

**CREDIT RISK MANAGEMENT PRACTICES IN SAVINGS AND  
CREDIT COOPERATIVE SOCIETIES (SACCOS) OFFERING  
FRONT OFFICE SERVICE ACTIVITY (FOSA) IN KENYA**

**BY**

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## DECLARATION

I declare that this research project is my original work and has not been presented for a degree in any other university.

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This research project has been presented for examination with my approval as the University Supervisor.

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## **DEDICATION**

I dedicate this study to the Almighty God. He has 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.

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May the Almighty God bless you all.

## **ABSTRACT**

The main objective of the study was to examine Credit risk management practices in Saccos with Front Office Service Activity in Kenya. Similar studies have been carried out in developed countries (liukisila, 19%) that have confirmed that the problem of risk management often begun right at the loan application stage and increased further at the loan approval, monitoring and controlling stages, especially when credit risk management guidelines in terms of policy/procedures did not exist or were weak or incomplete, Brownbridge (1998) observed that these problems are at their acute stage in developing countries.

The research design of the study was based on a descriptive survey. The sample of the study consisted of credit managers and managers employed in the 40 SACCOs offering FOSA services within Nairobi Province. The data was collected using self administered questionnaires by the researcher, coded and Statistical Package for Social Science Version 17 was used to analyze. The results were presented using table.

The research found out that loan portfolio management, risk identification, risk analysis and assessment as well as risk monitoring were instrumental in credit risk management process. Saccos should fully embrace credit risk management as way to reducing credit defaults. In particular, the management should consider implementing a frame approach to risk identification; ensure that their Saccos, regardless of size, have an effective system of internal controls that is consistent with the nature, complexity, and risk inherent activities and that its corresponds to the Sacco environment and conditions; management of Saccos should ensure that there is an ongoing evaluation and assessment of the credit related risks. In addition it should also ensure monitoring process should provide assurance that there are appropriate controls in place for the organization's activities and that the procedures arc understood and followed finally on credit risk management practices Saccos should overcome challenges by ensuring the members are continuously educated and provide resources such as qualified personnel and proper software to ensure consistency, transparency and accountability are achieved.

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## **LIST OF ABBREVIATIONS**

C D:	Credit Department
CR:	Credit Risk
CRM:	Credit Risk Management
CRMC:	Credit Risk Management Committee
CRMD:	Credit Risk Management Department
FOSA:	Front Office Service Activities
GNP:	Gross National Product
NPL'S:	Non-Performing Loans
SACCO:	Savings and Credit Cooperative Society
SME:	Small Medium Enterprises
WOCCU:	World Council of Credit Unions



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## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

Expanding business arenas, deregulation and globalization of financial activities emergence of new financial products and increased level of competition has necessitated a need for an effective and structured risk management in financial institutions. A financial institution's ability to measure, monitor, and steer risks comprehensively is becoming a decisive parameter for its strategic positioning. The risk management framework and sophistication of the process, and internal controls, used to manage risks, depends on the nature, size and complexity of institutions activities. Nevertheless, there are some basic principles that apply to all financial institutions irrespective of their size and complexity of business and are reflective of the strength of an individual institution's risk management practices (Cuevas and Fischer 2006).

A risk management framework encompasses the scope of risks to be managed, the process systems and procedures to manage risk and the roles and responsibilities of individuals involved in risk management (Uyemura and Deventer 1993). The framework should be comprehensive enough to capture all risks a financial institution is exposed to and have flexibility to accommodate any change in business activities.

It is widely recognized that credit co-operatives can play a key role in the developing of economic disadvantaged regions. Credit co-operatives are typically seen as filling a market niche consisting of low-income entrepreneurs, small business people or farmers who need credit but who have essentially no collateral with which to secure a loan (Cabo et al. 2006} Therefore credit co-operatives are financial entities which have traditionally dealt with financing an important group of entities within the social economy. They have also been the motor for the co-operative sector in general and particularly for the agriculture sector. Such is the situation that occasionally the role played by credit co-operatives within their area of influence has exceeded the financial framework. 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 2010). 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, 1999).

Most cooperative societies in Nairobi Province are savings and credit cooperatives community referred to as Urban SACCOs. They offer the following products to their members; normal loans, emergency loans, school fees loans, special loans and front office services. In the current liberalized economic environment, cooperative societies are expected to operate like any other profitable business venture with a locus on maximization of shareholders' returns. It is also worth noting that with the opening up of common bonds in most cooperative societies, members are free to join those societies that will offer what they perceive as more competitive and superior products as well as a competitive return on their investments (Mudibo, 2005).

The traditional savings and credit services that has been practiced by SACCOs over the years has led to many cooperatives experiencing low liquidity problems especially because members are not allowed to withdraw their savings at will although they can borrow as much as three times of the amount they have saved in the society. This has caused SACCOs to seek other ways to improve their liquidity position. A number of SACCOs have diversified and introduced Front Office Services Activities (FOSA) where they offer such products and services as payment of salaries, salary advance. Banker's cheques, safe keeping of documents and ATM services. The result is that Front Office Services Activity (FOSA) have begun to be very

popular with the SACCOs as members now have access to their savings right away. SACCOs that have introduced FOSA services have experienced rapid asset growth (Jesus, 2006). When financial institutions withdrew their banking services from rural areas and due to employers' failure to remit recoveries to SACCOs, it became necessary for them to start Front Office Services to serve their members. Through retained savings the Sacco can access funds for onward lending to its members (Wanyama, 2009). Considering that Saccos with Fosa services offer a wide variety of credit facilities and hence increased credit risk, the study will be critical to document the credit risk management process in these Saccos.

The acceptance and management of financial risk is inherent to the business of cooperatives. Risk management as commonly perceived does not mean minimizing risk rather the goal of risk management is to optimize risk-reward trade -off. Notwithstanding the fact that cooperatives are in the business of taking risk, it should be recognized that an institution need not engage in business in a manner that unnecessarily imposes risk upon it: nor it should absorb risk that can be transferred to other participants. Rather it should accept those risks that are uniquely part of the array of its services (Carrasco, 2004), With credit markets undergoing rapid growth and change, the need for Financial institutions worldwide to identify, measure, monitor and control credit risk - over the entire portfolio as well as in individual transactions - is greater than ever (Bluhm, et al. 2003).

Credit risk is the risk that a financial institution will incur losses because the financial position of a borrower has deteriorated to the point that the value of an asset (including off- balance-sheet assets) is reduced or extinguished. Credit risk is most simply defined as the potential that a borrower or counterparty will fail to meet its obligations in accordance with agreed terms. The goal of credit risk management is to maximize an organization's risk adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Organizations need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions. The organizations should also consider the relationships between credit risk and other risks. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any organization. (Kealhofer, 2003)

The importance of credit risk management is increasing with time because of some reasons like economic crises and stagnation, company insolvencies, infraction of rules in company accounting and audits, growth of off-balance sheet derivatives, declining and volatile values of collateral, borrowing more easily of small firms, and financial globalization (Bofondi and Gobbi, 2003).

In 2008 savings in SACCOs across Sub-Sahara Africa grew by an average of 31.9 per cent which is comparable to average saving growth rates for previous years. Loans grew at an average of 12 per cent, which is lower than growth rates of previous years. For instance, in 2007 loans issued by SACCOs grew by 35.3 per cent; in 2006 loans grew by 21.2 per cent. Growth in new membership has been steady. This suggests that SACCOs across Africa may be exercising caution in responding to the loan requests of members. Indeed, it was reported that some SACCOs have been scaling down loans associated with export commodities in order to protect themselves from potential loss. (WOCCU, 2009).

Cooperatives have traditionally been concentrated in sectors concerned with agriculture finance, housing, wholesaling and retail. However they are also found in industries such as childcare, tourism, utilities, transport, health care, schools and many others. Nevertheless agriculture and finance remain the dominant activities of cooperatives throughout the world. In Africa cooperatives are most commonly found in the agricultural sector and in financial services. Prevalence varies according to the particular structure of the national economies, though in general agricultural cooperatives represent 40 to 60 per cent of all cooperatives within a given country, and cooperative financial institutions represent 30 to 50 per cent of the cooperative movements in given country. In Kenya 303,455 people are directly employed by cooperatives and up to 16.5 per cent of the population indirectly derives their livelihood from the increased demand and associated opportunities to provide goods and services to cooperatives (Pollet, 2009).

Over the past two decades a particular type of cooperative finance - the savings and credit cooperative (SACCO) - have been widely embraced throughout Sub- Sahara Africa (Develtere & Pollet, 2008). The SACCO movement in Sub- Sahara Africa has been increasing in

popularity and now comprises between 30 to 50 per cent of all cooperative enterprises and provides financial services to 8.81 per cent of the population in Sub-Sahara Africa. SACCOs in Kenya have reported increase in demand for loans, but have exercised caution in responding to requests. For 2008 loan growth was negative, at -13.2 per cent.

The trends evident in Kenya have been seen in many other African countries. (Pollet. 2009: WOCCU.2009).

## **1.2 Statement of the Problem**

Despite the controversies surrounding the reasons why financial institutions are demanded and why they are willing and able to take on the risks that are inevitably involved in their activity, it is evident from some empirical studies that Weak credit risk management is a primary cause of many business (particularly small business) failures. (Mc Menamin, (1999) carried out a study of financial institutions that failed in the mid 1980s in the U.S.A and found out that the consistent element in the failures was the inadequacy of the institution's management system for controlling loan quality.

Koch and MacDonald, (2000) found out that the loans that constituted large proportions of assets in most financial institutions portfolios were relatively illiquid and exhibited the highest Credit Risk. This was related to the information asymmetric theory by Auronen, (2003), resulting in adverse selection and moral hazards problems. Various researchers have studied reasons behind financial institutions' problems and identified several factors(Chijoriga, 1997 Santomero, 1997; Brown Bridge and Harvey, 1998; Kimei. 1998; Basel. 1999. Basel, 2004). Credit problems, especially weakness in credit risk management (CRM), have been identified to be a part of the major reasons behind financial institution difficulties. Kitua. (1996) found out that loans constituted the largest proportion of Credit Risk as they normally accounted for 10-15 times the equity of a bank. BrownBridge (1998)observed that these problems are at their acute stage in developing countries. Liuksila (1996) observed that the problem often begun right at the loan application stage and increased further at the loan approval, monitoring and controlling stages, especially) when credit risk management guidelines in terms of policy and strategies/procedures for credit processing did not exist or were weak or incomplete.

Santomero, (1997) and Basel, (1999) concluded that in order to minimize loan losses and so as the Credit risk, it is essential for financial institutions to have an effective credit risk management system in place. Khan (1997). Vogel and Hayes (1998), Karim (1999) and Khan and Ahmad (2001) They have argued that financial institutions not only face the type of credit risks but they also identified new and unique risks as a result of unique asset classes and liability structures. Khan and Ahmad (2001) argued that this new type of risk is an immediate outcome of their compliance with the moral law requirement.

Locally, a few studies have been done on credit risk management and among them are Njiru's (2003) who surveyed credit risk management practices adopted by coffee cooperatives in Embu district, Nduku's (2007) surveyed the credit risk management practices adopted by pharmaceutical manufacturing firms in Kenya, Wambugu's (2008) surveyed the credit risk management practices adopted by micro-finance institutions in Kenya and Kimeu (2008) who conducted a survey of credit risk management techniques of unsecured bank loans of commercial banks in Kenya.

The growth of Fosa balances can be seen as a considerable success for the industry since the total Sacco deposits have grown rapidly and are now equal to one quarter of all deposits in the banking system, WOCCU (2006). However at the same time the high levels of NPLS and poorly regulated use of large deposits balances constitutes a serious risk to financial stability that could easily be systematic. Thus this study seeks to investigate Credit risk management practices in Saccos offering FOSA services.

### **1.3 Objective of the Study**

The objective of this study was to examine credit risk management practices in Saccos with Front Office Service Activities.

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## **1.4 Significance of the Study**

### **The management of SACCOS**

The management of SACCOS will stand to benefit from this study. The study will provide the management with an independent unbiased view of credit risk management status of their organization. It will help them to be aware of their approaches to credit risk management. It will 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 and Central Bank**

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 has 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**

Scholars and academicians will benefit from this study as it opens up new areas for research, These include determining how the findings of this study will compare with credit risk management of a commercial bank, and CRM between the financial sector and other sectors. The study will also contribute to the general body of knowledge on credit risk management in Saccos offering FOSA services.

## **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 Review of theories**

##### **2.2.1 Credit Risk Theory**

Although people have been facing credit risk ever since early ages, credit risk has not been widely studied until recent 30 years. Early literature (before 1974) on credit risk uses traditional actuarial methods of credit risk, whose major difficulty lies in their complete dependence on historical data. Up to now, there are three main quantitative approaches to analyzing credit risk: structural approach, reduced form approach and incomplete information approach (Crosbie et al, 2003).

Merton 1974 introduced the credit risk theory otherwise called the structural theory which said that the default event derives from a firm's assets evolution, modeled by a diffusion process with constant parameters. Such models are commonly defined "structural models" and based on variables related to a specific issuer. An evolution of this category is represented by a set of models where the loss conditional on default is exogenously specified (can be deterministic or stochastic), nonetheless maintaining the endogenous nature of default event. In these models, the default can happen throughout all the life of a corporate bond and not only at maturity (Longstaff and Schwartz, 1995); Saa-Requejo and Santa Clara, 1997); the assets dynamics are generally modeled as a constrained diffusion with respect to an absorbing barrier, the latter being deterministic or stochastic and representing the default threshold. In the second approach, that of the "reduced form models," both the default event and the loss given default are

exogenous to the firm. 'the pricing of any (exotic) credit derivative is achieved through the calibration of the default probabilities curve from the most liquid corporate bonds and (plain vanilla) credit derivatives written on the same firm (Jarrow and Turnbull, 1995; Jarrow et al., 1997; Duffie and Singleton, 1999).

Merton (1974) firstly builds a model based on the capital structure of the firm. which becomes the basis of the structural approach. In his approach, the company defaults at the bond maturity time  $T$  if its assets value falls below some fixed barrier at time  $T$ . Thus the default time  $T$  is a discrete random variable which picks  $T$  if the company defaults and infinity if the company does not default. As a result, the equity of the firm becomes a contingent claim of the firm's assets value. Black and Cox (1976) extend the definition of default event and generalize Merton's method into the first-passage approach. In Black and Cox (1976), the firm defaults when the history low of the firm assets value falls below some barrier  $D$ . Thus, the default event could take place before the maturity date ' $T$ '.

### **2.2.2 Asymmetric Information Theory**

The concept of asymmetric information was first introduced in George A. Akerlof (1970) Paper, "The Market for "Lemons": Quality Uncertainty and the Market Mechanism' (Akerlof, 1970). In the paper, Akerlof develops asymmetric information with the example ease of automobile market. His basic argument is that in many markets the buyer uses some market statistic to measure the value of a class of goods- Thus the buyer sees the average of the whole market while the seller has more intimate knowledge of a specific item. Akerlof argues that this information asymmetry gives the seller an incentive to sell goods of less than the average market quality. The average quality of goods in the market will then reduce as will the market size. Such differences in social and private returns can be mitigated by a number of different market institutions.

The theory of asymmetric information argues that it may be impossible to distinguish good borrowers from bad borrowers (Auronen, 2003). which may result in adverse selection and moral hazards problems- Adverse selection and moral hazards have led to substantial

accumulation of non-performing accounts in cooperatives (Bester, 1994; Bofondi and Gobbi, 2003). The very existence of cooperatives is often interpreted in terms of its superior ability to overcome three basic problems of information asymmetry namely ex ante, interim and ex post (Uyemura and Deventer, 1993). The management of CR in banking industry follows the process of risk identification, measurement, assessment monitoring and control. It involves identification of potential risk factors- estimate their consequences, monitor activities exposed to the identified risk factors and put in place control measures to prevent or reduce the undesirable effects. This process is applied within the strategic and operational framework of the bank.

### **2.2.3 The principal-Agent Theory**

In neo-classical positive economics, one examines and describes the behavior of companies and consumers according to objective functions for profit and individual utility maximization. The desired description of activities in fact depends on the industry structure, i.e. monopoly, oligopoly, etc. In addition, there is supposed to be perfect and free information available to all contracting parties. Transactions cost do not exist in this theory. In the institutional analysis, however, according to North and Wallis, (1986) these costs are gaining more and more importance, making up between 25% and 50% of gross national product (GNP) in the years 1870 and 1970. One very good example of such transactions costs are the costs resulting from the principal-agent theory- In the classical principal-agent theory, one party (the principal) leaves another one (the agent) some decision-making rights in order to do transactions for him due to better information availability and to in fact do them in the principal's best interest because the agent's efforts have a great impact on the latter's welfare (Reekie et al, 1995 ), In business, owners or creditors of firms act as principals whereas management takes the role of the agent. That is why this theory is called principal-agent or just agency theory (Wolf, 1999).

However, there are certain conflicts of interest arising in this relationship. Since the principal is unable to monitor the agent's activities perfectly and receive the same information as the agent without any cost, there is a certain risk of opportunistic behavior on the part of the agent.

Agency problems are thus due to information asymmetry. While owners of a firm only want to see high profits, managers prefer looking at various aspects of the business as well, such as their own utility, suppliers, costs, employees, customers or other investors (Reekie et al, 1995).

## **2.3 Credit Risk Management Practices**

### **2.3.1 Loan Portfolio**

Loan Portfolio constitutes loans that have been made or bought and are being held for repayment. Loan portfolios are the major asset of Saccos, and other lending institutions.

The value of a loan portfolio depends not only on the interest rates earned on the loans, but also on the quality or likelihood that interest and principal will be paid (Jansson, 2002).

Effective management of the loan portfolio and the credit function is fundamental to a Saccos' safety and soundness. Loan portfolio management (LPM) is the process by which risks that are inherent in the credit process are managed and controlled. Because review of the LPM process is so important, it is a primary supervisory activity. Assessing LPM involves evaluating the steps the management takes to identify and control risk throughout the credit process (Richardson, 2002).

### **2.3.2 Credit Risk Management**

When a Sacco grants credit to its customers it incurs the risk of non-payment. Credit management, or more precisely credit risk management, refers to the systems, procedures and controls which a Sacco has in place to ensure the efficient collection of customer payments minimize the risk of non-payment, (Naceur and Goaid. 2003).

Credit risk management forms a key part of a company's overall risk management strategy. Weak credit risk management is a primary cause of many business failures. Many small businesses, for example, have neither the resources nor the expertise to operate a sound credit management system (Richardson, 2002).

### **2.3.3 Risk Identification**

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 et al., 1998). Risk identification is the first stage of risk management. It develops the basis for the next steps: analysis and control of risk management. Correct risk identification ensures risk management effectiveness. If risk managers do not succeed in identifying all possible losses or gains that challenge the organization, then these non-identified risks will become non-manageable (Greene and Trieschmann, 1984). Risk identification can be described by the following basic elements: sources of risks; hazard factors; perils and exposures to risk.

#### **2.3.4 Risk Analysis**

"The condition under which there is a possibility of an adverse deviation from a desired outcome that is expected or hoped for" is termed risk (Vaughn, 1997). Risk analysis is the analysis of the anticipated cost that will be incurred if a contingency takes place. This analysis is done before any contingency occurs. There are two elements included within this definition: future uncertainties and impact of outcomes (Haimes, 1998).

An institution should have a policy to develop, review and implement an internal risk rating system where appropriate. Such a system should be able to assign a credit risk rating to obligors that accurately reflects the obligors' risk profile and likelihood of loss. It should also assign risk ratings in a consistent manner to enable the institution to classify obligors by risk ratings and have a clearer understanding of the overall risk profile of its portfolio.

The institution's credit policy should define the various risk grades of its rating system. It should also set the criteria for assigning risk grades and the circumstances under which deviations from criteria are permitted. The credit policy should also define the roles of different parties involved in the rating process (Strutt 1993).

#### **2.3.5 Credit Risk Assessment**

These constitute the process that a financial institution uses to determine the credit worthiness of a borrower. An institution should conduct comprehensive assessments of the creditworthiness of its obligors. These should include, where pertinent, analysis of the obligor's financial position as reflected in various financial and cash flow statements, past repayment record, management quality and integrity, as well as relevant industry and macroeconomic data. For corporate obligors, adequate checks on the shareholders and company directors should be

conducted. The institution should group related obligors where appropriate, and conduct credit assessment on a group basis (Baltoni, 1998).

### **2.3.6 Credit Risk Monitoring**

A Sacco should have in place a system for monitoring the condition of individual credits.

Key indicators of credit condition should be specified and monitored to identify and report potential problem credits. These would include indicators from the following areas: 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 (Al-Tamimi and Al-Mazrooei, 2007).

### **2.3.7 Credit Risk Management Procedures**

These are procedures followed by an organization in order to implement its credit policy.

An institution should establish appropriate procedures and processes, 'these should be documented and set out in sufficient detail to provide operational guidance to staff.

Procedures should be established for the implementation of various controls and check within the credit process, such as completion of credit and legal documents, verification of loan disbursement, implementation of facility limits and follow up on credit exceptions.

The operational procedures should be periodically reviewed and updated to take into account new activities and products, as well as new lending approaches and changes in systems (Fallon, 1996).

## **2.4 Empirical Studies**

Positive correlation between returns and capital has been demonstrated by Furlong and Kelley et al (1990), Naceur (2003) and Kwan and Eisenbeis (2005). Investigating the determinants of financial institution performances during the period 1980-1995. Naceur and Goaid (2003) indicated that the best performing institutions are those who have struggled to improve labour and capital productivity and those who have been able to reinforce their equity. Naceur (2003) agree that well-capitalized institutions face lower need to external funding and lower insolvency and funding costs, and this advantage translates into better profitability.

If portfolio quality is poor or efficiency is low for example, this is reflected in profitability. Profitability is measured using three ratios: Return on assets which provide an overall measure of profitability by assessing of net income to average total assets whereby the desired level is around 3.7 per cent for smaller banks in the developing countries (Jansson, 2002). Financial self sufficiency measures the total income as a ratio of adjusted operating expenses. The total expenditure is adjusted for inflation costs, market interest rates total donated capital and all in-kind subsidies and donations. Portfolio yield measures the total loan income to average net loan portfolio. The targeted level for this ratio is at least 10 percent (Richardson, 2002).

Peters et al. (1989) described the development of a conceptual model of how auditors assess inherent risk in a normal audit environment and its implementation as a knowledge-based (expert) system. Peters et al. (1989) asserted that the auditor begins the inherent risk evaluation process by generating expectations of accounts balances. The auditor identifies changes that have occurred in the firm or its environment and determines how those changes should interact with historic trends to produce an expected balance in the account (1989, p.g 365). Consistent with Hylas and Ashton (1982) and Houghton and Fogarty (1991), Peters et al.'s conceptual model included both historical firm data and the historic evaluation of management and control as essential factors contributing to the auditor's assessment of inherent risk. It is important to ensure that the risk management function is established throughout the whole corporation; apart from parent company, the subsidiaries too have to identify risks, analyze risks and so on. There are many other approaches for risk identification, for instance, scenario analysis or risk mapping. An organization can identify the frequency and severity of the risks through risk mapping which could assist the organization to stay away from high frequency and low severity risks and instead focus more on the low frequency and high severity risk. Risk identification process includes risk-ranking components where these ranking are usually based on impact, severity or dollar effects (Barton et al. 2002). Accordingly, the analysis helps to sort risk according to their importance and assists the management to develop risk management strategy to allocate resources efficiently.

Strutt (1993a) outlines an engineering approach which defines risk analysis in the same terms as the Royal Society Study Group defines risk estimation and indeed claims that risk analysis is



also called risk estimation. This is a narrower definition which now suggests that the preliminary conclusion above is mistaken. However, in another paper (Strutt.1993) the same author expands his definition of risk analysis to include evaluation of acceptance or tolerance to the risk.

Strutt (1993) gives the fullest definition of risk analysis in a third paper where he sets out the concept in seven stages as systematic assessment (item by item - question every part of the system), identification of risks (local and global scale), assessment of risks (frequencies and consequences). This may involve a number of different analyses like establishing acceptable or tolerable levels of risk, evaluation of risks, determine whether the risks are as low as reasonably practicable, and determine risk reduction measures where appropriate.

A comprehensive risk measurement and mitigation methods for various risk arising from financing activities and from the nature of profit and loss sharing in the source of funds especially investment account holders are explained by. He concludes that the application of modern approaches to risk measurement, particularly for credit and other risks is important for Saccos, Also, he suggests that the need to adopt new measurement approaches is particularly critical for Saccos because of the role play the unique mix of risks in finance contracts (Sundararajan, 2007).

According to Parrenas, (2005), the shareholders of the institutions can use their rights to demand information in order to judge the efficiency of the risk management system. The director's report enables the shareholders to assess the status of risk corporation knowledgeably and thoroughly. Khan and Ahmad (2001) conducted a survey of risk management practices and found that on average the lowest percentage is on the measuring, mitigating and monitoring risk that is 69% score as compared to risk management policies and procedures that is 82.4%, and internal control of banks that is 76%. Al-Tamimi and Al-Mazrooei (2007) found that there is significant difference between UAE national and foreign banks in risk monitoring and controlling. Also the UAE commercial banks have an efficient risk monitoring and controlling system and it has positive influence on risk management practices.

According to Baldoni, (1998), the area of interest rate risk is the second area of major concern and on-going risk monitoring and management. Here, however, the tradition has been for the banking industry to diverge somewhat from other parts of the financial sector in their treatment of interest rate risk. Most commercial banks make a clear distinction between their trading activity and their balance sheet interest rate exposure. Investment banks generally have viewed interest rate risk as a classic part of market risk and have developed elaborate trading risk management systems to measure and monitor exposure. For large commercial banks and European-type universal banks that have an active trading business, such systems have become a required part of the infrastructure, (Akkizidis and Khandelwal, 2008). But in fact, these trading risk management systems vary substantially from bank to bank and generally are less real than imagined. In many firms- fancy value- at-risk models, are up and running. But, in many more cases, they are still in the implementation phase. In the interim, simple ad hoc limits and close monitoring substitute for elaborate real time systems. While this may be completely satisfactory for institutions that have little trading activity and work primarily on behalf of clients, the absence of adequate trading systems elsewhere in the industry is a bit distressing.

According to Fallon, (1996), each Sacco must apply a consistent evaluation and rating scheme to all its investment opportunities in order for credit decisions to be made in a consistent manner and for the resultant aggregate reporting of credit risk exposure to be meaningful. To facilitate this, a substantial degree of standardization of process and credit portfolio. In a single rating system, a single value is given to each loan, which relates to the borrower's underlying credit quality.

According to Luck, (1998), total receivables, including loans, leases and commitments and derivatives, are reported in a single format. Assuming the adherence to standards, the entirety of the firm's credit quality is reported to senior management monthly via this reporting mechanism. Changes in this report from one period to another occurs for two reasons, loans have entered or exited the system, or the rating of individual loans has changed over the intervening time interval. The first reason is associated with standard loan turnover. Loans are repaid and new loans are made. The second cause for a change in the credit quality report is more substantive.

Variations over time indicate changes in loan quality and expected loan losses from the credit portfolio. In fact, credit quality reports should signal changes in expected loan losses, if the rating system is meaningful. Studies by Harrington, (1999) on their rating system have illustrated the relationship between credit rating and ex post default rates. A similar result should be expected from internal bank-rating schemes of this type as well.

However, the lack of available industry data to do an appropriate aggregate migration study does not permit the industry the same degree of confidence in their expected loss calculations.

As an industry, financial institutions have generally sought estimates of expected loss using a two-step process, including default probability, and an estimate of loss given default. This approach parallels the work of Harrington, (1999) referred to above. At least quarterly, the level of the reserve account is re-assessed, given the evidence of loss exposure driven directly from the credit quality report, and internal studies of loan migration through various quality ratings. Absent from the discussion thus far is any analysis of systematic risk contained in the portfolio. Traditionally mutual funds and merchant banks have concerned themselves with such risk exposure, but the commercial banking sector and Saccos has not. This appears to be changing in light of the recent substantial losses in real estate and similar losses in the not-too-distant past in petrochemicals (Graiss, and Kulathunga, 2007).

Drzik. (1995) hold that credit report is not the result of any analytical exercise to evaluate the potential downside loss, but rather a subjective evaluation of management's tolerance, based upon rather imprecise recollections of previous downturns. In addition, there is the emergence of portfolio managers to watch over the loan portfolio's degree of 'concentration and exposure to both types of risk concentration discussed. Most organizations also will report concentration by individual counterparty. To be meaningful, however, this exposure must be wide and include all related affiliates. Both of these requirements are not easily satisfied. For large institutions, a key relationship manager must be appointed to assure that overall Sacco exposure to a particular client is captured and monitored. This level of data accumulation is never easy, particularly across time zones.

For institutions that do have active trading businesses, value at risk has become the standard approach. Similar systems are in place at other firms. In that much exists in the public record about these systems, there is little value to reviewing this technique here.

Suffice it to say that the daily, weekly, or monthly volatility of the market value of fixed rate assets are incorporated into a measure of total portfolio risk analysis along with equity's market risk, and that of foreign-denominated assets. For balance sheet exposure to interest rate risk, commercial banking firms follow a different drummer. Given the generally accepted accounting procedures (GAAP) established for bank assets, as well as the close correspondence of asset and liability structures, commercial banks tend not to use market value reports, guidelines or limits. Rather, their approach relies on cashflow and book values, at the expense of market values (Baldoni, 1998)

This system (gap methodology), has been labeled traditionally a gap reporting system as the asymmetry of the repricing of assets and liabilities results in a gap. This has classically been measured in ratio or percentage mismatch terms over a standardized interval such as a 30-day or one-year period. This is sometimes supplemented with a duration analysis of the portfolio. However, many assumptions are necessary to move from cash flows to duration. Asset categories that do not have fixed maturities, such as prime rate loans, must be assigned a duration measure based upon actual repricing flexibility. A similar problem exists for core liabilities, such as retail demand and savings balances. Nonetheless, the Industry attempts to measure these estimates accurately, and include both on- and of balance sheet exposures in this type of reporting procedure (Archer and Haron, 2007).

According to Drzik, (1995), most financial institutions, however, have attempted to move beyond this gap methodology. They recognize that the gap and duration reports are static, and do not fit well with the dynamic nature of the banking market, where assets and liabilities change over time and spreads fluctuate. In fact, the variability of spreads is largely responsible for the highly profitable performance of the industry over the last two years. Accordingly, the industry has added the next level of analysis to their risk management procedures. Currently, many banks are using balance sheet simulation models to investigate the effect of interest rate variation on reported earnings over one-, three- and five-year horizons. These simulations, of

course, are a bit of science and a bit of art. They require relatively informed repricing schedules, as well as estimates of prepayments and cash flows.

According to Iqbal and Mirakhor, (2007), every institution has an investment policy in place which defines the set of allowable assets and limits to the bank's participation in any one area, all institutions restrict the activity of the treasury to some extent by defining the set of activities it can employ to change the bank's interest rate position in both the cash and Forward markets. Some are willing to accept derivative activity, but all restrict their positions in the swap caps and floors market to some degree to prevent unfortunate surprises. As reported losses by some institutions mount in this area however, investment guidelines are becoming increasingly circumspect concerning allowable investment and hedging alternatives- 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. while others are active participants. The former will take virtually no principal risk. No forward open positions, and have no expectations of trading volume (Iqbal and Mirakhor 2007).

Some empirical evidence has shown that in most developing economics, savings and credit cooperatives have brought millions of citizens into cohesive financial institutions which are succeeding very well in providing financial services to its members for improving their standard of living (Temu, 1999; Chirwa, 1997), Nevertheless, the existing literature has also indicated that these farmers' associations has been experiencing problems including diseconomies scale of credit, high interest rate on loan, and very short-term loans (Chirwa, 1997). Such problems have caused high rate of default in most developed economics, like wise previous studies have established that social-economic and demographic factors such as age income- marital status, gender, family size, occupation, etc. have bearing on households' credit worthiness and repayment behavior of the borrowers on credit market  
Following are some observations in this regard.

Arene (1992) used a regression analysis lo identify the variables that have a significance bearing on credit repayment performance by farmers associations in Anambra state in Nigeria.

Among others, variables such as size of loan, income, education level and number of years of farming experience were found to be statistically significant while distance and size of the households were not significant.

Mbala (1994) hypothesized that credit repayment performance from external source depends on duration of loan servicing, size or amount of credit obtained and income generated from The capital, while credit repayment performance from internal sources (member capital) depends on duration of membership, size of the household, amount of credit available, income generated from sales, gender of the household, income transfers received, the type of information and the extent of business diversification. Using standard probability model, the results revealed that gender, amount of loan, member experience and household size were not statistically significant in various specifications while crop sales. The size of enterprise, the degree of diversification, income transfers and quality of information were statistically significant.

Harikumar (1991) made an attempt to analyze the utilization of loans, over dues and factors affecting proper repayment and overdue. Contrary to Nikhade et al. (1994) and Rambabu et al. (1994), it was found that socio economic factors do not influence loan repayment. The crop failure and fall in prices were identified as major factors influencing loan defaulting.

Njoku (1997) posited that socioeconomic characteristics of credit beneficiaries had a significant influence in farmers' association performance and loan repayment under the special emergency loan scheme in Nigeria. The results from Cobb-Douglas model shown that loan volume (size), years of member experience, formal education, household size, loan period, farm size, farm output, value of assets and interest paid on loan were all highly significant determinants of farmer's credit societies on performance and loan repayment default.

Puthussery (1999) studied the overdues problem at the beneficiary level analysis with the aim of identifying the reasons for defaults. It was found that the major reasons responsible for the heavy overdues are modification of the subsidy system, will full neglect, high family expenditure, diversion of income from the project and inappropriate government policy.

## 2.5 Conclusion

Sacco's are often faced with risks that are mostly of financial nature. These institutions must balance risks as well as returns. For a Sacco to have a large consumer base, it must offer loan products that are reasonable enough. However, if the interest rates in loan products are too low, the Sacco will suffer from losses. In terms of equity, Sacco's must have substantial amount of capital on its reserve, but not too much that it misses the investment revenue, and not too little that it leads itself to financial instability and to the risk of regulatory non-compliance.

While Sacco's have faced difficulties over the years for a multitude of reasons, the major cause of serious Sacco's problems continues to be directly related to lax credit standards for borrowers and counterparties, poor portfolio risk management, or a lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of an institution's counterparties.

Since exposure to credit risk continues to be the leading source of problems in financial institutions world-wide, Sacco's and their supervisors should be able to draw useful lessons from past experiences. They should now have a keen awareness of the need to identify, measure, monitor and control credit risk as well as to determine that they hold adequate capital against these risks and that they are adequately compensated for risks incurred.

The sound practices set out in this literature specifically address the following areas: establishing an appropriate credit risk environment; operating under a sound credit granting process; maintaining an appropriate credit administration, measurement and monitoring process; and ensuring adequate controls over credit risk. Although specific credit risk management practices may differ among Sacco's depending upon the nature and complexity of their credit activities, a comprehensive credit risk management program will address these four areas. As a result of introduction Fosa services which entails a wide variety of products, the theories and empirical findings all point to the fact that credit risk management is mandatory to Sacco's offering Fosa services.

## **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 discussed the methods of data collection and data analysis used.

#### **3.2 Research Design**

A descriptive survey was employed in this study. The survey design was chosen because it provided a means to contextually interpret and understand credit risk management in Saccos with FOSA. According to Cooper and Schindler (2003) descriptive study describes the existing conditions and attitudes through observation and interpretation techniques.

This study therefore was able to generalize the findings to all the SACCOS offering FOSA services in Kenya.

#### **3.3 Population**

##### **Population**

The population consisted of all savings and credit cooperative societies offering front office services in Kenya. According to the Ministry of Cooperative and Development Reports (2010), there were 212 SACCOS offering FOSA services in Kenya.

##### **3.3.1 Study Setting**

The geographical area within which this study was conducted consisted of all Saccos with FOSA services operating in Nairobi province. This was because majority of the Saccos with FOSA had headquarters in Nairobi. Nairobi also gave a good representative sample of the whole population. This setting was considered sufficient and appropriate for me examination of



the research objectives guiding this study. The lists of the Saccos to be considered were documented in appendix 3.

### **3.3.2 Sampling Procedure and Sample Size**

The sample size of this study was (40) Saccos offering Fosa services in Nairobi. Noting that most of credit risk management was mainly under the credit department the researcher interviewed the credit managers from the selected SACCOS. Where the SACCO had no credit manager, the SACCO manager was interviewed.

### **3.4 Data Collection**

The researcher used primary data. According to Sproull (1998), a self administered questionnaire is the only way to elicit self report on people's opinion, attitudes, beliefs and values. Primary data was obtained through self-administered questionnaires with closed and open-ended questions (see appendix II). As much as possible, a 5-point likert scale was used to investigate the credit management practices in SACCOs with FOSA. The closed ended questions enabled the researcher to collect quantitative data while open ended questions enabled the researcher to collect qualitative data.

The questionnaires were personally administered by the researcher. This method of administration was justified as it resulted in a higher response rate than the drop and pick method of administration. Further, personal administration of the questionnaires helped in carrying out data cleaning while on the field ensuring that data collected was adequate for the purposes of the research.

A letter introducing the purpose of the study and copies of the questionnaires was given to the respondents. Where necessary the researcher discussed the questionnaires with the respondents to further clarify the answers.

#### **3.4.1 Validity and Reliability of Research Instrument**

Content validity which was employed by this study as a measure of the degree to which data collected using a particular instrument represents a specific domain or content of a particular

concept. Mugenda and Mugenda (1999) contend that the usual procedure in assessing the content validity of a measure is to use a professional or expert in a particular field.

To establish the validity of the research instrument the researcher sought opinions of experts in the field of study especially the researcher's supervisor and lecturers in the school of business. This facilitated the necessary revision and modification of the research instrument thereby enhancing validity.

Reliability refers to the consistency of measurement and was frequently assessed using the test-retest reliability method. Reliability is increased by including many similar items on a measure, by testing a diverse sample of individuals and by using uniform testing procedures. Reliability of the research instrument was enhanced through a pilot study. The questionnaire was developed by the researcher and a pilot test was carried out before the actual study takes place. The sample of the pretest was a total of 6 credit managers Sacco managers and assistant managers of a SACCO with FOSA. The results from the pretest group were not presented in the final results.

### **3.5 Data Analysis**

Before processing the responses, the completed questionnaires were edited for completeness and consistency. The data was then coded to enable the responses to be grouped into various categories. Quantitative data was analyzed using the SPSS. Version 17. A descriptive analysis was employed. Descriptive statistics such as means, standard deviation and frequency distribution were used to analyze the data. All quantitative data on credit risk management were measured in real values by normalizing. This generated quantitative reports through tabulations, percentages, and measure of central tendency Tables were used to present the data collected for ease of understanding to summarize responses for further analysis and facilitate comparison.. Cooper and Schindler (2003) notes that the use of percentages is important for two reasons; first they simplify data by reducing all the numbers to range between 0 and 100. Second, they translate the data into standard form with a base of 100 for relative comparisons.

Qualitative data was also analyzed through content analysis. According to Mugenda and Mugenda, 1999, Content analysis is used to determine the presence of certain words or

concepts within texts or sets of texts. Researchers quantify and analyze the presence- meanings and relationships of such words and concepts, then make inferences about the messages within the texts, the writers(s), the audience, and even the culture and time of which these are a part.

## CHAPTER FOUR

### DATA ANALYSIS AND RESEARCH FINDINGS

#### 4.1 Introduction

This chapter provides the analysis and research findings from the field. The data was collected total using a self administered questionnaire from a total sample of 40 SACCOS offering FOSA services in Nairobi Province of whom the sample were credit managers and Sacco Managers. The response rate was 95%. The data was analyzed using SPSS version 17 where descriptive and content analysis was employed. Tables were used to summarize the responses and facilitate comparisons.

#### 4.1.1 Demographic Information

In order to capture the general information of the respondent's issues such as gender, age, level of education, current position and working experience in the SACCO.

##### 4.1.1.1 Gender

**Table 4.1: Distribution of Respondents by Gender**

Gender	Frequency	Percent
Male	28	70%
Female	12	30%
Total	40	100.0%

Table 4.1 shows respondents' gender 70% of the respondent were males while 30% were female. This compares with the rule of 30% of inclusion of females in all sectors of the economy which is being emphasized.

##### 4.1.1.2 Age brackets

Age	Frequency	Percent
25-34	15	37.5%
35-44	15	37.5%
45-54	10	25%
Total	40	100.0%

**Table 4.2: Distribution of Respondents by Age.**

Table 4.2 shows that 25% of the respondents were in the 45-54 year age bracket while a further 37.5% of the respondents were in the 25-34 and 35-44 year age brackets. Majority of the respondents fell in this two age brackets with the minority being older than 45 years old. This could be explained by the highest number of young citizens taking up the task of management of firms immediately after completing their studies hence the older generation tend to retire back to other relevant opportunities which suits them

**4.1.1.3 Highest Qualification Achieved****Table 4.3 Distribution of Respondents by Qualification achieved.**

Qualification	Frequency	Percent
Diploma	14	35.0%
degree	18	45.0%
Masters	3	7.5%
Others-c.p.a, A-level	5	12.5%
Total	40	100.0%

Table 4.3 shows that 45% of the respondents had achieved a degree qualification while 35% had achieved a diploma qualification. A further 7.5% of the respondents had reached masters; however, 12.5% had other qualifications. This shows that majority of the staff have achieved high levels of education.

**4.1.1.4 Current designation within the SACCO**

Current Designation	Frequency	Percent
Credit manager	15	37.5%
Branch manager	3	7.5%
Managing director	2	5.0%
Others	20	50.0%
		100%

From the table above, 37.5% of the respondents were credit managers and 7.5% were managers. However, as can be seen from the table below, respondents gave their designations including; accountants, general manager, loan officers. FOSA manager and deputy general manager.

Others	Frequency	Percent
Accountant	5	12.5%
Accounts clerk	1	2.5%
Book keeper	1	2.5
BOSA Officer	1	2.5
Section head-Customer care	1	2.5
Deputy general manager	1	2.5
Finance manager	1	2.5
FOSA manager	2	5.0
General Manager	2	5.0
Loan officer	4	10.0
Manager	1	2.5
Total	20	50.0

**Table 4.4 Distribution of Respondents by current Designation**

**4.1.1.5 Number of years in the SACCO industry**

**Table 4.5 Distribution of Respondents by number of years spent working in the SACCO industry.**

Duration in Sacco	Frequency	Percent
1-5 yrs	8	20.0
6-10yrs	9	22.5
11-15yrs	6	15.0
16-20yrs	7	17.5
21yrs n above	10	25
Total	40	100.0

Table 4.5 shows that 25% of the respondents had working experience of 21 years while 17.5% had working experience of between 16-20 years in the SACCO industry. A further 15% had experience of between 11-15 years while only 22.5% had worked in the SACCO industry for 6-10 years. This implies that most staff had good working experience in the Sacco industry.

## 4.2 Loan Portfolio Results

### 4.2.1 Specific credit management policies for managing loan risks.

**Table 4.6 Distribution of Respondents as to whether they have credit management policies.**

	Frequency	Percent
No	4	10.0
Yes	36	90.0
Total	40	100.0

When asked whether their Sacco had a specific credit management policy for managing loan risks, 90% of the respondents said they had while 10% said they did not have. This finding implies that majority of the Sacco's understands the importance of Credit Risk Management policies in mitigating risk.

### 4.2.2 Involvement of parties in formulating credit management policies for loans.

This section of the study used a scale of 1-5 in rating of responses towards formulation of the credit management policies for loans. The scores "Very great extent" and "great extent" were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale ( $1 \leq GE \leq 2.5$ ), referred to as "to a great extent". The scores of 'Moderate extent' was equivalent to 2.6 to 3.5 on the Likert scale ( $2.6 \leq ME \leq 3.5$ ). The score of "Little extent" and "No extent" was equivalent to 3.6 to 5.0 on the Likert Scale ( $3.6 \leq LE \leq 5.0$ ). Results are presented in table 4.7

**Table 4.7 Involvement of parties in formulating credit management policies for loans.**

	N	Minimum	Maximum	Mean	Std.Deviation
The institution	36	1.00	4.00	1.4444	0.73463.
Third parties	36	1.00	5.00	2.5833	1.36015

The researcher established that to a great extent, formulation of credit management policies for loan was done by the institution as shown by the mean score of 1.4444. Respondents rated the formulation of credit management policies for loans by third parties as being of moderate extent. This was represented by a mean score of 2.5833. This implies that Saccos with Fosa services attaches great importance to institution involvement in formulating credit management policies.

#### **4.2.3 Extent to which the Sacco uses indicators in its credit risk management approaches to loans.**

This section of the study used a scale of 1-5 in rating of responses towards indicators used in credit risk management approaches To loans. The scores "Very great extern" and "great extent" were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale ( $1 \leq GE \leq 2.5$ ), referred to as "to a great extent". The scores of 'Moderate extent' was equivalent to 2.6 to 3.5 on the Likert scale ( $2.6 \leq ME \leq 3.5$ ). The score of "Little extent" and "No extent" was equivalent to 3.6 to 5.0 on the Likert Scale ( $3.6 \leq LE \leq 5$ ). Results are presented in table 4.8

**Table 4.8 Extent to which the Sacco uses indicators in its credit risk management approaches to loans.**

	N	Minimum	Maximum	Mean	Std.Deviation
Operating Efficiency	40	1.00	4.00	1.4750	0.78406
Loan portfolio Indicators	40	1.00	4.00	1.8750	0.99195
Valid N(listwise)	40				

When asked to rate the indicators used in credit risk management approaches to loans in their SACCOS, respondents said that both operating efficiency and loan portfolio indicators were used to a great extent in credit risk management with a mean score of 1.4750 and 1.8750



respectively. This implies that the major risks encountered by Saccos offering Fosa services are operating and credit risks.

#### **4.2.4 Extent to which the Sacco considers the following factors in establishing a loan portfolio policy.**

This section of the study used a scale of 1-5 in rating of responses towards establishment of a loan portfolio policy. The scores "Very great extent" and "great extent" were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale ( $1 \leq GL \leq 2.5$ ), referred to as "to a great extent". The scores of 'Moderate extent' was equivalent to 2.6 to 3.5 on the Likert scale ( $2.6 \leq ME \leq 3.5$ ). The score of 'Little extent' and "No extent" was equivalent to 3.6 to 5.0 on the Likert Scale ( $3.6 \leq LE \leq 5.0$ ). Results are presented in table 4.9

**Table 4.9 Extent to which the Sacco considers the following factors in establishing a loan portfolio policy.**

Loan portfolio policy	N	Minimum	Maximum	Mean	Std.Deviation
Existing Credit Policy	40	1.00	4.00	1.4000	.67178
General trend of credit	40	1.00	5.00	1.9000	1.03280
State of the economy	40	1.00	5.00	2.6500	1.23101
Overhead cost	40	1.00	5.00	2.4750	1.35850

Respondents said that the existing credit policy, the general trend of credit and overhead cost were being used to a great extent in the establishment of a of loan portfolio policy with a mean scores of 1.40, 1.90 and 2.475 respectively. However respondents rated state of economy to be of moderate extent in the establishment of a loan portfolio policy with mean scores of 2.65. This finding shows that not only do Saccos with Fosa services consider the existing credit policies in the formulation of new loan portfolio policy, but they also considered the general trend of credit and the overhead costs. This would ensure a holistic approach in policy formulation ensuring effectiveness.

#### 4.2.5 Extent of participation in formulating loan portfolio policies.

This section of the study used a scale of 1-5 in rating of responses towards people involved in formulating loan portfolio policies. The scores "Very great extent" and "great extent" were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale ( $1 < GE < 2.5$ ), referred to as "to a great extent". The scores of "Moderate extent" was equivalent to 2.6 to 3.5 on the Likert scale ( $2.6 \leq ME \leq 3.5$ ). The score of "Little extent" and "No extent" was equivalent to 3.6 to 5.0 on the Likert Scale ( $3.6 \leq LE \leq 5$ ). Results are presented in table 4.10

**Table 4.10 Extent of participation in formulating loan portfolio policies.**

People participating in policies formulation	N	Minimum	Maximum	Mean	Std.Deviation
Executive management	40	1.00	4.00	1.45	0.87560
Credit committee	40	1.00	5.00	1.6250	1.07864
Board of directors	40	1.00	5.00	1.80	1.24447
Employee suggestions	40	1.00	5.00	2.1000	1.08131
Credit manager	40	1.00	5.00	2.1250	1.39940
Credit analyst	40	1.00	5.00	3.5250	1.73925

The researcher established that the board of directors, executive management, credit committee, and the credit manager and employee suggestions were to a great extent involved in formulating the loan portfolio policies with a mean scores of 1.80, 1.45, 1.6250, 2.1250 and 2.1 respectively. From the study only the credit analyst who to a moderate extent was involved in formulating loan portfolio policies which mean score of 3.5250. This implies that the process of loan portfolio policy formulation involves all of the stakeholders within the Sacco.

#### 4.2.6 Extent to which the Sacco uses accounting ratios to measure portfolio quality.

This section of the study used a scale of 1-5 in rating of responses towards use of accounting ratios to measure portfolio quality. The scores "Very great extent" and "great extent" were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale ( $1 \leq GE \leq 2.5$ ), referred to as "to a great extent". The scores of 'Moderate extent' was equivalent to 2.6 to 3.5 on the Likert scale ( $2.6 \leq ME \leq 3.5$ ). The score of "Little extent" and "No extent" was equivalent to 3.6 to 5.0 on the Likert Scale ( $3.6 \leq LE \leq 5.0$ ) results are presented in table 4.11

**Table 4.11 Extent to which the Sacco uses accounting ratios to measure portfolio quality.**

	N	Minimum	Maximum	Mean	Std Deviation
Portfolio at risk (PAR) which measures the portion of the loan portfolio contaminated by arrears as a percentage of the total portfolio where the desired level is less than 10 per cent	40	1.00	4.00	2.55000	1.37654
Risk coverage ratio which shows what proportion of the portfolio at risk is covered by actual loan losses where the rate could be as 90 per cent	40	1.00	5.00	3.1500	1.45972
Loans written off ratio which represents the amount of loans removed from the accounting books because of a substantial loss where a maximum of 4	40	1.00	5.00	3.3250	1.38467
Per cent is envisaged					

The researcher established that PAR ratio, risk coverage ratio and loans written off were applied a moderate extent with means of 2.55. 3.15 and 3.325 respectively. It can be concluded however that PAR ratio is commonly used ratio to measure portfolio quality in Saccos with Fosa services.

### 4.3 Risk Identification Results

#### 4.3.1 Extent to which SACCO consider risk identification as a process in credit risk

Response	Frequency	Percent
Very great extent	19	47.5
Great extent	15	37.5
Moderate extent	4	10.0
Less extent	1	2.5
No extent	1	2.5
total	40	100.0%

Table 4.12 shows that 47.5% of the respondents agreed to a very great extent and 37.5% to a great extent that the SACCO considered risk identification as a process in credit risk management while 10% were moderate on the extent to which SACCO consider risk identification as a process in credit risk management. However, a further 2.5% stated that Savings and credit societies consider risk identification as a process in credit risk management to a less and no extent. This depicted knowledge on the credit risk management process within the Saccos, and the appreciation of the importance of risk identification.

#### 4.3.2 Extent to which the SACCO involve the following parties in risk identification process

This section of the study used a scale of 1-5 in rating of responses towards risk identification process. The scores "Very great extent" and "great extent" were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale ( $1 < GE < 2.5$ ). referred to as "to a great extent". The scores of 'Moderate extent' was equivalent to 2.6 to 3.5 on the Likert scale ( $2.6 < ME < 3.5$ ). The score of "Little extent" and "No extent" was equivalent to 3.6 to 5.0 on the Likert Scale ( $3.6 < LE < 5.0$ ) Results are presented in table 4.13

Table 4.13 Extent to which the SACCO involve the following parties in risk

Identification process

Parties is risk identification	N	Minimum	Maximum	Mean	Std.Deviation
Senior employees	40	1.00	5.00	2.0000	1.48497
Internal auditors	40	1.00	5.00	2.15	1.27702
External auditors	40	1.00	5.00	2.375	.82858
Middle and lower level employee	40	1.00	5.00	2.6000	1.30089

Results presented in table 4.13 where the parties were rated to great extent in the following order; senior employees, internal auditors, external auditors and lastly middle and tower level employees with the following mean scores: 2.0, 2.15, 2.375 respectively and lastly middle and a lower level employee was rated as moderate with a mean of 2.6. This would imply that majority of Saccos with Fosa services were not involving the middle and lower employees in this process which would have a consequence in the whole process.

**4.3.3 Extent to which the respondents agree with the following statement about the Importance of risk identification in credit risk management.**

This section of the study used a scale of 1-5 in rating of responses towards the importance of risk identification in credit risk management. The scores "strongly agree" and "agree" represented a strong rating of importance of risk identification in credit risk management and were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale ( $1 \leq A \leq 2.5$ ) and were represented by "agreed". The score of 'neutral' was equivalent to 2.6 to 3.5 on the Likert scale ( $2.6 < N < 3.5$ ). The score of "disagree" and "strongly disagree" represented a weak rating of importance of risk identification in credit risk management.

This was equivalent to 3-6 to 5.0 on the Likert Scale ( $3.6 \leq D \leq 5.0$ ), otherwise referred to as "disagreed". Results arc presented in table 4.14

#### 4.14 Distribution of Respondents according to importance of risk identification

Importance	N	Minimum	Maximum	Mean	Std.Deviation
It ensures that risk management function is established throughout the whole corporation	40	1.00	4.00	1.3250	.65584
Risk identification helps to sort risk according to their importance.	40	1.00	5.00	1.5500	.81492
Risk identification assists the management to develop risk management strategy to allocate resources.	40	1.00	5.00	1.6750	.88831

Results presented in table 4.14 show that all the importance's of risk identification; It ensures that the risk management function is established throughout the whole corporation; Risk identification helps to sort risk according to their importance and that Risk identification assists the management to develop risk management strategy to allocate resources efficiently, were highly rated as "agreed" with mean scores of 1.325, 1.550 and 1.675 respectively. This implied that the respondents were fully aware of the importance of risk identification in the process of credit risk management.

#### 4.4 Risk Analysis and Assessment Results

**4.4.1 Extent to which respondents agreed that the application of modern approaches to risk measurement, particularly for credit and overall banking risks is important for SACCOs in view of risk analysis and assessment as a credit risk management practice.**

	Frequency	Percent
Strongly agree	24	60.0%
Agree	14	35.0%
Neutral	1	2.5%
Disagree	1	2.5%
Total	40	100.0%

From table 4.15, Sixty percent of the respondents strongly agreed while 35% agreed that the application of modern approaches to risk measurement, particularly for credit and overall banking risks is important for SACCOs in view of risk analysis and assessment as a credit, risk management practice. However 2.5% of the respondents were neutral while 2.5% disagreed that application of modern approaches to risk measurement is important. This reflected credit risk analysis and assessment importance to the process of credit risk management in Saccos with Fosa services.

**4.4.2 Extent to which respondents agree that risk analysis and assessment is a comprehensive risk measurement and mitigation method used for various risks arising from financing activities and from the nature of profit and loss sharing in the source of funds especially investment account holders.**

	Frequency	Percent
Strongly agree	15	37.5%
Agree	20	50.0%
Neutral	3	7.5%
Disagree	2	5.0%
Total	40	100.0%

Table 4.16 shows that 37.5% of the respondents strongly agreed that risk analysis and assessment is a comprehensive risk measurement and mitigation method used for various risks arising from financing activities and from the nature of profit and loss sharing in the source of funds especially investment account holders while 50% agreed. However 7.5% of the respondents were neutral while only 5% disagreed.

**4.4.3 Extent to which respondents agree to risk analysis and assessment in credit risk management**

This section of the study used a scale of 1-5 in rating of responses towards use of risk analysis and assessment in credit risk management. The scores ""strongly)- agree" and "agree" represented a strong rating of risk analysis and assessment in credit risk management and were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale ( $1 \leq A \leq 2.5$ ) and were represented by "agreed". The score of 'neutral' was equivalent

to 2-6 to 3.5 on the Likert scale ( $2.6 \leq N \leq 3.5$ ). The score of "disagree" and "strongly disagree" represented a weak rating of risk analysis and assessment in credit risk management. This was equivalent to 3.6 to 5.0 on the Likert Scale ( $3.6 \leq D \leq 5.0$ ), otherwise referred to as "disagreed". Results are presented in table 4.17.

**Table 4.17 Extent to which respondents agree to risk analysis and assessment in credit risk management**

	N	Minimum	Maximum	Mean	Std.Deviation
Risk analysis and assessment comprises identification of the outcomes	40	1.00	3.00	1.6000	.67178
Risk analysis and assessment comprises estimation the magnitude of the consequences	40	1.00	3.00	1.6750	.72986
Risk analysis and assessment comprises the probability of those outcomes	40	1.00	4.00	2.0250	.91952

Study findings showed that respondents agreed to all the three statements on application of risk analysis and assessment in credit risk management with mean scores of 1.60, 1.6750 and 2.025 respectively. This implied that the respondents were aware of what entails credit risk analysis and assessment.

#### **4.4.4 Main approaches used in risk analysis and assessment in credit risk management in SACCO's**

The major approaches used in risk analysis and assessment in the (SACCOs) were:

The use of reports such as aged analysis, delinquency reports which is done monthly, quarterly and end year. In addition the use of ratios was used to analyze the ratio of loan portfolio to total assets and delinquency level of the loan portfolio.

Secondly checking of the creditworthiness of the member by use of the following, verifying of current pay slip, filling of affidavit forms for loans greater than ksh 100,000, analyzing the history of members on their repayments, contributions and loans taken and finally confirming loaners and grantors details.



Last but not least adherence to loan credit policy ; permanent members granted 3 times their savings while temporary members granted twice, ensuring loans granted have insurance cover and that members are left with 1/3 of net salary after Sacco deductions have been made.

This findings implied that various approaches were used in the risk analysis and assessment of credit risk within Saccos with Fosa services.

#### 4.5 Risk Monitoring Results

##### 4.5.1 Distribution of respondents according to extent of agreement into risk monitoring and profitability.

Effective credit risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place.	Frequency	Percent
Strongly agree	30	75.0
Agree	8	20.0
Neutral	2	5.0
Total	40	100.0

Table 4.18 showy that 75% of the respondents strongly agreed and 20% agreed that effective credit risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place. However 5% of the respondents were neutral on the issue. This finding implies that the respondents were aware of the importance of appropriate controls in the process of risk management.

#### 4.5.2 Risk Monitoring in Credit Risk Management

This section of the study used a scale of 1-5 In rating of responses towards Risk Monitoring in Credit Risk Management. The scores "strongly agree" and "agree" represented a strong rating of Risk Monitoring in Credit Risk Management and were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale ( $1 \leq A \leq 2.5$ ) and were represented by "agreed". The score of 'neutral' was equivalent to 2.6 to 3.5 on the Likert scale ( $2.6 \leq N \leq 3.5$ ). The score of "disagree" and "strongly disagree" represented a weak rating of Risk Monitoring in Credit Risk Management. This was equivalent to 3.6 to 5.0 on the Likert Scale ( $3.6 \leq D \leq 5.0$ ), otherwise referred to as "disagreed". Results are presented in table 4.19

**Table 4.19 Extent to which respondents agree with risk monitoring statements**

	N	Minimum	Maximum	Mean	Std. Deviation
Risk monitoring helps the sacco management to discover mistake at early stage	40	1.00	4.00	1.4250	.63599
Risk monitoring can be used to make sure that risk management practices are in line with proper risk monitoring	40	1.00	3.00	1.3000	.51640
The director's report on risk monitoring enables the shareholders to assess the status of the corporation knowledgeably and thoroughly	40	1.00	4.00	1.9500	.95943

Study findings showed that respondents agreed to all the risk monitoring statements.

However, they were rated in the following order; risk monitoring helped the sacco's management to discover mistake at early stage (mean score. 1.4250). that risk monitoring could be used to make sure that risk management practices were in line and proper risk monitoring (mean score, 1.3) and that the director's report on risk monitoring enabled the shareholders to assess the status of the corporation knowledgeably and thoroughly (mean score. 1.950). This implied that respondents appreciated the role played by credit risk monitoring in credit risk management process.

### **4.5.3 Main challenges faced in credit risk management practices**

From the study, the respondents listed the following as the main challenges faced in credit risk management practices: They are faced with IT challenges, currently there is no proper software to suit their needs; on the human resource issue they lack qualified staff hence in some Saccos the process of approving, appraisal and subsequent preparations of cheques is done by the same individual hence lack of proper standards and system controls are in place; however the members are also a challenge to credit risk management practices in that they delay remittances to the Sacco which leads to late reports and subsequent delay in updating of records, also members may not give true information about their credit worthiness while others may over commit their pay slips by taking loans in banks and making it impossible for the sacco to recover the loan repayments on time. Retrenchment of members from employment leads to loan default as a result increases the credit risk and last but not least resistance to change of the credit policy where there is conflict between the board and the management. The board will insist on members being advanced loans without taking into account the risk exposure, this implies that there are many challenges that exist within Saccos with Fosa services in regard to credit risk management practices. These challenges would have an effect on loan repayment.

### **4.6 Credit Risk Management Procedures**

This section of the study used a scale of 1-5 in rating of responses towards Credit Risk Management procedures in Saccos. The scores "strongly agree" and "agree" represented a strong rating of credit risk management procedures and were represented by mean score. Equivalent to 1 to 2.5 on the continuous Likert scale ( $1 \leq A \leq 2.5$ ) and were represented by "agreed". The score of 'neutral' was equivalent to 2.6 to 3.5 on the Likert scale ( $2.6 \leq N \leq 3.5$ ). The score of "disagree" and "strongly disagree" represented a weak rating of credit risk management procedures. This was equivalent to 3.6 to 5.0 on the Likert Scale ( $3.6 \leq D \leq 5.0$ ), otherwise referred to as "disagreed". Results are presented in table 4.20.

From table 4.20, respondents gave their responses on credit risk management procedures.

	N	Minimum	Maximum	Mean	Std. Deviation
To facilitate credit risk management, a substantial degree of standardization of process and documentation is required.	40	1.00	3.00	1.2750	.50574
Credit risk management leads to standardized ratings across borrowers and a credit portfolio report that present meaningful information on the present meaningful information on the overall quality of the credit portfolio.	40	1.00	3.00	1.6500	.57957
Through standardization procedures, the sacco can report the quality of its loan portfolio at any time, along the lines of the report presented.	40	1.00	4.00	4.05	.76962
Credit management procedures ensure that receivable, including loans, leases and commitment and derivatives are reported in a single format.	40	1.00	4.00	1.9500	.87560
Credit management procedures ensure that all credit must be monitored, and reviewed periodically.	40	1.00	5.00	1.4750	.81610
Credit management procedures results in a periodic but timely report card on the quality of the portfolio and its change from month to month	40	1.00	5.00	1.7250	.93336

Respondents agreed that to facilitate credit risk management, a substantial degree of standardization of process and documentation is required (mean score. 1.2750). Credit risk management leads to standardized ratings across borrowers and a credit portfolio report that presents meaningful information on the overall quality of the credit portfolio (1,650). Credit management procedures ensure that total receivables, including loans, leases and commitments and derivatives are reported in a single format (1.95). Credit management procedures ensure that all credits must be monitored, and reviewed periodically (1.475) and that Credit

management procedures results in a periodic but timely report card on the quality of the credit portfolio and its change from month to month (1.725). ). On the other hand respondents disagreed that through standardized procedures, the Sacco can report the quality of its loan portfolio at any time, along the lines of the report presented (4.05)

This implies that respondents were conversant with most process of credit risk management process and its importance in their Saccos.

#### **4.7 Findings of the study**

From the study, Loan portfolio management is important in the terms of giving meaningful information on the overall quality of the credit portfolio. This finding is similar to what Richardson, 2002 said that effective management of the loan portfolio and the credit function is fundamental to a Saccos's safety and soundness. He added that loan portfolio management (LPM) is the process by which risks that are inherent in the credit process are managed and controlled. The study revealed that majority of the respondents has specific credit management policies for managing loan risks. It further revealed that institutions were to great extent involved in formulating this policy. However the majority of respondents moderately involved the third parties in formulating the credit policies. In addition the study revealed that majority of the respondents considered the following factors important in establishing a loan portfolio policy; existing credit policy- general trend of credit and overhead cost. However the majority of respondents were neutral in state of economy as a factor.

The study revealed that majority of the respondents believed that risk identification was an important process in credit risk management. These findings were similar to the one for Greene and Trieschmann, 1984 who stated that risk identification is the first stage of risk management. It develops the basis for the next steps: analysis and control of risk management. Correct risk identification ensures risk management effectiveness risk managers do not succeed in identifying all possible losses or gains that challenge the organization, then these non-identified risks will become non-manageable. According to Dickson and Hastings, 1989, the inability to identify possible gaining risks is as inappropriate as non-identified risks related to the loss. Missing a good positive possibility that an organization seeks is a problem equal to bearing losses.

The study revealed that majority of the respondents believed that risk identification ensured the establishment of risk management function throughout the whole organization, that it helped to sort out risks according to their importance and that risk identification ensured the development of risk management strategy in allocation of resources effectively. These findings are similar to those of Williams Smith and Young, 2001 who stated 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 study also revealed that majority of the respondents believed that auditors were involved in inherent risk evaluation process by generating expectations of account balances, this is similar to the findings of Hylas and Ashton (1982) and Houghton and Fogarty (1991) who considered the role of risk assessment in the detection of errors, who found out that auditors' expectations of errors based on prior audits led to the detection of more errors. They concluded that inherent risk assessment is "significantly more important in judging the relative risk of errors in financial statements than has been previously recognized". It was also suggested that auditors who have a good understanding of their auditee's business "can accomplish such an assessment with relative ease". Peters et al 1989, asserted that "the auditor begins the inherent risk evaluation process by generating expectations of accounts balances. The auditor identifies changes that have occurred in the firm or its environment and determines how those changes should interact with historic trends to produce an expected balance in the account". The study revealed that majority of the respondents were moderate in the participation of middle and lower level employees in identifying risk.

The study revealed that majority agreed that the application of modern approaches to risk measurement, particularly for credit and overall banking risks was important for SACCOs in view of risk analysis and assessment as a credit risk management practice. Carey 2001 indicated that risk management is more important in the financial sector than in other parts of the economy.

The study also revealed that majority agreed that risk analysis and assessment was a comprehensive risk measurement and mitigation method used for various risks arising from financing activities and from the nature of profit and loss. Sharing in the source of funds especially investment account holders. Strutt, 2003 stated that risk analysis included different analyses like establishing acceptable or tolerable levels of risk, evaluation of risks, determine whether the risks are as low as reasonably practicable, and determine risk reduction measures where appropriate. The study also revealed that majority believed that the major approaches used in risk analysis were use of reports and ratios, adhering to credit policy and verifying of members credit worthiness.

The study revealed that most of the respondents agreed that effective credit risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place. This is similar to the work of Hendricks and Singhal 2005 who stated that regular audits of policy and standards compliance should be carried out and standards performance reviewed to identify opportunities for improvement. They continued that organizations are dynamic and operate in dynamic environments. Changes in the organization and the environment in which it operates must be identified and appropriate modifications made to systems. They added that the monitoring process should provide assurance that there are appropriate controls in place for the organization's activities and that the procedures are understood and followed.

Eloff et al 1993 stated that active risk monitoring ensures that effective counter- measures to control risks are appropriately implemented. The results of implementing risk-reducing measures are evaluated to determine if the expectation that risk management reduces loss is met. Then, appropriate adjustments must be made so that the organization remains prepared against the exposure to risks. Thus, risk monitoring not only evaluates the performance of risk-reducing measures but also serves as a continuing audit function. According to Dryden, 1995, a number of audit tools, such as computer assisted audit tools and techniques (CAATT), and measurement tools for tracking Web sites (On Technology Corporation's Audit Track, Tucows Interactive Limited's Net Gravity. etc.) are being used for auditing. The study revealed that majority of the Saccos faced challenges in credit risk management practices as follows; They

lacked a proper software to suit their needs, lack of qualified personnel, lack of proper controls and standards, delay in repayments, lack of proper information from members, members being retrenched and subsequently leading to loan defaults and conflicts arising between the board and management of the Saccos.



## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Summary

The main objective of the study was to examine Credit risk management practices in Saccos with Front Office Service Activity in Kenya. The research design of the study was based on a descriptive survey. The sample of the study consisted of credit managers and managers employed in the 40 SACCOs offering FOSA services within Nairobi Province.

A pilot study was carried out before the actual study on a sample of 6 credit managers and managers of the Sacco. Data was collected using self administered questionnaires by the researcher and analyzed using Statistical Package for Social Science Version 17.

The study revealed that the following factors were important in establishing a loan portfolio policy; existing credit policy, general trend of credit and overhead cost. However the study revealed that majority of Saccos did not use accounting ratios to measure portfolio quality. In regards to risk identification the study found out that establishment of risk management function throughout the whole organization helped to sort out risks according to their importance and it developed a risk management strategy in allocation of resources effectively. Major approaches used in risk analysis were use of reports and ratios, adherence to credit policy and verification of credit worthiness of the members.

Most of the respondents agreed that effective credit risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place. From the study, credit risk management procedures were important in the standardization of procedures and processes management of loan portfolios in terms of giving meaningful information on the overall quality of the credit portfolio and ensuring that all credits must be monitored and reviewed periodically. However majority of the respondents disagreed that through standardization procedures, the Sacco can report the quality of its loan portfolio at any time, along the lines of the report presented.

The management of the Saccos should ensure that middle and low level employees are included in risk identification process. Also it should ensure that the Sacco has an effective system of internal controls that is consistent with the nature, complexity and risk inherent. In addition the management of the Sacco should ensure that credit risk monitoring systems are simplified and customized to Sacco operations and timely reports are generated. Last but not least continuous members' education is important to ensure that all members are informed on the Sacco operations.

## **5.2 Conclusions**

From the study loan formulation policies as well as factors of establishing loan portfolio policy were crucial in portfolio management -If portfolio quality is poor or efficiency is low for example, this is reflected in profitability. Portfolio quality is measured using three ratios, portfolio at risk, risk coverage ratio and loans written off ratio.

The researcher concludes that risk identification is an important stage in credit risk management and should be applied effectively to identify the current credit risks confronting the organization, provide the likelihood of these risks occurring, reveal the type and amount of loss these risks are meant to cause if they occur, provide the options that exist to reduce or eliminate the likelihood or consequence of the risk and reveal the risks that must be addressed first.

The techniques of risk analysis are necessary for ensuring the decision making processes of risk management are scientifically informed. Consequently, the techniques of risk analysis, comprising identification, estimation and evaluation, have evolved in their own sophistication to match the increasing complexity of the risk concept.

The establishment of a review system that provides accurate, timely, and relevant risk information in a clear, easily understood manner is key to risk monitoring. The risk monitoring process occurs after the risk mitigation; planning successful risk monitoring and updating process will systematically track risks, invite the identification of new risks, and effectively manage the credit process.

An effective credit risk management procedure involves establishing an appropriate credit environment operating under a sound credit and allocation processes. It must continue for the life of the project because risks are dynamic.

### **5.3 Recommendations**

The management should consider using the state of economy as a factor in establishing credit policy in the Sacco's .The researcher recommends the use of accounting ratios to measure the portfolio quality. These ratios are portfolio at risk, risk coverage ratio and loans written off.

The management should consider implementing a frame approach to risk identification: sources of risk-hazard factor, peril-resources exposed to risk, as a modern way for systematic risk identification. The management should also consider using middle and low level employees in their risk identification measures since the process of credit administration starts at this point so as to ensure that risk identification is established throughout the organization.

Utilizing the findings of this study, the researcher recommends that the management of Saccos should ensure that there is an ongoing evaluation and assessment of the credit related risks. An external risk assessment could point to the Sacco, areas of risk or interpretation of risks that the Sacco has not seen or focused before.

The management should ensure that their Saccos, regardless of size, have an effective system of internal controls that is consistent with the nature, complexity, and risk inherent. The Sacco management should also ensure that credit risk monitoring systems are simplified and customized to Sacco operations. Timely reports should also be availed to assist in monitoring.

Sacco management should make use of effective credit management procedures that will ensure proper standardization, monitoring and reviewing of credit risk within the credit operations in the Sacco .Reports should be generated on monthly basis, evaluated and interpreted to give a clear picture on the status of the Sacco.

The management should plan for member's education to be informed on the credit policy, credit administration process and also their roles as members this will avoid such challenges as late and non remittances of repayments and also not providing the correct information on their loan application forms. The education should be a continuous process.

The government should come up with controls and regulations in regards to retrenchment to safeguard the Sacco from defaults.

#### **5.4 Limitations of the study.**

The main limitation of the study is its inability to include more organizations. This study focuses on credit risk management practices in Saccos offering Fosa services in Nairobi where the findings were generalized to all Saccos in Kenya. The study would have covered more institutions across all sectors so as to provide a more broad based analysis.

The other limitation from this study was the fact that it only addressed credit risk. The study failed to address other risks that face Saccos including operational risks and interest rate risk

From the study, it was evident that credit risk models currently used by Saccos do not take liquidity into account, despite credit risk markets being significantly affected by liquidity considerations.

In the credit assessment process, perhaps the greatest limitations was on how much borrower information can be included in both initial and ongoing evaluations and how frequently borrower status can be re-evaluated.

#### **5.5 Suggestion for further research**

The research recommends the following areas for further study;

The research design was based on Saccos offering Fosa services in Kenya. Future researches can be carried out on other financial institutions such as banks and microfinance and a comparison of findings could be done.

The data collection method used in this study was based on questionnaires. Future research can be carried out based on focus group discussions in each Sacco. This would involve having discussions in groups of about ten people with the researcher acting as the moderator. This

would help bring out the issue credit risk management better and also involve the whole organization.

The study covered only the Saccos offering Fosa service in Nairobi. Further research study should be carried out incorporating the entire Saccos with Fosa services in Kenya. This would enable a comparison of outcomes from other regions or a case study can be carried out on a specific Sacco offering Fosa services.

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**APPENDICES**

**Appendix (1) Letter of Introduction**

**Dear Respondent.**

This questionnaire is designed to gather information on "A survey of credit risk management practices in SACCOs with FOSA Services". The study is being carried out for a Research project in partial fulfillment of requirements for the degree of Master of Business Administration from University of Nairobi.

The information in the questionnaire will be treated with confidentiality and in no instance will your name be mentioned in this research. The information provided will not be used for any other purpose other than for this research.

Your assistance in facilitating the same will be highly appreciated.

Thank you in advance.

Yours sincerely,

.....

.....

**MBA Student**

**Supervisor**

## Appendix (2): Questionnaire

### SECTION A: DEMOGRAPHIC 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 qualification achieved?

Diploma ( )

Degree ( )

Masters ( )

Others (please specify.....) ( )

4. What is your current designation within the SACCO?

Credit Manager ( )

Branch Manager ( )

Managing Director ( )

Others (please specify.....)

5. 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 MANAGEMENT**

**LOAN PORTFOLIO**

1. Does the organization have specific credit management policies for managing loan risks'?

Yes ( )

No ( )

If yes to what extent do you involve the following parties in formulating the credit management policies for the loans? Use a scale of 1 to 5 where 1 is to a very great extent and 5 is to no extent.

<b>Parties involved in credit policies</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The institution					
Third parties					
Other, please specify					

2. To what extent does your Sacco use the following indicators in its credit risk management approaches to loans? Use a scale of 1 to 5 where 1 is to a very great extent and 5 is to no extent.

<b>Credit management approaches</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Operating efficiency					
Loan portfolio indicators					
Other, please specify					

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

<b>Loan Portfolio Policies</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Existing credit policy					
Overhead cost					
General trend of credit					
state of the economy					
Other, please specify					



4. To what extent do the following people participate in formulating your loan portfolio policies? Use a scale of 1 to 5 where 1 is to a very great extent, and 5 is to no extent.

<b>People participating in formulation of loan portfolio policies</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Executive management					
Employee Suggestions					
Board of directors					
Credit managers					
Credit analyst					
Credit committee					
Other, please specify					

5. To what extent does your Sacco use the following accounting ratios to measure portfolio quality? Use a scale of 1 to 5 where 1 is to a very great extent and 5 is to no extent.

<b>Accounting ratios for measuring portfolio quality</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Portfolio at risk (PAR) which measures the portion of the loan portfolio contaminated by arrears as a percentage of the total portfolio where the desired level is less than 10 per cent					
Risk coverage ratio which shows what proportion of the portfolio removed from the accounting books because of a substantial loss where a maximum of 4 per cent is envisaged					
Other, please specify					

### **RISK IDENTIFICATION**

6. To what extent does your Sacco consider risk identification as a process in credit risk management?

- To a very great extent ( )
- To a great extent ( )
- To a moderate extent ( )
- To a little extent ( )
- To no extent ( )

7. To what extent does the Sacco involve the following parties in the risk identification process? Use a scale of 1 to 5 where 1 is to a very great extent and 5 is to no extent.

<b>Parties involved in risk identification</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Internal auditors					
External auditors					
Senior employees					
Middle and lower level employees					
Other, please specify					

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

<b>Importance of risk identification in credit risk management</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
It ensures that the risk management function is established throughout the whole corporation					
Risk identification helps to sort risk according to their importance					
Risk identification assists the management to develop risk management strategy to allocate resources efficiently					
Other, please specify					

## **RISK ANALYSIS AND ASSESMENT**

9. The application of modern approaches to risk measurement, particularly for credit and overall banking risks is important for Sacco. To what extent do you agree with this statement in view of risk analysis and assesment as a credit risk management practice in your Sacco?

- Strongly agree      ( )
- Agree                ( )
- Neutral              ( )
- Disagree            ( )
- Strongly disagree   ( )

10. Risk analysis and assessment is a comprehensive risk measurement and mitigation method used for various risks arising from financing activities and from the nature of profit and loss sharing in the source of funds especially investment account holders. To what extent do you agree with the statement in regard to risk analysis and assessment in credit risk management and profitability of your Sacco?

- Strongly agree        ( )
- Agree                    ( )
- Neutral                ( )
- Disagree              ( )
- Strongly disagree    ( )

11. To what extent do you agree with the following statement, about risk analysis and assessment in credit risk management? Rate using a scale of 1 to 5 where 1 is strongly agree, 2 is Agree, 3 is Neutral, 4 is Disagree and 5 is Strongly disagree.

<b>Risk analysis and assessment in credit risk management</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Risk analysis and assessment comprises identification of the outcomes					
Risk analysis and assessment comprises estimation the magnitude of the consequences					
Risk analysis and assessment comprises the probability of those outcomes					
Other, please specify					

12. Which are the main approaches used in risk analysis and assessment in credit risk management in your Sacco?

.....  
 .....

**RISK MONITORING**

13. Effective credit risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place. To what extent do you agree with the statement in view of risk monitoring in the credit risk management in your organization to ensure profitability?

- Strongly agree        ( )
- Agree                    ( )
- Neutral                 ( )
- Disagree                ( )
- Strongly disagree    ( )

14. To what extent do you agree with the following statement about risk monitoring in credit risk management? Rate using a scale of 1 to 5 where 1 is strongly agree. 2 is Agree- 3 is Neutral, 4 is Disagree and 5 is strongly disagree.

<b>Risk monitoring in credit risk management</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Risk monitoring can be used to make sure that risk management practices are in line with proper risk monitoring stage					
Risk monitoring helps the Sacco management to discover mistake at an early stage					
The director’s report on risk monitoring enables the shareholders to assess the status of the corporation knowledgeably and thoroughly					
Other, please specify					

15. Which are the main challenges of credit risk management practices in your Sacco?

**CREDIT RISK MANAGEMENT PROCEDURES**

16, To what extent do you agree with the following statements about credit risk management procedures in your Sacco Rate using a scale of 1 to 5 where 1 is strongly agree, 2 is Agree, 3 is Neutral. 4 is Disagree and 5 is Strongly disagree.

<b>Credit risk management procedures</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
To facilitate credit risk management, a substantial degree of standardization of process and documentation is required					
credit risk management leads to standardized rating across borrowers and a credit portfolio report that presents meaningful information on the overall quality of the credit portfolio.					
Through standardized procedures, the sacco can report the quality of its loan portfolio at any time, along the lines of the report presented.					
Credit management procedures ensure that total receivable, including loans, leases and commitments and derivatives are reported in a single format.					
Credit management procedures ensure that all credits must be monitored and reviewed periodically.					
Credit management procedures results in a periodic but timely report card on the quality of the credit portfolio and its change from month to month					
Other, please specify					

**THANK YOU FOR PARTICIPATION!!!**

### APPENDIX (3) LIST OF COOPERATIVE WITH FOSA

1.AFYA SAVING AND CREDIT CS LTD
2. ARDHI SAVING AND CREDIT CS LTD
3.ASILI SAV.& CR.CS LTD
4. CHAI CO-OP SAV & CR LTD
5. CHUNA CO-OP.SOC.LTD
6. COMOCO SAV .& CR.CO-OP.SOC.L
7. ELIMU SACCO LTD
8.FUNDILIMA SACCO
9.GURUDUMU SACCO
10.HARAMBEE SACCO LTD
11.JAMII COOP SAV AND CR LTD
12.KENVERSITY CO-OP.SOC .LTD.
13.KENYA POLICE CO-OP SAV & CR LT
14.KINGDOM SACCO
15. LENGA TUMAINI SACCO
16.MAGEREZA STAFF SAV& CR CS LTD
17. MAISHA BORA SACCO LTD
18.MATER SACCO

19.MWALIMU CO-OP SAV & CR.LTD
20. MWITO SACCO
21. NACICO CO-OPERATIVE SOC LTD
22.NASCA SAV & CR CS LTD
23. NASSEFU CS & CS LTD
24. NATION STAFF SAV.& CR CS LTD
25. NEST SACCO
26. NJIWA SACCO
27. PCEA SACCO
28.RELI SACCO
29. SHERIA CO-OP SAV & CR LTD
30.STIMA CO-OP SAV & CR SOC LTD
31. TELEPOSTA SACCO
32. TEMBO COOP.S & CR.LTD
33.TRANSCOM SACCO
34. UFANISI SACCO
35.UFUNDI CO-OP SAV & CR LTD
36.UKRISTO NA UFANISI SACCO
37. UKULIMA SAV & CR CS LTD
38. WANAANGA SACCO

39. WANANDEGE SAV & CR CO-OP SOC
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40. WAUMINI SAVINGS CS&CS LTD
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SOURCE: Cooperative Officer from Ministry of cooperative as at March 2010.