EFFECT OF CREDIT RISK MANAGEMENT ON FINANCIAL PERFORMANCE OF DEPOSIT TAKING SAVING AND CREDIT CO-OPERATIVES SOCIETIES IN KENYA.

BY

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION UNIVERSITY OF NAIROBI

2018

DECLARATION

I declare that this is my work and has not been presented to any institution or university other than the University of Nairobi for examination.

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

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DEDICATION

This project is dedicated to my parents, late Ndalu Masyuka and Margret syomwathi, your commitment to ensuring I get a good life was not in vain. I also dedicate it to my siblings Liz, Gerald, Brenda, Carol, Caleb and Sarah for their support and encouragement throughout my study period.

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LIST OF ABBREVIATIONS

| DTS | Deposit Taking SACCOs |
|-------|---------------------------------------|
| EPS | Earnings per Share |
| ERM | Enterprise Risk Management |
| ROA | Return on Equity |
| ROE | Return on Asset |
| ROI | Return on Investment |
| SACCO | Savings and Credit Cooperatives |
| SASRA | SACCOs Societies Regulatory Authority |
| SD | Standard Deviation |
| WOCCU | World Council of Credit Unions |

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ABSTRACT

Effective Credit risk management enhances financial performance of credit and saving society. A sound Sacco sub sector enhances economic development. There are several challenges and risk facing this sector and credit risk is among them. This means that effective credit risk management is vital for better financial performance. This study focused credit risk management and its effect on performance of deposit taking SACCOs within Kenya. The study adopted a descriptive research design; both primary and secondary data were correlated, coded and used. Regression model was developed to show the variables relationship. Quantitative data was tabulated for analysis through descriptive statistics such as frequency counts and percentages. The research findings revealed a positive relationship linking the independent variables (credit risk management practices) and dependent variable (financial performance) of DTS in Kenya. 50.7% of financial performance was explained by credit risk parameters. The findings and conclusion, the researcher recommends that Deposit taking Sacco's should enhance credit management practices such as credit scoring mechanism, standardized and transparent insider lending and credit risk monitoring. In addition, the sample size can be increased for further research to ascertain whether the current results will change. Other areas which can be investigated are other types of risk such as market risk and liquidity risk.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Credit risk management in credit institutions requires a well-defined risk management framework (Iqbal & Mirakhor, 2007). Risk management procedure involves two steps. The first step involves identification of source of risk; that is the variables causing the risk and the second step involves quantifying the risk using a mathematical model aimed at evaluating risk profile of parameters. After methods of identifying risk and management framework has been established the technique can be applied to various institutions, situations, and instruments. According to Greuning & Iqbal (2007) financial institutions should have a risk management framework as it has been discovered that sustainable growth largely depends on effective risk management framework.

Credit risk management involves a well-organized process of managing uncertainty through risk identification, evaluation and strategies development aimed at managing and mitigating risk by utilizing resources available to managers. A well designed credit management system is essential for stability of any financial institution (Kagoyire & Shukla, 2016). Efficient management of credit risk is vital for long term survival of all banking institution (Kwaku, 2015). Effective credit management entails development of ample credit management system that identifies, evaluates, and monitors all firm credit process (Kimoi, Ayuma & Kirui, 2016).

Three theories support credit risk management in SACCOs. According to Information asymmetry theory, most markets customers use market statistics to measure value of goods, this means that buyers use the average market information while seller's have specific commodity information knowledge (Akerlof, 1970). Bofondi & Gobbi (2003) found out that moral hazard and adverse selection are the major reasons why cooperative have many non-performing loans. The survival and growth of a cooperative is determined by its ability to deal with information asymmetry

problems. Secondly, according to Bowie et al. (1992) agency theory points out that, in a situation of imperfect capital and labor markets, corporate managers will endeavor to optimize their personal interest at the cost of stakeholders. Thirdly, according to credit risk theory the circumstances resulting to occurrence of risk originates from asset changes of a firm (Melton, 1974). Loss in firm asset can be due to default or events beyond the control of the firm and also industry specific factors. The inability to repay can be explained from the initial to maturity stages of a corporate bond (Longstaff & Schwartz, 1995)

In Kenya, sound risk management has been designed by several SACCOs in order to achieve their financial goal. However, there have been challenges in designing optimal risk management strategies in SACCOs due to constant variation in factors such as economic conditions. According to Pandey (2008) it's necessary for SACCOs to come up with efficient practices to safeguard their credit operations. This is necessary since SACCOs generate their income from credit creation. This means that the repayment of loans given involves a lot of uncertainties. Studies shows that loan application request are decided based on subjective risk parameters relating to the borrower's repayment (Fayman & He, 2011). Three theories, including the Credit Risk Theory, information asymmetry theory, and liquidity theory form the basis of this study.

1.1.1 Credit Risk Management

It entails review of policies, procedures and practices used in designing credit risk management systems while putting into consideration the scope of risk, type and nature of risk, procedure of identification, assessment, credit risk monitoring, control as well as management. It involves designing procedures that identifies potential borrower's credit worthiness and the ability to meet his/her credit obligation and control strategies thereafter (Frosdick, 2007).

Its importance is increasingly becoming important as a result of various reasons such as economic crises and stagnation, audit and accounting rules infraction, bankruptcies of companies, falling

values of collateral, increase in off-balance sheet factors, easy access of funds for small companies, global finance and capital requirement based on risk (Boston Consulting Group, 2001). Credit risk results in reduction of asset net value as a result of failure of counter parties to honor obligation attached to them. It is normally the largest risk for credit union due to the nature of its business. If a small number fails to honor their obligation, it can result to a huge loss for the credit union (Bessis, 2003).

There are numerous credit management practices that are applied by different credit unions depending on the institution needs. The first practice is credit scoring. It involves analyzing potential client ability to repay his obligation by use of past information. The application of credit scoring to analyze prospective borrowers before awarding credit has been found reliable and hence leads to increased financial performance (Gay, 2002). The second practice used in credit risk management is rigorous credit risk monitoring. For an institution to effectively monitor risk it must identify and measure potential risk parameters that are material this facilitates fast decision and actions in case there is a probability of loan loss or some quick managerial actions to be undertaken (Gallagher, 1989). The third practice is use of debt recovery process. This entails pursuing loans which are non-performing and trying to convince the loanee to settle his/her outstanding loan obligation. Finally, Insider lending which according to Laeven (2001) is the loans and advances issued to persons inside the organization; these are individuals with close association to the financial institution and have influence and control. Excess insider lending can lead to high losses which jeopardize the objectives of a financial institution (Laeven, 2001).

1.1.2 Financial Performance

Financial Performance measures the rate at which entities management can generate profit by utilizing assets efficiently while conducting its business (Harker, &Stavros, 1998). According to Warsame (2016) it is the ability of a firm to make good use of it resources effectively to achieve

its goals and objectives. Kagoyire and Shukla (2016) defines financial performance as the organizations ability to operate efficiently, be profitable, expand and remain a going concern. All firms aim at utilizing the resources available efficiently to achieve high performance especially in monetary terms. Hence, financial performance is the result of various activities carried out by an institution (Fujo & Ali, 2016).

According to Elly (2012) different researchers have used different ratios to measure performance. These ratios include; return on total assets (ROA) and earnings per share (EPS) are the common profitability measures. A further analysis will reveal that income statement items are expressed as percentage of sales; while Return on total assets (ROA) shows the ability of an entity to generate income using its assets. Return on equity (ROE) indicates the efficiency of management in using shareholder's resources. If ROA & ROE ratio are high the better for the company. Earnings per share (EPS) indicate the amount generated for each share. Earnings per share (EPS) show the value which the investors are willing to pay for every shilling earned (Herrmann, 2008). This research will use returns on Asset to measure financial performance.

1.1.3 Credit Risk Management and Financial Performance

The business of SACCOs involves a lot of risks namely, liquidity risk operational, credit risk, exchange and market risk. Risk management is vital towards maintaining the SACCOs position in the market amid tough competition in the market. Effective management entails a comprehensive plan towards risk management and plays a vital role toward attaining long term goals of all banking institutions (Nelson & Schwedt, 2006). The need for credit risk management cannot be underestimated since lending is the core business of all financial institution; thus any level of default will definitely have impact on financial performance of these institutions. Credit risk not only serves as a barrier to financial performance but also reduces the shareholder's wealth maximization since default leads to loss in capital hence financial institution must have comprehensive approach of dealing with risk (Schroeck, 2002). For a SACCO to maximize its

risk- adjusted rate of return which is its core objective credit risk must be managed with acceptable parameters.

Organizations are putting in place good strategies aimed at improving their profitability and increasing profit. There is an increasing competition resulting from new technologies and industry changes hence organizations are turning their focus to operational cost reduction as a key instrument of enhancing their performance (Parast and Fini, 2010). Therefore, Sacco's performance can be measured on bases of returns on investment and profitability. Herrmann (2008) averred that firm's profitability can be analyzed by focusing on how much a firm earns in proportion to assets employed or level of sales or owner's investment.

1.1.4 Deposit Taking Saving and Credit Cooperatives in Kenya.

The SACCO sector in Kenya is made up of two sub sectors namely Deposit taking SACCO and non-deposit taking Saccos. SASRA regulates Sacco's which accept deposits while Commission of cooperatives regulates Sacco's which do not accept deposits. SACCO's which are registered under Cooperative Societies Act, CAP 490, are licensed by SASRA. According to SASRA, (2017) membership of SACCOs grew from 3,145,565 to 3,456,975 representing a growth of 9.9% for the period 2015 to 2016. Total assets grew from 342,848 million to 393,136 million representing 14.7% growth. The industry also realized a growth of 12.6% in net loans and advances from 251,080 million to 282,733 million. Total deposits grew by 14.9% from 237,440 million to 272,749 million. Capital reserves increased from 50,856 million to 67,555 million representing a 32.8% growth. One hundred and seventy-seven (177) SACCOs were licensed to operate in Kenya for the year 2016. However, two (2) DTs were de registered in the year 2016 hence 175 SACCOs were in operation for the financial year ending 2016. Additionally, thirteen (13) DTs were placed under restricted license for half a year due to non-compliance with prescribed rules and guidelines that safeguard member interests.

In addition, Loans form the key assets of the SACCOs comprising of a total base of 73.42%. This necessitates need for prudent policies on credit management and the potential risk that arises. Adequate measures ought to be taken to guarantee quality loans are issued to control the number of non-performing loans. According to SASRA, (2017) there has been increase in the ratio of loans at risk of default measured as bad loans expressed as a ratio of gross loans from 5.12% registered in 2015 to 5.23% recorded in 2016. This ratio is higher than the recommended Woccu ratio of 5% and far much above the SASRA recommended ratio of maximum 3%. Thus SACCOs ought to put in place efficient credit management procedures and policies to deal with the rising number of non-performing loans which threaten their survival.

1.2 Research Problem

Credit risk management and financial performance relationship among credit unions has raised unresolved debate among researchers over the recent time. Various research studies have been conducted on credit risk management and it's significant to financial performance (Gegeh, 2016). Credit risk theory that states that the circumstances resulting to occurrence of risk originates from firms asset evolution through a diffusion process with constant variables, asymmetry information theory presents a case where financial institutions offers credit to clients with little information posing a risk of default (Longstaff & Schwartz, 1995).

According to SACCO Supervision Annual Report, (2017) loans form 73% of total assets owned by SACCOs. Out of these loans; non-performing loans had increased from 5.12% in 2015 to 5.23% in 2016. This was cause by increase in non-performing loans from 13.21 billion in 2015 to 15.57 billion in 2016. This conveys key information as to the importance attached to credit management in SACCOs. Other scholars have found out that credit risk management and financial performance have positive relationship thus SACCOs should develop efficient credit risk management framework to boost their financial performance (Gisemba, 2010) Both local and international studies have proven that empirical evidence is largely inconsistence and quite varied with regards to the correlation of credit risk management and Sacco's performance. For Nigeria, Ogboi and Unuafe (2013) conducted a study on how capital adequacy combined with credit risk impacted financial performances of Nigerian I banks. They discovered that a comprehensive credit management procedure and adequate capital are ingredients for profitability. In Nepal, Nara (2012) conducted a research on Savings and Credit Cooperatives risk management and noted that, SACCOs in Nepal had no systematic and quantitative procedures to establish, watch and control total credit risk notwithstanding lack of extensive risk management structure. In Lebanon and Egypt, Hakim & Neamie (2001) study on banks performance based on credit risk practices found out that credit risk and profitability correlates positively.

Locally, Nancy (2001) study on optimal credit management practices noted that these practices are essential for SACCOs to deal with operational losses resulting from uncertainties. Essendi (2013) on his study on the correlation between credit risk management and loan portfolio averred that, credit policy is largely done by board and employees with little involvement of members. Mutua (2016) on how credit risk management affected Sacco's performance located in Kitui County revealed a strong association between loan policy and Sacco's financial performance. Gaitho (2010) in his study on credit practices used by SACCOs within Nairobi County noted that SACCOs relied on portfolio managers for credit risk management instead of standardizing credit risk processes.

For studies conducted on credit risk management, various researchers tried to examine parameters that could probably reduce or eliminate credit risk. Such parameters include, credit risk rating and the effect of relation of borrower and lender on credit risk management and the prospective borrower's ability to repay (Gegeh, 2016). Even though various researchers have conducted research on credit risk management and other related factors there is no research that point out on how significant is credit risk management effects on deposit taking SACCOs especially in Kenya.

Thus this research will endeavor to determine the influence of credit risk management on performance of SACCOs within Kenya in the contemporary times?

1.3 Objectives of the Study

The study seeks to determine the effect of credit risk management practices on financial performance of deposit taking SACCOs in Kenya

1.4 Value of the Study

This research will have numerous beneficiaries. First, SACCOs are the major beneficiaries since it will provide an opportunity for SACCO management to closely examine credit management practices and their impact on financial performance. Secondly, it will help both the county government and the national government in monitoring adherence to set policies, member's funds protection and designing policies that ensure SACCOs contribute to economic development and attainment of vision 2030.

Thirdly, this research append value to existing academic research and help learners understand credit risk management and how it impacts on Sacco's performance; Fourthly, it will help SASRA and WOCCU in monitoring SACCOs risk management tools and designing further measures to deal with risk and lastly it will inform Sacco's members who are both customers and shareholders on the credit risk practices that the Sacco's are putting in place to safeguard their wealth and maximize returns on their investment.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Theories that support the study will be discussed. Empirical discussion will focus on related studies both on dependent variable (Financial performance) as well as independent variable (Credit risk Management).

2.2 Theoretical Framework

For the purpose of evaluating the influence on financial performance resulting from credit risk management, various theories set out to explain the contribution of credit risk management to financial performance of Sacco's within Kenya. This section discusses information asymmetry theory in sub-section 2.2.1, agency theory in sub-section 2.2.2, and credit risk theory in sub-section 2.2.3.

2.2.1 Information Asymmetry Theory

George A. Akerlof (1970) study was the first to introduce the concept of information asymmetry. His study involved examining information asymmetry in automobile markets. He argued that in most markets customers use market statistics to measure value of goods, this means that buyers use the average market information while seller's have specific commodity information knowledge. Akerlof found out that information asymmetry created a scenario where sellers were able to sell less at an average market quality. The average market quality would reduce proportionally to the market size. Such variance in social and private returns can be controlled by various market institutions.

The theory further notes that it is difficult for financial institution to distinctly differentiate bad and good borrowers (Auronen, 2003); as a result, this may cause adverse selection of customers and also moral hazard problems The survival and growth of a cooperative is determined by its ability to deal with information asymmetry problems before, within and after the transaction has occurred (Uyemura & Deventer, 1993).

Stiglitz and Weiss (1981) in his study noted that information asymmetry leads to credit rationing disadvantaging credit worth borrowers. It can clearly be seen that information asymmetry adversely affects efficient credit allocation. With the adoption of credit information sharing mechanism in both public and private sector through credit reference bureau (CDB) which allows access and sharing of information either voluntarily or compulsory has played a critical role in eliminating information asymmetry. He & Wang (2007) averred that reasonable financial institutions try to deal with asymmetry of information by incurring search expenses to obtain sufficient information about the borrower requesting for a loan.

2.2.2 Agency Theory

This theory is anchored on contractual relationship between two parties, the principal and a counter party referred to as an agent with an obligation to undertake some services. The principal delegates decision making duties to be performed by the agent (Jensen & Meckling, 1976). In addition, agents are given powers to act on behave of the principal and enter into a contract with the third party without making reference to him or herself (Wright & Oakes, 2002). This theory traces its grounds to mismatch arising from information asymmetry between shareholders, debt holders, and management about earnings distribution which can lead to firms engaging in high risk profile projects or engaging in projects which could result into a loss (Mayers & Smith, 1987).

Smith and Stulz (1985) points out that managerial altitude towards risk and hedging are majorly influenced by agency issues. Consequently, agency theory points out that a well-designed hedging policy has a big influence on firm's net worth (Fite and Pfleiderer, 1995). According to Bowie et al. (1992), agency theory points out that, in a situation of imperfect capital and labor markets, corporate managers will endeavor to optimize their personal interest at the cost of stakeholders.

Managers are able to advance their personal interest due to their ability to access both external and insider information. This theory informs organization risk structure and risk affinity hence plays a critical role in credit risk management decisions.

2.2.3 Credit Risk Theory

In 1974 Melton introduced the theory of credit risk which states that the circumstances resulting to occurrence of risk originates from asset changes in a firm. The model formed is structural and depends on issuer's specific variable. Loss in firm asset can be due to default or events beyond the control of the firm and also industry specific factors. The inability to repay can be explained from the initial to maturity stages of a corporate bond (Longstaff & Schwartz.1995)

Even though facts point out that credit risk traces its existence to the ancient period. The topic has not been sufficiently studied. Literature review before 1974 on credit risk points out those actuarial methods of credit risk was being used despite its difficulties as a result of reliance on past data. In the recent past various quantitative approaches of analyzing risk have come into play. They include, decreased form appraisal structural approach and insufficient information approach to risk analysis (Crosbie et al, 2003).

2.3 Determinants of Financial Performance.

Numerous credit management practices are applied by different credit unions depending on the institution needs. These practices include;

2.3.1 Credit Scoring

Credit scoring involves analyzing potential client ability to repay his obligation by use of past information. Buck, Liu and Skovoroda (2008) assert that most SACCOs have been using credit scoring as the main evaluation tool. The probability that a prospective borrower will default can be analyzed using credit scoring. It facilitates determination of who are qualified for loans, credit limit to be applied for specific borrower, interest rate applicable and areas with highest revenues. The application of credit scoring to analyze prospective borrowers before awarding credit has been found reliable and hence leads to increased financial performance (Gay, 2002).

Credit scoring operates in a calibration phase; different pools are assigned different risk measures. The credit score ranking is then verified and analyzed using post information observed from credit losses on each score (Bessis, 2003). Credit scores results from homogeneous pools. Initially credit score used to measure the risk that the customer will not meet his/her credit obligations leading to payment arrears. In the recent past, credit scoring techniques have been automated to facilitate homogeneous decision making and reduced risk exposures. As a result of increasing competition electronic credit score are being used to thrive in the market full of many competitors. Since their inception, credit scoring tools have been implemented in several but yet related settings such as credit approval (Wangui, 2006)

2.3.2 Credit Monitoring

For an institution to effectively monitor risk it must identify and measure potential risk parameters that are material. these activities involve the monitoring of risk using IT systems that provides up to date loan trail from the application stage, disbursement and then recovery. This facilitates fast decision and actions in case there is a probability of loan loss or some quick managerial actions to be undertaken. (Gallagher, 1989).

Optimal risk management entails reviewing and reporting credit structures to facilitate effective identification, assessment and ensure control measures are put in place. Credit monitoring serves to ensure financial institutions discover mistakes early in advance and appropriate measures put in place to manage the mistake. (Al-Tamimi and AlMazrooei, 2007). Controls are formulated at various levels since management controls alone cannot be adequate to guarantee a successful risk monitoring system. Hence management will select a specific team with the duty of internal

supervision and risk monitoring. This team is the internal audit team. The audit team is under the control of supervisory board. If the internal audit discovers defect they will notify the Sacco supervisory board who will ultimately table the defect in joint management board. (Al-Tamimi and AlMazrooei, 2007).

2.3.3 Recovery Practices

This entails pursuing loans which are non-performing and trying to convince the loanee to settle his/her outstanding loan obligation. The role of loan recovery is usually not an easy task since some clients will go all the way to make themselves inaccessible to the financial institution. Majority of financial institutions have debt recovery department which tracks non-performing loans by attempting to recover the loans before they become irrecoverable. Practices that can be used to enhance debt recovery includes short text (SMS), email or a simple telephone call does a great job in reminding clients that they have loans which are due. Also, the advent of Credit Reference Bureau (CRB) has denied serial defaulters from accessing credit in different banks hence reducing chances of default. SACCOs use guarantors as last resort of recovering non-performing loans (Migwi, 2013)

2.3.4 Insider Lending

According to Laeven (2001, insider lending is the loans and advances issued to persons inside the organization; these are individuals with close association to the financial institution and have influence and control. It also includes borrowers giving kickbacks to bank managers to bend controls or offer facility in which they are not qualified for. According to cooperative act (2008) insider lending comprises of loans issued to employees and directors. Excess insider lending can lead to high losses which jeopardize the objectives of a financial institution (Laeven, 2001)

2.4 Empirical Review

Nara (2012) conducted a research on Risk Management SACCOs found that SACCOs in Nepal had no quantitative and systematic procedures of identifying, monitoring and controlling total credit risk as a result of lack of effective risk management structures. There were circumstances when Sacco's made big losses due to lack of proactive measures in risk management which was being carried out by audit committee comprising of selected board members and internal audit activities. He further noted that external audit contribution was minimal and there were occasions when Sacco's ended up in serious delinquency crises as a result of inefficient risk management practices. This research did not quantify how risk management affected Sacco's performance. The study also did not highlight the methods used by audit committee and internal audit of Sacco's to identify and measure risk.

Kalui & Kiawa (2015) carried a research on how micro finance institutions (MFIs) finance performance was affected by credit risk management policies and procedures within Kenya. They focused on risk management procedures employed by MFIs in Kenya and how they influenced financial performance. Study objectives aimed at determining the degree to which microfinance institutions applied procedures of risk identification, assessment, analysis and monitoring in credit risk management notwithstanding their ultimate impact on MFIs performance. The study adopted the descriptive design. The sample population involved officers tasked with credit management function drawn from fifty-four Microfinance Institutions in Kenya. Inferential statistics was deployed to analyze data. Research results averred that microfinance institutions use risk identification, assessment, analysis and monitoring practices when managing credit risk. Further, Study results revealed the importance of these processes in guaranteeing the task of managing risk was established in the entire organization. The study concluded that microfinances are limiting risk by putting in place procedures of managing credit risk and offering efficient services. This study only concentrated on MFIs. The study did not focus on other variables like insider lending and recovery practices which have significant impact on performance.

Ogboi and Unuafe (2013) conducted an investigation on how risk as a result of credit and capital adequacy impact on financial performances of banks within Nigeria. The aim of this research was to determine the extent to which huge resources channeled to credit risk management by commercial banks impacted on financial performance. This research was conducted using regression analysis. The sample population involved six out of twenty-one banks which were in existence as at 2009. The study revealed that a comprehensive credit management procedure and adequate capital are ingredients for profitability. This study focused on commercial banks only unlike this study which will focus on Sacco's. Additionally, the regulation structure in Nigeria is different from the regulation structure in Kenya.

Soke Fun & Yusoff (2009), conducted a study in Malaysia on strategies of managing credit risk in selected financial institution where they noted that the major causes of loss in banks and financial institutions were as a result of high default rates which originated from failure of customers to honor their obligation pertaining trading, lending, repayment and related financial undertakings. Credit risk arises as a result of financial institution dealing with corporate, individuals, or other independent entities. The study noted that a bad portfolio leads to credit risk. This study only focused on credit risk strategies and did not explain how they impacted performance of financial institutions.

A research by Essendi (2012) on impacts of credit risk on loans portfolio found out that efficient credit functions guides administration and management of SACCO loan portfolio aimed at ensuring funds are equally distributed and liquidity maintained. The findings concluded that credit policies are designed by members with little engagement of employees and directors. New policies are formulated based on existing policies, overhead cost and creditor's trends are put into

consideration when formulating credit policies. The study made use of descriptive research design, 106 licensed SACCOs were targeted and a sample consisting of 35 SACCO's selected However, this study however did not quantify how significant was credit risk on loan portfolio.

2.5 Conceptual Framework

The study embraced a conceptual framework that indicates relationship between independent variables (credit scoring, credit monitoring, recovery practices and insider lending) and the dependent variable (Financial performance) as shown in the figure 2.1 below. Credit scoring entails focus on economic sector risk, credit administration as well as the risk appetite consideration while designing credit scoring parameters. Risk exposure will also be analyzed. Credit monitoring considers policy adherence, Sacco's information system ability to track and monitor loans as well as the ability to provide timely feedback on loan performance. Recovery practices will investigate the recovery mechanism used by Sacco's in collecting defaulted loans as well as measures put in place to ensure loans are recovered. Insider lending gives emphasizes on the policies used and the degree of lending. The effect of these variables on financial performance was then investigated.

Independent Variables

Dependent Variable

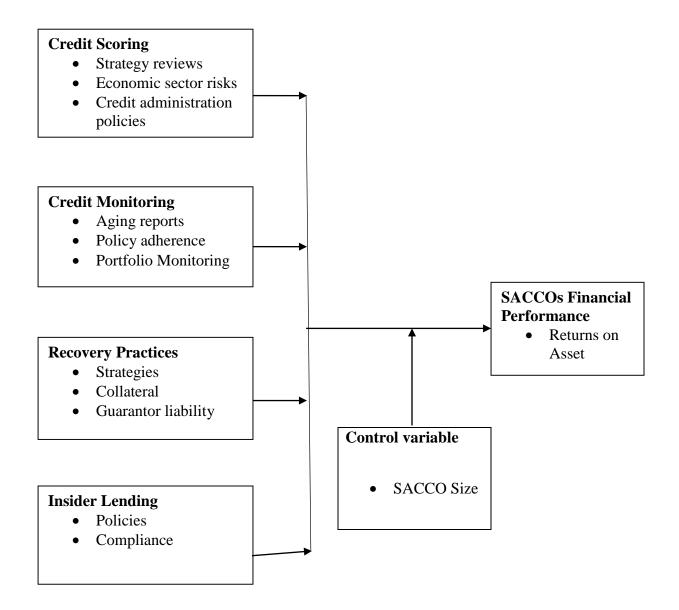


Figure 2.1 Conceptual Framework

Source: Researcher, (2018)

2.6 Summary of Empirical Review

Empirical studies review involved examining relevant studies from both locally and internationally. Although numerous researches relating to credit risk management has been done across the globe, it has not been done exhaustively. Below is a summary of empirical review.

| Author | Form of Study | Methodolo | Findings | Knowledge/ |
|---------|--------------------------|-------------|----------------------------|-----------------|
| | | gy | | Research |
| | | | | Gap |
| Nara | Risk Management in | Descriptive | Nepalese SACCOs had | The study did |
| (2012) | Savings and Credit | research | no systematic and | not highlight |
| | Cooperatives, found in | design | quantitative methods to | the credit risk |
| | Nepalese | | identify, monitor and | practices that |
| | | | control aggregate credit | Nepalese |
| | | | risk due to lack of | Sacco's used |
| | | | comprehensive risk | to control |
| | | | management system. | credit risk. |
| Kalui & | effects of credit risk | Descriptive | managements of the | This study |
| Kiawa | management procedures | and | Microfinance institutions | did not |
| (2015) | on financial performance | inferential | are enhancing their credit | highlight the |
| | among microfinance | statistics | risk management by | significance |
| | institutions (MFIs) in | | ensuring there are | of the credit |
| | Kenya. | | measures to limit risk and | policy used |
| | | | improve efficient | on the |
| | | | services. | performance |
| | | | | of the MFIs. |

| Ogboi | Credit risk management | Regression | Well defined credit | This study |
|---------|---------------------------|-------------|-----------------------------|----------------|
| and | impacts on financial | analysis | management procedure | focused on |
| Unuafe | performances of Nigerian | | and adequate capital are | commercial |
| (2013) | banks. | | ingredients for | banks only |
| | | | profitability. | unlike this |
| | | | | study which |
| | | | | focus on |
| | | | | Sacco's |
| Soke | Malaysia financial | Cross | A bad portfolio leads to | Didn't |
| Fun Ho | institution strategies of | sectional | liquidity as well as credit | explain how |
| and | managing credit risk | survey | risk. | credit risk |
| Yusoff | | research | | strategies |
| (2009) | | design | | influenced |
| | | | | performance |
| | | | | of financial |
| | | | | institutions. |
| Essendi | impacts of credit risk on | descriptive | The study found out that | This study |
| (2012) | loans portfolio | research | efficient credit functions | did not |
| | | design | guides administration and | quantify how |
| | | | management of Sacco | significant |
| | | | loan portfolio aimed at | credit risk is |
| | | | ensuring funds are | on loan |
| | | | equally distributed and | portfolio. |
| | | | liquidity maintained | |

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

Methodology employed during the research is discussed here. The study design is also discussed. The study population is also discussed. In addition, research sampling and tools that were used in collecting data as well as methods of analyzing data are also discussed herein.

3.2 Research Design

This research employed descriptive design since it is appropriate for investigating organizations at the same point in time and it describes and undertakes comparative analysis of the situation, an event and a community, a group of people or a population over a specific period of time (Chandran, 2004). In this case, data was gathered concerning credit risk management practices which is the independent variable and financial performance which is the dependent variable.

3.3 Population and Sample Size

Mugenda and Mugenda (2003) describe population as an event, unit or an item with similar identifiable characteristics. In other words, a population is a composition of elements with similar aspects which the researcher targets to study and draw statistical inference from (Gall et al., 2006). The population of this study included all 164 deposit taking SACCOs operating in Kenya as per SASRA Report 2017.

Sampling is a method of choosing a representative set of elements to accurately represent the entire population (Chandra, 2004). The definition encompasses selecting few members to represent the entire population. The sample size (n) composed of twenty-five (25) percent of the target population which is adequate for a study as stated by (Mugenda & Mugenda, 2003). A total of 41 deposits taking SACCOs were selected to form a sample using the systematic random sampling technique.

3.4 Data Collection

Data from primary as well as secondary sources was collected. Questionnaires were deployed to assemble primary data through the drop and pick later methodology. The questionnaires were simple and to the point. The questionnaire consisted of closed and open ended questions for optimal retrieval of information from respondents. Research questionnaires were distributed to all forty-one (41) DTS in their head office premises. The questionnaires were picked after two days to give respondents adequate time to respond. Questionnaires were made up of three sections. Respondent demographic profile was captured in Section A, section B comprised of questions to predict the influence of credit risk management while section C examined the performance of SACCO's over the past five years starting from 2013 to 2017. According to Kothari (2004) questionnaire is an appropriate tool for data collection in this study due to its wide coverage.

Secondary data was sourced from websites and newspaper articles and majorly SASRA annual reports since they contain relevant information relating to SACCOs. Target respondents were made of credit officers, branch managers and credit managers since they are entrusted with enforcing credit risk management practices.

3.5 Validity and Reliability of Research Instruments

The ability of a tool to measures it's intended measurement is referred as validity (Cooper and Donald, 2008). Validity formed the basis of designing the questionnaires to ensure that the study addresses the subject matter of the research. It was tested using Pearson product correlation coefficient (R) done by correlating specific credit practices to financial performance. In this study credit risk practices with significant correlation with financial performance indicated that they are valid. Reliability refers to the degree at which a measurement can be repeated and consistently deliver similar results (Cooper & Schindler, 2003).

3.6 Data Analysis

Data from field and secondary sources was tabulated, coded and organized systematically to facilitate analysis using SPSS version 21. The research adopted Measures of central tendency especially mean and standard deviation as a measure of dispersion. In addition, inferential statistics examined the link between dispersion such as standard deviation where applicable. And finally, regression analysis deployed to establish the interrelationship.

The model took the following form.

 $Y = \beta 0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$

Where Y= Financial Performance measured by Returns on Assets (ROA).

 β_0 = Constant Term

 β_1 - β_4 = Beta coefficients (change in dependent caused by unit change of independent variable.)

X₁= Credit scoring

X₂= Credit Monitoring

X₃=Recovery practices

X₄=Insider lending

 $\epsilon = Error Term$

3.7 Test of Significance

Significance was determined at 95% confidence level using p-values. P values greater than 5% was considered insignificant (0.05>P) while p values less than 5% was considered significant (P<0.05). R^2 indicates how close data are to the regression developed. It is also referred to as coefficient of determination.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND INTERPRETATIONS

4.1 Introduction

In this chapter, Data obtained from the field responses and secondary sources were tabulated and presented. Descriptive statistics were applied first using statistical variables such as charts, standard deviation, and mean in order to define all aspects of the results. Data from the field was then regressed to define the relationship existing between the study parameters.

4.2 Response Rate

Forty-one (41) questionnaires were delivered to various offices of selected deposit taking cooperative societies. Among the forty-one (41) distributed thirty (30) questionnaires were dully filled and picked from the respondent. Cumulative response was calculated as 73.17% which as per Mugenda and Mugenda (2003) is adequate number. Mugenda & Mugenda (2003) asserts that a fifty percent response rate is sufficient number for generalization and 60% is good while 70% and above is excellent thus 73.17% is a perfect response for the purpose of this analysis. This perfect response rate is ascribed to the method used in collecting data in the sense that the SACCOs were briefed about the questionnaire and subsequently given 2-3 days to response to the questionnaire. Thus this research will make right deduction since the response rate is sufficient.

| Response | Frequency | Percentage | |
|-------------------------------|-----------|------------|--|
| Fully answered Questionnaires | 30 | 73.17% | |
| Unanswered Questionnaires | 11 | 26.83% | |
| Total | 41 | 100.00 | |

Table 4.1: Response Rate

4.3 Data Validity

Cronbach's Alpha evaluated the questionnaires reliability. Cronbach's Alpha coefficient values ranges between 0-1. Cronbach's alpha value higher than 0.5 shows the study is reliable. Alpha value also describes the reliability at 95% confidence level for a likert scaled formatted questionnaire (ranking scale: 1 = weakest, 5 = strongest). The higher the alpha value the more reliable the scale generated. According to Cooper & Schindler (2008) a 0.7 alpha coefficient is sufficient enough for reliability. Credit scoring had a Cronbach's alpha value of 0.721 while credit risk monitoring, recovery practices and insider lending had 0.781, 0.711 and 0.727 respectively. This indicates that the study variables are all valid for the purpose of the study.

| Variables | Cronbach's Alpha |
|------------------------|------------------|
| Credit scoring | 0.721 |
| Credit risk monitoring | 0.781 |
| Recovery practices | 0.711 |
| Insider lending | 0.727 |

Table 4.2: Reliability Coefficients

4.4 Descriptive Statistics

4.4.1 Credit Scoring

The researcher endeavored to establish the influence of credit scoring on financial performance of SACCOs in Kenya. The SACCOs were tasked to give their responses on a likert scale where 1 1 indicated Strongly Disagree, 2 indicated Disagree, 3 indicated Neutral, 4 indicated Agree, 5 indicated Strongly Agree. The study noted that a large number of SACCOs agreed that SACCOs analyses past credit files and data when analyzing the credit worthiness of a prospective borrower

indicated by a mean of 4.2000 and SD of 1.03057. The researcher noted that most SACCOs agreed that credit scores considers all probable risks caused by lending money indicated by a mean of 4.1333 and SD of 0.50742. Additionally, the SACCOs agreed that credit scores incorporated the long term strategic objectives of the SACCO as indicated by a mean of 4.0000 and SD of 1.05045. In addition, most SACCOs agreed that credit scoring had helped them reduce default rates. Further, most of the SACCOs agreed that credit scores had assisted them to make effective financial decisions. This was supported by the calculated mean of 3.9667 and SD of 1.09807.

Table 4.3: Credit Scoring

| Credit Scoring | Mean | Std. |
|---|--------|-----------|
| | | Deviation |
| Credit scores analyses prospective client's credit worthiness | 4.2000 | 1.03057 |
| using past credit files and data. | | |
| Credit scores examine potential risks caused by lending | 4.1333 | .50742 |
| money. | | |
| Credit scoring has helped in reducing default rates. | 3.6000 | 1.03724 |
| Credit scores incorporate Sacco's long term strategic | 4.0000 | 1.05045 |
| objectives | | |
| Credit scoring has helped SACCOs reduce risk exposure. | 3.9333 | .73968 |
| By use of credit scoring, the Sacco has been able to make | 3.9667 | 1.09807 |
| effective financial decisions. | | |

The study findings concur with Gegeh (2016) who noted that credit scoring has helped reduce default rates, credit scoring has been able to mitigate risks associated with lending money and credit scores had helped SACCOs make sound financial decisions.

4.4.2 Credit Monitoring

This study also endeavored to find out how credit monitoring affected performance of deposit taking cooperatives. Majority of the SACCOs agreed that their information technology system supports loans monitoring as shown by a mean of 4.1000 and SD of 0.99481. Further, most SACCOs agreed that Credit monitoring is properly documented and examined for reliability regularly indicated by a mean of 4.0667 and SD of 1.20153. In addition, most SACCOs agreed that effective credit monitoring ensures timely loan settlement as shown by a mean of 4.2667 and SD of 0.82768. SACCOs also agreed that there exist active internal audit team which monitors loans shown by a calculated mean of 4.0667 and SD of 0.86834. However, most SACCOs were not sure as whether Sacco cannot make profit because credit monitoring leads to profitability as shown by calculated mean of 3.1333 and SD of 1.45586.

| | Mean | Std. |
|---|--------|-----------|
| Credit Monitoring | | Deviation |
| SACCO's information system supports loan monitoring. | 4.1000 | .99481 |
| SACCOs credit risk monitoring reports addresses all material risks | 3.8000 | .99655 |
| Credit monitoring is properly documented and examined for | 4.0667 | 1.20153 |
| reliability regularly. | | |
| Maintaining good customers and analyzing credit risk ensures credit | 3.9333 | .94443 |
| is awarded to deserving borrowers | | |
| The Sacco cannot make profit because credit monitoring leads to | 3.1333 | 1.45586 |
| profitability | | |
| There is a procedural guideline for credit risk monitoring. | 3.9333 | .69149 |

| Credit risk monitoring is a continuous and well documented process | 3.8667 | 1.27937 |
|--|--------|---------|
| Effective credit monitoring ensures timely loan repayment. | 4.2667 | .82768 |
| There exist active internal audit team which monitors loans | 4.0667 | .86834 |

According to Al-Tamimi & Al- Mazrooei (2007) effective credit risk management entails not only monitoring but continuous review of the credit structures to ensure risk are well identified and assessed as well as ensuring proper controls are put in place. Credit monitoring should assist in identifying mistakes at a manageable level and taking of corrective actions.

4.4.3 Recovery Practices

The study also sought to explain how recovery practices impacted on performance of DTS. The researcher noted that majority of SACCOs agreed that they use demand letter, emails, sms to remind borrowers of their outstanding obligations as shown by a calculated mean of 4.3667 and SD of 1.03335. Further, most SACCOs agreed that effective recovery is essential for profit maximization as indicated by a mean of 4.4333 and SD of 0.50401. In addition, most SACCOs strongly agreed that guarantors are used as last resort to recover defaulted loans as indicated by a mean of 4.5000 and a SD of 0.50855. Most SACCOs disagreed that Collateral such as fixed asset had been used to recover defaulted loans as indicated by a calculated mean of 1.8333 and SD of 1.01992. In addition, SACCOs were not decide on whether members who default loans are listed under Credit Reference Bureau (CRB) as indicated by a mean of 2.9667 and SD of 1.56433.

Table 4.5: Recovery Practices

| Recovery Practices | Mean | Std. |
|---------------------------|------|-----------|
| | | Deviation |

| Demand letter, emails, sms are used to remind borrowers of their | 4.3667 | 1.03335 |
|--|--------|---------|
| outstanding obligations. | | |
| Sacco has engaged a recovery agency to collect defaulted loans. | 3.2333 | 1.38174 |
| Members who default loans are listed under Credit Reference Bureau | 2.9667 | 1.56433 |
| (CRB) | | |
| Collateral such as fixed asset has been used to recover defaulted loans. | 1.8333 | 1.01992 |
| Effective recovery is essential for profit maximization. | 4.4333 | .50401 |
| Guarantors are used as last resort to recover defaulted loans. | | |
| Sumantors are used as fast resort to recover defaulted tomis. | 4.5000 | .50855 |
| Legal actions have been successfully used to recover defaulted loans. | | |
| Legal dettens have been successivily used to recover defaulted found. | 3.5667 | 1.43078 |

According to Silikhe (2008) on credit risk management noted that despite financial institutions adopting strict standards on management of credit risk, credit recovery has remained a big obstacle to most of them and its management had a great influence on the performance of financial institutions.

4.4.4 Insider Lending

Lastly, the study sought to predict the influence of insider lending on financial performance of DTS. Majority of SACCOs agreed that insider lending has led to increased performance through employee motivation as shown by a mean of 3.6333 and SD of 1.21721. The SACCOs also agreed that they disclose all insider lending transactions as directed by SASRA as indicated by a mean of 3.5000 and SD of 1.38340. In addition, the SACCOs agreed that some members are favored in loan disbursement due to their close ties with employees and board members shown by a mean of 3.5000 and SD of 1.85231. However, most SACCOs were not decided as to whether insider lending was transparent and open to scrutiny as indicated by a mean of 2.9667 and SD of 1.51960.

Table 4.6: Insider Lending

| Insider Lending | Mean | Std. | |
|---|--------|-----------|--|
| | | Deviation | |
| There are standard procedures and guidelines in awarding loans to | 3.2667 | 1.61743 | |
| staff and directors. | | | |
| Insider lending has led to increased performance through | 3.6333 | 1.21721 | |
| employee motivation. | | | |
| The Sacco discloses all insider lending transactions as directed by | 3.5000 | 1.38340 | |
| SASRA. | | | |
| Insider lending is transparent and open to scrutiny | 2.9667 | 1.51960 | |
| Some members are favored in loan disbursement due to their close | | | |
| ties with employees and board members. | 3.5000 | 1.85231 | |

Laeven (2011) on insider lending in Russian banks noted that banks in Russia engaged in insider dealing based on loan volume. The study further noted that high insider lending disadvantaged shareholders since it had a negative impact on financial performance.

4.5 Correlation Analysis

The degree of correlation among variables under study (dependent and independent) was measured using Pearson correlation. The correlation coefficient varies between -1 to +1. Negative figures indicate an adverse correlation while positive figures indicate a positive correlation. Coefficient of <0.3 shows a weak correlation, $0.3 \le 0.5$ indicates a moderate correlation while a >0.5 shows a strong correlation. To determine the association between the variables, Pearson correlation and multiple regression models were used to analyze the data and took the following form

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

Where Y= Financial Performance.

 $\beta_0 = Constant Term$

 β_1 - β_4 = Beta coefficients

X₁= Credit scoring

X₂= Credit Monitoring

X₃=Recovery practices

X₄=Insider lending

 $\epsilon = Error Term$

Table 4.7: Correlations Coefficients

Correlations

| - | ROA | Credit | Credit Risk | Recovery | Insider |
|------------------------|------|---------|-------------|-----------|---------|
| | | Scoring | Monitoring | practices | lending |
| | | | | | |
| | 1 | | | | |
| ROA | | | | | |
| | .570 | 1 | | | |
| Credit Scoring | | - | | | |
| | | | | | |
| | .646 | .800 | 1 | | |
| Credit Risk Monitoring | | | | | |
| | .475 | .341 | .502 | 1 | |
| Recovery practices | | | | | |
| T '1 1 1' | 527 | 207 | 105 | | 1 |
| Insider lending | .527 | .396 | .406 | .566 | 1 |

* Significant at 0.05 level

The table above indicates a positive correlation among all the parameters with credit risk monitoring being the strongest (Pearson correlation coefficient of 0.646) influencer of financial performance. Additionally, Credit Scoring, Recovery Practices, Insider lending have a Pearson correlation coefficient of .570, 0.475, and 0 .527 respectively. The correlation matrix points out to a strong relationship between the variables (Credit Scoring, Credit risk Monitoring, Recovery Practices and Insider Lending) with financial performance.

4.6 Regression Analysis

For the purpose of establishing the association linking dependent variable (financial performance of DTS) independent variable (Credit Scoring, Credit risk Monitoring, Recovery Practices and Insider Lending) a multiple regression analysis was used. SPSS V 21 was used by the researcher to tabulate, code and calculate the measurement of the regression model. This model describes how dependent variable changes with change in independent variables.

Table 4.8 Model Summary

| | | | J | |
|-------|-------|----------|-------------------|-------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the |
| | | | | Estimate |
| 1 | .712ª | .507 | .428 | .50092 |

Model Summarv

a. Predictors: (Constant), Insider lending, Credit Scoring, Recovery practices, Credit Risk

Monitoring

50.7% of the financial performance was explained by Credit Scoring, Credit risk Monitoring, Recovery Practices and Insider Lending as shown by R^2 indicating that there were other variables which were not considered accounting for 49.3% of financial performance of Sacco's within Kenya indicating that the parameters under research are critical to the financial performance of Sacco's and needs to be considered in attempt to enhance financial performance.

Table 4.9: ANOVA

| Mode | el | Sum of | Df | Mean | F | Sig. |
|------|------------|---------|----|--------|-------|-------|
| | | Squares | | Square | | |
| | Regression | 6.455 | 4 | 1.614 | 6.431 | .001b |
| 1 | Residual | 6.273 | 25 | .251 | | |
| | Total | 12.728 | 29 | | | |

a. Dependent Variable: ROA

b. Predictors: (Constant), Insider lending, Credit Scoring, Recovery practices,

Credit Risk Monitoring

ANOVA was applied to predict significance of regression model where p<0.001 was used for fsignificance. This indicates that the model has a confidence level of 95%. The ANOVA findings indicates existence of correlation linking credit risk practices with financial performance since pvalue of 0.001 is less than 0.05

REGRESSION MODEL

Multiple regression was presented to predict Insider Lending, Credit risk Monitoring, Recovery Practices, Credit Scoring relationship with financial performance of DTS using SPSS software version 21. Coefficient results of the regression model are as shown below.

Table 4.10: COEFFICIENTS

| MODEL | UNSTANDARDIZED | | STANDARDIZ | Т | SIG. |
|------------------------|----------------|------|-------------|-------|------|
| | COEFFICIENTS | | ED | | |
| | | | COEFFICIENT | | |
| | | | S | | |
| | В | STD. | BETA | | |
| | ERROR | | | | |
| - | .295 | .714 | | .414 | .683 |
| CREDIT SCORING | .123 | .279 | .106 | .439 | .664 |
| CREDIT RISK MONITORING | .464 | .290 | .411 | 1.601 | .122 |
| RECOVERY PRACTICES | .076 | .182 | .078 | .417 | .680 |
| INSIDER LENDING | .226 | .146 | .274 | 1.552 | .133 |

COEFFICIENTS

To examine the link between the four variables and financial performance, the research carried out a multiple regression analysis. SPSS code generated above using $(Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon)$ results to:

$Y = 0.295 + 0.123 X_1 + 0.464 X_2 + 0.076 \ X_3 + 0.226 \ X_4$

From the equation above, holding all factors constant (Credit Scoring, Credit risk Monitoring, Recovery Practices and Insider Lending) at zero was 0.295. The finding further indicates that, at ceteris paribus a rise in credit risk monitoring by one unit results in 0.464 rise in financial performance making it the highest influencer. A unit increment in credit scoring results to 0.123 increases in financial performance and a unit increase in recovery practices results to .076 rise in

A. DEPENDENT VARIABLE: ROA

financial performance. One-unit rise in insider lending leads to 0.226 improvement in financial performance. At significance level of 5% the following was obtained, Credit Scoring 0.123, Credit risk Monitoring 0.464, Recovery Practices 0.076 and Insider Lending 0.226 hence credit monitoring is the most significant influencer while recovery practices is the least influencer.

4.7 Discussion of Research Findings

The researcher soughtto determine the influence of credit risk management practices (Credit Scoring, Credit risk Monitoring, Recovery Practices and Insider Lending) on of deposit taking cooperative societies financial performance in Kenya. Various questions were asked on each parameter under review.

The researcher found that most SACCOs agreed that they use credit scoring to reduce risk exposures caused by lending money as shown by a calculated mean of 4.133 and SD of 0.5074. The study noted that a large number of SACCOs agreed that they use past credit files and data when analyzing the credit worthiness of a prospective borrower indicated by a mean of 4.2000 and SD of 1.03057. The study also found that most SACCOs agreed that credit scores considers all probable risks caused by lending money indicated by a mean of 4.1333 and SD of 0.50742. Additionally, SACCOs agreed that credit scores incorporate the long term strategic objectives of the SACCO as indicated by a mean of 4.0000 and SD of 1.05045. In addition, SACCOs agreed that credit scores had assisted SACCOs to make effective financial decisions as shown by a calculated mean of 3.9667 and SD of 1.09807. This was supported by Gegeh (2016) who noted that credit score indicate loss of funds.

The research findings further indicated that DTS have procedural guideline for credit risk monitoring and credit risk monitoring is a continuous and well documented process as indicated

by calculated mean of 3.933 and SD of 0.6915. Most of the SACCOs agreed that Sacco's information system supports loans monitoring as shown by a mean of 4.1000 and SD of 0.99481. Further most SACCOs agreed that Credit monitoring is adequately documented and tested for reliability on an ongoing basis indicated by a mean of 4.0667 and SD of 1.20153. In addition, most SACCOs agreed that effective credit monitoring ensures timely credit settlement shown by 4.2667 and SD of 0.82768. SACCOs also agreed that there exist active internal audit team which monitors loans shown by a calculated mean of 4.0667 and SD of 0.86834. However, most SACCOs were not sure as whether credit monitoring lead to increased profitability as shown by calculated mean of 3.1333 and SD of 1.45586. This was supported by AI-Tamimi & Mazrooei (2007) who noted that credit risk monitoring should be a continuous process of reviewing credit structures to ensure risk are well identified and assessed as well as ensuring proper controls are put in place. This study further noted that credit monitoring should assist in identifying mistakes at a manageable level and taking of corrective action.

The study found that most of the SACCOs agreed that they use demand letter, emails, sms are used to remind borrowers of their outstanding obligations as shown by a calculated mean of 4.3667 and SD of 1.03335. Further most SACCOs agreed that effective recovery is essential for profit maximization with a mean of 4.4333 and SD of 4.4333 and SD of .50401. In addition, most SACCOs strongly agreed that guarantors are used as last resort to recover defaulted loans as indicated by a mean of 4.5000 and a SD of 0.50855. The responses also indicated that SACCOs disagreed that Collateral such as fixed asset had been used to recover defaulted loans as indicated by a calculated mean of 1.8333 and SD of 1.01992. In addition, the SACCOs were not decide on whether SACCO members who default loans are listed under Credit Reference Bureau (CRB) as indicated by a mean of 2.9667 and SD of 1.56433. Silikhe (2008) study on credit risk management noted that despite financial institutions putting in place stringent measures on management of credit risk, credit repayment still remains a big obstacle to most of financial institution.

Lastly, an examination of insider lending effect on financial performance of DTS was examined. Majority of SACCOs agreed that insider lending has led to increased performance through employee motivation as shown by a mean of 3.6333 and SD of 1.21721. The SACCOs also agreed that they disclose all insider lending transactions as directed by SASRA as indicated by a mean of 3.5000 and SD of 1.38340. In addition, the SACCOs agreed that some members are favored in loan disbursement due to their close ties with employees and board members shown by a mean of 3.5000 and SD of 1.85231. However, most SACCOs were not decided as to whether insider lending was transparent and open to scrutiny as indicated by a mean of 2.9667 and SD of 1.51960. Laeven (2011) on insider lending in Russian banks noted that banks in Russia engaged in insider dealing based on loan volume. The study further noted that high insider lending disadvantaged shareholders.

To determine the association between financial performance and the four parameters, a regression analysis was deployed. The finding indicated that, at ceteris paribus an increment in credit risk monitoring by one unit results in 0.464 rise in financial performance making it the highest influencer. A unit increment in credit scoring results to 0.123 increases in financial performance and a unit increment in recovery practices results to a .076 rise in financial performance. One-unit rise in insider lending leads to 0.226 improvement in financial performance. At significance level of 5% the following the following was obtained, Credit Scoring 0.123, Credit risk Monitoring 0.464, Recovery Practices 0.076 and Insider Lending 0.226 hence credit monitoring is the most significant influencer while recovery practices is the least influencer.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter encompasses finding as indicated in the previous chapter above. Data analysis was done from primary as well as secondary sources. Research conclusion is also discussed in this chapter. In addition, research recommendation on how to enhance performance of DTS within Kenya. Areas for further research found to have gaps are also discussed in this section.

5.2 Summary of findings

The key goal of this research was to predict the influence of credit risk management practices (Credit Scoring, Credit risk Monitoring, Recovery Practices and Insider Lending) on financial performance of Sacco's within Kenya. Targeted SACCOs were required to give their responses from a likert scale, where 1 indicated Strongly Disagree, 2 indicated Disagree, 3 indicated Neutral, 4 indicated Agree, and 5 indicated Strongly Agree. This study noted that a large number of SACCOs agreed that they use past credit files and data when analyzing the credit worthiness of a prospective borrower. The researcher also noted that most SACCOs were in agreement that credit scores considers all probable risks caused by lending money. Additionally, the SACCOs agreed that credit scores incorporated the long term strategic objectives of the SACCO. Further, SACCOs agreed that credit scores had assisted SACCOs to make effective financial decisions.

This study also endeavored to find out how credit monitoring affected performance of deposit taking cooperatives. Majority of the SACCOs agreed that Sacco's enterprise system supports loans monitoring. Further, most SACCOs agreed that Credit monitoring is sufficiently examined for reliability regularly. In addition, most SACCOs agreed that effective credit monitoring ensures

timely loan repayment. Most SACCOs also agreed that there exist active internal audit team which monitors loans. However, most SACCOs were not sure as to whether SACCOs cannot make profit because credit monitoring leads to profitability

The study also sought to explain how recovery practices impacted on performance of DTS. The study noted that most of the SACCOs agreed that they use demand letter, emails, sms are used to remind borrowers of their outstanding obligations. Further, most SACCOs agreed that effective recovery is essential for profit maximization. In addition, most SACCOs strongly agreed that guarantors are used as last resort to recover defaulted loans. The responses also indicated that SACCOs disagreed that Collateral such as fixed asset had been used to recover defaulted loans. In addition, the SACCOs were not decided on whether SACCO members who default loans are listed under Credit Reference Bureau (CRB).

Finally, an examination to predict the link between insider lending to financial performance of DTS. Majority of SACCOs agreed that insider lending has led to increased performance through employee motivation. The SACCOs also agreed that SACCOs discloses all insider lending transactions as directed by SASRA. In addition, the SACCOs agreed that some members are favored in loan disbursement due to their close ties with employees and board member. However, most SACCOs were not decided as to whether insider lending was transparent and open to scrutiny.

5.3 Conclusion

In conclusion, credit risk monitoring has a major influence on the performance of DTS within Kenya. Effective credit monitoring has led to improved financial performance among DTS in Kenya. Effective credit monitoring can only be achieved by ensuring the monitoring process is adequately documented and tested for reliability on an ongoing basis as well as ensuring SACCOs information system supports loan monitoring thus providing timely feedback on loans performance

hence promoting operational efficiency. There should be a procedural guideline on credit risk monitoring and the monitoring process should be well documented. The existence of strong and active internal audit department is key to a success credit risk monitoring. Holding the other factors constant this study concludes that credit risk monitoring has a significant relationship with financial performance of deposit taking SACCOs in Kenya.

The study also concludes that DTS in Kenya practices credit scoring when issuing loans. Members past files and data are used when analyzing members credit worthiness. Credit scoring also incorporated the SACCOs long term strategic objectives. The study also noted that credit scoring had helped reduces risk exposures. The researcher also notes that by use of credit scoring Sacco's have been able to make sound financial decisions.

The study further sought to determine the impact of recovery practices on financial performance of DTS within Kenya. Findings indicates that Sacco's use demand letters, emails and sms to remind borrowers of their outstanding credit obligation. Few Sacco's list their members on credit reference board (CRB). The study also concludes that Sacco's do not use collateral such as fixed assets to recover defaulted loans and guarantors were used as last resort to recover defaulted loans. The study concludes that recovery practices have a positive impact and proper use of recovery practices positively impacts financial performance of DTs.

The study also notes there are standard procedures and guidelines in awarding loans to staff and directors. Sacco's further indicated insider lending had increased performance through staff motivation. The researcher concludes that insider lending has a positive relationship with financial performance of Sacco's within Kenya. An indication that and good insider lending practices positively impacts performance of deposit taking Sacco's.

5.4 Recommendations

This research recommends that DTS in Kenya should ensure that they have proper information system that facilitates loan monitoring. This will ensure that bad loans are detected at early stages and actions taken. Good borrowers with good credit history should be embraced since it reduces the monitoring costs. The study also recommends that credit monitoring documents should be well documented and benchmark done with other financial institution to ensure that the documents are reliable. In addition, internal audit independence should be promoted to enhance effective credit risk monitoring.

Credit scoring is intended to ensure that credits are awarded to deserving borrowers. The researcher recommends that past data and files should form the primary from which issuing of credit should be based. Credit scoring procedure should be reviewed from time to time to ensure that it incorporates general economic conditions and the SACCOs strategic objective while issuing credit. A benchmark should also be carried out with large financial institutions to ensure that SACCOs use best lending practices.

The researcher recommends that DTS in Kenya should educate their members on the importance of prompt loan payment. In addition, all Sacco's should join the credit reference bureau to enhance credit information sharing since it reduces information asymmetry between borrowers and lenders. In addition, the study recommends that collateral should be used as a security for big loans to cushion members who act as guarantors from loss arising from huge loan defaults. Members of Sacco's should also be educated to ensure that they don't guarantee members who they don't know which mostly lead to recovery problems.

Further, insider lending should be transparent and open to scrutiny by all interested parties. This will ensure Sacco management and employees does not misappropriate funds by awarding themselves huge loans. The study recommends that SASRA should take a proactive role in

ensuring insider lending does not jeopardize the business of Sacco's and member's funds are protected against misappropriation.

5.5 Limitations of the study

This research had numerous inhibitors. First, it was limited to Deposit taking cooperative societies in Kenya. This indicates that the study might not apply to Sacco's outside the country with different structure and different operating environment. The research was also limited to the level of accuracy obtained from the questionnaires hence prone to some shortcomings since the data cannot be verified.

Secondly some SACCOs were not ready to respond to the questionnaire since they claimed that they had no time or they were not allowed to provide such information to third parties. Some Sacco's required the researcher to sign confidentiality document and take an oath of confidentiality making the process complicated. Other SACCOs took too long to respond to the questionnaire hence their questionnaire could not be factored in the data analysis.

Thirdly, this research was limited to credit risk practices and its effects on financial performance which is only one of the many factors influencing financial performance. Time and limited financial resources was also a limitation since the Sacco's under the study are distributed all over across the country hence reaching them at their premise was time consuming and required a lot of financial resources.

5.6 Suggestions for Further Research

The study objective was to determine the impacts of credit risk management on financial performance of deposit taking Sacco's in Kenya. Various credit risk management practices such as credit scoring, credit risk monitoring, recovery practices and insider lending were examined and their impact on financial performance. The researcher found out that 50.7% of the financial

performance was explained by Credit Scoring, Credit risk Monitoring, Recovery Practices and Insider Lending.

Further study should be conducted on governance aspect of Sacco's, member's characteristics, Sacco size as credit risk variables and their effect on financial performance. Similar study should also be carried out while measuring financial performance with return in equity (ROE) or returns on investment (ROI) as opposed to this study which used returns on Asset (ROA). This will enhance understanding of credit risk management practices as well as financial performance.

Additionally, studies should be done on other aspects of Sacco's such as profitability, returns on member shares and interest rate charged on loans. Other types of risk such as liquidity and market risk effects on financial performance of cooperative societies taking deposits in Kenya should be investigated. This study should also be undertaken in micro finances and banks to ascertain the differences and similarities.

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APPENDICES

APPENDIX I-QUESTIONNAIRE

SECTION A: GENERAL INFORMATION

Kindly tick ($\sqrt{}$) the option that best describes your Organization. Also fill in the blanks where applicable.

| 1. Gender | (a). Female | |
|---------------|-----------------|--|
| | (b). Male | |
| 2. Level of o | experience | |
| a) 0-2 years | 3 | |
| b) 3 – 5 year | 8 | |
| c) 6 - 10 yea | ars | |
| d) 10-20 yea | rs | |
| d) 21 and ab | ove | |
| 3) Level of I | Education | |
| a) Seco | ndary Education | |
| b) Diplo | oma | |

| Г | |
|---|--|
| | |

c) Bachelor's Degree

d) Master's Degree

SECTION B: MAIN PARAMETERS OF THE STUDY

Use the scale provided below to give your evaluation, Use ($\sqrt{}$) on all sections of part B to

Indicate what applies to your organization.

| Credit scoring on financial | Strongly | Agree | Neutral | Disagree | Strongly |
|--|-----------|-------|---------|----------|----------|
| performance | Agree (1) | (2) | (3) | (4) | Disagree |
| | | | | | (5) |
| Credit scores analysis prospective clients | | | | | |
| credit worthiness using past files and | | | | | |
| data. | | | | | |
| Credit scores examine potential risks | | | | | |
| caused by lending money. | | | | | |
| Credit scoring has helped in reducing | | | | | |
| default rates. | | | | | |
| Credit scores incorporate Sacco's long | | | | | |
| term strategic objectives. | | | | | |
| Credit scoring has helped SACCOs | | | | | |
| reduce risk exposure. | | | | | |
| By use of credit scoring, the Sacco has | | | | | |
| been able to make effective financial | | | | | |
| decisions. | | | | | |

Any other different opinion.....

| Credit risk monitoring | Strongly | Agree | Neutral | Disagree | Strongly |
|--|----------|-------|---------|----------|----------|
| | Agree(1) | (2) | (3) | (4) | Disagree |
| | | | | | (5) |
| SACCOS information system supports | | | | | |
| loan monitoring. | | | | | |
| SACCOs credit risk monitoring reports | | | | | |
| addresses all material risks | | | | | |
| Credit monitoring is adequately | | | | | |
| documented and tested for reliability on | | | | | |
| an ongoing basis | | | | | |
| Proper risk analysis ensures that loans | | | | | |
| are awarded to deserving borrowers. | | | | | |
| Sacco cannot make profit because credit | | | | | |
| monitoring leads to profitability | | | | | |
| There is a procedural guideline for risk | | | | | |
| monitoring. | | | | | |
| Credit risk monitoring is a continuous | | | | | |
| and well documented process | | | | | |
| Effective credit monitoring ensures | | | | | |
| timely loan repayment. | | | | | |
| There exist active internal audit team | | | | | |
| which monitors loans | | | | | |

Any other opinion.....

| Recovery practices | Strongly | Agree | Neutral | Disagree | Strongly |
|--|----------|-------|---------|----------|----------|
| | Agree | (2) | (3) | (4) | Disagree |
| | (1) | | | | (5) |
| Demand letter, emails, sms are used to | | | | | |
| remind borrowers of their outstanding | | | | | |
| obligations. | | | | | |
| Sacco has engaged a recovery agency to | | | | | |
| collect defaulted loans. | | | | | |
| Members who default loans are listed | | | | | |
| under Credit Reference Bureau (CRB) | | | | | |
| Collateral such as fixed asset has been | | | | | |
| used to recover defaulted loans. | | | | | |
| Effective recovery is essential for profit | | | | | |
| maximization. | | | | | |
| Guarantors are used as last resort to | | | | | |
| recover defaulted loans. | | | | | |
| Legal actions have been successfully | | | | | |
| used to recover defaulted loans. | | | | | |

Any other different opinion.....

| Insider lending | Strongly | Agree | Neutral | Disagree | Strongly |
|--|-----------|-------|---------|----------|----------|
| | Agree (1) | (2) | (3) | (4) | Disagree |
| | | | | | (5) |
| There are standard procedures and | | | | | |
| guidelines in awarding loans to staff and | | | | | |
| directors. | | | | | |
| Insider lending has lead to increased | | | | | |
| performance through employee | | | | | |
| motivation. | | | | | |
| The Sacco discloses all insider lending | | | | | |
| transactions as directed by SASRA. | | | | | |
| Insider lending is transparent and open to | | | | | |
| scrutiny | | | | | |
| Some members are favored in loan | | | | | |
| disbursement due to their close ties with | | | | | |
| employees and board members. | | | | | |

Any other opinion.....

SECTION C: PERFORMANCE OF THE SACCOS

What is the trend of the following in your entity for the previous five years? Please tick where appropriate.

| Variable | 2013 | 2014 | 2015 | 2016 | 2017 |
|-----------------------|------|------|------|------|------|
| Net profit | | | | | |
| Total asset | | | | | |
| Return on Asset (ROA) | | | | | |

APPENDIX I: LIST OF SACCO SOCIETIES LICENSED TO UNDERTAKE DEPOSIT-TAKING SACCO BUSINESS IN KENYA AS AT DECEMBER 2017

1. 2NK SACCO

- 2. Afya SACCO
- 3. Agro-Chem SACCO
- 4. All Churches SACCO
- 5. Ardhi SACCO
- 6. Asili SACCO
- 7. Bandari SACCO
- 8. Baraka SACCO
- 9. Baraton University SACCO
- 10. Biashara SACCO
- 11. Bingwa SACCO
- 12. Boresha SACCO
- 13. Capital SACCO
- 14. Centenary SACCO
- 15. Chai SACCO
- 16. Chuna SACCO
- 17. Cosmopolitan SACCO
- 18. County SACCO
- 19. Daima SACCO
- 20. Dhabiti SACCO
- 21. Dimkes SACCO
- 22. Dumisha SACCO
- 23. Egerton SACCO
- 24. Elgon Teachers SACCO
- 25. Elimu SACCOP.O Box
- 26. Enea SACCO
- 27. Faridi SACCO
- 28. Fariji SACCO

- 29. Fortune SACCO
- 30. Fundilima SACCO
- 31. Gastameco SACCO
- 32. Githunguri Dairy & Community SACCO
- 33. Goodway SACCO
- 34. Gusii Mwalimu SACCO
- 35. Harambee SACCO
- 36. Hazina Sacco Society Ltd
- 37. Ig SACCO
- 38. Ilkisonko SACCO
- 39. Imarika SACCO
- 40. Imarisha SACCO
- 41. Imenti SACCO
- 42. Jacaranda SACCO
- 43. Jamii SACCO
- 44. Jitegemee SACCO
- 45. Jumuika SACCO
- 46. Kaimosi SACCO
- 47. Kathera Rural SACCO
- 48. Kenpipe SACCO
- 49. Kenversity SACCO
- 50. Kenya Achievas SACCO
- 51. Kenya Bankers SACCO
- 52. Kenya Canners SACCO
- 53. Kenya Highlands SACCO
- 54. Kenya Midland SACCO
- 55. Kenya Police SACCO
- 56. Joinas SACCO
- 57. Kimbilio Daima SACCO
- 58. Kingdom SACCO
- 59. Kipsigis Edis SACCO

- 60. Kite SACCO
- 61. Kitui Teachers SACCO
- 62. Kmfri SACCO
- 63. Kolenge Tea SACCO
- 64. Konoin SACCO
- 65. Koru SACCO
- 66. Kwale Teachers SACCO
- 67. Kwetu SACCO
- 68. K-Unity SACCO
- 69. Lamu Teachers SACCO
- 70. Lainisha SACCO
- 71. Lengo SACCO
- 72. Mafanikio SACCO
- 73. Magadi SACCO
- 74. Magereza SACCO
- 75. Maisha Bora SACCO
- 76. Marsabit Teachers SACCO
- 77. Mentor SACCO
- 78. Metropolitan National SACCO
- 79. Miliki SACCO
- 80. Mmh SACCO
- 81. Mombasa Port SACCO
- 82. Mudete Tea Growers SACCO
- 83. Ollin SACCO
- 84. Murata SACCO
- 85. Mwalimu National SACCO
- 86. Mwietheri SACCO
- 87. Mwingi Mwalimu SACCO
- 88. Muki SACCO
- 89. Mwito SACCO
- 90. Nacico SACCO

- 91. Nafaka SACCO
- 92. Nandi Farmers SACCO
- 93. Nanyuki Equator SACCO
- 94. Narok Teachers SACCO
- 95. Nassefu SACCO
- 96. Nation Sacco Society
- 97. Nawiri SACCO
- 98. Ndege Chai SACCO
- 99. Ndosha SACCO
- 100. Ng'arisha SACCO
- 101. Noble SACCO
- 102. Nrs SACCO
- 103. Nufaika SACCO
- 104. Nyahururu Umoja SACCO
- 105. Nyala Vision SACCO
- 106. Nyambene Arimi SACCO
- 107. Nyati Sacco Society
- 108. New Forties SACCO
- 109. Orient SACCO
- 110. Patnas SACCO
- 111. Prime Time Sacco
- 112. Puan SACCO
- 113. Qwetu SACCO
- 114. Rachuonyo Teachers SACCO
- 115. Safaricom SACCO
- 116. Sheria SACCO
- 117. Shirika SACCO
- 118. Simba Chai SACCO
- 119. Siraji SACCO
- 120. Skyline SACCO
- 121. Smart Champions SACCO

- 122. Smart Life SACCO
- 123. Solution SACCO
- 124. Sotico SACCO
- 125. Southern Star SACCO
- 126. Shoppers SACCO
- 127. Stake Kenya SACCO
- 128. Stima SACCO
- 129. Sukari SACCO
- 130. Suba Teachers SACCO
- 131. Supa SACCO
- 132. Tai SACCO
- 133. Taifa SACCO
- 134. Taraji SACCO
- 135. Tembo SACCO
- 136. Tenhos SACCO
- 137. Thamani SACCO
- 138. Transcounties SACCO
- 139. Trans Nation SACCO
- 140. Times U SACCO
- 141. Tower SACCO
- 142. Trans- Elite County SACCO
- 143. Ufanisi SACCOP.O
- 144. Uchongaji SACCO
- 145. Ukristo Na Ufanisi Wa Angalicana SACCO
- 146. Ukulima Saco Society Ltd
- 147. Unaitas SACCO
- 148. Uni-County SACCO
- 149. United Nations SACCO
- 150. Unison SACCO
- 151. Universal Traders SACCO
- 152. Vihiga County Farmers SACCO

- 153. Vision Point SACCO
- 154. Vision Africa SACCO
- 155. Wakenya Pamoja SACCO
- 156. Wakulima Commercial SACCO
- 157. Wanaanga SACCO
- 158. Wananchi SACCO
- 159. Wanandege SACCO
- 160. Washa SACCO
- 161. Waumini SACCO
- 162. Wevarsity SACCO
- 163. Winas SACCO
- 164. Yetu SACCO

Source- Sacco Societies Regulatory Authority (SASRA) official website-

www.sasra.go.ke