CONTRIBUTION OF MICRO CREDIT LOANS ON LOAN PORTFOLIO QUALITYOF DEPOSIT TAKING SACCOS IN KENYA

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SCHOOL OF BUSINESS AND ECONOMICS

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DECLARATION

This is my original work and it has not been presented in any University for examination.

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DEDICATION

I dedicate this project to the cherished memory of my late parents, Gervas Okuku and Margaret Apiyo, as well as to my three wonderful children: Elvis, Reveller, and Erick.

ABSTRACT

Savings and Credit Cooperatives were invented in German to promote savings and curb the exorbitant interest rates that was being charged to the indebted rural poor. Despite this nobble idea, micro credit loans portfolio performance has been declining. In Africa, SACCOs are facing challenges associated with asset quality. In Kenya, SACCOs equally face similar challenges that SACCOs are facing at global, continental and regional levels despite their importance in the Kenyan economy where they contribute at least 5.75% of the GDP. However, the Deposit Taking SACCOs have continued to record a lower Portfolio at Risk at 8.40% in 2022 compared to 13.80% for Commercial Banking Institutions and 31.78% for Microfinance banks in the same period. Even though the percentages of Portfolio at Risk in deposit taking saccos are the lowest in the financial sector, the figures of the loans written off are significant at 15.27, 19.38, 24.19, 34.05 and 36.95 billion from year 2018 to year 2022 respectively. Loan portfolio quality, the parameter that gives perspective of the overall loan performance, has experienced a deteriorating trend over the last decade. Portfolio at risk which measures loan quality also show a poor trend of 6.3%, 6.15%, 8.39%, 8.86% and 8.4% for the years 2018-2022 respectively. Existing literature commonly cover general DT Saccos portfolio, but with limited attention to Microcredit loan, as credit product accessed by over 76% of borrowers in Kenya. It is not known to what extent the microcredit loans are contributing to the recorded portfolio at risk of DT SACCOs in Kenya. This study hence sought to establish contribution of microcredit loans on loan portfolio quality of deposit taking Saccos in Kenya. Specifically, the study sought to determine the effect of micro credit loan lending terms on portfolio quality of deposit taking SACCOs in Kenya, establish the effect of member quality on portfolio quality in deposit taking SACCOs in Kenya, determine effect of credit risk management on micro credit loans portfolio quality in deposit taking SACCOs in Kenya and to evaluate the effect of management of information on microcredit loans portfolio quality in deposit taking SACCOs in Kenya. This study is anchored portfolio theory, credit risk theory balance score card theory and Information asymmetry theory. The study adopted a descriptive and correlational research design with a target population of 84 licensed Saccos using a purposive sampling technique consisting of identified DT Saccos which have micro credit loan as product. Respondents were one credit Managers in each DT Sacco. Primary data were collected using structured questionnaires. Response rate was 74%. Validity was assessed through expert opinion; reliability was ensured by doing pilot test in 10 Deposit Taking Saccos followed by a Cronbach's test of 70% threshold. Findings revealed that micro credit loan lending terms, member quality, credit risk and information management positively and significantly influence portfolio quality of DT SACCOs in Kenya (p =0.000<0.05) and R^2 = 71.6%, 31.9%, 50.9% and 69.3% respectively. This imply that the four variables under consideration affects portfolio quality. The study concludes that DT SACCOs should consider favourable loan lending terms, proper background check to ensure members are of good quality at recruitment, continuous credit risk analysis and monitoring and a keen information management on microcredit loan products to ensure low delinquencies. The study recommends that a separate credit policy should be made specifically for microcredit loans.

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LIST OF ABBREVIATIONS AND ACRONYMS

PaR Portfolio at Risk

CAMEL Capital Adequacy, Asset Quality, Management, Earnings, Liquidity

CBK Central Bank of Kenya

DT Deposit Taking

FOSA Front Office Service Activity

KYC Know Your Customer

MIS Management of Information System

BOSA Back Office Savings Account

LPM Loans Performance Management

MFI Microfinance Institutions

NPL Non -Performing Loans

SACCO Savings and Credit Co-operative Societies

SASRA Sacco Society Regulatory Authority

KPI Key Performance Indicator

WOCCU World Council of Credit Unions

OPERATIONAL DEFINITION TERMS

Asset : Assets of a Sacco comprises of; Cash and cash equivalents,

Treasury bills, Other receivables, Loans to members, Due from

related party Quoted investments, Unquoted investments

Intangible assets, Property, equipment and right-of-use assets.

Credit Risk : The possibility of occurrence of a financial loss as a result of

borrower not performing his contractual duty.

Deposit Taking Saccos: These are Saccos licensed by the SASRA to undertake Deposit

Taking Business (FOSA).

Dependent Variable: This is an element in an operation relationship whose value is

determined by the values presumed by other elements in the

relation.

Independent Variable : This is an element in an operational relation whose value

determines the value or values of other elements.

Loan Loss Provision : These are statutory allocations put in reserves as an allowance for

outstanding loans.

Loan Portfolio : This is a set of loans with different risks exposures given to

borrowers with certain terms of repayment

Member Quality : A relative value to a business attached to a member eg quality

member would be good loan borrower who doesn't default on

loan payment and other scheduled payments.

Management of: The procedures and guidelines than an organization adopts to

manage and communicate information within and outside its

organization

Information

Microcredit Loans : These are small amounts of loans given to people with low

income in the society to help them start business that will make

them self-reliant. The loans are given to individuals to help them

become self-reliant or grow small businesses. These borrowers

tend to be low-income individuals or the poorest in the

community.

Non-Performing Loan: This is loan that is in arrears of payment as per loan schedule

Portfolio Quality

: This is the likelihood that the loans held by the institution will be repaid according to the terms agreed upon. A good quality portfolio consists of loans made to creditworthy borrowers with low default risk; with a poor-quality portfolio include loans with higher default risk. It shows the general health of a portfolio.

Portfolio at Risk

: These are total sum loans in arrears over sum of all loans outstanding

Loan Performance

: This is a classification of a loan that is being paid by the borrower as in the loan contract.

Research

: Research is a systematic and methodical investigation aimed at discovering new knowledge, solving problems or verifying existing theories. It involves gathering, analysing and interpreting information to answer questions and address specific objectives. Research can take forms including scientific experiments, surveys, case studies, observations and literature reviews. Its main purpose is to contribute to understanding of a topic, improve practices or inform decision making.

Structured questionnaires-

: A standardized tool used in research or surveys to collect data from participants in a systematic and organized manner. It consists of a set of predetermined questions presented to respondents in a consistent format. The questions are closed ended meaning that they provide respondents with specific answers to choose from. This ensures uniformity in data collection.

Size

: This is a proportion, scale, or volume of something, such as the dimensions of a company or business.

Variable

: A variable is an element or a characteristic that can increase or decrease and can be measured.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

This chapter outlines the background of the study, statement of research problem, objectives of the proposed study, hypothesis of the proposed study, scope of the study, significance or justification of the study and conceptual framework. This part discusses loan portfolio quality, microcredit lending terms, member quality, credit risk management and management of information.

1.1.1 Loan Portfolio Quality

The acronym SACCO means a Savings and Credit Co-operative Society registered under the Cooperative Act. A SACCO is a member-owned financial institution where members pool savings and use them to provide affordable credit. SACCO management are also expected to encourage members to save. The SACCO movement is lately becoming active and the demand for credit from the Sacco members has become high rendering lending activity to become the major activity in the SACCO. When SACCOs carry out the credit operations, they expose themselves to some risks. It is therefore worth noting that management of credit risk and management loan portfolio are to a great extent factors determining the profitability of deposit taking SACCOs. Also, of importance is to ensure that the loan portfolio is of good quality. (Murodovich, 2022) defined a loan portfolio as a set of different loan types given to borrowers with certain terms of repayment. Therefore, a loan portfolio in a Deposit Taking Sacco is collection of loans, compiled in a certain criterion, having a specific description according to the quality of the loans granted under a credit activity, while a portfolio quality are those loans which generate optimum profits at a certain degree of inherent credit risk (Seitkasimov et al. 2008). A good quality portfolioin a SACCO indicates the actual achievement of the terms of loan performance. (MicroRate, 2010) states that maintaining a good portfolio quality is very important in microfinance institutions since it gives a perspective on overall loan performance. Magali (2014) opines that portfolio quality improves operational efficiency in MFIs, while Singh & Padhi (2015) found out that it gives guidance on actionable steps for identifying potential risks.

Loan Portfolio Performance (LPP) refers to the contribution of the different loan products to the aggregate outcome to a credit firm in terms of timeliness, completeness and differential revenues

over costs (Bennet, 1995). Inferences drawn from Loan Portfolio Management Controller's Handbook (1998) for Commercial Banks' Credit Portfolio Management (CPM) refer to loan portfolio performance as a function of risk management, loan product diversification, cost assignment and credit product preference. Mwembe (2019) asserts that Loan Portfolio Performance is an aggregate product of credit management policies and procedures, credit board methodologies and credit collection methods. On the other hand, Shong and Chung (2006) describes measurements of loan performance to include payment instalments, loan ratio, portfolio at risk and write off ratio.

Loan portfolio quality indicates the scope to which the financial institutions attain their loaning goals which contributes to the overall organizational objective of shareholder wealth maximization (Cooper et al., 2006). Alarmingly, the PaR of Kenyan SACCOs stands beyond the prescribed minimum endorsed by World Council of Credit Unions of 3 percent while SASRA's prescribes a minimum of below 5 percent. (SASRA 2017). The performance of the loan portfolio therefore contains a significant implication on the broader firm performance and ability to take care of their going concern status.

The portfolio quality in Deposit Taking SACCOs has over the years been better in comparison with portfolio quality in other financial institutions in Kenya. SACCOs have been registering lower ratios in terms of NPLs in comparison with other financial institutions in Kenya. Initially this was attributed to the fact that SACCOs are the preferred loaning institutions by savers due to their competitive interest rates and social collateral (guarantee) model. However, most Deposit Taking SACCOs opened their common bond and are now recruiting members from the same market environment where other financial institutions get their customers, without considering the common bond. This has made them to introduce new products suitable to this new market.

The 2018-2022 SASRA supervisory reports reveal a gradual increase in gross loans and advances in billions at 374.28, 419.55, 473.74, 522.25 and 586.16 for year 2018, 2019,2020,2021 and 2022 respectively. The same supervisory reports also indicate that Portfolio at risk (PaR) has also been increasing and so are the loss loans to be written off. In the years 2018-2022, Deposit Taking SACCOs have had a loss of 15.27, 19.38, 24.19, 34.05 and 36.95 billion written off from their books being loss loans. These reports clearly show that the increasing portfolio at risk is weighing down the quality of portfolio of deposit taking saccos as evidenced in the SASRA

supervisory reports indicating portfolio at risk levels registered at 6.3%, 6.15%, 8.39%, 8.86% and 8.4% for the years 2018-2022 respectively, the rates being higher than the internationally accepted threshold of 3% and 5% by the regulating authorities. Non performing loans has also been increasing gradually. Even with these figures and percentages, Deposit Taking SACCOs recorded a lower Portfolio at Risk of 8.40% in 2022 compared to 13.80% for Commercial Banking Institutions and 31.78% for Microfinance banks in the same period.

According to Alexandra (2006), performance of a Sacco depended mostly on the standard of its portfolio. Lending guidelines in financial institutions such as the 6 C's of credit and the CAMPARI involve identifying high-risk loan applicants, modifying lending conditions such as security requirements and monitoring repayments. According to CBK (2007) the financial sector comprises players from banking industry, micro finance institutions, capital markets, insurance companies, mutual funds and development finance institutions. International Co-operative Alliance (ICA, 2002) reported that SACCOS in Kenya remain prime important players in provision of monetary services and have deeper and extensive outreach than the other sort of financial institution.

1.1.2 Micro Credit Loans Lending Terms

Lending terms include terms and conditions for lending such as saving period, deposit multiplier, repayment terms and need for guarantors among others (Kathuo, Oluoch, & Njeru, 2020). Lending process is one of the core functions in the SACCO's, MFI's and commercial banks. Loan portfolio is usually the most important asset and therefore the predominant source of their revenue. As such, it is one of the greatest sources of risk to these financial institution's safety and soundness. Whether due to poor credit policies, poor portfolio risk management, or weakness in the economy, loan portfolio problems have historically been the major cause of SACCO losses and failures.

Financial Co-operatives in Kenya, particularly the SACCOs have conventionally operated under the concept of remittances of deductions from employer institutions which has a legal underpinning in Section 35 of the Co-operative Societies Act. However, for the period ended 30th September 2022, analysis shows that a total of Kshs2.3 Billion relates to non-remitted loan repayment was owed to 57 Deposit Taking SACCOs, the largest proportion of the non-remitted deductions was owed by the county governments and assemblies, representing 49.97%, followed

by Public Universities and tertiary colleges having 592M or 23% of the total non-remitted deductions (SASRA, 2022).

Payment of loans or default of loans is very critical for both the good performance and poor performance of a portfolio. Mugambi (2010) did an investigation into the factors resulting in loan defaults of microenterprises in Nairobi, Kenya and established that stiff competition from well established businesses were edging out microenterprises making the microenterprises have constrained and have irregular incomes. Poor management in the microenterprises also caused default in loan payment. Waruinge (2009) did a study on factors contributing to non-performance of loans among commercial banks in Kenya and established that economic factors and poor credit management greatly contributed to high portfolio of nonperforming loans among commercial banks in Kenya. Silwal, (2003), similarly added loan characteristics as another factor that has an influence on loan default. From the foregoing therefore, determination of the effect of micro credit loan lending terms on Portfolio quality in Deposit Taking SACCO's is essential.

1.1.3 Member Quality

Member quality is a relative value to the business attached to a member. Several studies such as those of Greenbaum et al. (1991), Hoque (2000), Colye(2000) and Ozdemir & Boran (2004) who all confirmed that a loan may not be paid due to the unwillingness or inability of the borrower to pay the loan.

Stiglitz and Weiss (1981) recommend that a thorough screening should be done by bank managers to select creditworthy from uncreditworthy borrowers and that the borrowers should be monitored to ensure that they don't misdirect the loan funds for the purposes that they were not intended for because if the loan funds are misdirected, the loan may not be paid back as per the loan schedule. The borrowers loan payment history, current and expected incomes should be evaluated to determine whether the borrower is likely to repay or not Greenbaum and Thakor (1995). When a member's loan account is delinquent then such a member is of poor quality to the Sacco while when a member's loan account is performing then the member is of good quality to the Sacco. In the Sacco movement, members are the customers and at the same time the owners of the Sacco. The sole purpose of a business is to create a customer (Drucker, 1973). Customers are assets that need to be acquired before they can be managed for profit (Levitt, Theodore, 1986). Buttle, Francis (1998) suggested that managers charged with customer

acquisition should target customers who will be valuable to their business. Once targeted customers have been identified, a KYC need to be done. Know your customer (KYC) refers to a regulatory requirement by banks and other financial institutions to gather information about prospective and existing customer that will enable them to monitor, audit, collect and analyse their customers or potential customers before engaging with them (Bilali, G;, 2011). The evidence of KYC will prove that due diligence was conducted at the point of on bonding of the customer. The manager will then evaluate how valuable they think this potential customer is to their business. Doing a proper KYC to potential customers from the recruitment stage to loan application and appraisal state are parameters of assessing member quality at the on-bonding stage. Member quality can also be accessed through loan review stage. Specifically, this can be done at loan policy and underwriting guidelines which includes risk grade system and loan reserve policy (Nails, 2010). In assessing the determinants of Know Your Customer compliance in Commercial Banks in Kenya, Arasa and Ottichilo (2015) revealed that customer characteristics determines the KYC compliance in Commercial Banks; furthermore, the researchers observed that in the modern world, technology is a useful tool in performing KYC compliance hence should be adopted.

Muhangi and Aliija (2017) studied loan appraisal process management and credit performance in microfinance institutions in Uganda. Their study used both qualitative and quantitative approach. Respondents were 44 loan officers and credit managers; data was collected by use of questionnaires from the respondents. Results revealed that loan officers use client appraisal in credit management to a great extent. Results further revealed that client appraisal is a good strategy in mitigating credit risk. Finally, the study confirmed that there is a strong correlation between credit performance of MFIs and client appraisal; determination of the effect of member quality on portfolio quality in Deposit Taking SACCOs therefore remains imperative.

1.1.4 Credit Risk Management

Credit risk arises due to the likelihood of a customer not to pay their loans as per the schedule as or as per the terms of payment (Ndyagyenda, 2020). Kalio and Kiplimo (2014) sought to study credit risk management practices and loan performance of micro finance institutions in Baringo County. The study used primary data and questionnaires to collect data; the researchers used descriptive and inferential statistics for data analysis. The study revealed that there is a strong

relationship between the client appraisal and loan performance in MFIs. In Uganda, Ndyagyenda, (2020) studied credit risk and financial performance of Bank of Africa Limited, the study revealed that increase in credit leads to reduction of the banks profit.

Essendi (2013) studied credit risk management and loans portfolio among SACCOs in Kenya, the study employed descriptive survey research design, the study population consisted of 106 deposits taking SACCOs listed by SASRA of which a sample of 35 SACCOs were selected. The study used structured and semi structured questionnaires; the questions in the study instrument consisted of both closed questions and open-ended questions. Furthermore, secondary data for the study was sourced from SASRA publications and the SACCOs. The study revealed that Saccos have loan risk management policy, they involve stakeholders in formulating loan risk management policy and CAMEL rating system plays a very significant role in SACCO soundness and rating. Establishing the effect of credit risk management on microcredit loans on Portfolio quality in Deposit Taking SACCO's therefore remains imperative.

1.1.5 Management of Information

Management of Information in the process of loan appraisal involves disclosure of relevant information by the client in the process of loan appraisal. Onsarigo (2018) conducted a research on effect of credit information sharing on financial performance of SASRA regulated SACCOs. The study used secondary data from books, newspapers and websites of the SACCOs. Camel's model was used to provide an analysis of the variables. Results revealed that sharing of credit information with credit reference bureaus accounted for 73.9% changes in financial performance of SACCOs and that performance dropped after the enactment of the regulation. Nsengiyumva and Harelimana (2020) sought to study loan management and financial performance of Umurenge Savings and Credits Cooperatives in Rwanda. On a sample size of 78 clients, he adopted simple random and purposive sampling on both primary and secondary data. The results of the study revealed that loan management approaches such as member recruitment, member loan appraisal; loan monitoring and collection methods influence financial performance. Therefore, an evaluation of the effect of information management on micro credit loans Portfolio quality in Deposit Taking SACCO's was essential

1.2 Statement of the Problem

A trend analysis on performance of SACCO sub sector within the financial sector conducted by SASRA in 2019 using CAEL parameters reveal that on loan disbursements, commercial banking institutions continued to dominate the financial sector segment of the economy followed by the SACCO subsector, as Microfinance institutions come far behind the SACCOs. However, on portfolio performance using portfolio at risk (PAR) as a measure, the SACCO subsector has been performing better over the years. In as much as this information is true on the ranking in the financial sector, the empirical studies show a plummeting trend attributed to deteriorating quality of loan assets with non-performing loans ratio increasing every year in the SACCO subsector. Some unlicensed digital lenders have in the recent past resolved into harassing, cyber-bullying, debt shaming their loan defaulters while some MFI have traumatically been repossessing assets allegedly used as collateral by their loan defaulters. Some of these practices though not good, are towards ensuring that they reduce the non-performing loans. In theory and practice, there are quite a number of factors which may lead to high portfolio at risk (PAR), it is from this background that the study proposes to determine the contribution of micro credit loan parameters on loan portfolio quality in Deposit Taking SACCOs in Kenya. SASRA while annually reporting on the financial performances of DT Saccos, report generally on the percentages of increase or decrease of the PaRin DT Saccos, without giving attention into the root course of the loan products contributing to the increase in the PaR.

Many studies reviewed revolved around credit management in DT Saccos, credit policy in DT Saccos, general performance in DT Saccos and no one has so far conducted a study by specifically picking on a loan product and analysing how that loan product contributes to the portfolio quality of deposit taking saccos in Kenya, using combined four constructs of micro credit loan parameters which are micro credit loans lending terms, member quality, credit risk and information management. Microcredit loan, as credit product accessed by over 76% of borrowers in Kenya, and knowing how this loan contributes to the quality of portfolio is very important to SASRA, individual DT Saccos, policy makers, scholars, and the government because it will enhance prudent lending. This knowledge can enable DT Saccos put in measures that can adequately address the declining quality of portfolio in DT Saccos and enhance the reduction of PaR to the allowed limits or even below.

1.3 Objectives of the Study

The main objective of this study was to determine the contribution of microcredit loans on loan portfolio quality of deposit taking SACCOs in Kenya.

The specific objectives for this study were:

- To determine the effect of microcredit loan lending terms on Portfolio quality in Deposit Taking SACCO's in Kenya.
- To establish the effect of member quality on portfolio quality in Deposit Taking SACCOs in Kenya
- iii. To determine the effect of Credit Risk Management on microcredit loan Portfolio quality in Deposit Taking SACCO's in Kenya.
- iv. To evaluate the effect of Management of Information on microcredit loans Portfolio quality in Deposit Taking SACCO's in Kenya.

1.4 Research Hypotheses

- i. **H**₀₁: There is no significant effect of micro credit loans lending terms on Portfolio quality in Deposit Taking SACCO's.
- ii. **H**₀₂: There is no significant effect of member quality on loan portfolio quality in Deposit Taking SACCOs.
- iii. H₀₃: There is no significant effect of Credit Risk Management on micro credit loanPortfolio quality in Deposit Taking SACCO's.
- iv. \mathbf{H}_{04} : There is no significant effect of management of Information on micro credit loans Portfolio quality in Deposit Taking SACCO's.

1.5 Scope of the Study

According to Simon and Goes (2013) the scope of the study refers to parameters with which the study will be operating. This implies that the identified problem by the researcher will always fit within certain parameters. Scope of this proposed study was therefore assessed in terms of subject, area and time. From subject perspective the study is in the broad field of finance and in the sub field of banking and credit management. In terms of area, the study was carried out in Kenya using 84 the SASRA registered deposit taking SACCOs and finally in terms of time scope, the study being a cross sectional study had its data being collected within a period of one month in September in the year 2023 when the research was being conducted.

1.6 Significance of the Study

The study will provide useful reference information to policy developers. It can be used by government, especially the Ministry of Industrialization and Enterprise development as they implement the agenda towards industrialization. This is because the study provides information on the effect of financial factors that can be used to improve portfolio quality in SACCOs for loans offered to SMEs, which can in turn lead to the growth of the SMEs and in the SACCO sector. It will provide insight into the performance of micro credit loans as a product and how it is affecting the loan portfolio as a whole since SACCOs have relied on the check-off system of salary deductions for loan repayment for many years now. This will help in the policy development. The study findings will provide baseline information to policy makers and the central bank when making economic policy decisions such that they come up with applicable prudential regulations. It will be a point of reference for further research. Loan portfolio performance will reflect the effectiveness of the management in formulating effective credit policies and loan products. Loan portfolio performance also reflects performance of the Sacco and its financial position.

1.7 Conceptual Framework

A conceptual framework refers to the conceptualization of the relationship between variables in the analysis, according to Mugenda and Mugenda (2003), and it is seen diagrammatically. In addition to showing the research course, the researcher may establish the relationships of the various structures the researcher seeks to examine through the conceptual framework. The goal of a conceptual framework is to categorize and describe concepts relevant to the study and map relationships among them.

This study examined a number of factors that are perceived to influence Portfolio at Risk in DT Saccos, most important being, loan lending terms, member quality, credit risk management and information management as shown in the figure below.

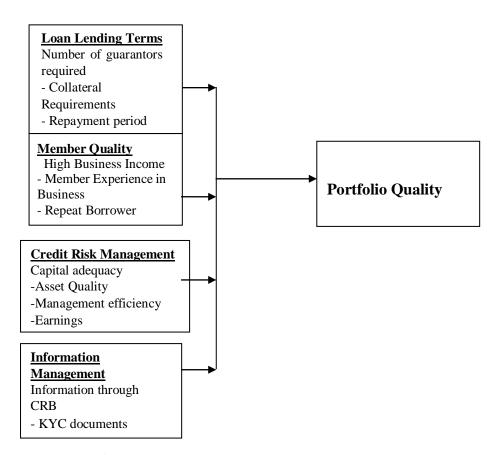


Figure 1.1: Conceptual Framework

Source: Adopted and Modified from Essendi (2013),Gatakaa (2014) and Kiplimo and Kalio (2014).

CHAPTER TWO

LITERATURE REVIEW

2.1 Theoretical Literature Review

This chapter presents theoretical literature review relevant to contribution of micro credit lending parameters and portfolio quality among registered deposit taking SACCOs in Kenya.

The study was anchored on various theories such as modern portfolio theory, the balanced score card theory, information asymmetry theory and credit risk theory.

2.1.1 Modern Portfolio Theory

Modern portfolio theory, introduced by Harry Markowitz in 1952, is portfolio accumulation theory that determines the minimum level of risk for an expected return. It assumes that investors will favour a portfolio with a lower risk level over a higher risk level for an equivalent level of return. He came up with an idea that average investors wish to get maximum returns at the least level of risk. He used a statistical analysis to measure risk and return on the assets in a portfolio in an efficient manner. This framework led to the concept of efficient portfolio. An efficient. An efficient portfolio yields the highest return for a given level of risk or a lowest risk for a given level of return. Markowitz opines that both risk and rewards are aspects considered by investors. The expected returns in a portfolio investment may vary depending with the underlying assumptions. If the investor wishes to get higher returns, then he has to take greater risks. The modern portfolio theory explains how risk averse investors can build a portfolio that maximizes returns based on a predetermined level of risk. Each security has an impact on the risk and return profile of the entire portfolio. The four steps in the construction of portfolio are: security valuation, allocation, asset, portfolio optimization and the performance management Seibel (2012).

Although each SACCOs mechanisms vary, the common practice approach involves the periodical assessment of credit quality, credit exposures, application of an appropriate credit risk rating, and also aggregating the result of the assessment to establish a portfolio anticipated losses Waithaka (2012).Markowitz (1952) and Tobin (1958) showed that it was possible to know the composition of an optimal portfolio of risky securities, given forecasts of future returns and an appropriate covariance matrix of share returns. William Sharpe (1964) has given model known as Sharpe Single Index Model (SIM) which laid down some steps that are required for

construction of optimal portfolios. Konno and Yamazaki (1991) proposed a new model using mean absolute deviation (MAD) as risk measure to overcome the weaknesses of the mean-variance model proposed by Markowitz.

The risk that affects the portfolio quality in the Deposit Taking SACCOs in Kenya includes the risk of loan not being paid at all, irregular payments by members, poor loan appraisal by staff as well as poor loan monitoring procedures. The higher these inherent risks are, the higher the possibility of having a poorer loan portfolio quality. For a good quality of a loan portfolio the Sacco management should understand the portfolios' risk profile. To accomplish this, they have to understand the portfolio's product mix, industry, average risk ratings, and other measurement parameters. They must make sure that their credit policy, processes, and practices implemented are to reduce the risks of individual loans and portfolio segments are sound.

This theory is richly meaningful in this study in that microcredit loans are generally considered riskier than traditional loans due to the borrowers' profiles, lack of collateral, and due to their small sizes. Most DT Saccos in their credit policy charge interest that optimizes a return commensurate with the level of risk they are exposed to while ensuring that their rates remain affordable to the members. DT Saccos have also allocated portfolios by coming up with loan products based on client segments and target markets based on their risk profiles and credit worthiness.

2.1.2 The Balanced Scorecard Theory

This theory is mostly used by the human resource for appraisal purposes but I find it applicable in this research since it is a performance measuring and monitoring tool. Immediately the loans are disbursed, monitoring of those loans begins so that that they are promptly paid to ensure good quality of the portfolio. If one of the strategic objectives of a Sacco is to ensure that there is a lower portfolio at risk, then Key Performance Indicators (KPIs) will also be set to monitor progress toward and intended result. To achieve successful performance measurement, the balanced scorecard performance measurement model is widely chosen by Sacco management to support the management process. This is because balanced scorecard method includes financial and non-financial assessments of the company (Nur, 2017). It was designed in a way that helps provide feedback on how internal processes have been efficient in pursuit of pre-set targeted

performance. The BSC is a management accounting idea that was introduced in 1992 by Kaplan and Norton as a new multi-dimensional performance measurement system Kaplan & Norton (1992). This theory analyses aspects of decision making based on four perspectives which are; customers' perspective, financial perspective, internal business process and learning and growth. The benefits of performance measurement are being able to know the effectiveness of determining a strategy and its implementation, detecting weaknesses in the company with the aim of making improvements in the future, assessing the success of the company, and being able to become the basis for determining the reward or salary system in a company Lubis et al (2023). In their further studies, Norton and Kaplan penned several articles and several books which went into more details in a particular area within the "strategy-focused organization". In summary, BSC is therefore a best-known model of multiple measurement of executing estimation. The concept of BSC was to quantify performance of a firm on more than just money related parameters. For performance to be properly measured then both monetary and non-money related pointers should be considered Kaplan, (2000). Van den Huavel & Broekman (1998) stated that "a self- respecting organization can no-longer do without a Balanced Scorecard". Isoraite M. (2008) therefore concluded that a balanced Scorecard is now a popular and has led to about many changes in several organizations.

2.1.3 Financial Perspective

The balanced scorecard uses a financial perspective as a perspective that occurs as a result of the other three perspectives, and this perspective will automatically materialize from the good and bad performance of the three perspectives below. PVola, E Broccardo, E Truant (2009)conducted a case study in Co-operative credit bank in Piedmont, Italy and stated that a balance Scorecard considers the costs connected to debt recovery and the prospective losses on loan provisions as a result of the organization long term changes. Measurements of the Saccos Portfolio quality need to consider the stages of the Saccos life cycle, where each stage in the cycle should have a different strategic goal. From a financial perspective, the measuring tool used is the analysis of portfolio at Risk and Loan loss provision. The indicators used in Balanced Scorecard theory have relevance to this research since it measures performance not only on financial perspective, but it also considers non-financial indicators to ensure profitability of a firm. The key goal in loaning is to get a return in form of interest paid on the loan. Sacco managers should be keen in evaluating the members they are disbursing the loans to so that their

invested capital, given out as loan, is disbursed to solvent members who are able to pay back the loan together with interest at the right time. The relevance of this perspective is also seen when calculating the interest rate margins to be charged on loans.

2.1.4 Customer Perspective

A product or service is said to have value for its customers if the benefits the customer receives are relatively higher than the sacrifices made by the customer to get the product or service. And a product or service is more valuable if the benefits are close to or even exceed what the customer expects Lufriansyah (2020). Meanwhile, according to Fauzan et al. (2023), the customer perspective looks at customer satisfaction and company performance in competing with its competitors to meet and exceed customer expectation. A few years ago, Saccos operated in a stable and protected market also known as common bond where they only recruited members from specific catchment areas. However, in their drive to spur growth, they opened their common bond and began recruiting outside their common bond. This is how they reached out to the business community both large, medium and small business owners. The opening of the common bond has seen deposit taking Saccos double or triple their membership growth. SACCOs don't compete each other but complement one another. This is the reason why members are discouraged from joining two cooperative societies with the same objective. But, nowadays the environment has changed. The degree of competition in the financial sector has increased, because of the diversified membership, the need of a range of products has increased, members are better informed, therefore Saccos require to develop competitive advantages (Porter 1985). However, as Saccos venture into new markets due to competition, they should ensure that the quality of their loan products satisfy the requirements of the regulator.

2.1.5 Internal Business Process Perspective

Analysis of the company's internal business processes is carried out using value chain analysis. Here, management identifies critical internal business processes that the company should excel at. The scorecard from this perspective allows managers to know how well their business is running and whether their products and services match customer specifications. This perspective must be carefully designed by those who know the company's mission best, which outside consultants may not be able to do (Lubis et al., 2023). From the perspective of internal business processes, management identifies internal processes that are very important to achieve customer

goals, in this case how the company carries out the process of serving customers and offering quality products, starting with the innovation process and good service to increase customer value. It is important to use proper measurement tools to analyze, forecast and influence the competitive environment. Each Sacco needs correct and well-timed information and, above all, instruments to estimate alternatives, to control actions and correct deviations (Amigoni, Miolo Vitali 2003; Brusa 2007) so as to meet their strategic objective which include reducing the Portfolio at Risk to the required percentage by the regulating body SASRA. Processes such as introduction of new products to meet dynamic member demand, monitoring of loan repayments in the members accounts and how the repayments affect the PAR are all internal business processes which should be geared towards the improvement of Portfolio quality.

2.1.6 Learning and Growth Perspective

This process of learning and development stems from factors within the human resources, systems, and organizational procedures. This procedure involves recognizing the necessary infrastructure that the company needs to construct in order to enhance its long-term growth and overall performance. It encompasses aspects like employee training and the corporate culture that pertain to both individual and organizational advancement Lubis et al.(2023). The learning and growth process of an organization comes from three principles: people, systems, and organizational procedures. This is the fourth perspective used in measuring company performance using the balance sheet Lufriansyah (2020).

While reviewing corporate objectives, BSC gives information that would benefit the organizations as a whole. Deposit-taking SACCOs can utilize the balanced scorecard methodology to perform strategy mapping and build strategic objectives and strategic plans. The notion of a balanced scorecard developed from a recognition of the need to evaluate performance in terms other than financial results. Financial results give you an idea of how well you did in the past, but they don't tell you how you're doing now or where you'll be in the future. Furthermore, the balanced scorecard gives a structure and vocabulary for describing your approach in a consistent and dependable manner. The structure of a balance score card is that at the top there must be the organizations strategic objective. The objectives must be split in smaller bits having key performance indicators (KPIs) and activities to be performed to enable the achievement of the set goals.

The current study employs BSC as a strategic management performance indicator to formulate, implement and evaluate strategic management processes. This theory is relevant to this study in that the balanced score card has enabled DT Saccos to analyse the quality of their loan portfolio by using measures from various perspectives to identify areas of improvement in risk management practices, operational efficiency and customer satisfaction. This comprehensive approach has also enabled DT Saccos to align their strategic goals with key performance indicators to track progress towards their goals for effective portfolio quality management. For example, continuous training of employees improves their capabilities thereby reducing unnecessary risk exposures such as poor loan appraisal. P Vola, E Broccardo, E Truant (2009) Some loans become bad at the appraisal point. When staffs are well trained on how to appraise a loan well, then bad loans or risky loans can be eliminated at the appraisal stage thereby improving the quality of a portfolio.

2.1.7 Information Asymmetry Theory

Information Asymmetry is inadequate sharing of information which can result in negative consequences to both information poor and information rich. The theory of asymmetric information, which was formalized in 2001, was developed by three economists: Joseph Stiglitz (1961), George Akerlof (1970), and Michael Spence (1973). Edward and Turnbull (1994) opined that a lack of proper balance of information between buyers and sellers can result in market failure. Differentiating between creditworthy and risky borrowers can pose challenges, as pointed out by Auronen (2003) and Richard (2011), leading to the problems of adverse selection and moral hazard exposure. The model underscores that when one party possesses more information about a specific commodity to be exchanged in the market, they can negotiate more favorable terms for the transaction compared to the other party, as noted by Auronen (2003).

According to Eppy (2005), information asymmetry is a term used to describe a situation where business owners or managers have a deeper understanding of their enterprise's future projections and risk factors than lenders. As suggested by Frieden and Hawkins (2010), perceived information asymmetry can result in two disadvantages for lenders, such as SACCOs: moral hazard, which involves monitoring entrepreneurial behavior, and adverse selection, which refers to making errors in lending decisions based on content and context.

The presence of uneven information poses a difficulty for financial intermediaries like DT SACCOs' that offer savings and credit services more especially when offering micro credit loans with collaterals as security for the loan. Originally with the common bond, DT SACCOs offered loans to members whose employers they knew, the member produced a valid payslip which proved source of income, and the employment period was known from both the payslip and the national identification card. In the Micro credit loan where collateral is required and a source of income can be any other besides salary income, information asymmetry arises when a member who applies for a loan has better information about their potential risk of default. The DT SACCO on the other hand does not have sufficient information about the potential risk of default that member pose. On the other hand, the Sacco may also not disclose some information like hidden charges to the member. Information asymmetry therefore manifests when reconciling information between the borrower and the SACCO. Binks and Ennew (1992) observed that perceived information asymmetry poses two problems for the SACCOs, moral hazard (monitoring entrepreneurial behaviour) and adverse selection (making errors in lending decisions). The challenge of adverse selection is inherent before loan disbursement while later moral hazard arises after disbursement of loan. (Brown & Zehnder, 2010).

Information Asymmetry theory is relevant in this research as it explains that borrowers may take advantage of the superior knowledge, they have over lenders and vice versa. Any information that borrowers or lenders perceive will be at their detriment in the loan application process will most likely be omitted or hidden.

2.1.8 Credit Risk Theory

Merton (1974) presented structural theory of credit management often called the credit risk theory. The theorists describe credit risk as the possibility of facing a financial constraint due to not honouring of financial obligation by a counter party in a financial operation. The theorists formed an opinion that the first ground of credit risk is the default risk which means that the risk that counterparty will fail to honour their contractual obligations. Sunardi (2017) studied risks inherent in credit unions in Indonesia and stated several risks exposures. Among the several risks he stated is Credit risk which arises when the borrower cannot and or does not want to meet the obligation to pay the principal instalments and / or the interest as agreed in the loan agreement. The theory is particularly key with regard to measures taken by SACCOs and understands what

triggers default and measures taken to lessen the effect of default including delinquency management safeguard.

2.1.9 The Concept of Lending Terms and Portfolio Quality

Credit terms or sometimes referred to as lending terms has been used in financial institutions and their operations to mean the security given by the borrower to financial institutions signifying that the loan facility will be paid without default and as per the lending schedule and terms (Tumwebaze, 2018). In a study done in Uganda at Makerere University Tumwebaze, (2018) opined that there is a significant relationship between credit terms and loan repayment of MFIs unlike borrowers' characteristics. According to other relevant sources, floating and hybrid rate loans have high probability of default; unemployed individuals are riskier compared to their employed counter parts hence, they are likely to be charged high interest rates, default is also associated with repayment period, lastly, mortgages and renovation loans are riskier than other products (Schwarz, Mazany, & Gaudencio, 2019).

2.1.10 The Concept of Member Quality and Portfolio Quality

Quality of a member is an important factor in determining the quality of portfolio. The aspect of quality of loan customers has not been exhaustively studied. In most studies, it mostly appears as a sub construct of the main variables or as a control variable, for instance, at Mount Kenya University in Kenya. Olando (2022) investigated loan portfolio quality and performance of commercial banks in Kenya; the study used market and infrastructural dynamics as control variable. Market dynamics is a general term hence member quality can be categorized under market dynamics since it is the customers who determines demand and supply of products. In yet a unique study, Khalipour and Khalili (2016) modelled customer classification in banking system of Iran, the final model revealed 95% probability that if the next customer data is entered into the model, then the model is able to identify accurately the degree of customer risk. This result reveal that customer quality or membership quality is related to credit risk and subsequently related to portfolio quality.

2.1.11 The Concept of Credit Risk Management and Portfolio Quality

Reviewed empirical literature and theory links credit risk management and performance. For instance, in a study done at the University of Nairobi by Abdirahman (2020) about loan quality and performance of commercial banks in Kenya reveal that both loan quality and size of the bank

has a significant association with financial performance of the commercial banks. Other major control variables in the study were loan loss provisions coverage ratio, standard risk costs, write off ratio and liquidity. From the foregoing, it is clear that there is a relationship between credit risk management and portfolio quality despite the fact that many of the reviewed studies were done in commercial banks and microfinance institutions.

In yet another study about credit risk management and performance of commercial banks in Ethiopia by Bari *et al* (2015) they opined that there is a strong positive relationship between credit risk management and performance of commercial banks in Ethiopia. In Kenya, and in none financial institutions, Ombok (2017) investigated Forward Integration Credit Risk Mitigation Mechanisms and Return on Equity in agribusiness firms in Kenya; the study revealed that Forward Integration Credit Risk Mitigation Mechanisms positively and significantly influence Return on Equity of the firms. Ombok and Nyongesa (2016) studied Forward Integration Credit Risk Mitigation Mechanisms of commercial banks and the performance of agribusiness firms in Kenya, the study revealed that credit risk and performance of Agribusiness firms in Kenya are significantly related. Consequently, it is clear that most of the empirical studies reviewed used the traditional method of measuring organization's performance such as profitability, ROA, ROI and ROE. The proposed study however deviates by focusing of portfolio quality which is just a small component of financial performance of the organization. The proposed study is therefore imperative and clinical since it is specific to portfolio investigating the contribution of credit risk management to portfolio quality.

2.1.12 The Concept of Management of Information and Portfolio Quality

Nimako and Mbawuni (2014) studied the role of satisfaction, trust and information quality as a factor to client's recommendation about financial services, results of this study revealed that trust, satisfaction, and quality of information regarding loans significantly influence client's trust for financial service providers. This implies that recommended customers either by business partners, friends, guarantors or even family members may influence the extent to which a client may be free to give information during loan appraisal process. Nimako and Mbawuni (2014). Jagongo and Obae (2022) studied credit management practices and loan performance of commercial banks in Kenya, the study revealed that client appraisal which is related to information management significantly influence performance of commercial banks in Kenya. It

should be noted that information is a critical aspect in the process of appraising a customer for a loan product.

2.2 Empirical Review of Literature

A comprehensive review of pertinent information by accessing previous studies in university libraries, private libraries, public libraries, and conducting internet searches. This review encompassed materials like journals, research papers, and working papers. The researcher identified and considered several studies that were found to be valuable and applicable to the current study.

2.2.1 Loan Lending Terms and Portfolio Quality

In a case study carried out by Bamwite in 2021, the impact of credit terms on the loan performance of SACCOs in Mbarara city was investigated. The research uncovered that favourable credit terms, including the credit period, the interest rate applied to loans, and loan instalment structures, promote borrowing. Furthermore, the study indicated that a moderate loan repayment period has a beneficial influence on loan performance, whereas both very long and very short loan repayment periods have an adverse impact on loan performance.

Gatakaa (2014) conducted a research project examining the correlation between loan policies and the financial performance of commercial banks in Kenya. The study employed a descriptive survey research design to assess the performance of 43 commercial banks in Kenya, all of which are regulated by the Central Bank of Kenya. The primary aim of the research was to determine the loan policies put into practice by commercial banks in Kenya. The analysis encompassed a five-year period, from the financial years 2009 to 2013. The findings indicated a favourable connection between lending policies and financial performance.

Muhangi and Aliija (2017) explored the management of the loan appraisal process and its impact on credit performance within microfinance institutions in Uganda. Their research established a robust connection between the credit appraisal process and credit performance. They observed that neglecting to evaluate the customer's character, not conducting on-site visits to assess a customer's business premises, and failing to appraise the customer's ability to repay the loan before disbursing it would inevitably result in loan defaults.

Ono and Uesugi (2009) conducted a study on the significance of collateral and personal guarantees in the context of relationship lending in Japan's small and medium-sized enterprise (SME) loan market. Their research disclosed that customers who pledge collateral are more motivated to promptly repay their loans, recognizing that loan default could lead to the attachment of their collateral.

These studies collectively underscore the significant relationship between loan terms and loan performance, particularly concerning collateral. It's important to note that loan performance focuses on the behaviour of the borrower regarding their adherence to fulfilling their payment obligations as stipulated in the loan agreement, while portfolio quality focuses on the risks associated with the loan product and not the payment behaviour of the borrower. It analyses the overall health, resilience and risk profile of the loan product in a portfolio. The above stated empirical studies among other are valuable; however, there still exists a knowledge gap on how micro-credit lending terms affect portfolio quality in DT SACCOs.

2.2.2 Member Quality and Portfolio Quality

The caliber of members significantly impacts the performance of the loan portfolio. Several studies have explored the significance of members' social connections and reputations in the context of loan defaults, yielding varying conclusions. For instance, Agasha et al. (2020) investigated the influence of capital structure, cost of capital, credit risk management, and the quality of clientele base on the portfolio quality of MFIs in Uganda. They employed an exploratory research design and concluded that the quality of customers indeed affects the quality of the loan portfolio. They recommended that MFI managers should assess prospective customers' reputations, social networks, dependability, and trustworthiness, their standing in their social circles, business profitability, and accountability within those circles.

In contrast, Wydick et al. (2011) conducted research on social networks, neighborhood effects, and credit access in rural Guatemala. They did not find a correlation between strong social ties and borrowers' loan repayment.

Hermes et al. (2005) examined the economic value of social capital in Eritrea and found that group leaders utilized social ties to enhance their loan appraisal and monitoring efforts, resulting in a lower default rate among group members.

Ahlin and Townsend (2007) used survey data from borrowers of BAAC, an MFI in Thailand, to assess social capital, including clients' social networks and reputation. They found a negative association between measures of social networks, client reputation, and loan repayment.

Benabu and Tirole (2006) measured reputation using the concept of social image, highlighting the importance of how individuals perceive themselves or are perceived by others. This perspective increases the emphasis on the norm of keeping promises, thus raising the moral costs of breaking promises.

While these studies have demonstrated a relationship between member quality and portfolio quality, it's worth noting that most of them are based on MFIs and group lending, and they do not specifically pertain to the Kenyan context. Deposit-taking SACCOs, which lend to both groups and individuals, present a different dynamic. Moreover, the measurements were not on the quality of portfolio.

2.2.3 Credit Risk and Portfolio Quality

Empirical investigations into credit risk management and loan portfolio quality have demonstrated that credit risk is the most critical and costly risk associated with MFIs, as pointed out by Crabb and Keller (2006). Credit risk can also pose a potential threat to the solvency of MFIs, as noted by Kayode et al. (2015). Soke, Fun, Ho, and Yusoff (2009), in their research on credit risk management strategies in selected financial institutions in Malaysia, discovered that financial institutions employ multiple monitoring and evaluation tools to mitigate inherent credit risks, as no single strategy can cover all exposures within the financial sector. It is imperative to exercise due diligence and care when appraising and disbursing loans. A poorly performing loan portfolio can lead to both liquidity and credit risks, ultimately affecting a firm's performance.

Kibui N. (2014) conducted a study focused on the impact of credit risk management on the financial performance of SACCOs. The research specifically aimed to examine the contemporary credit risk monitoring and control methods adopted by Harambee Sacco. The analysis employed a descriptive survey design, and the results indicated that the performance of SACCOs significantly improves when proper credit risk management is in place, with regulatory oversight by SASRA.

Silikhe (2008) conducted research on credit risk management in microfinance institutions in Kenya and found that despite the measures implemented by managers, loan recoveries remained

a challenge. This challenge is a significant reason why many financial institutions either fail to grow or face closure.

Gisemba (2010) researched the relationship between risk management practices and the financial performance of SACCOs. The study revealed that SACCOs employed various approaches in loan appraisal and risk analysis before disbursing loans to minimize loan losses. This included establishing the "5 Cs" of credit appraisal and utilizing risk analysis to reduce and mitigate credit risks. The conclusion was that for SACCOs to effectively mitigate credit risks, they should aim for minimal loan defaulters, loan write-offs, and overall improved SACCO performance.

Essendi (2013) conducted a study on the effect of credit risk management on loan portfolios among SACCOs in Kenya. The research found that most SACCOs in Kenya have credit policies outlining how to manage the various risks encountered in their lending activities. These credit policies should encompass overhead costs and the current trends of creditors. Ledgerwood (2000) recommended that to effectively manage credit risk, MFIs should establish systematic loan distribution based on well-defined credit policies and procedures. Ahmed and Malik (2015) highlighted that credit risk management involves loan appraisals to minimize loan losses.

Ademba (2017) identified the determinants of financial performance for deposit-taking SACCOs in Nairobi County. The specific factors examined included asset quality, capital adequacy, operational efficiency, and liquidity, all in relation to the financial performance of deposit-taking SACCOs in Nairobi County. Correlational research design was employed, and the study concluded that there is a strong correlation between capital adequacy, asset quality, operational efficiency, liquidity, and the financial performance of deposit-taking SACCOs.

Kiplimo and Kalio (2014) conducted an analysis of credit risk management and loan performance in microfinance institutions in Baringo County, Kenya. They assessed the performance of seven MFIs in the county using a descriptive research survey design, along with statistical procedures such as regression and correlation analysis. The results revealed a significant relationship between client appraisals and the loan performance of MFIs. The above stated empirical studies among others are valuable; however, they mostly dealt with the credit risk management practices and financial performance or loan performance in MFIs and in SACCOs. Out of the diversified loan products offered by DT SACCOs, there still exists a

knowledge gap on the credit risk associated with microcredit loans and how it affects portfolio quality in DT SACCOs.

2.2.4 Management of Information and Portfolio Quality

Moturi and Mbiwa (2015) Conducted research on an evaluation of the quality of management information systems used by SACCOs in Kenya. They used ISO/IEC 25010 software product quality model to evaluate and determine the level of performance of the quality of MIS operated by 215 Deposit Taking SACCOs. They found out that except for vendor support, technical training and implementation, the MISs used by the SACCOs serve them well in terms of efficiency, functionality, reliability and ease of use. While this information is valuable, it evaluated on the ERPs used by the SACCOs and not how management of information related to the quality of portfolio.

Habib (2011) conducted a study on the adoption of information and communication technology in SMEs in Cameroon. The study results showed that when ICT is adopted and implemented, performance would be enhanced and growth improved. This study recommended use of ICT to SMEs. It did not delve into not how management of information relates to the quality of portfolio.

Arasa and Ottichilo (2015) conducted a research on the determinants of Know your customer (KYC) compliance among commercial banks in Kenya and the study revealed that knowing your customer well is a key determinant of compliance in the commercial banks. False information given by a customer knowingly or unknowingly with or without evil intentions create a permanent wrong perception about the customer by the bank. KYC is just one of the benefits of proper management of information. There are other several benefits such as customer relationship management, data analytics and modelling, regulatory compliance, credit risk assessment, portfolio monitoring, loan appraisal requirement, loan pricing among others. The above studies though relevant, the variables under investigations were different.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the data collection methods and provides a rationale for the chosen research design in the study. Specifically, it delves into the data collection techniques, measurement procedures, and analytical approaches. The chapter also elucidates the research design, the target population, the research tools, the sampling framework, as well as the methods of data collection and statistical techniques employed in the data analysis. Section 3.2 addresses the research design, Section 3.3 covers the study's population and sample, Section 3.4 expounds on the data collection methods employed in this study, Section 3.5 deals with data analysis and presentation, and Section 3.6 focuses on data reliability and validity.

3.2 Research Design

The research utilized a descriptive and correlational research design. As per Cooper and Schindler (2014), a descriptive study involves the depiction of existing conditions and attitudes through observational and interpretative techniques. This design was selected because it offered a contextual means of interpreting and comprehending the influence of micro-credit loans on the portfolio performance of deposit-taking SACCOs.

In a qualitative study, a relatively small purposively selected sample may be employed with the aim of deeply understanding a specific objective. Purposive sampling is used to select respondents that are most likely to yield appropriate and useful information and is a way of identifying and selecting cases that will use limited research resources effectively Cooper and Schindler (2014). In this study, a purposive sampling method was used. The selection of participants was seamlessly incorporated into the fundamental framework of the study. Furthermore, the justification for choosing a sample was aligned with the fundamental goals of the study from reality, cognitive and ethical perspectives. This approach allowed the researcher to extract valuable insights from the collected data, facilitating a comprehensive description of the significant impacts on the population. This method was highly efficient in terms of both time and cost, especially when compared to other sampling techniques. The sampling method was specifically directed at deposit-taking SACCOs offering micro-credit loans as a product.

3.3 Sample Size and Study Population

The population consisted of 84 deposit taking Saccos that have microcredit loan as a loan product in their portfolio of loans. According to SASRA annual report for year 2022, there were 176 deposit taking Sacco licensed by SASRA as at December 2022. The 84 DT Saccos were purposively sampled because they have microcredit loans as a loan product in their portfolio. The sample of 84DT Saccos constituted 100% of the entire population of DT Saccos offering microcredit loans. Respondents were one credit Manager in each DT Sacco. The choice of credit managers as the only respondents was also purposive with the belief that they have valuable and relevant information for this study. There were 62 returned questionnaires making the response rate to be 74%. The sample period was one month, this sample fairly represented the whole population and should be considered large enough to provide a general view of the entire population and serve as a good basis for valid and reliable conclusions.

3.3.1 Study Area

The study was carried out in SACCOs licensed by SASRA and operating in Kenya. The questionnaires were sent to respondents in Saccos in Nairobi, Kisumu, Kakamega, Siaya, Kisii, and Homabay. Because many SACCOs are headquartered in Nairobi County many respondents were got from Nairobi County. Again, Nairobi provides a big sample of population. The list of the SACCOs under consideration is detailed in appendix.

3.3.2 Research Instruments (Questionnaires)

A semi structured questionnaire was used as the primary instrument for data collection. The study relied heavily on primary data obtained from the questionnaires. Some secondary data was gotten from SASRA monitoring reports. The survey on primary data was to get information on how Saccos are implementing lending terms, assessing member quality, managing information, and shaping credit management policies.

To reach the respondents, various approaches were employed for administering the questionnaires. The questionnaires were distributed through e-mails, WhatsApp, drop and later collect later. To enhance the response rate, follow-up measures were taken through telephone calls.

3.4 Data Analysis

3.4.1 Validity and Reliability of the Research Instrument

To ensure the trustworthiness of the study's findings, it is imperative that the questionnaire accurately measures what it intends to assess when administered correctly. Reliability, or reproducibility, pertains to the questionnaire's ability to deliver consistent results. It signifies the extent to which the questionnaire provides similar outcomes when given to the same individual on two separate occasions. A test-retest evaluation was conducted to assess the reliability of the questionnaire. It is essential for the questionnaire to possess both validity and reliability. An instrument that lacks reliability cannot be considered valid or suitable for drawing general conclusions. The reliability must exhibit stability and consistency, meaning it consistently yields the same results.

3.4.2 Validity

Validity relates to how effectively a tool measures the specific subject it is intended for. Internal validity evaluates the consistency of the scale used in the questionnaire. To ensure the validity, expert review from professionals in DT saccos was sought to review the questionnaire for clarity, relevance and appropriateness of the of the questions in the questionnaire. The questions were also directly aligned with the objectives of the study so as to capture the intended concepts. There was also voluntary participation and confidentiality was ensured. Face validity was also ensured to make the questionnaire appealing and presentable to the eye.

3.4.3 Reliability

Reliability pertains to the extent to which the data collection tool can be counted on for consistency and trustworthiness. When applied to a questionnaire, it specifically focuses on the questionnaire's ability to produce consistent results when administered to the same participants under identical conditions. This consistency in outcomes is a crucial element of reliability. A reliable questionnaire is indicated by its capacity to maintain internal consistency, which means that a set of questions within it yields consistent results, whether analysed as a whole or in segments. In this study, a Cronbach's test with a 70% threshold was employed to validate the questionnaire's reliability. A rest-retest was also done to test reliability.

3.4.4 Model Specification

Model specification involves the development of a straightforward regression model, comprising two essential components. The first step entails selecting the appropriate functional structure for the model, while the second involves deciding which variables should be included. This decision-making process encompasses both independent and dependent variables, as well as establishing the functional relationship between the independent variables and the dependent variable. Additionally, model specification may encompass any underlying assumptions pertaining to the stochastic aspect of the model. It's important to note that specification comes before the estimation phase, where the estimation technique is used to determine parameter values that best fit the observed data in line with the model's specification. The model specification used in this study is outlined as follows:

Model 1

A model developed to establish a relation between micro credit loan lending terms (X's) and portfolio quality (Y) of deposit taking saccos in Kenya

Where:

Y= Portfolio Quality,

 β_0 = Constant coefficients,

 β_1 = coefficient of micro credit loan lending terms

 X_1 = Loan lending terms

 e_t = error term

Model 2

A model developed to establish a relation between member quality (X's) and portfolio quality (Y) of deposit taking saccos in Kenya

$$Y=\beta_0 + \beta_1 X_1 \text{ et.}$$
 3.2

Where:

Y= Portfolio Quality,

 β_0 = Constant coefficients,

 β_1 = coefficient of member Quality

 X_1 = Member quality

 e_t = error term

Model 3

A model was created to establish a connection between credit risk management (X_1) and the portfolio quality (Y) of deposit-taking SACCOs in Kenya.

$$Y=\beta_0 + \beta_1 X_1 \text{ et.}$$
 3.3

Where:

Y= Portfolio Quality,

 β_0 = Constant coefficients,

 β_1 = coefficient of credit risk management

X₁= Credit Risk management

 e_t = error term

Model 4

A model developed to establish a relation between management of information (X's) and portfolio quality (Y) of deposit taking saccos in Kenya

$$Y = \beta_0 + \beta_1 X_1 \text{ et.}$$
 3.4

Where:

Y= Portfolio Quality,

 β_0 = Constant coefficients,

 β_1 = coefficient of management of information

 X_1 = Management of information

 e_t = error term

Model 5

A multiple regression model developed to establish a relation between contribution of micro credit loans (X's) portfolio quality (Y) of SACCOs in Kenya.

Y= Portfolio Quality,

 β_0 = Constant coefficients,

 β_1 = coefficient of credit loan lending terms

 β_2 = coefficient of member quality

 β_3 = coefficient of credit risk management

 β_4 = coefficient of management of information

 X_1 = Loan lending terms

 X_2 = Member quality

X₃= Credit risk Management

 X_4 = Management of information

 e_t = error term

3.4.5 Ethical Issues in Research

The term "ethics" refers to the examination of what is morally right and wrong, particularly in the context of the choice's individuals make. This study carefully addressed significant ethical concerns to safeguard the rights of research participants. It strictly adhered to the principle of voluntary participation, ensuring that participants were not subjected to any form of pressure or coercion to take part in the research. Furthermore, the study emphasized the importance of adhering to informed consent and maintaining the confidentiality of participants. Anonymity of the respondents was upheld, signifying that participants identities remained undisclosed, thus preserving their privacy throughout the study.

3.4.6 Reliability Test

Table 3.1: Reliability Test

Cases	N	Percent	
Valid	10	90.9%	_
Excluded	1	9.1%	
Total	11	100.0%	

Table 3.2: Cronbach's Alpha test

Cronbach's Alpha	No of Items
0.82	10

3.4.7 MulticollinearityTest

Table 3.3: Multicollinearity Test

Variable	VIF	1/VIF
MEMERQUAL~Y	4.16	0.240346
CREDIT RISK	3.59	0.278929
MANAGEMENT ~ N	2.96	0.337271
LOAN LENDIN ~S	1.62	0.617652
Mean VIF	3.08	

Table 3.3 reveal that field data for member quality, credit risk, management of information and loan lending terms did not show possibility of multicollinearity concern since VIF for each one of them is less than 10.

CHAPTER FOUR

RESULSTS AND DISCUSSIONS

4.1 Introduction

In this chapter, the study's results are presented based on the objectives it aimed to accomplish. The objectives of the study were to determine the effect of micro credit loan lending terms on Portfolio quality in Deposit Taking SACCO's, establish the effect of member quality on portfolio quality in Deposit Taking SACCOs, determine the effect of Credit Risk Management on micro credit loan Portfolio quality in Deposit Taking SACCO's and evaluate the effect of Management of Information on micro credit loans Portfolio quality in Deposit Taking SACCO's.

4.2 Response Rate

The number of questionnaires that were given out to prospective respondents were 84, out of which 62 questionnaires were properly filled and returned. Some of the questionnaires which were in hard copies were returned half-filled while others both in soft and hard copies were completely not returned despite a lot of follow ups. The response rate was 74%.

4.3 Demographics

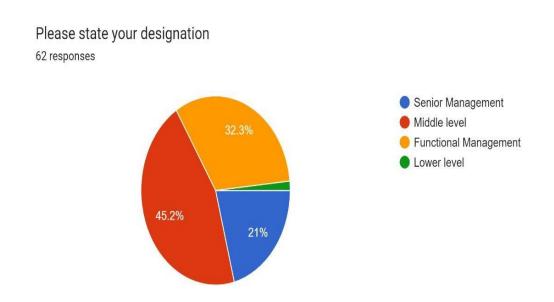


Figure 4.1: Designation of Respondents

Figure 4.1 shows that 21% of the respondents are in senior management, 45.2% are in middle level management, 32.3% functional management and 1.5% are in lower level management.

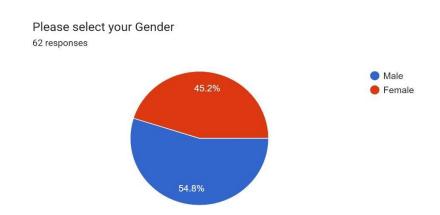


Figure 4.2: Gender of Respondents

Figure 4.2 shows that 45.2% of respondents were male and 54.8% were female.

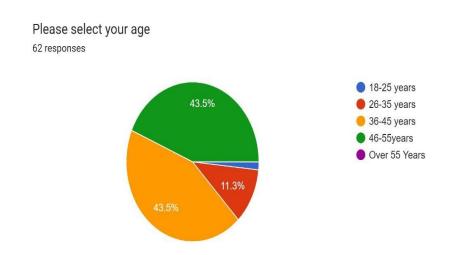


Figure 4.3: Age of Respondents

Figure 4.3 shows that 67.7% of the respondents had undergraduate degree, 17.7% had postgraduate degree and 14.5% had diploma certificate.

Please select your highest level of education attained 62 responses

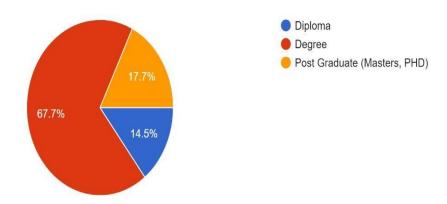


Figure 4.4: Education Level attained

Figure 4.4 shows education level of respondents, 67.7% of the respondents were degree holders, 17.7% had post graduate qualification (masters and PhD) and 14.5% were diploma holders.

Please show your how many years you been working in your current station in the SACCO 62 responses

Below 5 years
6 - 10 years
11 -15 years
above 15 years

Figure 4.5: Years respondents had worked in their current positions

32.3%

Figure 4.5 reveal the number of years respondents have worked in their current positions, 27.4% had worked in their current positions between 11-15 years, 30.6% have worked in their current positions above 15 years, 32.3% had worked in their current positions between 6-10 years and 9.7% of respondents have worked in their current position below 5 years.

4.4 Correlation Analysis

Correlation analysis measures the strength and direction of the relationship that exists between two variables measured over at least a certain period of time. It attempts to draw a best line from the data of two variables. The Pearson correlation coefficient r indicates how far all data points are from the line of best fit

Table 4.3: Correlation Analysis

					Loan	
		Credit Risk	Member Quality	Information Management		Portfolio Quality
Credit Risk	Pearson	1				
	Correlation					
	Sig. (p-value)					
	N	62				
Member Quality	Pearson	.827**	1			
	Correlation					
	Sig. (p-value)	.000				
	N	62	62			
Information	Pearson	.705**	.686**	1		
Management	Correlation					
	Sig. (p-value)	.000	.000			
	N	62	62	62		
Loan Lending Terms	Pearson	.824**	.684**	.753**	1	
•	Correlation					
	Sig. (p-value)	.000	.000	.000		
	N	62	62	62	62	
Portfolio Quality	Pearson	.713**	.565**	.832**	.846**	1
- ,	Correlation					
	Sig. (p-value)	.000	.000	.000	.000	
	N	62	62	62	62	62
**. Correlation is sign	nificant at the 0.0	level (p-v	value).	_		

Table 4.1 presents correlation results as coefficients revealing the association between each pair of the variables describing the independent and dependent factors, and their significance and levels of association. The correlation findings indicate that all the connections between the variables exhibit statistically significant correlation coefficients; also reflecting reliability in selection of the describing parameters of the variables. Credit Risk Management had a significant and positive association with Portfolio Quality (r = .713, $p = 0.000 \le 0.05$), Member Quality had a positive and significant association with Portfolio Quality (r = .565, $p = 0.000 \le 0.05$), Information Management had a positive and significant association with Portfolio Quality (r = .832, $p = 0.000 \le 0.05$) and lastly Loan Lending Terms had a positive and significant

association with Portfolio Quality (r = .846, $p = 0.000 \le 0.05$). These results show consistency with the results of study done in by Bamwite (2021) conducted a case study investigating the impact of credit terms on the loan performance of SACCOs in Mbarara city. The study discovered that credit terms, including the credit period, interest rates on loans, and loan installment structures, play a pivotal role in motivating borrowing, especially when the terms are favorable. Furthermore, the study revealed that a moderate loan repayment period has a positive influence on loan performance, whereas both excessively long and very short loan repayment periods have detrimental effects on loan performance. A similar study conducted in Uganda at Makerere University by Tumwebaze (2018), suggested that there exists a substantial correlation between credit terms and loan repayment in Microfinance Institutions (MFIs), surpassing the influence of borrowers' characteristics.

These findings align with the outcomes of a study conducted by Khalipour and Khalili (2016), who developed a model for customer classification within the banking system of Iran. The final model demonstrated a 95% probability that when the next set of customer data is introduced into the model, it would accurately identify the degree of customer risk. These results collectively underscore the connection between lending terms, credit risk, and, consequently, portfolio quality.

4.5 Effect of micro credit loan lending terms on Portfolio quality in Deposit Taking SACCO's

The first objective of this study was to determine the Effect of micro credit loan lending terms on Portfolio quality in Deposit Taking SACCO's.

Table 4.2: Model Summary of micro credit loan lending terms on Portfolio quality Model Summary

	v			Std. I	Error	of	the
Model	R	R Square	Adjusted R Square	Estimat	te		
1	.846 ^a	.716	.711	.13500			

a. Predictors: (Constant), Loan Lending Terms

Table 4.2 presents a summary of the results of the Ordinary Least Squares (OLS) regression model. A modified R value of .846 indicates that the results were trending in the right direction (positively), based on the provided range of -1 to +1. There exist a 0.846 (84.6%) chance that the Loan Lending Terms will affect Portfolio Quality of deposit taking SACCO's. Loan Lending

Terms therefore accounts for 71.6% to Portfolio Quality, thereby leaving 28.4% to other factors not considered in this study. The value of R indicates how closely actual values of the dependent variable match those forecasted value of Portfolio Quality of deposit taking SACCO's

Table 4.3: ANOVA of Microcredit loan lending terms on portfolio Quality

ANOVA^a

Model		Sum of Squa	ares df	Mean Square	F	Sig.
1	Regression	2.758	1	2.758	151.319	.000 ^b
	Residual	1.094	60	.018		
	Total	3.851	61			

a. Dependent Variable: Portfolio Quality

Table 4.3 is a presentation of the analysis of variance (ANOVA), The F-statistic and significance level. From the table, F statistics of 151.319 is above 2 and significant at 95% confidence level where (P=0.000<0.05), this implies that Loan Lending Terms has a significant effect on Portfolio Quality at 95% confidence level.

Table 4.4: Coefficients of micro credit loan lending terms on Portfolio quality Coefficients^a

		Unstandardi Coefficients	zed	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	440	.371		-1.188	.240
	Loan Lending Terms	1.137	.092	.846	12.301	.000

a. Dependent Variable: Portfolio Quality

$$PQ = -0.440 + 1.137 LLT \dots 4.1$$

The coefficient for loan lending terms suggest that for every one unit increase in favourable loan lending terms, portfolio quality is estimated to increase by approximately 1.137 units.

The high standardized coefficient (Beta) of 0.846 indicates that loan lending terms have a strong positive influence on portfolio quality compared to other variables in the model. The significant p-value (p=0.000) suggests that the relationship between loan lending terms and portfolio quality is unlikely to be due to random chance and is statistically meaningful. In table 4.2, Coefficient of determination ($R^2 = 0.716$) implying that 71.6% of loan portfolio quality can be explained by loan lending terms.

b. Predictors: (Constant), Loan Lending Terms

Loan Lending Terms (p=0.000) significantly affect Portfolio Quality. A unit increase in Loan Lending Terms causes an increase in Portfolio Quality by 1.137 units. The results of this study are similar to the findings of a study by Muhangi and Aliija (2017) who examined loan appraisal process management and credit performance in microfinance institutions. Their study used both qualitative and quantitative approach. Respondents were 44 loan officers and credit managers; data was collected by use of questionnaires from the respondents. Results revealed that loan officers use client appraisal in credit management to a great extent. Results further revealed that client appraisal is a good strategy in mitigating credit risk. Finally, the study revealed that there is a strong relationship between credit performance of MFIs and client appraisal.

4.6 Effect of member quality on portfolio quality in Deposit Taking SACCOs

The second objective of this study was to determine the Effect of member quality on portfolio quality in Deposit Taking SACCOs.

Table: 4.5 Model Summary of member quality on portfolio quality Model Summary

				Std. Error	of	the
Model	R	R Square	Adjusted R Square	Estimate		
1	.565ª	.319	.308	.20900		

a. Predictors: (Constant), Member Quality

Table 4.5 presents a summary of the results of the Ordinary Least Squares (OLS) regression model. A modified R value of .565 indicates that the results were trending in the right direction (positively), based on the provided range of -1 to +1. There exist a 0.565 (56.5%) chance that the Member Quality will affect Portfolio Quality of deposit taking SACCO's. Member Quality accounts for 31.9%, leaving 68.1% to other factors not considered in this study. The value of R indicates how closely actual values of the dependent variable match those forecasted value of Portfolio Quality of deposit taking SACCO's

Table 4.6: ANOVA of member quality on portfolio quality

ANOVA^a

Model		Sum of Squ	ares df	Mean Square	F	Sig.
1	Regression	1.230	1	1.230	28.169	.000 ^b
	Residual	2.621	60	.044		
	Total	3.851	61			

a. Dependent Variable: Portfolio Quality

b. Predictors: (Constant), Member Quality

Table 4.6 is a presentation of the analysis of variance (ANOVA), The F-statistic and significance level. From the table, F statistics of 28.169 is above 2 and significant at 95% confidence level where (P=0.000<0.05), this implies that Member Quality has a significant effect on Portfolio Quality at 95% confidence level.

Table 4.7: Coefficients of member quality on portfolio quality

Coefficients^a

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	1.718	.452		3.799	.000
	Member Quality	.568	.107	.565	5.307	.000

a. Dependent Variable: Portfolio Quality

$PQ = 1.718 + 0.568 MQ \dots 4.2$

Member Quality (p=0.000) significantly affect Portfolio Quality. A unit increase in Member Quality causes an increase in Portfolio Quality by 0.568 units.

The coefficient for member quality suggests that for every one unit increase in one quality member, portfolio quality is estimated to increase by approximately 0.568 units. The high standardized coefficient (Beta) of 0.565 indicates that member quality has a moderate influence on portfolio quality compared to other variables in the model.

The significant p-value (p=0.000) suggests that the relationship between member quality terms and portfolio quality is unlikely to be due to random chance and is statistically meaningful.

In table 4.5, Coefficient of determination ($R^2 = 0.319$) implying that 31.9 % of loan portfolio quality can be explained by member quality.

These results indicate that member quality has a significant and positive impact on portfolio quality, with higher member quality associated with higher portfolio quality. These outcomes align with the results of a study conducted by Postelnicu et al. (2015), which centered on Microfinance institutions in Eritrea and employed similar indicators of social connections. Their research unveiled that strong social networks and positive client reputations led to reduced instances of payment issues, ultimately lowering non-performing loans and the risk of default. Furthermore, the findings are in harmony with a study carried out by Bao et al. (2018) that examined the influence of reputation on trustworthiness. Their research disclosed that despite

reputation having some limitations, it notably affects trustworthiness and enhances access to loans. These findings suggest that customer quality or membership quality is closely linked to credit risk, which, in turn, has implications for portfolio quality.

In a similar vein, Agasha et al. (2020) conducted a study investigating the impact of factors like capital structure, cost of capital, credit risk management, and the quality of clientele on the portfolio quality of Microfinance Institutions (MFIs) in Uganda. Their research, following an exploratory research design, concluded that customer quality significantly influences the quality of the loan portfolio. They recommended that MFI managers consistently evaluate the reputation of prospective customers and their social networks to determine their reliability, trustworthiness, their standing within their social circles, the profitability of their businesses, and their level of accountability within those circles. However, it's important to note that the results of this study do not align with the findings of Ahlin and Townsend (2007), who utilized survey data from borrowers of BAAC, an MFI in Thailand. Their study centered on assessing clients' social networks and reputations, specifically focusing on the extent to which group members were willing to share resources, provide labor, and coordinate activities related to crop transportation, input procurement, and crop sales. Interestingly, they discovered a negative association between measures of social networks and client reputation and the repayment of loans.

4.7 Effect of Credit Risk Management on micro credit loan Portfolio quality in Deposit Taking SACCO's

The third objective of this study was to determine the Effect of Credit Risk Management on micro credit loan Portfolio quality in Deposit Taking SACCO's.

Table 4.8: Model Summary of Credit Risk Management on micro credit loan Portfolio quality

Model Summary

				Std. Error		the
Model	R	R Square	Adjusted R Square	Estimate		
1	.713 ^a	.509	.501	.17756		

a. Predictors: (Constant), Credit Risk

Table 4.8 presents a summary of the results of the Ordinary Least Squares (OLS) regression model. A modified R value of .713 indicates that the results were trending in the right direction (positively), based on the provided range of -1 to +1. There exist a .713 (71.3%) chance that the

Credit Risk Management will affect Portfolio Quality of deposit taking SACCO's. Credit Risk Management accounts for 50.9%, leaving 49.1% to other factors not considered in this study. The value of R indicates how closely actual values of the dependent variable match those forecasted value of Portfolio Quality of deposit taking SACCO's

Table 4.9: ANOVA of Credit Risk Management on micro credit loan Portfolio quality ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.960	1	1.960	62.160	.000 ^b
	Residual	1.892	60	.032		
	Total	3.851	61			

a. Dependent Variable: Portfolio Quality

Table 4.9 is a presentation of the analysis of variance (ANOVA), The F-statistic and significance level. From the table, F statistics of 62.160 is above 2 and significant at 95% confidence level where (P=0.000<0.05), this implies that Credit Risk Management has a significant effect on Member Quality at 95% confidence level.

Table 4.10: Coefficients of Credit Risk Management on micro credit loan Portfolio quality Coefficients^a

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	2.092	.258		8.122	.000
	Credit Risk	.493	.063	.713	7.884	.000

a. Dependent Variable: Portfolio Quality

$PQ = 2.092 + 0.493 CRM \dots 4.3$

Credit Risk Management (p=0.000) significantly affect Portfolio Quality. A unit increase in Credit Risk Management causes an increase in Portfolio Quality by 0.493 units. The coefficient for credit risk management suggests that for every one unit increase in one credit risk management, portfolio quality is estimated to increase by approximately 0.493 units. The high standardized coefficient (Beta) of 0.713 indicates that credit risk management has a moderate influence on portfolio quality compared to other variables in the model. The significant p-value (p=0.000) suggests that the relationship between credit risk management and portfolio quality is unlikely to be due to random chance and is statistically meaningful.

b. Predictors: (Constant), Credit Risk

In table 4.8, Coefficient of determination ($R^2 = 0.509$) implying that 50.9% of loan portfolio quality can be explained by credit risk. These results indicate that credit risk has a significant and positive impact on portfolio quality, with better credit risk management practices associated with higher portfolio quality.

These findings are in line with the outcomes of a prior study conducted by Kibui N. (2014), which aimed to investigate the impact of credit risk management on the financial performance of SACCOs. The study had a specific focus on assessing the contemporary credit risk monitoring and control methods implemented by Harambee Sacco. The analysis employed a descriptive survey design, and the results indicated that credit risk management played a vital role in enhancing the performance of the SACCOs.

While the current study used a correlational research design, a study by Ademba (2017) employed a correlational research design to identify the factors influencing the financial performance of deposit-taking SACCOs in Nairobi County. The specific objectives of this research encompassed aspects such as asset quality, capital adequacy, operational efficiency, and liquidity concerning the financial performance of deposit-taking SACCOs in Nairobi County. The study concluded that there is a robust correlation between capital adequacy, asset quality, operational efficiency, and liquidity, all of which have a significant impact on the financial performance of deposit-taking SACCOs.

4.8 Effect of Management of Information on micro credit loans Portfolio quality in Deposit Taking SACCO's

The fourth goal of this study was to determine how management of information influences the quality of micro-credit loan portfolios within Deposit Taking SACCOs.

Table 4.11: Model Summary of Management of Information on micro credit loans

Portfolio quality

Model Summary

				Std. Error	of	the
Model	R	R Square	Adjusted R Square	e Estimate		
1	.832ª	.693	.688	.14042		

a. Predictors: (Constant), Information Management

Table 4.11 presents a summary of the results of the Ordinary Least Squares (OLS) regression model. A modified R value of .832 indicates that the results were trending in the right direction

(positively), based on the provided range of -1 to +1. There exist a 0.832 (83.2%) chance that the Information Management will affect Portfolio Quality of deposit taking SACCO's. Information Management accounts for 69.3%, leaving 30.7% to other factors not considered in this study. The value of R indicates how closely actual values of the dependent variable match those forecasted value of Portfolio Quality of deposit taking SACCO's.

Table 4.12: ANOVA of Management of Information on micro credit loans Portfolio quality ANOVA^a

Model		Sum of Squa	ares df	Mean Square	F	Sig.
1	Regression	2.668	1	2.668	135.329	.000 ^b
	Residual	1.183	60	.020		
	Total	3.851	61			

a. Dependent Variable: Portfolio Quality

Table 4.12 is a presentation of the analysis of variance (ANOVA), The F-statistic and significance level. From the table, F statistics of 135.329 is above 2 and significant at 95% confidence level where (P=0.000<0.05), this implies that Information Management has a significant effect on Member Quality at 95% confidence level.

Table 4.13: Coefficients of Management of Information on micro credit loans Portfolio quality

Coefficients^a

		Unstand Coefficie		Standardized Coefficients			
Model		В	Std. Error	Beta	t	Sig.	
1	(Constant)	.820	.284		2.890	.005	
	Management	of .797	.069	.832	11.633	.000	
	Information						

a. Dependent Variable: Portfolio Quality

$PQ = 0.82 + 0.797 IM \dots 4.4$

Information Management (p=0.000) significantly affect Portfolio Quality. A unit increase in Information Management causes an increase in Portfolio Quality by 0.797 units. The coefficient for Management of Information suggests that for every one unit increase in one Management of Information, portfolio quality is estimated to increase by approximately 0.797 units. The high standardized coefficient (Beta) of 0.832 indicates that Management of Information has a moderate influence on portfolio quality compared to other variables in the model. The significant

b. Predictors: (Constant), Information Management

p-value (p=0.000) suggests that the relationship between Management of Information and portfolio quality is unlikely to be due to random chance and is statistically meaningful.

In table 4.11, Coefficient of determination ($R^2 = 0.693$) implying that 69.3% of loan portfolio quality can be explained by management of information practices. These results indicate that Management of Information has a significant and positive impact on portfolio quality, with better Management of Information practices associated with higher portfolio quality. The findings of this study align with the results of a study conducted by Arasa and Ottichilo (2015), which explored the factors influencing Know Your Customer (KYC) compliance among commercial banks in Kenya. Their research underscored the importance of comprehensively understanding customers as a crucial determinant of compliance within commercial banks. False information provided by customers, whether intentionally or unintentionally, can lead to a lasting negative impression about the customer within the bank.

Similarly, Benabu and Tirole (2006) assessed reputation using the concept of social image. Their premise was that individuals are concerned about how they and others perceive them, which amplifies the significance of adhering to promises, thereby increasing the moral costs associated with breaking promises.

4.9 Multiple Linear Regression

Table 4.14: Model Summary of Credit Risk Management, Member Quality, Information

Management and Loan Lending Terms on Portfolio Quality

Model Summary

				Std. Error	of	the
Model	R	R Square	Adjusted R Square	Estimate		
1	$.886^{a}$.785	.770	.12048		

a. Predictors: (Constant), Loan Lending Terms, Member Quality, Information Management, Credit Risk

Table 4.14 presents the overall model for multiple linear regression analysis. Together, Credit Risk Management, Member Quality, Information Management and Loan Lending Terms account for 78.5% variation on Portfolio Quality. The remaining 21.5% is accounted for by other factors outside the model but included in the error term.

Table 4.15: ANOVA of Credit Risk Management, Member Quality, Information

Management and Loan Lending Terms on Portfolio Quality

ANOVA^a

Model		Sum of Square	es df	Mean Square	F	Sig.
1	Regression	3.024	4	.756	52.079	.000 ^b
	Residual	.827	57	.015		
	Total	3.851	61			

a. Dependent Variable: Portfolio Quality

Table 4.15 presents the ANOVA values for Credit Risk Management, Member Quality, Information Management and Loan Lending Terms on Portfolio Quality. The model is significant (p>0.05).

Table 4.16: Coefficients of Credit Risk Management, Member Quality, Information

Management and Loan Lending Terms on Portfolio Quality

Coefficients^a

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	-2.038	.644		-3.166	.002
	Credit Risk	627	.156	907	-4.013	.000
	Member Quality	.281	.118	.280	2.381	.021
	Information	.405	.198	.423	2.043	.046
	Management					
	Loan Lending Terms	1.464	.321	1.089	4.555	.000

a. Dependent Variable: Portfolio Quality

Credit Risk (p=0.000<0.05), Member Quality (p= 0.021 <0.05), Information Management (p= 0.046 <0.05) and Loan Lending Terms (p=0.000 <0.05) had a notable impact on Portfolio Quality.

The coefficients -2.038, -0.627, 0.281, 0.405 and 1.464 indicate strength and direction of the relationship of the independent and dependent variables. The significance levels (p-values) associated with each coefficient provide information on the statistically significant relationship between each independent variable and dependent variable. In this case, the p-values for credit risk (CR), member quality (MQ), information management (IM) and loan lending terms (LLT) are less than 0.05 indicating that these variables are statistically significant to portfolio quality.

b. Predictors: (Constant), Loan Lending Terms, Member Quality, Information Management, Credit Risk

Based on the coefficients and their associated p-values:

Credit Risk (CR), the coefficient of -0.627 suggest that as credit risk increases, portfolio quality (PQ) decreases. The relationship is statistically significant (p=0.000).

Member Quality (MQ), the coefficient of 0.281 suggest that a higher member quality is associated with higher portfolio quality (PQ). The relationship is statistically significant (p=0.021).

Information Management (IM), the coefficient of 0.405 suggest that better information management is associated with higher portfolio quality (PQ). The relationship is statistically significant (p=0.046).

Loan Lending Terms (LLT), the coefficient of 1.464 suggest more favorable loan lending terms are associated with higher portfolio quality (PQ). The relationship is statistically significant (p=0.000).

In summary, this interpretation means that credit risk, member quality, information management and loan lending terms are all important factors influencing portfolio quality. Managing credit risk, improving member quality, enhancing information management practices and offering favorable loan lending terms can contribute to higher portfolio quality.

These findings are in line with the outcomes of a study conducted at Makerere University in Uganda by Tumwebaze (2018), which suggested that a significant relationship exists between credit terms and loan repayment within Microfinance Institutions (MFIs), surpassing the influence of borrowers' characteristics.

These results are further consistent with the findings of a study by Khalipour and Khalili (2016), which involved modeling customer classification within the banking system of Iran. The final model demonstrated a 95% likelihood that, when the data of the next customer is entered into the model, it can accurately identify the degree of customer risk. These results highlight the interconnection between customer quality or membership quality, credit risk, and, consequently, portfolio quality.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a concise overview of the findings, conclusions, recommendations, limitations of the study; and suggestions for future research. In comparison to other financial institutions, the portfolio at risk within Deposit Taking SACCOs stands at 8.40%. However, it's important to note that this percentage exceeds the permissible thresholds established both internationally and nationally by WOCCU and SASRA at 3% and 5%, respectively.

5.2 Summary of the Findings

5.2.1 Loan Lending Terms and Portfolio Quality

The first objective was to determine the effect of micro loan lending terms on loan portfolio quality of deposit taking Saccos in Kenya.

H₀₁: There is no significant effect of micro credit loans lending terms on Portfolio quality in Deposit Taking SACCO's in Kenya.

The coefficient for loan lending terms suggested that for every one unit increase in favourable loan lending terms, portfolio quality was estimated to increase by approximately 1.137 units.

The high standardized coefficient (Beta) of 0.846 indicated that loan lending terms had a strong positive influence on portfolio quality compared to other variables in the model.

The significant p-value (p=0.000) suggested that the relationship between loan lending terms and portfolio quality is unlikely to be due to random chance and was statistically meaningful.

Coefficient of determination ($R^2 = 0.716$) implied that 71.6% of loan portfolio quality could be explained by loan lending terms.

The study findings revealed that micro credit loan lending terms positively and significantly affect portfolio quality of deposit taking SACCOs in Kenya. The null hypothesis was rejected.

5.2.2 Member Quality and Portfolio Quality

The second objective was to establish the effect of member quality on portfolio quality in deposit taking SACCOs in Kenya.

 \mathbf{H}_{02} : There is no significant effect of member quality on loan portfolio quality in Deposit Taking SACCOs in Kenya.

The coefficient for member quality suggested that for every one unit increase in one quality member, portfolio quality was estimated to increase by approximately 0.568 units.

The high standardized coefficient (Beta) of 0.565 indicated that member quality had a moderate influence on portfolio quality compared to other variables in the model.

The significant p-value (p=0.000) suggested that the relationship between member quality and portfolio quality was unlikely to be due to random chance and is statistically meaningful.

Coefficient of determination ($R^2 = 0.319$) implied that 31.9 % of loan portfolio quality could be explained by member quality.

The study findings revealed that member quality positively and significantly affect portfolio quality of deposit taking SACCOs in Kenya. The null hypothesis was rejected.

5.2.3 Credit Risk Management and Portfolio Quality

The third objective was to determine effect of credit risk management on micro credit loans portfolio quality in deposit taking SACCOs in Kenya.

H₀₃: There is no significant effect of Credit Risk Management on micro credit loan Portfolio quality in Deposit Taking SACCO's in Kenya.

The coefficient for credit risk management suggested that for every one unit increase in one credit risk management, portfolio quality was estimated to increase by approximately 0.493 units.

The high standardized coefficient (Beta) of 0.713 indicated that credit risk management had a moderate influence on portfolio quality compared to other variables in the model.

The significant p-value (p=0.000) suggested that the relationship between credit risk management and portfolio quality was unlikely to be due to random chance and is statistically meaningful.

Coefficient of determination ($R^2 = 0.509$) implied that 50.9% of loan portfolio quality could be explained by credit risk.

The study findings revealed that credit risk positively and significantly affect portfolio quality of deposit taking SACCOs in Kenya. The null hypothesis was rejected.

5.2.4 Management of Information and Portfolio Quality

The fourth and final objective was to evaluate the effect of management of information on micro credit loan portfolio quality in deposit taking SACCOs in Kenya.

H₀₄: There is no significant effect of management of Information on micro credit loans Portfolio quality in Deposit Taking SACCO's in Kenya.

The high standardized coefficient (Beta) of 0.832 indicated that Management of Information had a moderate influence on portfolio quality compared to other variables in the model.

The significant p-value (p=0.000) suggested that the relationship between Management of Information and portfolio quality was unlikely to be due to random chance and is statistically meaningful.

Coefficient of determination ($R^2 = 0.693$) implied that 69.3% of loan portfolio quality could be explained by management of information practices.

Findings revealed that information management significantly and positively influence micro credit portfolio quality. The null hypothesis was rejected.

5.3 Conclusion

5.3.1 Loan Lending Terms and Portfolio Quality

Based on the first objective which revealed that loan lending terms positively and significantly influence micro credit portfolio quality, the study concludes that various constructs of loan lending terms such as the number of guarantors required, collateral requirements, repayment period, maximum amount to be advanced positively and significantly influence microcredit loan portfolio quality. This therefore means that favorable loan lending terms enhance access to loans and favour repayment thereby leading to a better loan performance of the lending Sacco.

5.3.2 Member Quality and Portfolio Quality

For the second objective, which revealed that there is a positive relationship between member quality and microcredit portfolio quality, the study concludes that constructs of member quality which are, high Business Income, member Experience in Business, repeat Borrower, good credit Scores in CRB positively and significantly influence microcredit portfolio quality. This therefore means that members with good credit ratings, stable income, good experience in business, a repeat borrower pay their loans well.

5.3.3 Credit Risk Management and Portfolio Quality

Subsequently the third objective, which revealed that there is a positive relationship between credit risk management and microcredit portfolio quality, the study concludes that constructs of credit quality which are, capital adequacy, asset Quality, management efficiency, earnings, liquidity positively and significantly influence microcredit portfolio quality. An enhanced credit risk assessment on microcredit loans plays an important role in determining the quality of the portfolio. This means that adequate capital, low Portfolio at Risk, efficient management, good returns and proper liquidity improves on portfolio quality.

5.3.4 Management of Information and Portfolio Quality

Concerning the fourth objective, which revealed that management of information positively and significantly influence portfolio quality id deposit taking saccos, the study concludes that various facets of management of information such as, Information through CRB, KYC documents, information form guarantors, information from Family members positively and significantly influence microcredit portfolio quality. Deposit taking SACCO managers need to set a comprehensive KYC system for proper screening of members since member characteristics significantly affect portfolio quality.

5.4 Recommendations

Based on the first objective, the study recommends that loan lending terms should be optimized to enhance portfolio quality. This should involve adjusting interest rates, repayment periods and other terms to attract more reliable members to mitigate risks. Members should also be segmented; loan lending terms be made according to different risk profiles and creditworthiness to optimize portfolio quality and minimize default risk. There should also be a continuous analysis on the effectiveness of lending strategies so as to identify areas for further improvement.

On the second objective, the study recommends that Deposit Taking Sacco Managers should strive to attract, recruit and be able to retain for a long-time member who will add value to the Sacco by making timely contributions to the Sacco, are creditworthy and have skills in running businesses. This may involve implementing measures that enhance customer service, improve members satisfaction and increased loyalty. DT Saccos should invest in member development by providing financial literacy programs and personalized financial advice and access to resources for improving credit scores that help enhance member quality and consequently portfolio quality. DT Saccos should invest in data analytics to monitor the relationship between member quality and portfolio quality over time to enable them gain insights into the effectiveness of their current strategies and identify areas for improvement. DTSACCOs should consider member quality in the process of loan appraisal and lending since the study revealed that member quality affects microcredit portfolio quality.

Based on the third objective it is recommended that it is necessary that a separate credit policy be made specifically for the microcredit loans. DT Saccos should invest in staff training and development to staff members involved in credit risk assessment and management. The staff should be equipped with skills and knowledge necessary to effectively evaluate credit risk, make informed lending decisions and implement risk mitigation strategies. There should be a thorough credit risk assessment process to ensure that loan borrowers are credit worthy, have stable income and a good credit history. Close monitoring and evaluation of both loan payment and deposit contribution should be enhanced since Deposit Taking SACCOs are self-financing. Overdue loans should be detected within the shortest time possible. The monitoring should also include compliance issues such as liquidity ratios and capital adequacy ratios.

And finally, it is recommended that for management of information, Saccos should improve information management practices that enhance management of information related to the members and market trends. There should be an efficient data collection, storage and analysis systems to ensure that accurate and timely information is available for decision making process. Data analytics should be utilized to analyse historical data to identify patterns, trends and correlations that can inform lending decisions and improve portfolio quality. Staff in Deposit Taking Saccos should be trained to precisely know what information they should gather from a potential member from the first day of their contact.

Activities like visiting the members business premises to ascertain existence of a business should be mandatory, proper background check on the members character and proof of existing source of income sufficient to pay the loan applied should be done. Stringent controls should be put so that member details once captured in the system can be used throughout the customers lifetime in the SACCO and also be used for monitoring the members loan account.

These recommendations when implemented will enable DT Saccos put in measures that will enhance the reduction of PaR to the allowed limits or even below.

5.5 Limitations of the Study

The study was only done in Deposit Taking SACCOs that have microcredit loans as a product, the study left out other non-Deposit Taking SACCOs. However, it was considered viable since the Deposit Taking SACCOs are considered top SACCOs with characteristics which are considered general and applicable to other SACCOs. Therefore, it is considered that results about them concerning microcredit portfolio quality may be generalized. Secondly, the study samples only consisted top Branch Managers in deposit taking SACCOs; other SACCO staff were left out. However, in the Sacco branch lending process, those in Branch managers are considered to have most information about lending and portfolio quality management.

5.6 Suggestions for Further Studies

A study on all SACCOs including non-Deposit Taking Saccos should be carried out without only singling out Deposit Taking SACCOs. With this, a true picture of contribution of micro credit loans on portfolio quality can be assessed. Secondly, a study involving other financial institutions such as all SACCOs, Microfinance Institutions and Commercial Banks should also be carried out and a comparison of the same is suggested so that a true and generalized position of the contribution of microcredit lending on portfolio quality be established.

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APPENDICES

Appendix 1: Questionnaire

This academic questionnaire is prepared purposely to assist in collecting data relating to the contribution of micro credit loans on loan portfolio quality of deposit taking SACCOs in Kenya. As one of the key acknowledged respondents, you are thus entreated to complete it by indicating a tick $(\sqrt{})$ in the box provided. Any information given with respect to this appeal shall be treated with stringent discretion and will only be used for the intent aforesaid.

SECTION A: -DEMOGRAPHIC DATA

1.	Please	state your des	ignation					
	Senior	Management	[]]	Middle	level []	Functiona	l Manag	gement []
2.	Please	show your Ge	ender					
	Male	[]			Fe	male	[]	
3.	Please	show your Ag	ge					
	[]	18-25 years		[]	26-35 yea	rs	[]	36-45 years
	[]	46-55 years		[] Ov	er 55 Year	S		
4.	Please	show your hig	ghest lev	el of ed	ucation atta	ained		
	Diplor	na []	Degree	[]	P	ost Gradua	te (Mast	ers, PHD) []
5.	Please	show your h	now man	y year	s you been	n working	in your	current station in the
	SACC	O						
	Below	5years []	6-10ye	ears []	11	-15years [] above	15years []

SECTION B. MICRO CREDIT LENDING TERMS

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

Statement	1	2	3	4	5
Guarantors are required for micro credit Loan appraisal in your					
SACCO					
The SACCO need more than one guarantee during micro loan appraisal process					
Collateral such as title deeds and log books are required in the process of micro loan processing in your SACCO					
There is a specific collateral margins required before a micro loan is advanced to micro loan customers					
Repayment period for micro loans are fair and favourable in your SACCO					
Maximum micro loan amount applied for is flexible and favourable in your SACCO					
Microcredit loan appraisal is done to active members of the SACCO					
Joint and several liability guarantees are required for micro credit loan appraisal					

PART C: MEMBER QUALITY

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

Statement	1	2	3	4	5
Customers with high business income are likely to pay their micro credit loans promptly in your SACCO					
Members with additional income such as salaried customers are preferred during loan appraisal and advancement of the loan					
Customers with experience in business are likely to pay their loans promptly in your SACCO					
Repeat borrowers of microcredit loan are likely to pay their loans promptly in your SACCO					
Customers with good credit score in Credit Reference Bureau are likely					
to pay their loans promptly and as per schedule in your SACCO					
Members whose spouses have additional income such as stable					
businesses and high salaries are preferred during micro loan appraisal					
and processing					
Members with less expenses on children education, medical expenses					
and other household expenses are preferred during loan appraisal and					
advancement					
Members with formal business record keeping experience and of fair					
education level are preferred during micro loan appraisal and subsequent					
loan drawdown.					

PART D: CREDIT RISK

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

Statement	1	2	3	4	5
Credit risk affects capital adequacy in your SACCO					
There are cases of increase in provision in your SACCO due to micro					
credit loan lending?					
Risk associated with microcredit loan default makes the SACCO lose					
reputation as rated by SASRA					
Recovery of microcredit loans due to default takes a lot of credit officers					
time which they can use to increase their productivity					
Recovery process of microcredit loans in default is expensive in terms of					
funds used to do visitation of such clients and other recovery logistics?					
There is poor asset Quality due to microcredit loans in your SACCO					
Management efficiency leads to low credit risk in your SACCO					
Credit risk brought about by micro loans reduces earnings and affects					
liquidity of your SACCO					

PART E: MANAGEMENT OF INFORMATION

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

Statement	1	2	3	4	5
Microcredit officers use Credit Reference Bureau to get information of					
micro loan customers in your SACCO during loan processing					
SACCO request for business records in the process of appraising or processing micro loans?					
Micro credit loan officers do back ground check by sourcing					
information about microcredit members through third parties such as					
customers friends, relatives or business partners					
Micro credit members tend to provide accurate information during loan					
appraisal or processing					
Micro credit officers use KYC documents during micro loan appraisal					
process in your SACCO					
SACCOs make use of information from guarantors during micro loan					
processing in your SACCO					
SACCOs make use of information from immediate family members in					
the process of micro loan appraisal process					
The SACCO relies on members credit history before processing micro					
credit loan					

PART F: PORTFOLIO QUALITY

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

Statement	1	2	3	4	5
There has been high Portfolio at Risk since introduction of					
micro loans in your SACCO					
There has been poor relationship between the branch and					
the customers due to recovery processes of poor-quality					
micro loan book					
Poor quality micro loan book affects branch deposit					
threshold since loan repayments are delaying					
There have been many cases of write offs since					
introduction of micro loans in your SACCO					
There have been high cases of loan provision expenses					
since introduction of micro loans in your SACCO					
There has been reduction of profit before tax since					
introduction of micro loans in your SACCO					
Poor quality of micro loan book at times lead to stoppage					
of micro lending for some period as the team in SACCO					
focus on recovery process					
The trade-off between loan disbursement and micro loan					
recovery affects the percentage portfolio and risk					

Appendix 2: List of Licenced and authorised deposit taking sacco societies for the year ending 31st Dec, 2022.

- 1. 2 NkDeposit Taking Sacco Society Ltd
- 2. Acumen Deposit Taking Sacco Society Ltd
- 3. Afya Deposit Taking Sacco Society Ltd
- 4. Agro-Chem Deposit Taking Sacco Society Ltd
- 5. Ainabkoi Deposit Taking Sacco Society Ltd
- 6. Airports Deposit Taking Sacco Society Ltd
- 7. Amica Deposit Taking Sacco Society Ltd
- 8. Ammar Deposit Taking Sacco Society Ltd
- 9. Apstar Deposit Taking Sacco Society Ltd
- 10. Ardhi Deposit Taking Sacco Society Ltd
- 11. Asili Deposit Taking Sacco Society Ltd
- 12. Azima Deposit Taking Sacco Society Ltd
- 13. Bandari Deposit Taking Sacco Society Ltd
- 14. Baraka Deposit Taking Sacco Society Ltd
- 15. Baraton University Deposit Taking Sacco Society Ltd
- 16. Biashara Deposit Taking Sacco Society Ltd
- 17. Biashara Tosha Deposit Taking Sacco Society Ltd
- 18. Bi-High Deposit Taking Sacco Society Ltd
- 19. Bingwa Deposit Taking Sacco Society Ltd
- 20. Boresha Deposit Taking Sacco Society Ltd
- 21. Capital Deposit Taking Sacco Society Ltd
- 22. Centenary Deposit Taking Sacco Society Ltd
- 23. Chai Deposit Taking Sacco Society Ltd
- 24. Chuka Deposit Taking University Sacco
- 25. Chuna Deposit Taking Sacco Society Ltd
- 26. Cosmopolitan Deposit Taking Sacco Society Ltd
- 27. County Deposit Taking Sacco Society Ltd
- 28. Daima Deposit Taking Sacco Society Ltd
- 29. Defence Deposit Taking Sacco Society Ltd

- 30. Dhabiti Deposit Taking Sacco Society Ltd
- 31. Dimkes Deposit Taking Sacco Society Ltd
- 32. Dumisha Deposit Taking Sacco Society Ltd
- 33. Eco-Pillar Deposit Taking Sacco Society Ltd
- 34. Edis Deposit Taking Sacco Society Ltd
- 35. Egerton Deposit Taking Sacco Society Ltd
- 36. Elimu Deposit Taking Sacco Society Ltd
- 37. Enea Deposit Taking Sacco Society Ltd
- 38. Faridi Deposit Taking Sacco Society Ltd
- 39. Fariji Deposit Taking Sacco Society Ltd
- 40. Fortitude Deposit Taking Sacco Society Ltd
- 41. Fortune Deposit Taking Sacco Society Ltd
- 42. Fundilima Deposit Taking Sacco Society Ltd
- 43. Gdc Sacco Deposit Taking Society Ltd
- 44. Golden Pillar Deposit Taking Sacco Society Ltd
- 45. Good Faith Deposit Taking Sacco Society Ltd
- 46. Goodhope Deposit Taking Sacco Society Ltd
- 47. Goodway S Deposit Taking Acco Society Ltd
- 48. Gusii Mwalimu Deposit Taking Sacco Society Ltd
- 49. Harambee Deposit Taking Sacco Society Ltd
- 50. Hazina Deposit Taking Sacco Society Ltd
- 51. Home Business Sacco Society Ltd
- 52. Ilkisonko Deposit Taking Sacco Society Ltd
- 53. Imarika Deposit Taking Sacco Society Ltd
- 54. Imarisha Deposit Taking Sacco Society Ltd
- 55. Invest And Grow (Ig) Deposit Taking Sacco Society Ltd
- 56. Jacaranda Deposit Taking Sacco Society Ltd
- 57. Jamii Deposit Taking Sacco Society Ltd
- 58. JamiiYetu Deposit Taking Sacco Society Ltd
- 59. Jitegemee Deposit Taking Sacco Society Ltd
- 60. Joinas Deposit Taking Sacco Society Ltd

- 61. Jumuika Deposit Taking Sacco Society Ltd
- 62. Kabiyet Deposit Taking Sacco Society
- 63. Kencream Deposit Taking Sacco Society Ltd
- 64. Kenpipe Deposit Taking Sacco Society Ltd
- 65. Kenversity Deposit Taking Sacco Society Ltd
- 66. Kenya Achievas Deposit Taking Sacco Society Ltd
- 67. Kenya Bankers Deposit Taking Sacco Society Ltd
- 68. Kenya Highlands Deposit Taking Sacco Society Ltd
- 69. Kenya Midland Deposit Taking Sacco Society Ltd
- 70. Kenya Police Deposit Taking Sacco Society Ltd
- 71. Keystone Deposit Taking Sacco Society Ltd
- 72. Kimbilio Daima Deposit Taking Sacco Society Ltd
- 73. Kimisitu Deposit Taking Sacco Society Ltd
- 74. Kingdom Deposit Taking Sacco Society Ltd
- 75. Kitui Teachers Deposit Taking Sacco Society Ltd
- 76. Kolenge Tea Deposit Taking Sacco Society Ltd
- 77. Koru Deposit Taking Sacco Society Ltd
- 78. K-Pillar Deposit Taking Sacco Society Ltd
- 79. K-Unity Deposit Taking Sacco Society Ltd
- 80. Kwetu Deposit Taking Sacco Society Ltd
- 81. Lainisha Deposit Taking Sacco Society Ltd
- 82. Lamu Teachers Deposit Taking Sacco Society Ltd
- 83. Lengo Deposit Taking Sacco Society Ltd
- 84. Mafanikio Deposit Taking Sacco Society Ltd
- 85. Magadi Deposit Taking Sacco Society Ltd
- 86. Magereza Deposit Taking Sacco Society Ltd
- 87. Maisha Bora Deposit Taking Sacco Society Ltd
- 88. Mentor Deposit Taking Sacco Society Ltd
- 89. Metropolitan National Deposit Taking Sacco Society Ltd
- 90. Mombasa Port Deposit Taking Sacco Society Ltd
- 91. Mudete Factory Tea Growers Deposit Taking Sacco Society Ltd

- 92. Muki Deposit Taking Sacco Society Ltd
- 93. Mwalimu National Deposit Taking Sacco Society Ltd
- 94. Mwietheri Deposit Taking Sacco Society Ltd
- 95. Mwito Deposit Taking Sacco Society Ltd
- 96. Nacico Deposit Taking Sacco Society Ltd
- 97. Nafasi Dt Deposit Taking Sacco Society Ltd
- 98. Nandi Farmers Deposit Taking Sacco Society Ltd
- 99. Nation Deposit Taking Sacco Society Ltd
- 100. Nawiri Deposit Taking Sacco Society Ltd
- 101. Ndege Chai Deposit Taking Sacco Society Ltd
- 102. Ndosha Deposit Taking Sacco Society Ltd
- 103. New Forties Deposit Taking Sacco Society Ltd
- 104. Nexus Deposit Taking Sacco Society Ltd
- 105. Ng'arisha Deposit Taking Sacco Society Ltd
- 106. Nrs Deposit Taking Sacco Society Ltd
- 107. Nssf Deposit Taking Sacco Society Ltd
- 108. Nufaika Deposit Taking Sacco Society Ltd
- 109. Nyala Vision Deposit Taking Sacco Society Ltd
- 110. Nyambene Arimi Deposit Taking Sacco Society Ltd
- 111. Nyati Deposit Taking Sacco Society Ltd
- 112. Ollin Deposit Taking Sacco Society Ltd
- 113. Orient Deposit Taking Sacco Society Ltd
- 114. Patnas Deposit Taking Sacco Society Ltd
- 115. Prime Time Deposit Taking Sacco Society Limited
- 116. Puan Deposit Taking Sacco Society Ltd
- 117. Qwetu Deposit Taking Sacco Society Ltd
- 118. Rachuonyo Teachers Deposit Taking Sacco Society Ltd
- 119. Safaricom Deposit Taking Sacco Society Ltd
- 120. Sheria Deposit Taking Sacco Society Ltd
- 121. Shirika Deposit Taking Sacco Society Ltd
- 122. Shoppers Deposit Taking Sacco Society Ltd

- 123. Simba Chai Deposit Taking Sacco Society Ltd
- 124. Siraji Deposit Taking Sacco Society Ltd
- 125. Skyline Deposit Taking Sacco Society Ltd
- 126. Smart Life Deposit Taking Sacco Society Ltd
- 127. Smart Champions Deposit Taking Sacco Society Ltd
- 128. Solution Deposit Taking Sacco Society Ltd
- 129. Sotico Deposit Taking Sacco Society Ltd
- 130. Southern Star Deposit Taking Sacco Society Ltd
- 131. Stake Kenya Deposit Taking Sacco Society Ltd
- 132. Stawisha Deposit Taking Sacco Society Ltd
- 133. Stima Deposit Taking Sacco Society Ltd
- 134. Strategic-Urembo Deposit Taking Sacco Society Ltd
- 135. Suluhu Deposit Taking Sacco Society Ltd
- 136. Supa Deposit Taking Sacco Society Ltd
- 137. Tabasamu Deposit Taking Sacco Society Ltd
- 138. Tabasuri Deposit Taking Sacco Society Ltd
- 139. Tai Deposit Taking Sacco Society Ltd
- 140. Taifa Deposit Taking Sacco Society Ltd
- 141. Taqwa Deposit Taking Sacco Society Ltd
- 142. Taraji Deposit Taking Sacco Society Ltd
- 143. Telepost Deposit Taking Sacco Society Ltd
- 144. Tembo Deposit Taking Sacco Society Ltd
- 145. Tenhos Deposit Taking Sacco Society Ltd
- 146. Thamani Deposit Taking Sacco Society Ltd
- 147. The Apple Deposit Taking Sacco Society Lt
- 148. The Noble Deposit Taking Sacco Society Ltd
- 149. Times-U Deposit Taking Sacco Society Ltd
- 150. Tower Deposit Taking Sacco Society Ltd
- 151. Trans Nation Deposit Taking Sacco Society Ltd
- 152. Trans-Counties Deposit Taking Sacco Society Ltd
- 153. Trans-Elite County Deposit Taking Sacco Society Ltd

- 154. Trans-National Times Deposit Taking Sacco Society Ltd
- 155. Ufanisi Deposit Taking Sacco Society Ltd
- 156. Ukristo Na UfanisiWa Anglican Deposit Taking Sacco Society Ltd
- 157. Unaitas Deposit Taking Sacco Society Ltd
- 158. Uni-County Deposit Taking Sacco Society Ltd
- 159. Unison Deposit Taking Sacco Society Ltd
- 160. United Nations Deposit Taking Sacco Society Ltd
- 161. Universal Traders Deposit Taking Sacco Society Ltd
- 162. Ushuru Deposit Taking Sacco Society Ltd
- 163. Vihiga County Farmers Deposit Taking Sacco Society Ltd
- 164. Viktas Deposit Taking Sacco Society Ltd
- 165. Vision Africa Deposit Taking Sacco Society Ltd
- 166. Vision Point Deposit Taking Sacco Society Ltd
- 167. Wakenya Pamoja Deposit Taking Sacco Society Ltd
- 168. Wakulima Commercial Deposit Taking Sacco Society Ltd
- 169. Wana-Anga Deposit Taking Sacco Society Ltd
- 170. Wananchi Deposit Taking Sacco Society Ltd
- 171. Wanandege Deposit Taking Sacco Society Ltd
- 172. Washa Deposit Taking Sacco Society Ltd
- 173. Waumini Deposit Taking Sacco Society Ltd
- 174. Wevarsity Deposit Taking Sacco Society Ltd
- 175. Winas Deposit Taking Sacco Society Ltd
- 176. Yetu Deposit Taking Sacco Society

					LLT	MQ	CR	MoI	PQ
				Please show					
				your how					
				many years					
			Please select	you been					
	Please		your highest	working in					
Please state	select		level of	your current					
your	your	Please select	education	station in the					
designation	Gender	your age	attained	SACCO					
			Post						
			Graduate						
			(Masters,	above 15					
Middle level	Female	46-55years	PHD)	years	5	5	5	5	4
			Post						
			Graduate						
Senior			(Masters,	Below 5					
Management	Female	36-45 years	PHD)	years	4	5	5	4	5
Senior				above 15					
Management	Male	46-55years	Degree	years	4	5	4	3	4
			Post						
			Graduate						
Senior			(Masters,						
Management	Male	36-45 years	PHD)	11 -15 years	5	4	4	4	2
			Post						
			Graduate						
			(Masters,						
Middle level	Female	36-45 years	PHD)	6 - 10 years	2	3	4	4	1
Middle level	Male	26-35 years	Diploma	6 - 10 years	4	4	5	5	5
Middle level	Male	46-55years	Degree	6 - 10 years	3	2	3	4	3
Middle level	Male	26-35 years	Degree	6 - 10 years	5	5	5	5	4
Lower level	Female	46-55years	Degree	11 -15 years	4	3	3	3	2
Middle level	Female	36-45 years	Degree	6 - 10 years	5	3	4	3	2
Functional				above 15					
Management	Male	46-55years	Diploma	years	4	4	4	4	3
			Post						
			Graduate						
			(Masters,	above 15					
Middle level	Male	46-55years	PHD)	years	3	4	5	5	3
				Below 5					
Middle level	Female	46-55years	Degree	years	4	4	4	4	3
			Post						
			Graduate						
Senior			(Masters,	above 15					
Management	Male	46-55years	PHD)	years	5	4	4	5	4
Middle level	Female	36-45 years	Degree	11 -15 years	5	5	5	5	5
Middle level	Female	36-45 years	Degree	11 -15 years	5	5	5	5	5
Functional]				
Management	Male	26-35 years	Diploma	6 - 10 years	5	5	5	5	5
						1			1
Functional Management	Male	36-45 years	Degree	11 -15 years	5	4	5	4	5

Functional									
Management	Male	46-55 years	Degree	6 - 10 years	4	4	4	5	5
Middle level	Female	36-45 years	Degree	11 -15 years	5	5	5	5	5
Functional		, , , , , , , , , , , , , , , , , , ,	- 8						
Management	Female	26-35 years	Degree	6 - 10 years	4	5	5	5	5
Middle level	Female	36-45 years	Degree	11 -15 years	5	5	5	5	4
		10 10 10 1000	8	above 15				1	
Middle level	Male	36-45 years	Degree	years	5	4	4	4	4
		,	Post						
			Graduate						
			(Masters,	above 15					
Middle level	Male	46-55 years	PHD)	years	5	5	5	5	5
			Post						
			Graduate						
			(Masters,	above 15					
Middle level	Male	46-55 years	PHD)	years	5	5	5	5	4
			Post						
			Graduate						
Senior			(Masters,	above 15					
Management	Male	46-55years	PHD)	years	4	4	5	5	4
Middle level	Male	36-45 years	Degree	11 -15 years	3	3	4	4	3
Middle level	Male	36-45 years	Degree	6 - 10 years	5	5	5	4	5
				above 15					
Middle level	Male	46-55 years	Degree	years	5	4	4	4	4
Middle level	Male	36-45 years	Degree	6 - 10 years	4	5	5	5	5
Middle level	Male	36-45 years	Degree	6 - 10 years	4	5	5	4	5
			Post						
			Graduate						
Senior	Б 1	26.45	(Masters,	Below 5	١,	1,			
Management	Female	36-45 years	PHD)	years	4	4	4	3	4
Middle level	Female	36-45 years	Degree	6 - 10 years	5	5	5	5	5
3 C 1 11 1 1	3.6.1	26.25	ъ	Below 5			_		
Middle level	Male	26-35 years	Degree	years	3	5	5	3	5
Senior	E1-	26 45	Danie	6 10	_	_	_	_	_
Management	Female	36-45 years	Degree	6 - 10 years	5	5	Р	5	5
Functional	M-1-	26 45	Danie	6 10	_	_	_	_	_
Management	Male	36-45 years	Degree	6 - 10 years	5	5	5	5	5
Functional	Molo	26 15 voors	Dograd	11 -15 years	5	5	5	5	5
Management Functional	Male	36-45 years	Degree	11 -13 years	5	3	5	3	3
Management	Female	36-45 years	Degree	11 -15 years	5	5	5	5	5
Senior	Temale	30-43 years	Degree	11 -13 years	<i>J</i>)))
Management	Male	46-55years	Degree	11 -15 years	5	5	5	5	5
Functional	iviaic	+0-33 years	Degree	above 15	<i>J</i>	5)
Management	Female	46-55 years	Diploma	years	5	5	5	5	5
Functional	1 chiaic	70 33 years	Dipionia	J Cars	3	3			5
Management	Female	36-45 years	Diploma	6 - 10 years	3	5	5		5
- Tranagoment	1 chiate	30 13 years	Dipioniu	above 15					
Middle level	Female	46-55years	Degree	years	4	4	5		5
Middle level	Male	46-55years	Degree	above 15	5	4	5	+	4
TYTIGUTE TEVEL	wiaic	-10-33 years	Degree	13			Ρ		7

				years				
Functional								
Management	Male	36-45 years	Degree	6 - 10 years	5	5	5	5
Senior								
Management	Female	46-55 years	Degree	6 - 10 years	4	2	4	3
Functional				Below 5				
Management	Male	26-35 years	Degree	years	5	5	4	4