

**EFFECTS OF CREDIT RISK MANAGEMENT STRATEGIES ON PERFORMANCE  
OF DEPOSIT TAKING SACCOs IN KIAMBU COUNTY**

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## DECLARATION

I hereby declare that this research project is my original work and it has not been submitted in any other institution.

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This research project has been submitted for examination with my approval as the University supervisor.

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## **DEDICATION**

The paper is dedicated to my parents for socioeconomic and emotional support.

## **ABBREVIATIONS AND ACRONYMS**

<b>CAR</b>	Capital Adequacy Ratio
<b>DTS</b>	Deposit Taking Sacco
<b>KUSSCO</b>	Kenya Union of Savings and Credit Cooperatives
<b>MFI</b>	Micro-Finance Institution
<b>NPLs</b>	Non-Performing Loans
<b>ROA</b>	Return on Asset
<b>ROE</b>	Return on equity
<b>SACCO</b>	Savings and Credit Co-operative
<b>SASRA</b>	<b>Sacco Societies Regulatory Authority</b>
<b>SPSS</b>	Statistical Package for Social Sciences



## ABSTRACT

SACCOs have contributed largely in achieving Vision 2030. This is by way of extending loans and also providing direct or indirect employment to the society. However, in Kenya, SACCOs are facing an impending crash. This has caused an unstable growth financial wise. Credit risk management involves process, control, techniques and mechanism of mitigating or minimizing impacts arising from loan defaults and thus use of credit risk management strategies would aid in tackling the challenges facing deposit taking SACCOs. On the basis of this backdrop that this research wanted to determine the effect of credit risk management strategies on performance of deposit taking Saccos in Kiambu County. The theories underpinning the research included knowledge based theory and information theory of credit. The research utilized a design that is descriptive. This research's target populace was 2 employees in the credit department for all the 55 Saccos. This yielded a total target population of 110. Purposive sampling was employed since the researcher was targeting only 2 employees in the credit department. The study used primary data. Primary data on credit management strategies and the non-financial aspect of performance was collected through semi-structured questionnaires. Due to the COVID-19 pandemic, the questionnaires were administered online via email through goggle forms. The analysis of the gathered data was made possible by the use of Statistical Package for Social Sciences (SPSS) version 24. Both descriptive and inferential statistics were generated. The descriptive statistics included frequencies and percentages while the inferential statistics included a multiple linear regression model. The study concludes that credit risk management strategies impacted the performance of deposit taking Saccos in Kiambu County. The specific credit risk management strategies are credit risk identification strategy, credit risk assessment strategy, monitoring of credit risk strategy and risk of credit transfer strategy. The research also concludes that adoption of these strategies has influenced performance positively. Particularly, the performance of deposit taking Saccos in Kiambu County had increased in terms of increased satisfaction of customer, increased profitability, increased market share, increased customer base and efficiencies that are enhanced in delivery of services. According to the results of the research the study made several recommendations. To start with, results showed that several credit risk management strategies such as risk of credit strategy identification, credit risk assessment strategy and credit risk monitoring strategy leveraged on use of technology. Hence, the study recommends that deposit taking SACCOs should consider budgeting for technology advancement. This will create for adoption of advanced and better technologies which utilize complex data algorithms and data analytic techniques to yield accurate credit worthiness rating of borrowers. This will thus enable the SACCOs to evade risky borrowers who may dampen their performance by improving the non-performing loans amounts.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the study

The aspect of firm performance entails the outcomes of a firm that reflect the financial well-being of a company over a given period of time. From it, we can tell how well a firm is making use of the resources to enhance profitability as well as the wealth of the shareholders (Isanzu, 2017). The performance of organizations is most likely the key measurement of profitability and sustainability. A good performance in organizations is vital in sustaining their operations and contributing to the economy. Declining performance deteriorates the capacity of firms to operate efficiently and support its operations (Ekinici & Poyraz, 2019).

The theories reviewed in this section include the knowledge based theory and information credit theory. The knowledge based theory views knowledge as a remarkable driver that is organizational as well as individual output and company's portrays as reservoirs of competences and knowledge that are turned into commodities that are profitable in line with the requirement of clients. It submits that institutions that it answers to firms that, arrange things on their knowledge resources of knowledge effectively than their opponent probably to attain findings that are better (Lindblom & Tikkanen, 2010). On the other hand, the information theory of credit posits that credit advanced to companies and people would be large if financial institutions of finance were keen on analyzing information about borrowers before advancing credit and during the credit repayment period (Stiglitz et al 1981).

#### 1.1.1 Concept of Strategy

Psychological and behavioral skills of applying forces to overcome the opposition and create a unified system which is global in nature. It also refers to using the forces to win a war against your enemy (Ritson, 2008).

Sheila (2008) define strategy as a framework that is general that gives direction for actions to be taken and, at the same time, one shaped by the actions taken. This mean that the required pre-condition for strategy formulation is a widespread and clear understanding of the ends to

be achieved. Action is tactical and would easily degenerate into nothing more than a flailing about, without these ends in view.

### **1.1.2 Credit Risk Management Strategies**

Management of risk of credit is considered as financial management that starts with the analysis of credit, the rating process of the credit, the classification of the credit and the reporting part of the credit (Nabi, et al., 2018). Credit risk management involves process, control, techniques and mechanism of mitigating or minimizing impacts arising from loan defaults (Ekinici & Poyraz, 2019). Credit risk control of credit risk also involves the enhancement of the loan conditions and the identification of applicants that are of high risk to default a loan. The conditions mentioned above consist of security covers like collaterals and also the monitoring of loan repayment. Any credit risk management system that is effective ensures that there are effective customer payments either by way of constant reminders or follow ups. This minimizes the non – repayment cases (Nyamrigo, 2019). Adoption of effective credit risk management strategy only little capital will be locked outside with the debtors and also the chances of engaging in heavy debts are lowered.

As per Gestel and Baesens (2009) research of management of risk of credit is a process that starts from the risks identification, the appropriate solution to such risks to the actualization of risks models. With a close consideration, credit risk management is also considered to be; the creation of perfect credit risk setting, operating in well thought credit granting system, continuance development of a proper measurement and monitoring system over credit issuance, (Basel Committee on Banking Supervision, 2009). Similarly, risk of credit control is seen as an approach that manages any uncertainties by way of risk assessment; construction of managing mechanisms and the curbing of risks by utilization of the managerial resources, (Greuning & Iqbal, 2007). This research will focus on identification of risk of credit strategy, risk of credit assessment strategy, credit risk monitoring strategy and risk of credit transfer strategy

Strategies that are used in credit risk management range from avoiding risk, transferring to another party, minimizing the negativity of risks, to the acceptance of certain or all consequences of a specific risk (Nabi, *et al.*, 2018). Credit risk management is looked at as a

process that has two stages. One is to identify where the risks can come from or the source. This is done by assessing the key variables that are the likely causes of the risk (Isanzu, 2017). The second stage deals with devising methods that help in quantifying the risks in order to fit into a model. This is more of a mathematical model. With such, the risk profile of the instrument is understood (Kegninkeu, 2018). At this point of a ready model of risk identification and measurement, the ease to apply the same to diverse products, situations, institutions and instruments is readily available (Kalu, Shieler & Amu, 2018). Overtime, the realization that a sustainable growth is mainly depending on a comprehensive framework of risk management is growing. Therefore, it is important for institutions of finance to have strong, successful and up to date risk management framework.

### **1.1.3 Performance of Deposit Taking SACCOs**

Performance of organization is the company's last achievement and have some aspects, some of which are existence of certain goals which are attained, timelines in attaining the realization and targets of effectiveness and efficiencies. Performance of organization is influenced by factors of myriad variables including: command connecting these individuals as well as the lines of communication (degree of centralization and organizational authority structure). Achievement lies at the heart of any organizational as well as construct managerial process and is therefore seen as a concept that is important in the field of strategic management (Gibson et al., 2010).

Performance of organization integrates three important scopes of results of the company. One of the scopes pointed is performance related to performance which considers features such as an efficiency and profit of the company (Penman & Penman, 2017). The last of the dimensions is the market dimension applied to show performance of market. The technique acknowledges the truth that measures that are market based which must be used on both the market and customer. They include marketing profitability, market shares, retention and attrition rates, customer attraction as well as level and growth in turnover or sales (Penman & Penman, 2017). For this study the measures of performance that will be utilized will include customer satisfaction, customer base, service delivery, market share, and change in customer base.

### **1.1.4 Credit Risk Management and Performance of Deposit Taking Saccos**

Risk of credit describes the risk that a borrower will not honor agreement of payment standing loans plus interest accrued in time (Ekinci & Posyraz, 2019). Risk of credit is defined as the failure of customer to repay or meet the commitments that guided his creditation. It can also be seen as the unwillingness of a customer to meet the same commitment of creditation. The financial transactions may range from lending, hedging, trading, to settlements just to mention a few (Isanzu, 2017). The higher the credit risks the higher the chances that majority of those who have borrowed money lack the capacity to pay loans in time hence high cases of non-performing loans hampering performance of the deposit taking Saccos. Loan delinquency measured using default rate will be used as the measure of credit risk in this study.

Majority of the financial institutions give out credits with hope that the borrowers will repay the money. However, even with such hope loans are still default. The result of such default is decrease of lenders income brought by the want for loans provision (Ekinci & Poyraz, 2019). All financial institutions stand at risk as when it lends to consumers. The risk is that loan losses have high probability to occur in case of failure on part of the borrowers to repay loans. The commonly used standard measure of loan performance is Portfolio at risk (PAR) that goes above a specific number of days.

Credit risk is taken to be the loss in terms of finances an institution will incur when the borrower fails to perform per the agreements laid down during the lending approval and disbursement period. With effective management of credit risks the results are increased earnings. As a result of proper management, the level of insolvency is also brought down (Sule, 2012). Notably, credit risk does not exist as portfolio but can also exist in its activities and assets (Ekinci & Poyraz, 2019). Default risk stands to be an enemy of any financial institution's profit and the overall performance. It is a major factor that poses a threat to the operational sustainability of Saccos that take deposits. Hence such Saccos cannot ignore the aspect of credit risk management. Necessary techniques and tremendous effort is required to make sure that proper credit risk management strategies are adopted (Idama et al., 2014).

### **1.1.5 Deposit taking Saccos in Kenya**

Deposit Taking Sacco Societies (DTSS) are essential part of Saccos in Kenya. Their main agenda is in Deposit taking and non – deposit activities of a Sacco. After the collection of deposits by DTSS the opportunity to withdrawal is closed. The deposits are used as collaterals for loans. The chance to withdraw is only open to those individuals who want to withdraw as members, that is, withdrawal of membership (SASRA, 2014). DTSS work tirelessly to ensure that the loans issued to clients are performing and are yielding profits. Profits are attained by applying interest rates on the loans that are issued. Interest rates are used as techniques to help lenders in servicing all loans that have been issued to customers. At the same time, they act as the means in which the lenders raise money to ensure efficient and effective operations in the organization.

SACCOs have an important place in financial intermediation. Their presence is also a clear indicator of welfare development in the society. According to Clement and Martin (2012), SACCOs have really boosted lower income earners in the community and as a result bettering their welfare. Of course this happens to the particular members of the SACCOs. SACCOs are developed to enhance the member's welfare. This is achieved through loans facilities and returns on savings among others. SACCOs are self-supportive and pertains administrative cooperatives. This places them at a better position in offering the community a chance to reap from their daily operations.

KUSCCO (2018) highlight some principles that guide Saccos. One is the belief in mutual self-help. The other one is cooperation for raising the standards of living. When we mention about cooperatives we mean of a corporation or an organization that comprises and formed by the small scale producers. Workers and other people who associate with them and others who are economically challenged in the society are also considered to be part of the persons that form the cooperatives. Saccos cannot be ignored in the economy of any nation. For they provide the financial requirements to households and SMEs. As if that is not enough they also encourage and advice households and SMEs to save. The savings accumulate to become resources that can be called capital. Such capital is an upper hand asset to the economic development of a nation.

In Kenya, Saccos are regulated by SASRA and SACCOs societies act 2010. As per the SASRA report 2019, 174 Saccos were licensed. Specifically, these were Saccos that took

deposits (SASRA report 2019). The evolvement of DT-Saccos was evidently seen when Saccos as a section of the wider cooperative movement extended their venture into financial services. They started to offer their members services that were initially being offered by banks.

Both the genres of deposits are supposed to maintain a minimum share of their member's savings deposits plus short term liabilities. An example of such a liability is liquid asset (Saccos Societies Act, 2010). The performance of such loans are weighed through operational and financial activities. Measures such as; overall loans extended to members, assets, deposits. Operational activities comprise of; the location networks of branches, membership, the qualification of senior staffs in terms of education and the employment of professionals. Saccos have major assets. These assets are; financial investments, cash and cash corresponding, equipment and property and the net loan portfolio. For these Saccos to remain at a competitive edge in terms of being chosen by consumers as the alternatives of banking services over banks, they must ensure that the deposits are higher in ratio compared to the credit demand.

#### **1.1.6 Deposit Taking Saccos in Kiambu County**

Normally, Saccos maximize the deposits they receive from members through economic and social activities (SASRA report, 2020). In Kiambu County alone there are 55 licensed Saccos. In particular, they are found in Juja, Kiambu town, Thika town and in various places in Kikuyu town. The outstanding role of these Saccos is to encourage members to save and access loans of up to three times of the savings (Kahuthu, 2016). This role is aimed at eradicating poverty at the long run. It has also been observed that they also bring people with similar characteristics together. People like teachers, farmers, motor bike riders, and bankers. At the long run this becomes a transformational act towards the social welfare of members.

Over the years, SACCOs were known for savings and giving credit as their main business. Changes in the environment have seen this change to various products and services including investment in real estate, transport industry and also professional investment advices. This has continued to boost the rating of SACCOs as a competitor in the financial sector. They

provide a variety of products. They comprise of; personal and business loans, mortgages, savings, money transfers, payment services and insurance.

Despite the growing popularity, SACCOs have been meeting with a couple of challenges including competition from other institutions, such as microfinance firms and commercial banks. The challenge of poor governance, taxation, increased use of technology, regulations, growing demand and fraud has also gone a long way to necessitate change in (SACCOs) in Kiambu County. For purposes of coping with such evolving business environments SACCOs are expected to adopt effective credit risk management strategies. Especially those inherent to that particular business. The changes may include change in organization structure to minimize fraud, compliance with new government regulations, innovation of totally new products and ways of service delivery, target of new market niche, diversification, cost leadership and training.

## **1.2 Research Problem**

The success of a firm in achieving their missions and goals is simply undertaken as the performance of that particular firm (Murigi & Thuo, 2018). However, the performance of some Saccos has been declining threatening their sustainability. Evidence of this is in the poor performance; contracting results by majority of organizations both profit making and non-profit making. Over the globe, organizations have one common goal of ensuring that they remain constant in the way they perform over time. This is so that they can remain competitive in the ever evolving global market.

SACCOs have contributed largely in achieving Vision 2030. This is by way of extending loans and also providing direct or indirect employment to the society. The accredited SACCOs/Mutual/Credit Union as at 2017 were beyond 89,000 with over 260 million members in a region space of 117 countries. The savings accumulated were USD 1.7Trillion and the penetration was 9.09%. The noted dispatched credit amounted to US\$ 1.5 Trillion. Reserves were \$ 195 Billion and the overall assets were rated to be worth 2.1 Trillion (WOCCU, 2017). In the blueprint of Kenya's 2030 Vision and national development SACCO societies were acknowledged as key players in; widening of financial access, mobilizers of savings with a goal to invest and boosters in personal development (Mohammed, 2013). Notably, in Kenya the assets in SACCOs have been growing over time. For example, as at



December 2012 the total assets were Kshs 293 billion but 5 years later, that is, as at December 2017, the total assets were Kshs 442 billion up. A tremendous growth of Kshs 149 billion (Sacco Societies Regulatory Authority, 2017).

However, in Kenya, SACCOs are facing an impending crash. This has caused an unstable growth financial wise. With such, the sustainability of these SACCOs stands at stake. The Sacco annual report revealed that between 2015 and 2016 the loan portfolio risk of DTSS increased to 5.23. This means that in 2015, it was at 5.12. In the report, the non – performing loans were also noted to have increased from Sh 13.21 to Sh15.57 billion. On the basis of the recommended 5% maximum loan portfolio risk by the World council of Credit Unions and 3% as advised by the local regulator of Saccos, 5.23 per cent as the loan portfolio risk noted in 2016 was way too high. In addition, the figure of loan ratio to the money given out as deposits was at 108%. This is above 70 – 80% ratio recommended by WOCCO; an indication that members are getting more credits from external sources (SASRA, 2016).

Management of risk of credit is a key variable in the managing insolvency and declining interest income among SACCOs taking deposit. The performance of such SACCOs is exposed to various risks. As a result, the financial viability and sustainability of these Saccos is threatened. This reveals that well managed Saccos are able to make use of the available funds. By way of reaching out to more clients especially those who are perceived as poor and also by offering better services. Effective credit risk management can only be possible with properly outlined procedures and policies that guide lending practices. However, many SACCOs have adopted weak credit risk management strategies coupled with lack of credit risk expertise. As a consequence, many deposit taking Saccos suffer high consequences of bad loans arising from borrowers' failure to pay their outstanding interest and loans in time. Their interest income is constrained which directly impacts negatively their overall performance.

Several knowledge gaps are evident in the above literature presenting contextual, conceptual and methodological gaps. In a research by Isanzu (2017) the effects of risk management of credit on the performance of finance was investigated. It was conducted among Chinese microfinance banks from 2008 to 2014. A similar study by Ekinci and Poyraz (2019) among deposit banks in Turkey was also conducted. The two studies present contextual gaps.

Operational business environment and regulations of deposit taking Saccos differ from country to country hence the need to undertake this current study. There are many other determinants of financial performance of deposit taking Saccos like asset quality that need to be studied.

Moreover, most studies employed primary data by use of questionnaires to study interconnection between performance of Saccos that take deposits and credit risk management presenting methodological gaps (Nabi, *et al.*, 2018; Kalu, Shieler & Amu, 2018; Murigi & Thuo, 2018 & Nyamrigo, 2019). Data collected via use of questionnaire may be prone to bias. The current study intends to use both primary data and available secondary data.

### **1.3 Research Objective**

The research objective is to determine the effect of credit risk management strategies on performance of deposit taking Saccos in Kiambu County.

### **1.4 Value of the Study**

The discoveries attained by this study will be helpful to the Saccos management that take deposit in Kiambu County. Majority of deposit taking Saccos lack the capability to assess credit worthiness of her customers and often end up giving loans to bad debtors. As a consequence, they register high cases of nonperforming loans which hampers their overall performance while threatening their sustainability. The results of the study will inform deposit taking Saccos on the need to undertake credit analysis of the prospecting borrowers, undertake due risk monitoring, assessment and credit scoring to establish the viability of their customers. The performance of Saccos is of great value to the policy formulators including the SASRA. The study may provide information to SASRA in addressing the challenges facing the SACCOs for effective policy formulation that guide borrowing and also in providing credit awareness training for Saccos.

The research may add up to the existing knowledge on this topic of investigation.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This section highlights literature deemed useful in understanding credit risk management strategies and SACCOS's performance that take deposit in Kiambu County. In this chapter, theories that inform the investigation are covered, empirical review done and the conceptual framework demonstrated. With such literature existing studies are critiqued to reveal study knowledge gaps.

#### **2. 2 Theoretical Literature Review**

The theories used includes knowledge based theory and information theory of credit.

##### **2.2.1 Knowledge Based Theory of the Firm**

Grant, (1996) propounded it. The KBT states that knowledge is critical in driving firm productivity and also employee productivity. The theory argues that firms harbour knowledge and competencies perceived to be useful in good and service provision and firm profitability (Kogut & Zander, 1992). According to the theory, firms which are able to properly harness knowledge are more likely to perform better than those firms that do not (Tikkanen & Lindblom, 2010). Firm related capabilities are important in promoting product and process processes (Barney, 1991).

The capability of a company to create, develop and transfer understading is viewed to be critically important in pursue of competitive advantage (Kogut & Zander, 1992). Firms' human resource equipped with appropriate knowledge and skills are able to offer solutions to problems affecting the firm accomplish assigned tasks efficiently, act as source of creativity and innovation required for sustained firm prosperity (Von Krogh, et al., 2000). Thus,

knowledge creation, sharing and improvement are critical to the growth and profitability of the firm (Schiuma, et al., 2007).

This theory informs how organizations can leverage on information to boost their performance. For instance, through use of data mining technology in systems such as internal risk rating system, deposit taking SACCOs can gather relevant information about a borrower's ability to pay as well as the probability of default. Using this information, they can make their decisions on whether to lend to such a borrower the second time, or whether to grant them a top-up loan. They can also decide on the interest rates to apply depending on the riskiness of the borrower.

### **2.2.2 Information Theory of Credit**

Stiglitz (1981) proposed it in 1981. The theory postulates that credit to firms and individuals are high if the entity issuing credit can correctly predict ability of borrowers to repay back. Thus, firm entities bestowed with responsibility to background check information about potential client to customers are useful in informing lending institutions (Derban et al., 2005). Better flows of information about potential borrowers help creditors minimize cases of loan default.

The theory is useful putting emphasis on the importance of information not only about borrower's credit history but also about borrower's progress in repayment of loans. This is key as it aids in monitoring as well as assessment of risk of credit. It also critical in informing the decision as to when a credit risk can be transferred to third parties such as guarantors.

### **2.3 Credit Risk Management Strategies**

The section presents on how to identify, assess, monitor and mitigate risks.

#### **2.3.1 Credit Risk Identification Strategy**

Identification of risks is first step for effective management of risks. Identification of risks involves documenting possible risks to be encountered in the business and devise necessary credit risk mitigation strategies (Kromschroder & Luck, 1998). The threats identified are what is important to creditor and help minimize loan default.

Identification of risk of credit is significant for successful control of risk. Firm management has the role of identifying risks. Identifying credit risk involves scrutinizing financial reports of a financial institution. The important methods of risk management comprise, analysing customer credit rating, risk evaluation and collateral required.

Sonali (2015) conducted a research on how bank management analyses risks. Valsamakis et al. (2015), argued that the methods applied in measurement and identification of risk of credit need to be in tandem with risk management strategies of the financial institution. Background checks need to be accurate and timely to aid in the assessing credit worth customers. Team of senior management need also to make sure period as well as independent assessments that are internal are carried out with regard to granting of credit.

Making sure that timely and adequate identification of risk is done is the duty of the institution's management. The staffs of top management are given the role of identifying the potential risks that they may face while carrying out various activities in the company (Cajueiro, Tabak & Fazio 2012). Risk identification strategy applied by bank has to reflect level of tolerance in loan default (Acemoglu, et al., 2015).

### **2.3.2 Credit Risk Assessment Strategy**

Assessment of risk is described based on the level of risks inherent traditionally. Nonetheless, today assessment of risk aid in making decisions to enhance management of risk processes. Assessment of risk be done through methods of intuitive like brainstorming. Sorge (2014), stated that simple and quick, of risks. Brainstorming has no approaches that are wider unlike other ways that are complex and methods of assessment

Many researches have been carried out on assessment and analysis of risk to help in the measurement and mitigation of risk. Financial risks may be grouped based on the level of damage from them (Fuser et al, 2009). This helps control risks categories threatening existence and survival of business. Kalani and Waweru (2014), stated that type of risks in a firm has to grouped based on the impact to the firm for easy assessment and mitigation.

### **2.3.3 Credit Risk Monitoring Strategy**

A research done by Gill and Read (2015), firm risk manager has the role to track, measure and control credit risks. Firm's risk manager roles are to ensure possible events that are possible or changes of future that could adversely impact the financial institution's ability to withstand changes. For management that is sound and effective of risk of credit, institutions of finance should apply review that is enough and structures of reporting risks identified in the firm. Monitoring of risk makes it easy for the firm to understand the risks, predict dynamism in the business environment and devise necessary control measures (Al- Tamimi et al., 2007). As per Epure and Lafuente (2012) monitoring of happen at the final levels of process control of risk.

A study done by Parrenas (2015), stated that stakeholders and investors of a company can express their demands in seeing effectiveness and efficiency of a company due to their rights a firm. Shareholders rely on report of directors to establish how an organization is knowledgeable is with regard to management activities of risk of credit and how they have influenced performance of the organization (Chen & Pan, 2012). Rajan (2014) showed that several companies are applying better models of risk monitoring. Nonetheless, these models in majority of the companies are at stage of implementation.

#### **2.3.4 Credit Risk Transfer Strategy**

Risk transfer entails passing out risks to a third party on behalf of another firm. Always risk transfer is chargeable. In short, risk transferring is an analogy of selling risk to another firm. It happens when the third party agrees to bear the firm risks but at a cost (Abdullah, 2013).

Abdullah (2013) notes that, lending that are collateralised do not contain risk transfer of risks. Risk transfer happen in a form of insurance coverage. Risk transfer is on of common form of risk management between insurance accompanies and clients. The various means to do credit transfer such as use of guarantors, engaging debt collectors, auction of property and taking up insurance.

#### **2.4 Empirical Literature**

Over time investigations have been conducted both in the local arena and internationally, all directed to reveal the tangible knowledge gaps on the sect between control strategies of risk of credit and institutions of finance with an inclusion of SACCOs that take deposits.

A study by Isanzu (2017) covered the impact between risk of credit and performance related to finance. The research populace was Chinese microfinance banks. Time period was from 2008 to 2014. Determining factors that were used comprised of capital adequacy ratios, non-performing loan impairment charges and impaired reserve. They were applied to moderate credit risk. On the other hand, return on asset was applied to moderate performance related to financial. Data analysis was accomplished by use of panel data regression model. Both capital adequacy and non - performing loans were realized to have remarkable effect on financial performance. This revealed that the control of credit risk is essential for financial well up of banks. However, the study focused on micro finance banks in China whose operational business environment and regulations may be differing from Saccos that take deposit in Kenya hence the need to undertake this current research. The study also focused on how credit risk impact financial performance while this research is focusing on impact of credit management strategies on Saccos taking deposits and their performance

In Turkey, an investigation aimed on the credit risk effect on financial performance related to financial on banks that took deposits (Ekinici & Poyraz, 2019). This was done between the period 2005 - 2017. Secondary data was gathered from the Banks Association statistical report, still in Turkey. Performance of finance was moderated through Return on Equity (ROE) and also Return on Asset (ROA). The moderation of credit risk used was non-Performing Loans. A negative association was found to exist between ROA and credit risk. Similarly, such a relationship was found to exist between ROE and credit risk. However, credit appraisal process of borrowers may differ from one deposit bank to another. Moreover, despite the emphasis on credit scrutiny of potential borrowers, many deposit taking Saccos have not been performing calling for the need to undertake this research.

The association of management of credit risk and credit performance was investigated on Bangladesh microfinance institutions, (Nabi, Gao, Rahman, Pervez & Shah, 2018). The investigation used primary data gathered from 125 officers of 35 microfinance institutions. Credit risk factors used were; credit risk control, procedures of credit collection, institutional

factor, credit policy, credit terms, and the process of credit appraisals. Questionnaire that were structured was applied in data collection from the officers. The discoveries made from the study showed that procedures of credit collection, credit policy, institutional factor and credit risk control positively and significantly affected the credit performance. On the other hand, credit appraisals process and credit terms only had a useful effect but insignificant on credit performance. However, the research focused on micro finance institutions in Bangladesh whose operational business environment and regulations may be differing from Saccos that take deposit in Kenya hence the need to undertake this research.

The interconnection between risks control practices and the performance in terms of finance was surveyed over in Nigerian listed banks (Oluwagbemiga, Isaiah & Esiemogie, 2016). The research design used was an ex-post facto. It was the suitable one since it dealt with secondary data. The data was empiric in nature. The period used was between 2005 – 2016. Financial performance was analysed through Return on Asset (ROA) and Return On Equity (ROE). All the three facets of credit risk management were found to affect both ROE and ROA. However, the study focused on listed banks in Nigeria whose operational business environment and regulations may be differing from Saccos that take deposit in Kenya hence the need to undertake this current study.

Kithinji (2010) studied the influence of management of risk of credit on commercial banks' profitability. The research was carried in Kenya applying collected data from 2004 to 2008. The data collected was analysed through software of SPSS. From the results, most of commercial banks' performance cannot be explained by the level of their Non-Performing Loans (NPLs) and the amount of credit. Chen and Pan (2012) did a research in Taiwan on how risk of credit impacted commercial banks' performance. 2005 to 2008 data was collected. Risk of credit was assessed through ratios of financial. From the outcomes, credit risk management practices impacted banking sectors's performance. Bessis (2010) researched how management practices of risks impacted financial performance related to finance. This research was carried out in Malaysia. In this study, both primary and secondary data were applied. From the results, risk management remarkably contributed towards commercial banks' performance.



Hassan and Al-Tamimi (2010) using risk index moderated exposure of risks of different banks in Jordan. 1995 to 2008, data collection was done. The factors applied were GDP, interest rate and inflation. The research determined that macroeconomic factors have remarkable effect on commercial banks' performance. There were five specific bank variables: bank size, NPL, loan growth, high loan numbers in risk sectors, and net interest margin in their research. The five factors showed remarkable linkage with risk of credit. Increase of loan as well as concentration of loans in scopes that are risky had useful influence as well. Size of bank had a negative effect on risk of credit.

The impact of risk control of the risk of credit was investigated on the performance of the banks in Cameroon (Kegninkeu, 2018). Secondary data was applied and its verification was done through the use of trend and ratio analyses. These analyses were correlated to the changes in profits in percentage form. It was realized that the ratio of non-performing loans to total loans as a key risk indicator of management is productively interlinked with the performance of the banks. The ratio loan to total deposit was found to have an inverse relationship on the banks' performance. Similarly, the percentage of loans to total assets was also found to have an inverse influence on banks performance. However, the study focused on commercial banks that have relatively robust credit appraisal capabilities compared to deposit taking Saccos hence the need to undertake this study.

In Uganda, an investigation was done to assess the effect of risk of credit control activities had on microfinance institutions, (Kalu, Shieler & Amu, 2018). Only three licensed microfinance institutions were used to get a sample of 60, which were members of staff from the institutions and in the credit department. Questionnaires were applied to gather primary data. The annual reports for periods 2011 - 2015 from the institutions were applied to collect the needed secondary data. Performance related to finance played as the dependent variable of the study. Both risk identification and appraisal showed a strong productive impact on the performance of the institutions but as for risk monitoring and risk mitigation their effect was only moderate on the performance of the microfinance institutions. Nonetheless, the research focused on micro finance institutions in Uganda whose operational business environment and regulations may be differing from Saccos that take deposit in Kenya hence the need to undertake this research.

Murigi and Thuo (2018) conducted a study with a goal to assess the association between the credit risk of credit control and loan performance. The study focused on microfinance banks. Only 12 microfinance banks were used as the target populace. With the use of purpose sampling, 60 respondents were selected, five from each bank. Questionnaires facilitated the needed data. With the use of SPSS, data analysis was conducted where inferential and descriptive statistics were used. Risk of credit management had a strong and statistically productive influence on the banks' financial performance. The appraisal process, monitoring and measurement, credit administration, loan performance and internal control were used as the indicators of risk management. However, the research targeted micro finance firms in whose operational business environment and regulations may be differing from Saccos that take deposit in Kenya. Additionally, the study focused on loan performance while this study focuses on overall performance of deposit taking SACCOs in Kiambu County.

A study undertaken by Kalui and Kiawa (2015) delved on the procedures that enable risk management and their effect on financial performance. This was done among Kenyan microfinance institutions in particular, Nairobi county. Descriptive study design was used. Fifty-four institutions were used as the target populace. The target persons were officers and credit managers of the microfinance institutions. Risk identification, risk monitoring, risk analysis, risk assessment were the procedures that supported credit risk management. These procedures proved to be essential as they ensured efficient practice of credit risk management throughout the entire corporation. However, the research targeted on micro finance institutions in Kenya whose operational business environment and regulations may be differing from Saccos that take deposit in Kenya hence the need to undertake this research.

Nyamrigo (2019) looked at credit control practices and the performance of microfinance institutions. The study area was Nairobi County, Kenya. Questionnaires facilitated the gathering of the needed primary data. The design used was descriptive survey. Questionnaires were delivered to the respondents by way of hand delivery. The study established that credit appraisal did not affect the performance of MFIs in Kenya, credit risk control influenced performance of MFIs in Kenya, collection policy influenced the performance of MFIs in Kenya and terms of credit influenced the performance of MFIs in Kenya. However, the study focused on micro finance institutions in Kenya whose operational business environment and

regulations may be differing from Saccos that take deposit in Kenya hence the need to undertake this current study.

The effect risk management had on the wealth of Saccos was looked into through a study in Nakuru town (Kahuthu, 2016). The design used was descriptive survey. The target populace consisted of licensed credit and savings cooperatives registered by Sasra as at January 2015. Specifically, in Nakuru Town. Data was gathered through questionnaires then analyzed through correlation and regression. According to the study findings, credit risk identification, risk analysis and risk monitoring collectively had no tangible effect on the growth of Saccos as far as wealth is concerned. In this case, risk management proved not to be the perfect determinant of the advancement of the Saccos. Therefore, it was not wise to invest in credit risk management as the only option for the growth of the Saccos. However, there is contextual gap as the study focused on all SACCOS, on both deposit taking and non-deposit taking, in Nakuru town while the current study focused on only deposit taking SACCOS in Kiambu County.

Amunabi and Koori (2018) investigated the loan portfolio performance and how it was affected by credit risk management. This investigation was carried out in Nairobi on savings and credit cooperatives societies located in Nairobi, Kenya. Specifically, those that took deposit. A target populace of 51 registered Saccos was used. Questionnaires facilitated the collection of the needed primary data. It was then analyzed by use of SPSS. Out of the respondents of the study, 86.7% stated that their SACCOS had incorporated the appraisal of credit technique. It was also noted that credit appraisal technique had an effect on the SACCOS loan portfolio performance. However, there is conceptual gap as the study gave focus on effect of credit risk management on loan portfolio performance while this study focuses on effects of credit risk management strategies on overall taking SACCOS deposit and their performance.

A research by Kariuki (2017) delved on the association risk management procedures had with performance of Saccos in Kenya financial wise. One hundred and four Saccos were used as the target populace. These were Saccos that took deposits and registered under SASRA. With

an aim to find out the impact of the several risk procedures on the SACCOs performance the study realized that credit analysis, credit identification, mitigation and credit monitoring measures positively affected the financial performance of the institutions.

## 2.5 Research gaps

**Table 2.1: Knowledge Gaps**

<b>Author</b>	<b>Topic</b>	<b>Area of study</b>	<b>Findings</b>	<b>Research gaps identified</b>
Isanzu (2017)	effect of credit risk on financial performance of Chinese microfinance banks from 2008 to 2014	Chinese microfinance banks from 2008 to 2014	Controlling risks is critical in risk mitigation	However, the study focused on micro finance banks in China whose operational business environment and regulations may be differing from Kenya's deposit taking Saccos hence the need to undertake this current study.
Ekinci and Poyraz (2019)	Credit risk and financial performance of deposit banks in Turkey between 2005 - 2017	Deposit banks in Turkey between 2005 - 2017	Credit risk negatively impacts firm profitability using ROE and ROA	However, credit appraisal process of borrowers may differ from one deposit bank to another. Moreover, despite the emphasis on credit scrutiny of potential borrowers, many deposit taking Saccos have not been performing calling for the need to undertake this study.
Nabi, Gao, Rahman, Pervez and Shah (2018)	Credit risk management and credit performance of Bangladeshi MFIs	Microfinance institutions of Bangladesh	Credit control, policy, credit collection mechanism and credit control has impact on firm performance.	However, the study focused on micro finance banks in Bangladesh whose operational business environment and regulations may be differing from deposit taking Saccos in Kenya hence the need to undertake this current

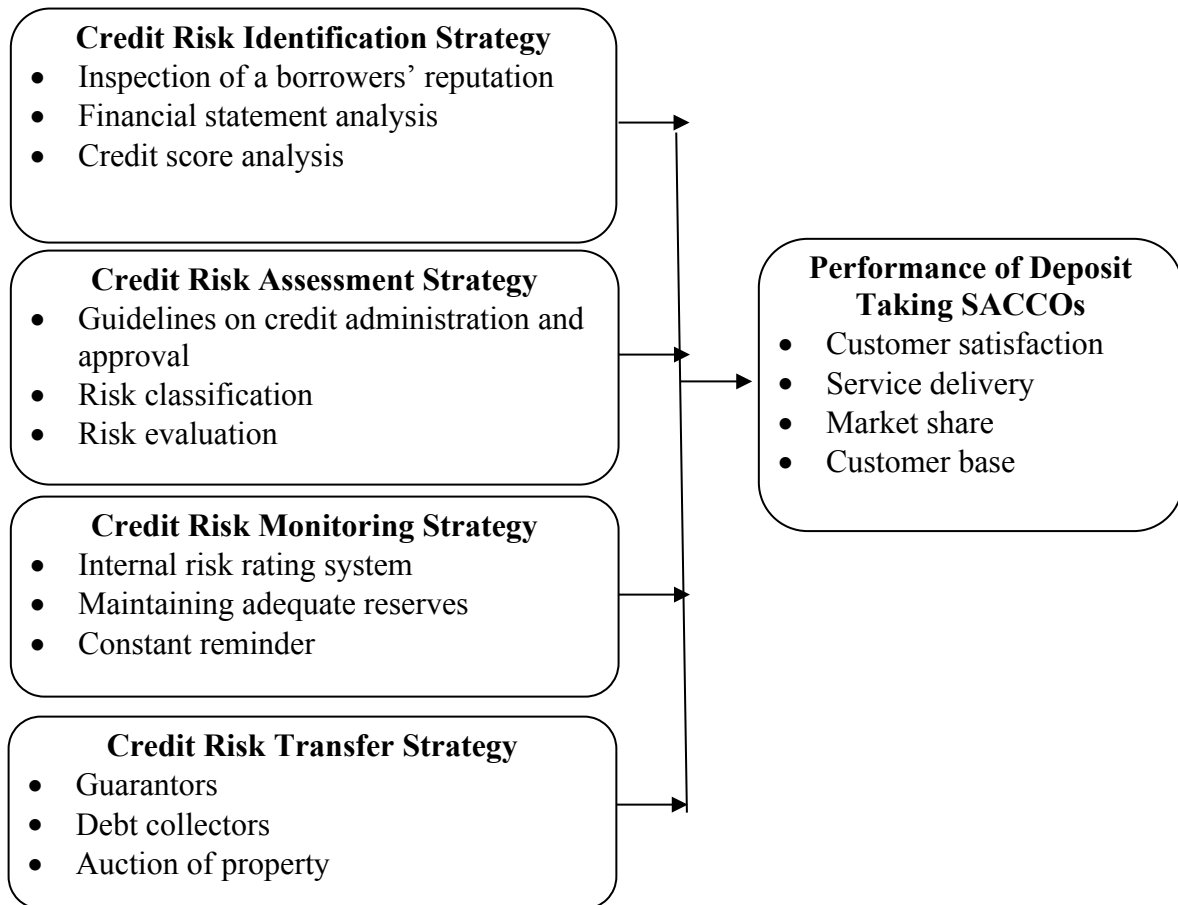
				study.
Kalu, Shieler and Amu (2018)	Credit risk management and Ugandan MFIs financial performance	Microfinance institutions in Kampala, Uganda	Identifying risks, credit risk appraisal positively impacts MFIs performance. Monitoring and mitigating risks moderately but positively impacts firm performance.	However, the study focused on micro finance banks in Kampala, Uganda whose operational business environment and regulations may be differing from deposit taking Saccos in Kenya hence the need to undertake this current study.
Thuo and Murigi (2018)	Credit risk management and loan performance of Kenya's MFIs	Kenya's MFIs	Credit risk appraisal, monitoring, credit administration and environmental analysis have positive impact on loan performance of MFIs.	However, the study focused on micro finance banks in Kenya whose operational business environment and regulations may be differing from deposit taking Saccos hence the need to undertake this current study.
Amunabi and Koori (2018)	Credit risk management and loan performance of deposit taking Saccos in Nairobi	deposit taking Saccos in Kenya	Credit appraisal has positive impact on loan performance among Saccos.	However, there is conceptual gap as the study focused on loan portfolio performance while this study focused on performance of deposit taking SACCOs.

## 2.6 Conceptual framework

In Figure 2.1, credit risk management strategies is the independent variables which included identification strategy of credit risk, risk of credit assessment strategy, monitoring strategy of credit risk and credit risk transfer strategy. The study has performance of the Sacco's that take deposits as the dependent variable.

## Independent Variables

## Dependent Variable



**Figure 2.1: Conceptual Framework**

**Author (2020)**

## 2.7 Summary of Literature Review

In this section, the theories looked at are; Knowledge based theory and Information theory of credit. The theory of information credit posits that credit advanced to companies and people would be large financial institutions of finance were keen on analyzing information about borrowers before advancing credit and during the credit repayment period.

Several Knowledge gaps are evident in the literature presenting contextual, conceptual and methodological gaps. In a research by Isanzu (2017) the effect of credit risk on the financial

performance was investigated. This was conducted among Chinese microfinance banks from 2008 to 2014. The four studies present contextual gaps since they focused on microfinance institutions while the current research focused on deposit taking SACCOs. Additionally, operational business environment and regulations of deposit taking Saccos differ from country to country hence the need to undertake this current study.

Moreover, a study by Amunabi and Koori (2018) looked at the effect of management of credit risk and loan portfolio performance among deposit taking savings and credit co-operative societies in Nairobi City, Kenya. The research shows a gap that is conceptual as it aimed on loan portfolio performance while the current research aimed on overall performance of deposit taking SACCOs. It is in comparison to this that the current study wishes to find out the influence credit risk control strategies have on the performance of SACCOs that take deposit in Kiambu County.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The next part highlights the design of research, population as well as design of sampling, method of collection of data, and the model of analysis.

#### **3.2 Research Design**

The design of research applied in this investigation is a descriptive one. This design is suitable in describing the origin and the influential association among the variables of interest in a given study, (Cooper and Schindler, 2013). Thus, for this study, descriptive design remains to be the outstanding design that effectively assisted in determination of the impacts of risk of credit management strategies on the performance of the Saccos that take deposits in Kiambu County.

#### **3.3 Population and Sampling Design**

In Kiambu County alone there are 55 licensed Saccos. In particular, they are found in Juja, Kiambu town, Thika town and in various places in Kikuyu town. Normally, Saccos maximize

the deposits they receive from members through economic and social activities (SASRA report, 2020). A census was applied to select all the licensed 55 Saccos in the county. The employees sampled were those in managerial positions in the credit department of the Sacco. These were selected purposively since they were considered to have full and valid information regarding the credit risk management of the Sacco which other subordinate employees may not have. This yielded a total target population of 110 people.

### **3.4 Data Collection**

The study used primary data. Information on credit management strategies and the non-financial aspect of performance was collected using questionnaires that are semi-structured. Because of the COVID-19 pandemic, the questionnaires were administered via email through goggle forms. The researcher sought permission from the 55 SACCOs taking deposits and obtained the email addresses of the targeted respondents. The researcher then emailed the link to the google form to the respondents and received feedback via email.

### **3.5 Data Analysis**

Gathered data was analyzed through Statistical Package for Social Sciences (SPSS) version 24. Both inferential as well as descriptive statistics were generated. The descriptive statistics included frequencies and percentages while the inferential statistics included a multiple linear regression model. The regression model was: -

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

Where:

Y = Performance of deposit taking SACCOs

X<sub>1</sub> = Credit risk identification strategy

X<sub>2</sub> = Credit risk assessment strategy

X<sub>3</sub> = Credit risk monitoring strategy

X<sub>4</sub> = Credit risk transfer strategy



$\varepsilon$  =error term

$\alpha$  =y intercept of the regression equation.

$\beta_1, \beta_2, \beta_3, \& \beta_4$  =are the coefficients of regression.

For purposes of testing for causal linkage between the dependent and independent variables, R<sup>2</sup> statistic, F statistic, regression/beta coefficients were analysed for significance using p values. The critical p value was set at 0.05. Findings were shown in form of charts and tables.

## **CHAPTER FOUR**

### **DATA ANALYSIS, FINDINGS AND DISCUSSION**

#### **4.1 Introduction**

The chapter shows findings emanating from data analysis and the interpretation of the results shown. Figures and tables are applied to show the results.

## 4.2 Response Rate

Questionnaires were administered to 110 employees in the credit department of the deposit taking SACCOs in Kiambu. Out of the 110 questionnaires given out, 102 questionnaires were returned. Specifically, 102 respondents gave proper which translates to 92.7% response rate. This is congruent with Babbie (2004) who pointed out that return rates of 50% are okay to analyze and publish data, 60% is good and 70% is very good. This makes 92.7% appropriate for this study. Table 4.1 captures the rate of response.

**Table 4.1: Response Rate**

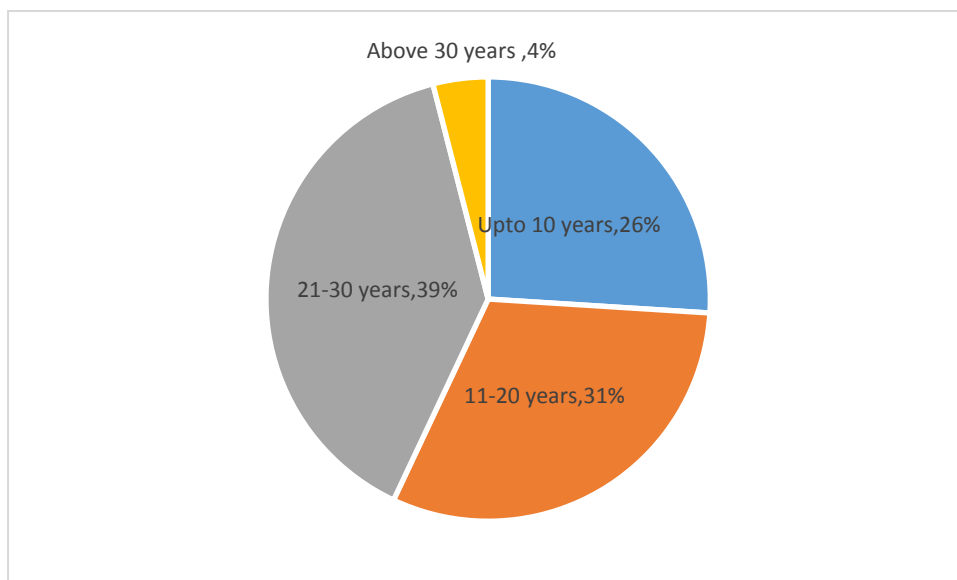
	<b>Frequency</b>	<b>Percent</b>
Returned questionnaires	102	92.7
Non-returned questionnaires	8	7.3
<b>Total</b>	<b>110</b>	<b>100</b>

## 4.3 Demographic Information

This section aims at obtaining information related to the demographics of the respondents. This includes gender, age, duration worked and level of management.

### 4.3.1 Years Been Operational

The results demonstrated that a higher proportion of Saccos (39%) had been operational for 21-30 years while those been operational for 11-20 years represented 31% followed by those which had operated for 1-10 years at 26% and finally those that had been operational for over 30 years represented 4% (Figure 4.1). The results showed that for most of the deposit taking SACCOs they had been operational for over 10 years hence can be considered to have had good experience in dealing with credit management.



**Figure 4.1: Years Been Operational**

#### 4.3.2 Number of Employees

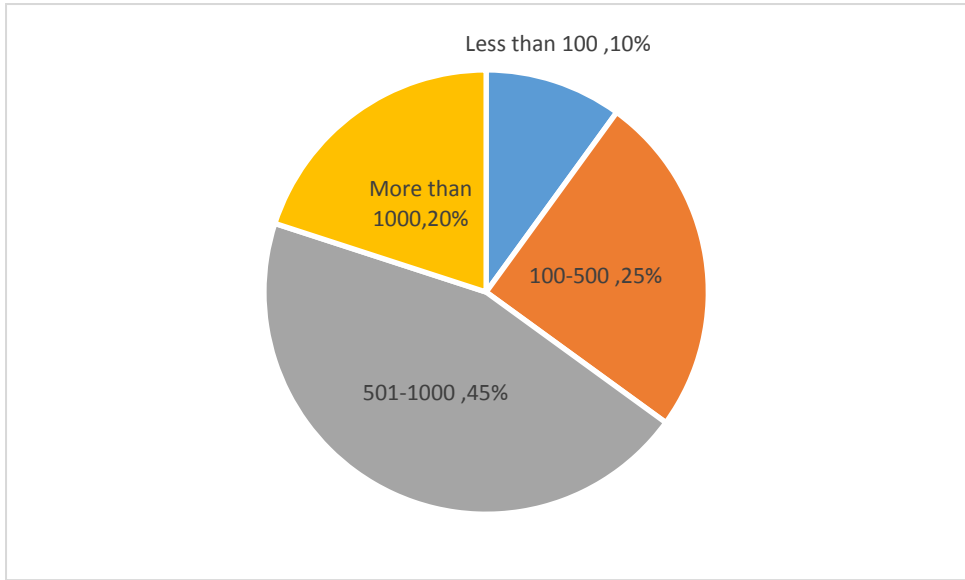
Table 4.2 shows the outcomes on numbers of employees. The results depict 31.4% of Saccos had more than 50 employees, 19.6% had 31-40 employees, 17.6% had 21-30 employees while 15.7% had 41-50 employees and only 2% had less than 10 employees. This implied that most Saccos were large in terms of firm size.

**Table 4.2: Number of Employees**

Number of Employees	Frequency	Percent
Less than 10 employees	2	2
10-20 employees	14	13.7
21-30 employees	18	17.6
31-40 employees	20	19.6
41-50 employees	16	15.7
More than 50 employees	32	31.4
<b>Total</b>	<b>102</b>	<b>100</b>

#### 4.3.3 Size of Membership

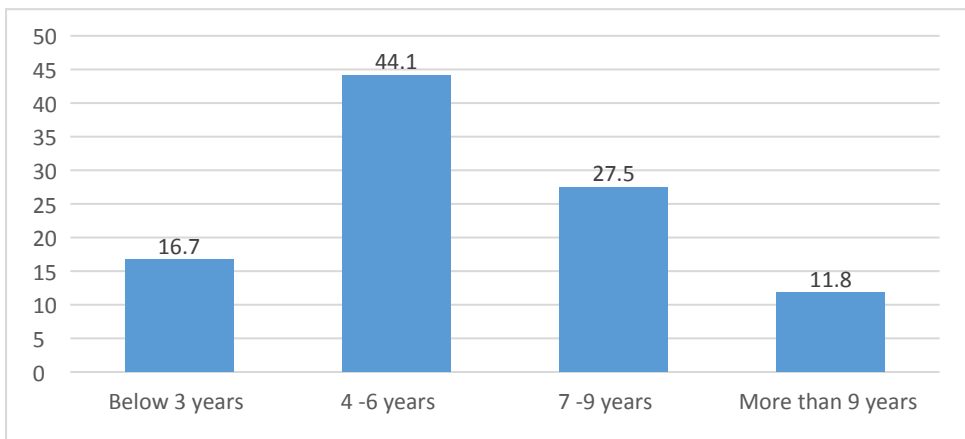
Results illustrate that 45% of the Saccos had between 501 and 100 members, 25% had 100-500 while 20% had more than 1000 members and the rest 10% had less than 100 members. The results depict that the Saccos had large size of membership.



**Figure 4.2: Size of Membership**

#### 4.3.4 Period of Work

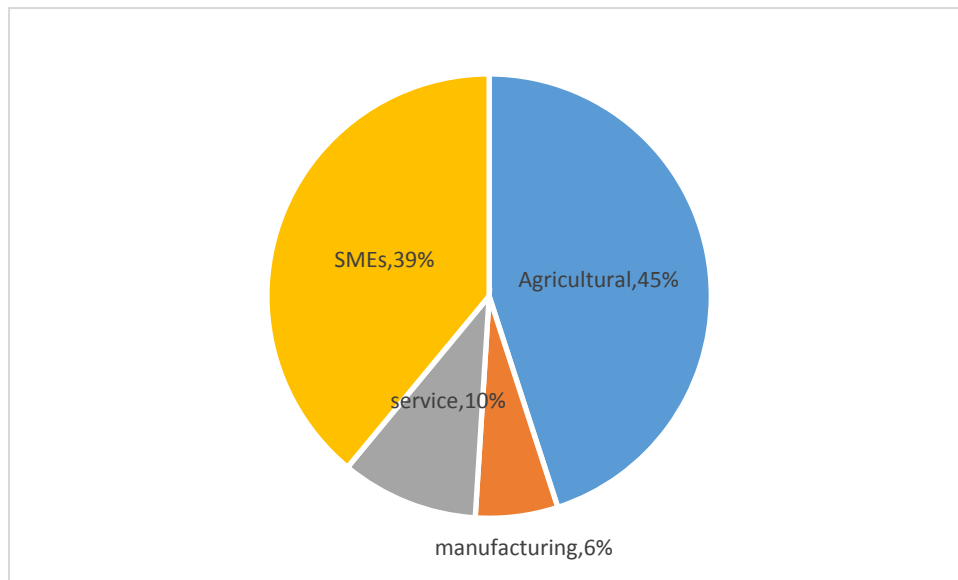
According to the results, a larger proportion (44.1%) had worked for the deposit taking SACCO for 4-6 years, 27.5% had worked for the deposit taking SACCO for 7- 9 years, 16.7% had worked for the taking of deposit SACCO less than 3 years while the rest 11.8% had worked for the deposit taking SACCO exceeding 9 years. The study results indicated that the respondents were experience. This thus implies that they had requisite experience to give relevant information required for this study.



**Figure 4.3: Period of Work**

### 4.3.5 Original Target Group

As portrayed by the results, a larger proportion (45%) had targeted the agricultural sector, 39% targeted SMEs while 10% targeted the service sector and 6% targeted the other sectors. This implies that for most of the deposit taking Saccos they originally targeted the groups representing the agricultural sector.



**Figure 4.4: Original Target Group**

## 4.4 Descriptive Statistics

Descriptive results on identification of strategy of credit risk, credit risk of credit assessment strategy, monitoring of strategy of credit risk, credit risk transfer strategy and performance of deposit taking SACCOs are presented.

### 4.4.1 Credit Risk Identification Strategy

Results on the various aspect of credit risk identification strategy adopted by SACCOs taking deposits are shown in Table 4.3. Results demonstrated that 61.8% posited that the SACCOs inspect a borrower's reputation, 54.0% reiterated that the SACCOs conduct financial statement analysis while 69.6% agreed that the SACCOs conduct credit score analysis.

Results also illustrated that 79.4% affirmed that the SACCOs conduct credit worthiness analysis while 77.4% affirmed that the SACCOs do risk rating and collateral evaluation.

**Table 4.3: Credit Risk Identification Strategy**

<b>Statement</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Disagree</b>
Inspection of a borrower reputation.	5.9%	10.8%	21.6%	51.0%	10.8%
Financial statement analysis.	13.7%	10.8%	21.6%	52.0%	2.0%
Credit score analysis.	13.7%	16.7%	0.0%	34.3%	35.3%
Creditworthiness analysis.	0.0%	5.9%	14.7%	64.7%	14.7%
Risk rating and collateral evaluation	9.8%	2.0%	10.8%	63.7%	13.7%

#### 4.4.2 Credit Risk Assessment Strategy

Results on the various aspect of credit risk assessment strategy adopted by SACCOs taking deposits are presented in Table 4.4. Results demonstrated that 67.7% posited that the SACCOs have guidelines on credit administration and approval, 63.7% reiterated that the SACCOs classify risks while 55.9% agreed that the SACCOs evaluate risks. Results also illustrated that 81.4% affirmed that the SACCOs estimate risks to establish the magnitude of the consequences while 77.4% affirmed that the SACCOs conduct internal credit review by independent parties from the business to ascertain the quality of the credit portfolio.

**Table 4.4: Credit Risk Assessment Strategy**

<b>Statement</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Disagree</b>
Guidelines on credit administration and approval	2.0%	8.8%	21.6%	51.0%	16.7%
Risk classification	9.8%	8.8%	17.6%	50.0%	13.7%
Risk evaluation	10.8%	12.7%	20.6%	44.1%	11.8%
Risk estimation to establish the magnitude of the consequences.	0.0%	3.9%	14.7%	60.8%	20.6%
Internal credit review by independent parties from the business to ascertain the quality of the credit portfolio.	9.8%	0.0%	12.7%	57.8%	19.6%

#### 4.4.3 Credit Risk Monitoring Strategy

Results on the various aspect of credit risk monitoring strategy adopted by SACCOs taking deposits are presented in Table 4.5. Results demonstrated that 92.2% posited that the SACCOs have an internal risk rating system, 67.7% reiterated that the SACCOs maintain adequate reserves while 76.5% agreed that the SACCOs constantly reminds borrowers on the need to repay their credit on time. Results also illustrated that 58.8% affirmed that the SACCOs generate credit reports in a consistent and timely way for management attention and review, 90.2% affirmed that the SACCOs use of information systems of information and methods of analysis to moderate risk of credit while 98.1% affirmed that the SACCOs assign individual credit officers to manage specific credit accounts.

**Table 4.5: Credit Risk Monitoring Strategy**

<b>Statement</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Disagree</b>
Internal risk rating system	0.0%	7.8%	0.0%	66.7%	25.5%
Maintenance of adequate reserves	0.0%	32.4%	0.0%	35.3%	32.4%
Constant reminders to borrowers on the need to repay their credit on time.	2.9%	20.6%	0.0%	39.2%	37.3%
Consistent and timely generation of credit reports for management attention and review.	2.9%	38.2%	0.0%	25.5%	33.3%
Use of information systems and analytical methods to measure credit risk.	0.0%	9.8%	0.0%	39.2%	51.0%
Assigning individual credit officers to manage specific credit accounts	2.0%	0.0%	0.0%	37.3%	60.8%

#### **4.4.4 Credit Risk Transfer Strategy**

Results on the various aspect of credit risk transfer strategy adopted by deposit taking SACCOs are shown in Table 4.6. Results demonstrated that 89.2% posited that the SACCOs require that borrowers have guarantors before advancing credit, 77.4% reiterated that the SACCOs assign debt collectors to follow up on defaulters while 82.3% agreed that the SACCOs auction property listed as collateral upon default. Results also illustrated that 55.4% affirmed that the SACCOs have an allowance for the customer to negotiate for a flexible payment plan while 66.7% affirmed that the SACCOs insure loans.

**Table 4.6: Credit Risk Transfer Strategy**

<b>Statement</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Disagree</b>
Use of guarantors	0.0%	2.9%	7.8%	66.7%	22.5%
Assigning debt collectors to follow up on defaulters.	2.0%	12.7%	7.8%	52.9%	24.5%
Auction of property listed as collateral upon default.	13.7%	3.9%	0.0%	29.4%	52.9%
Having an allowance for the customer to negotiate for a flexible payment plan.	10.9%	27.7%	5.9%	55.4%	0.0%
Insuring loans.	5.9%	19.6%	7.8%	30.4%	36.3%

#### **4.4.5 Performance**

Results in Table 4.7 demonstrate that credit risk management strategies indeed influence performance of deposit taking SACCOs. This was confirmed by the affirmation of 90.3% of the respondents.

**Table 4.7: Effect of Credit Risk Management Strategies**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
No	9	8.7
Yes	93	90.3
Total	102	99

findings on the effect of credit risk management of strategies on SACCOs taking deposit as well as their performance are presented in Table 4.8. Results demonstrated that 92.2% posited that use of credit risk management strategies has resulted to improved customer satisfaction, 62.7% reiterated that use of credit risk management strategies has resulted to better service delivery while 74.5% agreed that use of credit risk management strategies has resulted to increased customer base. Results also illustrated that 90.2% affirmed that use of credit risk management strategies has resulted to increased market share while 61.7% affirmed that use of credit risk management strategies has resulted to increased profitability.

**Table 4.8: Performance**

<b>Statement</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Disagree</b>
Use of credit risk management strategies has resulted to	2.0%	2.0%	3.9%	42.2%	50.0%



improved customer satisfaction.					
Use of credit risk management strategies has resulted to better service delivery.	3.9%	2.0%	31.4%	43.1%	19.6%
Use of credit risk management strategies has resulted to increased customer base.	3.9%	2.0%	19.6%	34.3%	40.2%
Use of credit risk management strategies has resulted to increased market share.	2.0%	2.0%	5.9%	37.3%	52.9%
Use of credit risk management strategies has resulted to increased profitability.	2.0%	26.5%	9.8%	44.1%	17.6%

Findings on the extent of influence of control of credit risk strategies on the achievements of SACCOs taking deposits are presented in Table 4.9. Results demonstrated that 95.1% posited that credit risk identification strategy influences performance to a great extent while 87.2% reiterated that credit risk assessment strategy influences performance to a great extent. Findings also illustrated that 90.2% affirmed that credit risk monitoring strategy influences performance to a great extent while 97.0% affirmed that credit risk transfer strategy affects performance to an extent that is great.

**Table 4.9: Extent of Effect of Credit Risk Management Strategies**

<b>Statement</b>	<b>Very Low Extent</b>	<b>Low Extent</b>	<b>Great Extent</b>	<b>Very Great Extent</b>
Credit risk identification strategy	0.0%	4.9%	45.1%	50.0%
Credit risk assessment strategy	0.0%	12.7%	64.7%	22.5%
Credit risk monitoring strategy	0.0%	9.8%	43.1%	47.1%
Credit risk transfer strategy	0.0%	2.9%	7.8%	89.2%

#### **4.5 Inferential Statistics**

This comprised the multiple linear regression analysis. Table 4.10 illustrate that identification strategy of risk of credit, risk of credit assessment strategy, monitoring strategy of risk of credit and credit risk transfer strategy were considered satisfactory in explaining the performance of deposit taking SACCOs. This is as reflected by an R square of 0.74. This thus means that application of the management strategies of risk of credit explains 74% of the variations in performance of SACCOs taking deposits in Kiambu County. The other implication is that the model linking the variables relationships is satisfactory.

**Table 4.10: Model Fitness**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>
1	.860a	0.74	0.729

Findings in Table 4.11 show that the entire model was statistically remarkable and as presented by F statistic of 68.342 and a p value of 0.000. Thus, this insinuates that the credit risk management strategies are good predictors of performance for deposit taking SACCOs in Kiambu County.

**Table 4.11: Analysis of Variance**

<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>F</b>	<b>Sig.</b>
1	Regression	32.455	4	68.342	0.000
	Residual	11.397	55		
	Total	43.852	59		

Table 4.12 show that credit risk identification strategy is usefully and remarkably related with SACCOs taking deposit and their performance as shown  $\beta = 0.325$ ,  $p=0.007$ . This implies that a unit increase in the use of credit risk identification strategy will cause growth in performance of deposit taking SACCOs by 0.325 units. Credit risk assessment strategy is usefully and remarkably related with SACCOs taking deposits and their performance as shown  $\beta = 0.312$ ,  $p=0.022$ . This shows that a unit increase in use of risk of credit assessment strategy will cause growth of deposit taking SACCOs performance by 0.312 units.

Results also show that credit risk monitoring strategy is usefully and remarkably related with SACCOs taking deposit and their performance as shown  $\beta = 0.436$ ,  $p=0.033$ . This means that a unit increase in the use credit risk monitoring strategy will cause growth in performance of

deposit taking SACCOs by 0.436 units. The variable credit risk monitoring strategy had the highest coefficient among the variables. This means that the aspect of credit risk monitoring is very important and can have a huge effect on the performance of Saccos. Were proper strategies for credit risk are adopted the other credit risk management strategies flow along well leading to a high performance. Further, findings indicate that risk of credit transfer strategy is usefully and remarkably linked with performance of deposit taking SACCOs as shown  $\beta = 0.225$ ,  $p=0.026$ . This shows that a unit increase in the use credit risk transfer strategy will cause growth in performance of deposit taking SACCOs by 0.225 units. The results depict that credit risk monitoring strategy has the greatest effect on performance of deposit taking SACCOs as it has the highest beta coefficient, second was credit risk identification strategy followed by credit risk assessment strategy and then risk of credit transfer strategy.

**Table 4.12: Regression of Coefficients**

<b>Variable</b>	<b>B</b>	<b>Std. Error</b>	<b>t</b>	<b>Sig.</b>
(Constant)	0.888	0.392	2.268	0.026
Credit risk identification strategy	0.325	0.118	2.757	0.007
Credit risk assessment strategy	0.312	0.134	2.329	0.022
Credit risk monitoring strategy	0.436	0.202	2.158	0.033
Credit risk transfer strategy	0.225	0.100	2.264	0.026

#### **4.6 Discussion of Findings**

According to the research results its seen that risk of credit management strategies affected the SACCOs taking deposit and their performance in Kiambu County positively. This finding are congruent with those of Kegninkeu (2018) who wanted to establish the influence of risk of credit control on the performance of the banks in Cameroon. The study showed a useful association. The findings also concur with those of a study by Nabi, Gao, Rahman, Pervez and Shah (2018) who wanted to establish the association of credit risk management and credit performance was investigated on Bangladesh microfinance institutions. The discoveries made from the study showed that procedures of credit collection, credit policy, institutional factor and credit risk control positively and significantly affected the credit performance

The research revealed that deposit taking SACCOs had adopted various credit risk strategies which included credit risk identification strategy, credit risk assessment strategy, credit risk monitoring strategy and credit risk transfer strategy. The findings are consistent with those of Kalui and Kiawa (2015) who undertook a research delving on the procedures that enable risk management and their effect on financial performance. Risk identification, risk monitoring, risk analysis, risk assessment were the procedures that supported credit risk management. These procedures proved to be essential as they ensured efficient practice of credit risk management throughout the entire corporation. The findings also concur with those of Kariuki (2017) who delved on the association risk management procedures had with performance of Saccos in Kenya financial wise. The research realized that credit assessment, credit identification, mitigation and credit monitoring measures positively affected the financial performance of the institutions. Further, the findings tally with those of Murigi and Thuo (2018) who conducted a study with a goal to assess the association between the management of credit risk and loan performance. Management of risk of credit had strong and statistically productive effect on the financial performance of banks. The appraisal process, monitoring and measurement, credit administration, loan performance and internal control were applied as the indicators of risk control.

The study results also relate to the knowledge based theory and information theory of credit as most of the credit risk strategies used by deposit taking SACCOs capitalize on gathering information about borrowers which aids to distinguish between the risky and less risky borrowers. This helps in decision making which in return influences performance positively.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This section indicates the summary of the results, the conclusions and the recommendations.

## **5.2 Summary of Findings**

The general objective of the research was to determine the effect of credit risk management strategies on performance of deposit taking Saccos in Kiambu County. The research established that deposit taking Saccos in Kiambu County used various credit risk management strategies namely credit risk identification strategy, credit risk assessment strategy, monitoring strategy of credit risk and credit risk transfer strategy. The study also established that control strategies of risk of credit affected Saccos taking deposit and their performance in Kiambu County.

In reference to credit risk identification strategy, the study identified various aspects that contributed to improved performance, this included inspection of a borrower reputation, conducting of statement of finance, conducting analysis of score of credit, conducting analysis of creditworthiness and conducting rating of risk and collateral evaluation. In reference to assessment strategy of credit risk, the study identified various aspects that contributed to improved performance, this included having guidelines on credit administration and approval, risk classification, risk evaluation, risk estimation to establish the magnitude of the consequences and conducting internal credit review by independent parties from the business to ascertain the quality of the credit portfolio.

In reference to credit risk monitoring strategy, the study identified various aspects that contributed to improved performance, this included having an internal risk rating system, maintenance of adequate reserves, constant reminders to borrowers on the need to repay their credit on time, consistent and timely generation of credit reports for management attention and review, use of systems of information and methods of analysis to moderate risk of credit, and assigning individual credit officers to manage specific credit accounts. Further, with regard to credit risk transfer strategy, the study identified various aspects that contributed to improved performance, this included use of guarantors, assigning debt collectors to follow up on defaulters, auction of property listed as collateral upon default, having an allowance for the customer to negotiate for a flexible payment plan and insuring loans.

## **5.3 Conclusion**

The research concludes that management strategies of risk on credit impacted the Saccos taking deposit and their performance in Kiambu County. The specific credit risk management strategies are identification strategy of risk of credit, credit risk assessment strategy, credit risk monitoring strategy and risk of credit transfer strategy. Out of this study the most significant strategy was credit monitoring. The research also concludes that adoption of these strategies has impacted performance positively. Particularly, Saccos taking deposit and their performance in Kiambu County had increased in terms of increased satisfaction of customer, increased profitability, increased market share, increased customer base and enhanced efficiency in delivery of services.

#### **5.4 Recommendations for the Study**

According to the results of the research the analyst made several recommendations. To start with, results showed that several credit risk management strategies such as strategy of identification of risk of credit, credit risk assessment strategy and risk of credit monitoring strategy leveraged on use of technology. Hence, the study recommends that deposit taking SACCOs should consider budgeting for technology advancement. This will create for adoption of advanced and better technologies which utilize complex data algorithms and data analytic techniques to yield accurate credit worthiness rating of borrowers. This will thus enable the SACCOs to evade risky borrowers who may dampen their performance by improving the amount of non-performing loans.

The research also recommends that deposit taking SACCOs should consider taking into account the extent of influence of each credit risk management strategy. The SACCOs should then capitalize more on the strategy that has a greater effect on performance. This aid in ensuring optimal utilizing of resources and realization of optimal profitability.

#### **5.5 Recommendations for Further Research**

The research recommended a comparable research can be done focusing on different counties other than Kiambu County, for instance Nakuru or Nairobi County. Through this it would be possible to do a comparison of the influence of strategies credit risk of risk control on SACCOs taking deposits and their performance. The research also recommends that a research on other credit risk management strategies that influence SACCOs taking deposits

and their performance be conducted. In addition, the research recommends the same study aiming on other financial institutions that extend credit to borrowers such as micro-finance institutions and banks be conducted.

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## **APPENDICES**

### **Appendix I: Introduction Letter**

Dear Sir/Madam,

My name is Fredrick Musyoki and I am a student at the University of Nairobi pursuing a degree in Master of Business Administration. I wish to conduct a research titled “*effects of*

*credit risk management strategies on performance of deposit taking Saccos in Kiambu County*’. A questionnaire has been developed to assist gathering relevant information for this study. Whatever information you shall provide will be strictly confidential and will not be shown to any other persons. Participation in the study is voluntary.

Many thanks for your acceptance with regards to participation in this study

Yours Faithfully,

**Fidelis Musyoka**

## **Appendix II: Questionnaire**

Kindly answer the following questions as honestly and accurately as possible. The information given will be treated with a lot of confidentiality. Please do not write your name anywhere on this questionnaire. You are eligible to give us your feedback if you are the household head.

### **Section A: Socio-Demographic Characteristics**

1. How many employees are in your Sacco?

Less than 10 employees [ ] 10-20 employees [ ] 21-30 employees [ ] 31-40 employees [ ] 41-50 employees [ ] More than 50 employees

2. How long has your Sacco been operational?

Up to 10 years [ ] 11-20 years [ ] 21- 30years [ ]

Above 30 years [ ]

3. What is the size of membership of your Sacco as per now?

Less than 100 [ ] 100-500 [ ] 501-1000 [ ] More than 1000

4. What is your target group (sector)?

Agricultural [ ] manufacturing [ ] service [ ] SMEs [ ] other [ ]

5. How long have you served as the credit manager at the deposit taking SACCO?

Below 3 years [ ] 4 -6 years [ ] 7 -9 years [ ] More than 9 years [ ]

**Section B: Credit Risk Identification Strategy**

Please indicate your level of agreement with the following aspects of credit risk identification strategy adopted by deposit taking SACCOs in Kiambu County on a scale of 1-5 where: 5 Strongly Agree, 4 Agree, 3 Neutral, 2 Disagree, 1 Strongly Disagree.

Statement	1	2	3	4	5
1. Inspection of a borrower reputation.					
2. Financial statement analysis.					
3. Credit score analysis.					
4. Creditworthiness analysis.					
5. Risk rating and collateral evaluation					

### Section C: Credit Risk Assessment Strategy

Please indicate your level of agreement with the following aspects of credit risk assessment strategy adopted by deposit taking SACOOs in Kiambu County on a scale of 1-5 where: 5 Strongly Agree, 4 Agree, 3 Neutral, 2 Disagree, 1 Strongly Disagree.

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1. Guidelines on credit administration and approval					
2. Risk classification					
3. Risk evaluation					
4. Risk estimation to establish the magnitude of the consequences.					
5. Internal credit review by independent parties from the business to ascertain the quality of the credit portfolio.					

### Section D: Credit Risk Monitoring Strategy

Please indicate your level of agreement with the following aspects of credit risk monitoring strategy adopted by deposit taking SACOOs in Kiambu County on a scale of 1-5 where: 5 Strongly Agree, 4 Agree, 3 Neutral, 2 Disagree, 1 Strongly Disagree.

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1. Internal risk rating system					



2. Maintenance of adequate reserves					
3. Constant reminders to borrowers on the need to repay their credit on time.					
4. Consistent and timely generation of credit reports for management attention and review.					
5. Use of information systems and analytical techniques to measure credit risk.					
6. Assigning individual credit officers to manage specific credit accounts					

**Section E: Credit Risk Transfer Strategy**

Please indicate your level of agreement with the following aspects of credit risk transfer strategy adopted by deposit taking SACCOs in Kiambu County on a scale of 1-5 where: 5 Strongly Agree, 4 Agree, 3 Neutral, 2 Disagree, 1 Strongly Disagree.

Statement	1	2	3	4	5
1. Use of guarantors					
2. Assigning debt collectors to follow up on defaulters.					
3. Auction of property listed as collateral upon default.					
4. Having an allowance for the customer to negotiate for a flexible payment plan.					
5. Insuring loans.					

**Section G: Performance of Deposit Taking SACCOs**

Do credit risk management strategies affect performance of deposit taking SACCOs?

Yes [ ] No [ ]

Indicate the extent to which you agree with the following statements about the effect of credit risk management strategies on performance of deposit taking SACCOs in Kiambu County on a scale of 1 to 5, where 1=Strongly Disagree, 2=Disagree, 3=Unsure, 4=Agree and 5=Strongly Agree.

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1. Use of credit risk management strategies has resulted to improved customer satisfaction.					
2. Use of credit risk management strategies has resulted to better service delivery.					
3. Use of credit risk management strategies has resulted to increased customer base.					
4. Use of credit risk management strategies has resulted to increased market share.					
5. Use of credit risk management strategies has resulted to increased profitability.					

Indicate the extent to which the following credit risk management strategies affect performance of deposit taking SACCOs in Kiambu County on a scale of 1 to 4, where 4=Very Great Extent, 3= Great Extent, 2= Low Extent and 1=Very Low Extent.

<b>Credit Risk Management Strategy</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>

1	Credit risk identification strategy				
2	Credit risk assessment strategy				
3	Credit risk monitoring strategy				
4	Credit risk transfer strategy				

**THANK YOU FOR YOUR RESPONSES**