risk management and management of risk. Many studies have established that credit risk management practice, is one of the strategies, which has an effect on performance of various financial institutions. A study by (Bhattarai, 2016) evaluated credit risk on performance of banks. Studies by Alshatti (2015), examined the impact of credit risk, on banks' productivity.

Several other studies in Kenya by (Kalui and Kiawa 2015), (Gatuhu,2013) & (Tanui, Wanyoike and Ngahu 2015), (Kimari,2013) documented credit risk management in micro finances, while Ngahu, Kibor and Kwasira (2015),studied the management of credit risk and loan performance of Kenyan banks. From the reviewed studies over the years, it is evident that little lessons have explored on the effect of credit risk management practice in the Saccos' performance as far as its financial are concerned. The above concluded that management of credit risk affects financial performance. Management should carefully consider the Capital Adequacy, Earnings, Liquidity and so on as they all positively correlate with the ROI.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the focus is in the research design which helped in the study. It also discusses target population from which the Saccos studies were obtained, and in addition summarizes how data was collected and explored.

3.2 Research design

This is a strategy which was used to obtain answers to research questions. Descriptive research is the scientific method where by the data is collected and analyzed in order so that it defines a certain occurrence in its existing trends, present events and relations among diverse features at the current time (Kerlinger, 1986).According to (Zikmund, 2003) the superiority of this method is that the researcher cannot control the variables; he can only report what has occurred or what is likely to occur. The design is deemed suitable because the main interest is to explore the possible relationship and describe how the factors support matters under investigation in SACCOs.

3.3 Target of study

The study targeted 18 registered deposit taking SACCOs in Mombasa county between the period years 2014 and 2015. This period was selected due to the rapid growth of non-intermediation activities in SACCOs. This study shall therefore not consider a sampling because the population is small. According to the SASRA, there are 36 listed SACCOs in Mombasa County Kenya as of 31st December 2015 and a census study was carried out.

3.4 Collection of data

Information for the study was ancillary data collected from Saccos and regulator websites. The major dependent performance indicator that will be used is ROI.ROI is an indicator to show how

effective management can utilize its investments to earn good returns. Data was obtained from SASRA website which included the Sacco's financial statements.

3.5 Data analysis

Data was obtained from financial statements of Sacco's and was explored using multiple regression analysis, to find an effect of credit risk management practice of financial performance of Saccos. Data was evaluated using descriptive statistics in Microsoft Excel and SPSS.

3.5.1 Analytical Model

The findings of the research were analyzed using inferential statistics. The regression model used in analyzing an effect of credit risk management practice on financial performance of the Saccos will be: $A = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$

Where: A = financial performance

Z1, Z2, Z3, Z4 and Z5 = Independent Variables

Z_1 = Credit Policy

Z_2 = Credit appraisal

Z_3 = Monitoring and Restrictive Covenants

Z_4 = Credit Collateral and Guarantee

Z_5 = Capital Adequacy β_0 = constant β_1, β_2, β_3, = regression coefficients or change include in A by each unit change in Z ϵ = error term. Dependent variable is the financial performance of Sacco's measured by Return in Investment while the independent variable is the credit policy, credit appraisal, monitoring and restrictive covenant and credit collateral and guarantee.

Table 1.0 Operationalization of Variables

CONCEPT(VARIABLES)	MEASURE
Financial Performance	ROI
Credit policy	Policy document
Monitoring and Restrictive Covenants	Interim injunction
Credit Collateral and guarantee	value of asset and easy of liquidation
Loan appraisal	Capacity of customer
Capital Adequacy	Total capital to total assets

3.5.2 Significance test

Significance of regression was determined by F-test. The constant determination of (R2) is defined as the total of squares due to the regression distributed by the sum of total squares. The percentage variation is the dependent variable interpreted by R2 explained by independent variable variation. It is well defined in terms of disparity about the mean of A (financial performance) in that if a model is reorganized, and the dependent variable changes, R2 changes.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION OF FINDINGS

4.1 Introduction

Chapter four involves analyzing, presenting and interpretation of data collected based on the frame of reference of this project. Statistics were collected from secondary source, reports of SACCOs from respective websites. The key determinant of the study is to find out the effect of credit risk management practice on financial performance of Saccos.

Table 1.1Descriptive Statistics

	mean	Standard deviation	n
Credit policy	3.9444	.62994	36
Credit appraisal	3.9722	.77408	36
Monitoring and restrictive covenants	3.9722	.29141	36
Credit collateral and guarantee	4.0000	.79282	36
Capital adequacy	3.8882	0.4646	36

Summary of descriptive statistics

4.2 Descriptive statistics

Data was collected from 18 listed Saccos in Mombasa with a period of two years giving a total 36 observation that was used in analyzing the study. The average performance as measured by credit policy was 3.9444 with standard deviation of 0.6299. Mean of credit appraisal was 3.9722 with standard deviation of 0.7740, while monitoring and restrictive covenanthad mean of 3.9722and standard deviation of 0.2914; credit collateral and guarantee had a mean of 4.0000 and standard deviation of 0.7928. Finally, control variable had mean of 3.8882 and standard deviation of 0.4646.

4.3 Correlations

Table 4.2 presents the results of correlation between credit policy, credit appraisal, monitoring and restrictive covenants, and credit collateral and guarantee. This analysis was conducted to test how independent variables were related to each other in order to ascertain the presence of multi co linearity. Results in table 4.2 demonstrate positive significant correlation among the financial performance and credit policy 0.812. There isa positive significant correlation among financial performance in credit appraisal of 0.662. There is negative and weak correlation between financial performance and monitoring and restrictive covenant of -0.523.There is positive and significant correlation between financial performance and credit collateral agreements of 0.614. There is positive and significant correlation between financial performance and capital adequacy of 0.027. This is an of evidence of multi co linearity among the independent variable where one predictor variable can be used to predict the other which justifies their inclusion in the regression model as they are without transformation would lead to spurious regression results. This was therefore transformed using first differences before being entered into regression equation for analysis.

Table 1.2 Correlation

		Credit Policy	Credit Appraisal	Monitoring	Collateral	Capital Adequacy	Financial Performance
Credit Policy	pearson correlation	1					
	Sig. (2-tailed)						
	N	36					
Credit Appraisal	Pearson correlation	.883**	1				
	Sig. (2-tailed)	.000					
	N	36	36				

Monitoring	Pearson correlation	-.658**	-.518**	1			
	Sig. (2-tailed)	.000	.001				
	N	36	36	36			
Collateral	Pearson correlation	.380*	.163	-.360*	1		
	Sig. (2-tailed)	.022	.343	.031			
	N	36	36	36	36		
Capital Adequacy	Pearson correlation	.309	.281	-.170	.088	1	
	Sig. (2-tailed)	.067	.096	.321	.609		
	N	36	36	36	36	36	
Financial Performance	Pearson correlation	.812**	.662**	-.523**	.614**	.027	1
	Sig. (2-tailed)	.000	.000	.001	.000	.877	
	N	36	36	36	36	36	36

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

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

4.4 Effects of credit risk management practice on financial performance of deposit taking savings and credit cooperatives.

Evaluating effects of credit risk management practice on financial performance of deposit taking savings and credit cooperatives, the co-efficient of all independent variables i.e. Credit policy, credit appraisal, monitoring and restrictive covenants and credit collateral and agreements were at constant zero on financial performance. The table reveals further that all independent variables were significant at 5% level of confidence (p<0.05).

Table 1.3 Regression Coefficient

Model	unstandardized coefficients		standardized coefficients	
	B	Std. Error	beta	sig.
(constant)	.524	2.967		.861
Credit Policy	.724	.189	.804	.001
Credit Appraisal	.013	.175	.013	.942
Monitoring	.156	.156	.104	.325
Collateral	.343	.085	.366	.000
Capital Adequacy	-.283	.095	-.240	.006

a. Dependent Variable: Financial Performance

The table above indicates the regression coefficients for the regression of financial performance on credit policy, credit appraisal, monitoring and restrictive covenants and credit collateral and guarantee. The regression model had a constant of -1.873 while credit policy, credit appraisal, monitoring and restrictive covenants, credit collateral and agreements and capital adequacy had coefficients of 0.648, 0.013, 0.137 ,0.349 and -0.283 respectively. The resulting regression equation was:

$$Y=-1.873+ 0.648X_1+ 0.013X_2+ 0.137X_3+0.349X_4- 0.283X_5$$

Credit policy had a regression coefficient of 0.724. This indicates that credit policy has positive impact in financial performance. Coefficient of credit policy has significance probability of 0.001; since the p-value is less than 0.05 then effect of credit policy on financial performance was statistically significant.

Credit appraisal had a coefficient of 0.013 with a significance probability of 0.942. The result indicated thatcredit appraisal has positive effect in financial performance and its effect was significant as p-value was less than 0.05. These designatespositive effect in financial

performance. Monitoring and restrictive covenant had a coefficient of 0.156 with a significance probability of 0.325. The result indicated that monitoring and restrictive covenant had positive effect in financial performance hence statistically significant as the p-value is greater than 0.05. Credit collateral and agreements had a coefficient of 0.343 with a significance probability of 0.000. The result indicated that credit collateral and agreement had a positive effect in financial performance and its effect was significant, as p-value was less than 0.05. Capital adequacy had a figure of -0.283 with a significance probability of 0.006. The result indicated that credit collateral and agreement has a positive effect in financial performance and its effect was significant as p-value was less than 0.05.

Table 1.4 Model Summary

model	R	R square	Adjusted R square	std. error of the estimate
1	.909[a]	.826	.797	.69694

a. Predictors: (Constant), Capital Adequacy, Collateral, Credit Appraisal, Monitoring, Credit Policy

As reported in table 4.3 the regression equation was found to have an adjusted coefficient of determination R^2 of 0.0.826. This indicates that credit policy, credit appraisal, monitoring and restrictive covenants, credit collateral and agreements and capital adequacy jointly explained just 82.6% of variation in financial performance. The model therefore explains only 82.6% of the variation in financial performance while the other variation is caused by other factors.

Table 1.5 Analysis of Variance

model	sum of squares	df	mean square	f	sig.
1 Regression	68.984	5	13.797	28.405	.000[b]
Residual	14.572	30	.486		
Total	83.556	35			

a. Dependent variable: financial performance
b. Predictors: (constant), Capital Adequacy, Collateral, Credit Appraisal, Monitoring,

Credit Policy
Source: Author (2018)

Table 4.4 indicates the results of analysis of variance. The F ratio for the regression was found to be 28.40 with a significance probability of 0.000. Since the p-value is less than 0.05 then the effect of credit policy, credit appraisal and monitoring and restrictive covenants and credit collateral and agreements on financial performance was statistically significant and control variable capital adequacy was held constant.

4.5 Discussion on the findings.

This study investigated effects of credit risk management practice in financial performance of deposit taking savings and credit cooperatives. Credit policy was an independent variable of the study. The results showed that credit policy had a strong impact in financial performance of cooperatives in Mombasa County, Kenya. It implied that a unit rise in credit policy leads to 0.648 units higher in the financial performance. This was evidenced that focusing on credit policy was crucial for the Saccos as it improves performance. This is according of Goddard (2004).

The study tested the effects of credit appraisal in financial performance of registered Sacco's in Mombasa. Results showed that credit appraisal by Saccos have strong positive effect in financial performance on Saccos. It implied that an increase in one unit credit appraisal will lead to an increase of 0.013 units in financial performance. Therefore credit appraisal has a confident influence on financial performance. This is a steady state with the findings of (Goddard 2004).

This study also investigated the importance of monitoring restrictive covenant on financial performance of registered Saccos in Mombasa. The results showed that monitoring and restrictive covenant had a positive effect. Therefore this implies that an increase in monitoring lead to 0.137 unit increase in financial performance of Saccos. This study concluded that

financial performances of Saccos are positively influenced by monitoring and restrictive covenant. The conclusion is in line with the finding of (Dang, 2012).

This study also scrutinized the importance of capital adequacy ratio on the financial performance of listed banks in Kenya. Capital adequacy was a control variable in the regression classic. The findings showed that capital adequacy had a strong positive effect on the financial performance of banks. Therefore a unit rise in capital adequacy ratio will lead to 0.923 unit rise in financial performance. This implies that financial performance of banks in Kenya was not positively inclined by the level of capital adequacy. This result is in line with the outcome of (Sangmi and Nazir 2010).

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

Included in this chapter five are conclusions, recommendations, and summary of the finding from this study. Limitation of this study is also discussed in this chapter. Areas of further research are suggested.

5.2 Summary of the finding

This study required to establish effects of credit risk management practice in financial performance of Saccos registered by SASRA. The average performance as measured by credit policy was 3.9444 with an average deviation of 0.6299. The mean on credit appraisal was 3.9722 with a standard deviation of 0.7740, while monitoring and restrictive covenants has a mean of 3.9722 and a standard deviation of 0.2914, credit collateral and guarantee had a mean of 4.0000 and standard deviation of 0.7928 and capital adequacy had mean of 3.8883 and a standard deviation of 0.4646.

The study recognized that credit policy has affirmative impact in financial performance of Sacco's and their effect was statistically significant. It was noted that, the conclusion of credit appraisal in financial performance was positive, and the effect in financial performance was statistically significant. Further monitoring and collateral agreement was concluded to have a positive effect in financial performance and its effect was statistically significant. Capital adequacy evidenced a negative effect in financial performance and the effect was not statistically significant.

The study considered the importance of monitoring restrictive covenant in financial performance of registered Sacco's in Mombasa County. It was concluded that monitoring and restrictive covenant had positive effect. Therefore increase in monitoring lead to an increase of 0.137 unit

of financial performance. The study concluded that financial performance of Sacco's are positively influenced by monitoring and restrictive covenant (Dang, 2012).

The study also scrutinized the importance of capital adequacy ratio in financial performance of listed Saccos in Mombasa County. Capital adequacy was a control variable in the regression classic. The finding showed that capital adequacy had a strong positive effect in financial performance. Therefore a unit rise in capital adequacy ratio will lead to 0.923 unit rise in financial performance. This implies that financial performance of Sacco's were not positively inclined to the level of capital adequancy.This result is in line with the outcome of (Sangmi and Nazir, 2010)

The adjusted coefficient of determination R2 was found to be 0.862. Accordingly, credit policy, credit appraisal and monitoring explained 86.2% of the variation in financial performance of Saccos while the other variation was explained by other factors. Analysis of variance showed that, the F ratio for the regression was found to be 26.480 and had a significance probability of 0.000. This model was therefore good enough to explain the effect of credit risk management practice in financial performance of Saccos.

5.3 Conclusions

This study required to determine the effect of credit risk management practice in financial performance of deposit taking savings and credit cooperatives registered in Mombasa County. The result of regression specified that credit policy has strong positive impact in financial performance and thus an increase practice of credit policywhich indicatesan increase in financial performance. Thus, the study concludes that credit policy has strong significant influence in the financial performance of Saccos registered by Sasra.

The study observedthe effect of credit appraisal in financial performance of registered Saccos in Mombasa. Findings showed, that credit appraisal had strong positive effect in the financial performance hence a positive influence in financial performance. The study also investigated the effect of monitoring and restrictive covenant in financial performance of registered Saccos in Mombasa. The results showed that monitoring and financial covenant had positive effect in financial performance of Saccos in Kenya. This concluded that financial performance were positively influenced by monitoring.

The study examined the impact of credit appraisal in financial performance of registered Saccos in Mombasa, County. Findings showed that credit appraisal had strong positive effect in financial performance. Therefore credit appraisal hadpositive effect in financial performance. The study also investigated an effect of capital adequacy in financial performance. The result showed that capital adequacy had a negative outcome. It was concluded that financial performance of SACCOs are not influenced by capital adequacy.

5.4 Recommendations

This study proposes that, SACCOs should commit resources in credit policy because it shows that it is affecting financial performance positively. The study also recommends that the SACCOs should engage more on credit appraisal by knowing their customers and their capacity. Monitoring and restrictive covenants and credit collateral agreements in the study is evidenced that the Sacco's should evaluate the capacity of their customers to pay back the obligations when it falls due. Further, the study recommends that SASRA should offer an atmosphere where the SACCOs processes are not hampered with. For example, Central Bank should ensure steadiness of interest rates so as to encourage lending.

5.5 Limitation of the study.

Research was carried for a period of three months, due to the time of obtaining the data, analyzing and comparing with different years, was a challenge. Analyzing the effect of credit risk management practice in financial performance of cooperatives, in a longer duration would guarantee robustness of the results. The study was also carried on a single county due to time and resource limitations, therefore using broader sample would enable in getting wider understanding of the subject matter. The other limitation is that, the study was focused on the Saccos registered by SASRA. The data results may also not be applicable to other financial institutions as the focus in this study was on Saccos. While it can offer important insights to other financial institutions, such conclusions should be approached with care given the variations in the way Saccos operate and the way other financial institutions operate.

5.6 Suggestions for further research

More studies can be embarked on effects of credit risk management practice, surveyed on Saccos in Kenya whereby the study will intent to consider the consciousness of risk management practicein defaulting members. Datacan be collected either through secondary or primary sources.Primary data is recommended especially interviewing,to check the extent to which diverse credit risk management practices have been trailed by Saccos.

REFERENCES

Akotey, H. O. & Afriyie, J. O. (2012). Credit Risk Management and Profitability of Selected Rural Banks in Ghana. Catholic University College of Ghana

Akkizidis, I. & Khandelwal, S. K. (2008). Financial Risk Management for Private Hospitals and Finance. Palgrave Macmillan

Alshatti, A. S. (2015). The Effect of Credit Risk Management on Financial Performance of the Jordanian Commercial Banks. Investment Management and Financial Innovations, 12(1), 338 – 345

Armendariz, A, B. & Morduch, J. (2010). The Economics of Microfinance. 2 nd Ed. The MIT Press Cambridge.

Auronen, L. (2003). Asymmetric Information: Theory and Applications. Paper Presented at the Seminar of Strategy and International Business, Helsinki University of technology. Helsinki.

Berhanu, A. (2005). Determinants of Formal Source of Credit Loan Repayment Performance of Smallholder Farmers: The Case of North Western Ethiopia, North Gondar. Unpublished MSc. Thesis. Alemaya University, Ethiopia

Bhattarai, Y. R. (2016). Effect of Credit Risk on the Performance of Nepalese Commercial Banks. NRB Economic Review, Tribhuvan University

Bizuayehu, M. (2015). The Impact of Credit Risk on Financial Performance of Banks in Ethiopia. Unpublished Thesis. Addis Ababa University

Bofondi, M. & Gobbi, G. (2003). Bad Loans and Entry in Local Credit Markets. Bank of Itally Research Department, Rome

Bryman, A. & Bell E. (2007). Business Research Methods. (2nd Ed.). Oxford University Press
Cooper, R. D. & Schindler, S. P. (2008). Business Research Methods. (10th Ed.). New York, McGraw Hill

Eppy, I. (2005). Perceived Information Asymmetry, Bank lending Approaches and Bank Credit Accessibility by SMEs in Uganda Unpublished PHD Thesis, Makerere University

Fujo, K. G. & Ali, A. I. (2016). Factors Affecting Financial Performance of Savings and Credit Societies in Kilifi County- A Case Study of Imarika Sacco. The International Journal of Business & Management, 4(2), 448-469

Gakure, R. W., Ngugi, J. K., Ndwiga, P. M. & Waithaka, S. M. (2012). Effect of Credit Risk Management Techniques on the Performance of Unsecured Bank Loans Employed Commercial Banks in Kenya. International Journal of Business and Social Research, 2(4), 221-236

Gall, M.D., Gall, J. P. & Borge, W. R. (2006). Educational Research. 8th Ed. New York; Pearson

Gitonga, J. & Aduda, J. (2011). The Relationship between Credit Risk Management and Profitability among the Commercial Banks in Kenya. Journal of Modern Accounting and Auditing, 7(9), 934-946

Gatuhu, R. N. (2013). The Effect of Credit Management on the Financial Performance of Microfinance Institutions in Kenya. Unpublished MBA Project. University of Nairobi

Harvey, R., Lins, V. & Roper, H. (2014). The effect of Credit Risk on Corporate liquidity. Journal of Financial Economics, 74, 3-30

Idowu, A. & Awoyemi, S. O. (2014). The Impact of Credit Risk Management on the Commercial Banks Performance in Nigeria. International Journal of Management and Sustainability, 3(5), 295-306

Irungu, P. (2013). Effect of Financial Performance Indicators on Market Price of Shares in Commercial Banks of Kenya. International Journal of Management & Business Studies, 3(3), 72 – 77

Kagoyire, A. & Shukla, J. (2016). Effect of Credit Management on Performance of Commercial Banks in Rwanda (A Case Study of Equity Bank Rwanda Ltd). International Journal of Business and Management Review, 4(4), 1-12

Kalui, F. M. & Kiawa, E. (2015). Effects of Credit Risk Management Procedures on Financial Performance among Microfinance Institutions (MFIs) In Kenya: A Case of MFIs in Nairobi County. International Journal of Humanities Social Sciences and Education, 2(3), 81-103

Kariuki, F. (2015). Sustainability in the Financial Sector in Kenya. Working Paper Series 01/15. Kenya Bankers Association

Karlan, D. & Zinman, J. (2004). Observing Unobservable: Identifying Information Asymmetries with a Consumer Credit Field Experiment. Princeton Economics Department working Paper.

Kibor, A.M., Ngahu, S.T. & Kwasira, J. (2015). Influence of Credit Risk Management on Loan Performance in Commercial Banks in Nakuru Town, Kenya. International Journal of Economics, Commerce and Management, 3(10), 884 – 902

Kimari, F. N. (2013). Effect of Credit Risk Management on Financial Performance of Deposit Taking Savings and Credit Cooperative Societies in Kenya. Unpublished MBA Project. University of Nairobi

Kimoi, A., Ayuma, C. & Kirui, K. (2016). Assessment of Credit Risk Management Practices on Organizational Performance: A survey of Savings and Credit Cooperative Societies in Eldoret Town Kenya. International Journal of Scientific & Engineering Research, 7(5), 416-425

Kimotho, D. N. & Gekara, M. (2016). Effects of Credit Risk Management Practices on Financial Performance of Commercial: International Journal of Economics & Finance, 2 (3), 161-189

Korir, M. K. (2012). Effects of Credit Risk Management Practices on Financial Performance of Deposit Taking Microfinance Institutions in Kenya. Unpublished MBA Project. University of Nairobi

Kurui, S. K. & Kalio, A. M. (2014). Influence of Credit Risk Management Practices on 40 Loan Performance of Microfinance Institutions in Baringo County, Kenya. International Journal of Science and Research, 3(10), 2260-2267

Kwaku, D. K. (2015). Assessing Credit Risk Management Practices in the Banking Industry of Ghana: Processes and Challenges. Global Journal of Management and Business Research, 15 (6), 1-11

Lagat, F.K., Mugo, R. & Otuya, R. (2013). Effect of Credit Risk Management Practices on Lending Portfolio among Savings and Credit Cooperatives in Kenya. European Journal of Business and Management, 5(19), 93 – 105

Li, F. & Zou, Y. (2014). The Impact of Credit Risk Management on Profitability of Commercial Banks: A Study of Europe. Unpublished Project. Umeå School of Business and Economics

Makori, O. G. (2015). Effects of Credit Risk Management Practices on Profitability of Deposit Taking Sacco's in Nairobi County. Unpublished MBA Project. Management University of Africa, Kenya

Megeid, N. S. (2013). The Impact of Effective Credit Risk Management on Commercial Banks Liquidity Performance: Case of Egypt. 2(2), 13-22

Mutua, J. M. (2015). Effect of Mitigating Credit Risk on Performance of Commercial Banks in Kenya: A Case of Chuka Town. European Journal of Business and Social Sciences, 4(7), 113 – 125

Ngwa, E. (2010). Credit Risk Management in Banks as Participants in Financial Markets. A Qualitative Study of the Perception of Bank Managers in Sweden. Umeå School of Business

Parrenas, J. C. (2005). Risk Monitoring Procedures used by Commercial Banks: A Survey of Commercial Banks in Four Asian Emerging Market

Poudel, R. V. (2012). The Impact of Credit Risk Management on Financial Performance of Commercial Banks in Nepal. International Journal of Arts and Commerce, 1(5), 9 – 15

Raad, M. L. (2015). Credit Risk Management (CRM) Practices in Commercial Banks of 41 Bangladesh: A Study on Basic Bank Ltd. International Journal of Economics, Finance and Management Sciences. 3(2), 78-90.

Sabeza, F., Shukla, J. & Bajpai, G. (2015). Assessing Credit Risk Management Practices and Performance of Commercial Banks in Rwanda: (Case Study of Banque Populaire Rwanda 2011-2013). International Journal of Social Science and Humanities Research, 3(1), 323-333

Soyemi, K. A., Ogunleye, J. O. & Ashogbon, F. O. (2014). Risk Management Practices and Financial Performance: Evidence from the Nigerian Deposit Money Banks. The Business & Management Review, 4(4), 345 - 354

Stiglitz, J. (2001). Principles of Financial Regulation: A Dynamic Portfolio Approach. The World Bank Research Observer, 16(1), 1-18.

Sufi, F. A. & Qaisar, A. M. (2015). Credit Risk Management and Loan Performance: Empirical Investigation of Micro Finance Banks of Pakistan. International Journal of Economics and Financial Issues, 5(2), 574-579.

Sujeewa, K. (2015). Impact of Credit Risk Management on the Performance of Commercial Banks in Sri Lanka. International Journal of Scientific Research and Innovative Technology, 2 (7), 24 – 29

Sumon, D. & Shilpi, D. (2007). Credit Risk Management Practices –An Evaluation of Commercial Banks in Bangladesh. Accessed online on 28/7/2016

Tanui, J. K., Wanyoike, D. M. & Ngahu, S. (2015). Assessment of Credit Risk Management Practices on Financial Performance among Deposit Taking SACCOs in Nakuru East Sub County, Kenya. International Journal in Management and Social Science, 3(5), 602-610

Uwalomwa, U., Uwuigbe, O. R. & Oyewo, B. (2015). Credit Management and Bank Performance of Listed Banks in Nigeria. Journal of Economics and Sustainable Development, 6(2), 27 – 32

Uyemura, D. G. & Deventer, D. R. (1993). Risk Management in Banking: Theory and Applications of Assets and Liability Management, Banking Publication, 42 Kamakura.

Warsame, M. (2016). Credit Risk Management Practices and Its Impact on Banks' Financial Performance: An Empirical Study of Islamic and Conventional Banks in Kenya. Proceedings of Business and Social Sciences Research Conference 11 - 13 April 2016, University of London, London, UK

Weinberg, J. A. (2006). Borrowing by U.S. Households. Federal Reserve Bank of Richmond. Economic Quarterly, 92(3), 3-6

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). Business research methods. 8 th Edition. Mason Cengage Learning

Akotey, H. O. & Afriyie, J. O. (2012). Credit Risk Management and Profitability of Selected Rural Banks in Ghana. Catholic University College of Ghana

Akkizidis, I. & Khandelwal, S. K. (2008). Financial Risk Management for Private Hospitals and Finance. Palgrave Macmillan

Alshatti, A. S. (2015). The Effect of Credit Risk Management on Financial Performance of the Jordanian Commercial Banks. Investment Management and Financial Innovations, 12(1), 338 – 345

Armendariz, A, B. & Morduch, J. (2010). The Economics of Microfinance. 2 nd Ed. The MIT Press Cambridge.

Auronen, L. (2003). Asymmetric Information: Theory and Applications. Paper Presented at the Seminar of Strategy and International Business, Helsinki University of technology. Helsinki.

APPENDICES

Appendix I: List of Deposit Taking SACCOs in Mombasa County,Kenya.

1) MAFANIKIO
2) MOMBASA PORT
3) UCHONGAJI
4) BANDARI
5) JITEGEMEE
6) WASHA
7) KEMFRI
8) UKAMBA CRAFT
9) TORCH SACCO SOCIETY LTD
10) KIVUKO
11) CHAI
12) ECOBIZ
13) MOMBASA BUNGE
14) UKOMBOZI
15) KENYA POLICE
16) ZOGHORI
17) METROPOLITAN NATIONAL
18) M-PESA MOMBASA TEACHERS

Appendix II: Research Data

BANK	YEAR	Credit policy	Credit appraisal	Monitoring	Credit collateral	Capital adequacy
MAFANIKIO SACCO SOCIETY LTD	2014	0.21	0.34	11.46	0.38	0.177
MAFANIKIO SACCO SOCIETY LTD	2015	0.22	0.32	11.65	0.326	0.171
MOMBASA PORT SACCO SOCIETY LTD	2014	0.16	0.31	11.86	0.356	0.168
MOMBASA PORT SACCO SOCIETY LTD	2015	0.16	0.32	12.16	0.39	0.148
UCHONGAJI SACCO SOCIETY LTD	2014	0.17	0.30	12.41	0.502	0.185
UCHONGAJI SACCO SOCIETY LTD	2015	0.30	0.45	12.13	0.468	0.227
BANDARI SACCO SOCIETY LTD	2014	0.24	0.44	12.24	0.42	0.157
BANDARI SACCO	2015	0.22	0.43	12.33	0.442	0.152

SOCIETY LTD						
JITEGEMEE SACCO SOCIETY LTD	2014	0.21	0.43	12.39	0.341	0.157
JITEGEMEE SACCO SOCIETY LTD	2015	0.17	0.41	12.47	0.283	0.157
WASHA SACCO SOCIETY LTD	2014	0.26	0.42	12.28	0.46	0.199
WASHA SACCO SOCIETY LTD	2015	0.25	0.45	12.38	0.34	0.186
KEMFRI SACCO SOCIETY LTD	2014	0.27	0.46	12.53	0.304	0.148
KEMFRI SACCO SOCIETY LTD	2015	0.34	0.45	12.74	0.2910	0.146
UKAMBA CRAFT SOCIETY LTD	2014	0.29	0.42	12.85	0.477	0.144
UKAMBA CRAFT SOCIETY LTD	2015	0.25	0.45	12.20	0.358	0.203
UKOMBOZI	2014	0.25	0.44	12.34	0.326	0.157
UKOMBOZI	2015	0.20	0.44	12.55	0.338	0.146

TORCH SACCO SOCIETY LTD	2014	0.21	0.44	12.74	0.361	0.145
TORCH SACCO SOCIETY LTD	2015	0.22	0.50	12.77	0.332	0.162
KIVUKO SACCO SOCIETY LTD	2014	0.21	0.40	12.63	0.359	0.213
KIVUKO SACCO SOCIETY LTD	2015	0.20	0.40	12.68	0.333	0.187
CHAI SACCO SOCIETY LTD	2014	0.22	0.45	12.84	0.313	0.171
CHAI SACCO SOCIETY LTD	2015	0.20	0.43	13.06	0.30	0.141
ECOBIZ SACCO SOCIETY LTD	2014	0.24	0.39	13.13	0.303	0.169
ECOBIZ SACCO SOCIETY LTD	2015	0.07	047	11.11	0.30	0.194
KENYA POLICE SACCO	2014	0.09	0.44	11.43	0.42	0.171
KENYA POLICE SACCO	2015	0.07	0.43	11.72	0.315	0.129

M-PESA MOMBASA TEACHERS SACCO	2014	-0.11	0.44	11.74	0.307	0.13
M-PESA MOMBASA TEACHERS SACCO	2015	0.01	0.39	11.65	0.297	0.113
METROPOLITAN NATIONAL SACCO	2014	0.20	0.45	11.42	0.3546	0.1698
METROPOLITAN NATIONAL SACCO	2015	0.20	0.37	11.61	0.3402	0.1507
MOMBASA BUNGE SACCO SOCIETY LTD	2014	0.26	0.42	11.83	0.3052	0.1577
MOMBASA BUNGE SACCO SOCIETY LTD	2015	0.22	0.36	11.9	0.3350	0.1705
ZOGHORI SACCO	2014	0.20	0.35	12.01	0.3726	0.1664
ZOGHORI SACCO	2015	0.13	0.22	10.62	0.368	0.182