



INTEREST RATE AND LOAN REPAYMENT IN KARUGUTU SAVINGS AND CREDIT COOPERATIVE IN KARUGUTU TOWN COUNCIL, NTOROKO DISTRICT, UGANDA

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Abstract: This study examines the relationship between interest rates, liquidity risk, and loan repayment behavior at Karugutu Savings and Credit Cooperative (SACCO) in Ntoroko District, Uganda. The objectives were to: (1) determine the relationship between liquidity risk and loan repayment, (2) explore the impact of multiple loans on loan repayment, and (3) evaluate the influence of risk analysis on loan repayment behavior. A descriptive cross-sectional survey design was employed, with a target population of 3,643 members and a sample size of 370, yielding a response rate of 81.1%. The study utilized Pearson correlation coefficients to analyze the data.

The results revealed a moderate positive correlation between liquidity risk and loan repayment (Pearson correlation coefficients of 0.514**, 0.852**, and 0.697** for interest rates). Similarly, the correlation between multiple loans and loan repayment showed that liquidity risk plays a significant role, with correlations of -0.056 for multiple loans, and 0.492* for the interest rate. In risk analysis, significant positive correlations were found between risk factors and loan repayment (0.514**, 0.852**, and 0.697**). Furthermore, loan repayment had correlations of 0.169, 0.644**, and 0.415** with risk analysis factors.

The study concludes that liquidity risk and interest rates have a significant impact on loan repayment at Karugutu SACCO. Furthermore, multiple loans are negatively correlated with loan repayment, suggesting that members who take multiple loans are at a higher risk of default. Risk analysis factors also play a crucial role in influencing loan repayment behavior.

The following are the recommendations;

1. Improved Risk Management: Karugutu SACCO should adopt more robust risk management strategies, particularly in assessing liquidity risk, to improve loan repayment rates.
2. Loan Monitoring: Regular monitoring of members' loan statuses, especially those with multiple loans, should be implemented to mitigate the risk of default.
3. Interest Rate Adjustments: Interest rates should be carefully calibrated to balance between encouraging borrowing and ensuring repayment capacity.
4. Financial Education: The SACCO should provide financial literacy programs to help members better manage loans, especially for those seeking multiple loans.

Keywords: Sacco, Savings, Loans, Multiple Loans, Interest Rate, Loan Repayment.

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CHAPTER ONE

Introduction

1.0 Background

This Chapter presents the background, problem statement, purpose-specific objectives, research questions, hypotheses scope and the significance of the study. The background is broken into four perspectives, namely; the historical, theoretical, contextual and conceptual.

1.1 Historical background

The origin and arrangements of the Savings and Credit Cooperatives (SACCOs) began in Bangladesh in 1970 when Grameen Bank was formed (Bouman, 1977). This was done to uplift the standards of living of the rural poor mainly the peasants who could not access credit from Banks. This spirit did not end here but it was copied by other communities who were mainly farmers living in rural areas and Uganda inclusive.

In Uganda, Rural Ugandan Farmers (RUF) began this spirit as early as 1913 by forming local groups which were not legalized and could not carry out any transaction but the legalized cooperative movement began carrying out their activities actively in the 1940s to exploit forces of middlemen such as the Indian Traders and the colonial government (Thangata, 2016). These cooperatives by then were using an approach of negotiation for a good market of produce rather than providing credit like in Bangladesh. Unfortunately, the political challenges in Uganda in the 1980s and poor governance led to the collapse, privatization and disposal of all cooperative Union assets.

The Savings and credit cooperatives (SACCOs) were officially allowed to re-operate after being guided by the Cooperative Societies Act 1991. Some amendments were made in 2016 which introduced tier 4 Micro Finance.

Currently, micro-financial institutions where SACCOs fall provide credit services at a higher rate than commercial banks (Adams D et al, 2022). In similar aspects, Ditcher (2013) argued that the significance of lending to customers is based on the follow-up done by the management which is extensive of the loss which may take place in giving out such credit advances that may ruin the borrower loan character. However, it may be excused that lending decisions by the various banks and microfinance institutions are most of the time based on feelings which are subjective regarding risk about borrower's repayment abilities.

Kimando (2012) argued that sometimes customers fail to pay their loans and the charged interest which could be adjusted by waiving accrued interests and temporarily suspending payments. The greatest challenge facing SACCOs today is the non-repayment of loans borrowed.

According to Powers (2015), it must be recognized that the changes in markets, products and service delivery models and technology used in industries have had and will continue to have profound implications on the overall risk of loan repayment of SACCOs over time. Uganda's financial system is characterized by the co-existence of formal and informal financial markets. The formal institutions include banks, Microfinance Deposit-taking institutions, Credit Institutions, Insurance companies, Development Banks, Pension Funds and Capital Markets. The semi-informal

institutions include Savings and Credit Cooperative Associations (SACCOs) and other Microfinance institutions. The informal ones are mostly village savings and loan associations. Tumusiime (2020) noted that the increased competition especially among many financial institutions has led to a reduction in interest rates making them struggle to make profits.

Kansiime et al (2018), revealed that the high degree of loan repayment (loan recovery) in cooperative savings and credits is partly attributed to 'forced repayment' imposed on the borrowers, either directly or indirectly.

1.2 Theoretical Background.

The research was guided by Fisher's theory of Interest rate which states that; the real interest rate equals the nominal interest rate minus the expected inflation rate. Fisher's theory sees the rate of interest as the part of the paid premium on the lent money to be paid one year later or at a particular date set by the lender in terms of money. Hypothetically, it is claimed that other sorts of goods can be substituted with money. Fisher's theory was invented by Irving Fisher in 1930 but has been advanced and criticized by various theorists and scholars ever since (Harrod&Tymoigne, 2016).

It is opined that Fisher's real rate of interest framework is essential for the inflation targeting framework. This is due to the reasoning that it rationalizes the notion that monetary policy ought to be concerned mainly with managing inflation expectations to keep interest rates at a stable level that enhances savings and investment. (Cottrell and Smith in, 2013)

In tandem with interest rates Microfinance Institutions (MFIs') loan performance, fisher's theory was employed to explain the relationship between interest rate and loan repayment in savings and credit cooperatives in Karugutu Town Council, Ntoroko district. The researcher opted to use Fisher's theory because it has a great relationship with the current topic. It explains the link between nominal and real interest charged on borrowed money in the form of capital which affects the loan repayment mode by borrowers.

1.3 Contextual Background

Many SACCOs in Uganda are prone to liquidity shortage which results from failure of loan repayments. Failure of SACCOs to boost their financial performance in the Ntoroko district has been due to poor loan repayment which was reported at 38% and increased loan defaults among clients of the savings and credit cooperative at 42% which consequently resulted in poor creditworthiness and poor financial performance of the cooperative. This was according to the report from Ntoroko Cooperators where Bwambale (chairperson of KASACCO) noted that clients were not paying back in time despite the SACCO efforts.

During the Annual General Meeting (AGM) 2023, it was also noted that member savings were not good because most of them opened accounts to get loans and then after that their accounts remained dormant leading to a drop in membership which was reported at a rate of 31%(<https://www.uhuruinstitute.org/ntoroko->

cooperators-urged-to-utilise-their-saccos-effectively/. It was concluded that if these challenges are not attended to, the financial sector is likely to fall. (AMFI report 2018).

Karugutu Savings and Credit Cooperative (KASACCO) plans to reduce the interest rate from 3% to 2.5% once they finish the construction of their premises to encourage borrowers to meet their loan obligations easily. (<https://www.uhuruinstitute.org/ntoroko-cooperators-urged-to-utilise-their-saccos-effectively/>)

The poor performance in SACCOs may also result in poor investment decisions, poor risk management and liquidity risks among SACCOs (Muheebwa, 2018). Good liquidity risk remains a fundamental aspect upon which most SACCOs depend while providing money-related services to its clients as well as a blistering financial performance in the Ntoroko district.

1.4 Conceptual Background.

Loan repayment is the driver of the SACCO and other financial institutions' financial performance. There are several stated cases of high loan repayment defaults in commercial banks in Kenya (Wanjau, 2011). It is acknowledged that the level of non-performing loans is frequently connected with bank failures and financial crises in both third-world and developed nations (Caprio and Klingebiel, 2002)

Interest Rate is the value a debtor pays for the utilization of money they acquire from a lender/financial foundation or expense paid on obtained assets (Crowley, 2017). It can also be defined as the amount of interest due per period, as a proportion of the amount lent, deposited or borrowed. It is "rent of money" crucial to an 'industrialist society' and regularly communicated as a rate over the time of one. Interest rate as a cost of cash reflects market information concerning anticipated changes in the buying influence of cash or future inflation (Ngugi, 2011).

Interest is a fee paid on borrowed assets. It is the price paid for the use of borrowed money, or, money earned by deposited funds. The interest is calculated upon the value of the assets. (Adams and Pinscher, 2016). Lenders of money profit from such transactions by arranging for the borrower to pay back an additional amount of money over and above the sum that they borrow. This difference between what is lent and what is returned is known as interest. The interest on a loan is determined through the establishment of an interest rate which is expressed as a percentage of the amount of the loan (Arthur O'Sullivan and Steven 2018).

1.5 Problem Statement

The loan repayment rate in SACCOs in Uganda is still low. According to Martinez-Cans et al. (2020) loan repayment rate in Uganda decreased in the past five years with an average loan repayment in cooperatives from 87% to 67%, indicating high loan repayment default in SACCOs.

Even though loans from SACCOs are helpful to people in Uganda in boosting their businesses and livelihoods, loan repayment has become a challenge to most people in the Ntoroko district. This is because high interest rates of 25% and above are levied on loans. As a result, 31% of the borrowers failed to repay their loans in 2022 (Matt Schulz, 2024). In this regard, the Bank of Uganda has tried to sensitize citizens about loan repayment benefits but all are in vain. For example, in Ntoroko District, Baluku (KASACCO

chairperson) reported that SACCOs were experiencing poor financial performance problems like high loan standing rates and poor loan recovery which emerge from several factors like poor loan repayment and loan default amongst borrowers leading to ineffective financial performance of SACCOs (Muheebwa, 2018).

In Uganda, fewer studies have specifically focused on the relationship between interest rates and loan repayment and microeconomic and bank-related factors (Alumasi (2018), Watsema and Nuwagaba (2024)). For example, the study conducted on factors affecting loan repayment in commercial banks in Uganda, a case of centenary bank Mapeere Branch Kampala, (Esther, 2022). These studies do not provide a holistic view of the problem of loan repayment in savings and credit cooperatives. It is upon this background that the researcher sought to examine the relationship between interest rate and loan repayment in savings and credit cooperatives in Karugutu town council, Ntoroko district. Failure to conduct the study may lead to an increase in non-performing loans and loan default which would negatively affect both the cooperative and the clients, hence the collapse of the savings and credit cooperative and clients' inability to borrow the desired amount.

Results from this study will foster innovation like willingness to pay through proper sensitization about the benefits of prompt and effective loan repayment to promote the performance and stability of savings and credit cooperatives. This will drive a positive change that would promote the performance and stability of Karugutu Savings and Credit Cooperative in Karugutu Town Council, Ntoroko district. This study will therefore examine the relationship between interest rate and loan repayment in Karugutu Savings and Credit Cooperative in Karugutu Town Council, Ntoroko District.

1.4 Objectives

1.4.1 General objective

To examine the relationship between interest rate and loan repayment in Karugutu Savings and Credit Cooperative in Karugutu Town Council, Ntoroko District.

1.4.2 Specific objective

- i. To determine the relationship between liquidity risk and loan repayment in Karugutu Savings and Credit Cooperative in Karugutu Town Council, Ntoroko District.
- ii. To establish the relationship between multiple loans and loan repayment in Karugutu Savings and Credit Cooperative in Karugutu Town Council, Ntoroko District.
- iii. To evaluate the relationship between risk analysis and loan repayment in Karugutu Savings and Credit Cooperative in Karugutu Town Council, Ntoroko District.

1.4.3 Research question.

- i. What is the relationship between liquidity risk and loan repayment in Karugutu Savings and Credit Cooperative in Karugutu Town Council, Ntoroko District?
- ii. What is the relationship between multiple loans and loan repayment in Karugutu Savings and Credit Cooperative in Karugutu Town Council, Ntoroko District?

- iii. What is the relationship between risk analysis and loan repayment in Karugutu Savings and Credit Cooperative in Karugutu Town Council, Ntoroko District?

1.5 Scope of the study.

The study was conducted in Karugutu Savings and Credit Cooperative (SACCO) in Karugutu Town Council, Ntoroko District. Karugutu Town Council is located along Fort pPortal-Bundibugyo Road about 45KMs from Fortportal Tourism City. Karugutu Town Council borders Nombe Sub County in the East, Karugutu Sub County in the West, Kasithu Sub County in the South and Rwebisengo Sub County in the North. The geographical coordinates of Karugutu Town Council are approximately: Latitude: 0.8194° N and Longitude: 30.2833° E.

1.6 Significance of the study.

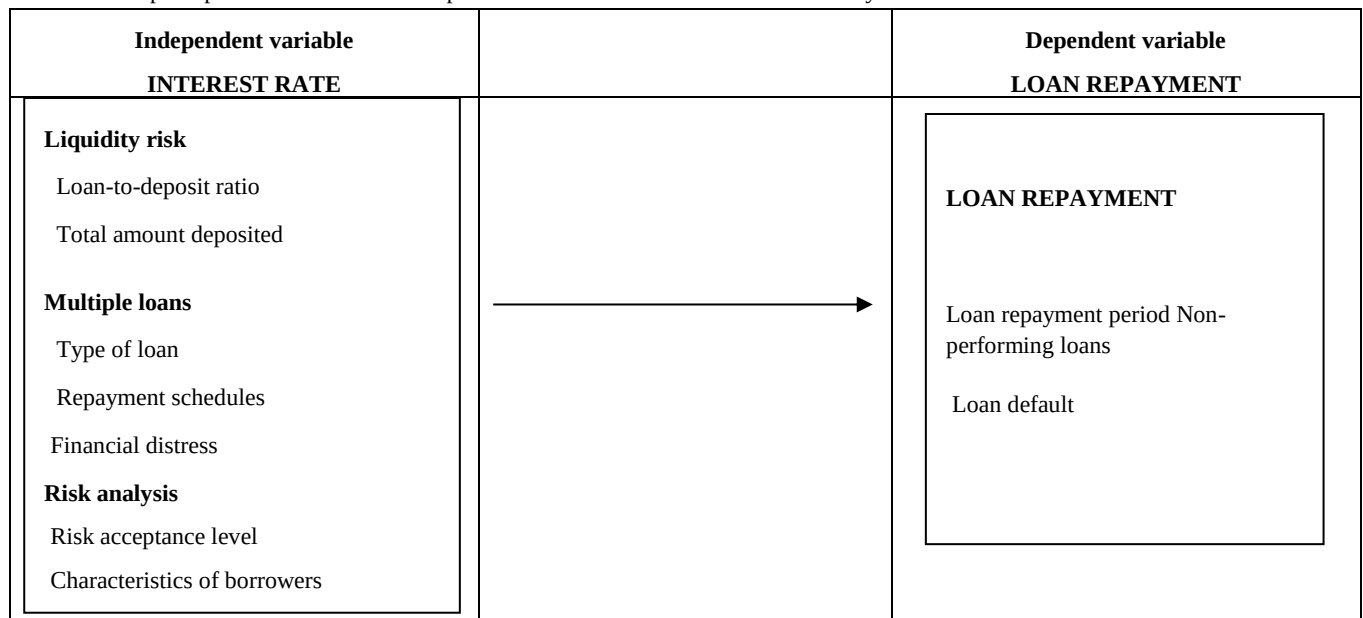
The study findings will enable the government through the Ministry of Finance to formulate laws, policies and guidelines to be followed by SACCOs in relation to loan repayment.

The study will give the government insight into how to intervene to reconcile SACCOs and their customers with the aim of giving way to increased loan accessibility by potential customers.

The findings on loan repayment will help the management of Karugutu Cooperative saving and Credit to adjust their policies to improve their business. The study will help the financial institutions in determining the level of interest rate they should charge on the loan borrowers because the rate determines how the loan repayment will be done.

The study findings will also provide the community and clients of Karugutu cooperative savings and credit with an understanding of why they are charged a given interest rate on loans which in turn affects their repayment on loans.

Below is a conceptual plan that has been developed to demonstrate the variables of the study.



Adopted from Thompson and Kolb (2006), and modified by the researcher in 2024.

Fig. 1. The conceptual framework

Furthermore, the researcher hopes that the research findings will contribute to future research since they will act as a basis for other researchers to carry out research in the related discipline.

The research is a requirement for an award of a degree of Master of Science in Finance from Team University. Thus if well prepared, will help the researcher to pass with honors.

1.7 Justification of the Study

If the loan repayment problem is not resolved, the operations of SACCOs in Uganda will fail to contribute to the social and economic development of people. This is because SACCOs won't support the economic activities of the urban and rural poor people in Uganda. This will lead to the collapse of income-generating activities, and high illiteracy rates because people won't have a place from where to borrow money to educate their children. This challenge will lead to many negative impacts on the life of people such as inadequate sums of credit to impact the growth of borrowers since there may be limited activities carried out in the community due to lack of funding. If this challenge is not solved, most of the credit agencies which provide financial resources to the community will also close hence the collapse of the country's economy. More so, failure to conduct the study may result in poor investment decisions, poor risk management and liquidity among SACCOs and their clients.

1.8 Conceptual Framework

A conceptual framework is an analytical tool with several variations and contexts. It is used to make conceptual distinctions and organize ideas. It refers to a group of concepts that are systematically organized to provide a focus, rationale and a tool for interpretation and integration of information (as cited in Balachander & Soy, 2003).

The conceptual perspective illustrates how the interest rate affects loan repayment in Karugutu cooperative savings and credit. In this framework, it is indicated that Loan repayment (Dependent Variable) is affected by loan repayment period, loan default rate and none non-performing loans. In this situation, the interest rate is measured in percentage and the regular disbursement of loans will depend on the interest rate, loan repayment period, loan default rate and non-performing loans.

It is also believed that constructs such as loan-to-deposit ratio and the total amount deposited measure the level of liquidity risk. The type of loan, repayment schedules and financial distress show the level of multiple loans by borrowers. Risk acceptance levels and characteristics of the borrower also measured the risk analysis and the progress on loan repayment.

1.9 Operational definition of key terms

There are several terms which were used in this study. Their operational definition as per this study is given below;

Interest rate. This is the rate at which interest is paid by the borrower for the use of money that he borrows from the lender.

Loan. This is the amount of money someone borrows from a financial institution.

Repayment. It is the act of taking back the money one has borrowed from a financial institution.

Credit. This is the ability of a customer to obtain goods before payment based on the trust that payment will be made later.

Savings. This is a portion of disposable income not spent on consumption of customer goods but invested directly in capital or paying off a home mortgage.

Cooperatives: These are businesses that are owned and democratically controlled by their members. It is a firm owned, controlled and operated by a group of users for their own benefit.

Defaulter. This is a person who fails to fulfil an obligation especially failure to meet a financial obligation.

Borrow means to take and use something that belongs to someone else to return the same or its equivalent.

Investment is the purchase of goods that are not consumed today but are used in future to create wealth. It is a monetary asset purchased with the idea that the asset will provide income in future.

CHAPTER TWO

Literature Review

2.0 Introduction

This chapter is a review of the literature on the interest rate and loan repayment in savings and credit cooperatives. The variables of the study about interest rate and loan repayment in savings and credit cooperatives relating to the concept of interest rate and loan repayment in savings and credit cooperatives were reviewed relating to the study objectives.

2.1 Theoretical Review

The research will be guided by Fisher's theory of Interest proposed by Irving Fisher which states that; the real interest rate equals the nominal interest rate minus the expected inflation rate. Fishers' theory sees the rate of interest as the part of the paid premium on the lent money to be paid one year later or at a particular date set by the lender in terms of money. Hypothetically, it is claimed that other sorts of goods can be substituted with money. However, to merchandize the present and the future you always need money. The arguments foregoing validate why the interest rate is at most times identified as money price and the market where the future and present money are exchanged for the price or premium is known as money market (Fisher, 1994). Fisher's theory was invented by Irving Fisher in 1930 but has been advanced and criticized by various theorists and scholars ever since (Harrod&Tymoigne, 2016).

It is opined that Fisher's real rate of interest framework is essential for the inflation targeting framework. This is due to the reasoning that it rationalizes the notion that monetary policy ought to be concerned mainly with managing inflation expectations so as to

keep interest rates at a stable level that enhances savings and investment. (Cottrell and Smith, 2013).

In tandem with interest rates MFIs' loan performance, fisher's theory will be employed to explain the relationship between interest rate and loan repayment in cooperative savings and credit in Karugutu town council, Ntoroko district. The researcher opts to use Fisher's theory because it explains the implication of inflation risk premium as a component of interest rates on loan repayment performance. It also has a great relationship about the topic as it explains the link between capital and income being the interest rate whereby the rate of interest is seen as the part of the paid premium on the lent money to be paid one year later or at a particular date set by the lender in terms of money of that rate. The theory has a connection with the study whereby interest rate and loan repayment in cooperative savings and credit contributes to the knowledge and experience of loan repayment from the SACCOs. This gives experience and knowledge about the interest rate and loan repayment in cooperative savings and credit.

The relationship between liquidity risk and loan repayment in financial institutions is often explained through various theoretical lenses, such as the liquidity preference theory, which suggests that investors prefer liquidity and will demand a premium for investments that lock up their funds. For SACCOs, maintaining adequate liquidity is essential to ensure they can meet withdrawal demands and extend new loans. Insufficient liquidity can lead to an inability to meet member withdrawals, thereby affecting the confidence of members and leading to potential liquidity crises.

2.2 Liquidity risk and loan repayment

A study by Mwangi and Muturi (2016) investigated the impact of liquidity risk on the financial performance of SACCOs in Kenya. The researchers found that liquidity risk significantly affects loan repayment rates. SACCOs with higher liquidity are better able to manage loan defaults as they have sufficient funds to cover unexpected shortfalls. Conversely, those with lower liquidity face higher default rates due to their inability to manage cash flows effectively.

Muriuki (2018) explored the relationship between liquidity management and loan repayment among SACCOs in Nairobi County. The study revealed that effective liquidity management practices, such as maintaining optimal cash reserves and diversifying funding sources, significantly improve loan repayment rates. The study concluded that SACCOs that strategically manage their liquidity are better positioned to extend loans and collect repayments efficiently.

In establishing the determinants of loan repayment performance in SACCOs with a particular focus on liquidity risk, Njeru and colleagues found that liquidity risk is a major determinant of loan repayment performance. SACCOs that experienced higher liquidity risk had poorer loan repayment performance due to their inability to manage cash flows effectively. The study recommended that SACCOs should implement robust liquidity management frameworks to mitigate this risk (Njeru et al., 2019).

Effective liquidity management is essential for SACCOs to mitigate liquidity risk. Practices such as maintaining sufficient cash reserves, diversifying investment portfolios, and ensuring a balance between short-term liabilities and liquid assets can enhance the ability of SACCOs to meet loan demands and manage repayments efficiently (Mbeba, 2017).

Regulatory frameworks also play a significant role in managing liquidity risk in SACCOs. Regulatory bodies often set liquidity requirements to ensure that SACCOs maintain a minimum level of liquid assets. Compliance with these regulations helps SACCOs manage liquidity risk effectively, thereby improving loan repayment rates (Waweru&Kalani, 2018).

According to Njogu and Omwaga (2018), the theory about the portfolio is very clear in that the portfolio is termed as quality if the loan repayment rate is correlated to the loan repayment. In Ugandan SACCOs, the portfolio quality has deteriorated leaving them operating in arrears and overdue loan repayments (AMFI report 2018) which is brought about by the short-term and unsecured nature of Micro lending.

According to Largat et al (2013), microloans tend to be more volatile which results in poor repayment due to the weakness in the credit risk management strategies utilized by Institutions. The same reason was reported by (AMFIU 2018) that from 2014 to 2018, SACCOs faced a great challenge in the loan recovery process which declined and dropped by the rate of 38%, Loan standing at 42 %, a drop in profitability was 5%, portfolio raised at a risk to 27% resulting into the drop out of members at a percentage of 31 %. This was caused by the weaknesses in the credit risk management strategies utilized by the institutions and it was concluded that if these challenges are not attended to, the financial sector is likely to fall.

The increasing number of extreme poverty in Uganda has led to the widespread use of SACCOs as they are increasingly prescribed to

have huge potential for poverty reduction (Cons and Paprika, 2008; World Bank, 2012). Uganda is a typical example of a country that mirrors the situation in Sub-Saharan Africa (SSA) in terms of high poverty rates, the dominant and growing presence of microenterprises, and the expanding microfinance industry (Bateman and Chang, 2012).

According to Powers (2015), it must be recognized that the changes in markets, products and service delivery models and technology used in industries have had and will continue to have profound implications on the overall risk of loan repayment of the industries over time. Institutions which provide microfinance services can no longer afford to focus only on credit and liquidity risks on an ad-hoc basis.

2.3 Multiple loans and loan repayment

The study by Gitonga and Mutembei (2022) examines the impact of credit risk identification on loan repayment performance in SACCOs in Imenti South Sub-county, Meru, Kenya. It uses a correlation research design and involves a sample size of 36 respondents. The findings indicate that effective credit risk identification significantly improves loan repayment performance, with a substantial link between the two variables. The study suggests that SACCOs should implement proper credit risk identification practices, including clear risk reporting processes and staff training, to minimize defaults and enhance financial stability.

Mburu, I. M., Mwangi, L. W., &Muathe, S. M. (2020) examined credit management practices and loan performance in Kenyan commercial banks. It offers insights into how multiple loans are managed within SACCOs, impacting repayment rates. Managing multiple loans can be challenging for SACCO members. Studies indicate that without stringent policies and close monitoring, members with multiple loans are more likely to default. However, when properly administered, multiple loans can enhance the profitability of SACCOs by ensuring a diversified loan portfolio and engaging guarantors to minimize defaults.

The study by Rehman and Anwar (2019) explores the mediating role of enterprise risk management (ERM) practices between business strategy and the performance of small and medium enterprises (SMEs), including SACCOs. It emphasizes that effective ERM practices can enhance financial performance by mitigating risks associated with multiple loans. The paper highlights the importance of aligning risk management strategies with business objectives to improve loan repayment rates and overall financial stability.

The relationship between multiple loans and loan repayment rates in Savings and Credit Cooperative Organizations (SACCOs) is a critical area of study due to its implications on financial stability and member welfare. Here's a detailed examination of this relationship. Members with multiple loans may experience a higher debt burden, which can lead to difficulties in meeting repayment schedules. The total repayment amount might exceed their repayment capacity, leading to higher default rates. Some members take multiple loans to consolidate their existing debts. If managed well, this can lead to better repayment rates due to structured repayment plans. However, if mismanaged, it can result in financial distress (Miles et al, 2022).

McIntosh and Wydick (2005) explore the effects of competition among microfinance institutions (MFIs) on the dynamics of

microcredit markets. They examine how increased competition impacts the behaviour of borrowers, particularly in terms of multiple borrowing, and the subsequent effects on loan repayment performance and institutional sustainability. The paper finds that increased competition among MFIs can lead to overlapping borrowing, where clients take loans from multiple MFIs simultaneously. This behaviour is often driven by the need to meet credit demands that exceed what a single MFI is willing to provide. Multiple borrowing can lead to over-indebtedness, where borrowers take on more debt than they can reasonably repay. This situation increases the likelihood of loan default, affecting the repayment performance of loans.

Ayyagari, M., Beck, T., &Hoseini, M. (2016) investigated the phenomenon of multiple borrowing in the context of the Indian microfinance sector. The authors analyze the causes and consequences of borrowers taking loans from multiple microfinance institutions (MFIs) and the subsequent impact on loan repayment performance and the broader microfinance crisis in India. The analysis showed a significant negative impact on loan repayment rates due to multiple borrowing. Borrowers with multiple loans exhibit higher delinquency rates and a greater likelihood of default, contributing to the instability of the microfinance sector.

2.4 Risk analysis and loan repayment

In a study that aimed to examine the relationship between risk management, capital structure, and lending practices at banks. It also explored how banks' approaches to managing risk and structuring their capital affect their lending decisions and the quality of their loan portfolios. The study finds that banks with robust risk management practices are better positioned to manage their lending portfolios effectively. These banks tend to have lower loan default rates and better loan performance. Banks that actively hedge their risks through derivatives or other financial instruments can stabilize their income and continue lending even during economic downturns. Hedging helps in mitigating the adverse effects of economic shocks on the bank's loan portfolio (Acharya, V. V., et al, 2013).

According to Kyamuhunga Final Report Loan product study (2006), many people involved in SACCOs are illiterate or semi-illiterate in addition to employment by unfriendly staff and other factors such as high interest rates, short loan periods, high instalment amounts and disbursements and insufficient loan amounts are some of the factors that lead to poor loan repayment.

Kansiime et al (2018), revealed that the high degree of loan repayment in savings and credit cooperatives is partly attributed to some element of 'forced repayment' imposed on the borrowers, either directly or indirectly.

2.5 Loan default rate and loan repayment

According to Adams and Pschke (2022), high interest rates lead to advanced selection of loan seekers that affect loan repayment. He made it clear that the repayment rate will not be 100% at a positive interest rate. Assuming the project return is very low; borrowing at zero interest will still not make the borrowers capable of repaying the loan. Thus a positive interest rate increases the cost of production which reduces returns from productive activity and promotes loan default among borrowers.

Banach (2019) states that it's expected that as interest rates rise, the default rate also rises as loans become increasingly difficult to repay. Conversely, as interest rates fall, the default rate also falls as loans become increasingly easier to repay

According to the performance monitoring tool 2016/2019 SACCOs in Uganda are reported to continue registering poor financial performance caused by a high loan defaulting rate and portfolios.

Kimando (2012) argues that sometimes customers fail to pay their loans and the charged interest which could be adjusted by waiving accrued interests and temporarily suspending payments. The greatest challenge facing SACCCOs today is the non-repayment of loans borrowed. Credit Reference Bureau in conjunction with financial institutions in Zambia blacklists all defaulters and prevents them from borrowing in the future from any financial institution and small facilities advanced accrue more interest rates and thus a bigger risk of default on loans.

Hoque& Hossain (2018) focused on this issue and successfully tested the association between loan defaults and higher interest rates evidencing their viewpoint using three regression models. They suggested rationalizing of interest rate policy to enhance the repayment capacity of borrowers for lowering the default rates. They found that loan defaults were highly correlated with higher interest rates which increase the debt burden on borrowers and lead to default resulting in capital erosion of SACCOs.

2.6 Non-performing loans and loan repayment

It was noted by Modigliani and Miller(2015)that financial performance and management are considerably related to the interest rate and loan repayment in cooperative savings and credit Institutions.

In tandem with interest rates and MFIs' loan performance, fisher's theory explains the relationship between interest rate and loan repayment in savings and credit cooperative institutions. The theory relates nominal interest to the rate of inflation and the real interest rate. The nominal interest rate is the rate of interest before adjusting for inflation. The real interest rate is the rate of interest after adjusting for inflation.

According to Waithani (2014), interest charges that interest Charges on SACCO Funds have a positive effect on the growth of members' enterprises.

It is acknowledged that the amount of non-performing loans (NPLs) is frequently connected with bank failures and financial crises in both third-world and developed nations. There is enough proof that the financial crises in SACCOs in Zambia were preceded by high nonperforming loans (Warue, 2013).

Espinoza & Prasad (2010) focused on SACCOs-specific factors influencing non-performing loans and their effect on the General Credit Card(GCC) banking system and found that inadequate loan appraisal or lack of thorough assessment of borrowers' creditworthiness contributes to poor loan repayment.

Agbelie (2011) investigated the macroeconomic determinants of loan default in SACCOs through panel regression and panel vector autoregressive models and found that low-income levels of borrowers contribute to high default rates in savings and credit cooperatives.

A hike in interest rates results in deterioration of borrower's repayment capacity and hence the cause of the increase in non-performing loans (Byamukama, 2024)

Armah, G; (2011) concluded that non-performing loans and interest rates have significant relations. Fridson, German & Wu, (1997) as cited in Kaplin, et al. (1999) focused on the correlation between default rates and real interest rates. They argued that financial institutions would run into financial insolvency or bankruptcy in case the return on investment is lower than the cost of capital.

Summary of gaps in literature

Upon reviewing various literature on interest rates and loan repayment, it is evident that there is considerable focus on analyzing loan repayment behaviour in relation to interest rates as well as credit risk management practices. Studies have shown that high interest rates lead to lower rates on loan repayment while effective liquidity risk management strategies can reduce default

rates and improve repayment rates.

However, there is limited research on the risk analysis considerations that influence loan repayment such as the risk acceptance levels, concentration on loans and the characteristics of the borrowers on loan repayment terms and conditions. Additionally, the relationship between multiple loans and loan repayment has been less explored as borrowers with multiple loans may face higher financial strain and the decision-making process around which loan to prioritize remains unrepresented in the literature.

The study will address these gaps by conducting an in-depth analysis of the relationship between risk analysis and loan repayment, credit risk and loan repayment and explore the challenges and opportunities associated with managing multiple loans simultaneously. This research aims to contribute novel insights to lenders and policymakers seeking to enhance loan repayment rates and reduce credit risks in the financial market.

CHAPTER THREE

Methodology

3.0 Introduction

This chapter presents a description of the research methodology followed in collecting data. This chapter covers the research design, location of the study, population of the study, sample size and sampling techniques, data collection methods, instruments that were used, validity, reliability, procedure and finally data analysis techniques.

3.1 Research Design

The researcher used a descriptive cross-sectional and correlational survey research design. A descriptive cross-sectional survey research design involves collecting data at a single point in time from a sample that represents a larger population. The primary goal was to describe the characteristics or features of that population. This design is useful for assessing the prevalence of certain attributes, behaviours, or conditions within a population without trying to establish causal relationships. A correlational survey research design also involves collecting data with a primary focus on identifying and measuring the relationships between two or more variables. This design helped in determining whether and how variables are related but it did not imply causation. Instead, it quantified the strength and direction of the relationship between the variables. The researcher used both qualitative and quantitative approaches to collect data. This design was preferred because it generated quick self-reports from respondents. The qualitative technique was used to study attitudes, opinions and behaviour by gathering, summarizing, presenting and interpreting data Orodho (2004) for clarification purposes while the quantitative technique was used to generate numerical data from the field.

3.2 Study area.

The study was conducted in Karugutu Savings and Credit Cooperative in Karugutu Town Council, Ntoroko District. The reason for choosing Karugutu SACCO for this study is because the cooperative had readily available and reliable data on loan issuance, interest rates, and repayment histories, which is essential for conducting a correlational study and have a sizable membership base that would provide a sufficiently large sample for statistical analysis, enhancing the validity and reliability of the study results. Ntoroko district is bordered by the Democratic Republic of Congo to the West and North, Kikuube district to the North East, Hoima district to the North East, Kabarole district to the South, Bundibugyo district to the South West and Kibaale district to the East. Ntoroko town is approximately 84km northwest of Fortportal City, the regional capital by road. The town of Ntoroko is approximately 144km (89 miles), by road, northeast of Kasese. It is approximately 376km (234 miles), by road, West of Kampala.

3.3 Target population

The study population is composed of 3643 SACCO members, 12 staff, 11 Board members and one area Commercial officer from the district. Therefore, the total target population for this study was 3667. (Karugutu SACCO General meeting Report, 2023).

3.4 Sample size

The sample size was determined according to Krejcie and Morgan (1970) table given the target population of 3667, the sample size of 370 respondents was chosen. There, were 346 SACCO members, 12 staff, 11 board members and one area commercial officer who were engaged to provide data for this study as summarized in Table 3.1 below.

Table 2: Sample Size

Category of Respondents	Target Population (N)	Sample Size	Percentage (%)	Sampling Techniques
SACCO Members	3643	346	6.7	Random Sampling
Staff members	12	12	100	Census
Board Members	11	11	100	census Sampling
Area Commercial Officer	1	1	100	census Sampling
TOTAL	3667	370		

R.V Krejcie & D W Morgan (1970), as cited by Amin. E, (2005).

3.5 Sampling techniques and procedures

Simple random sampling was used to select the SACCO members as it allowed an equal chance of the population to be selected without bias and it was easy to use, (Mugenda 2003).

The census technique was also used to select the staff, the Board members and the area commercial officer as they were able to provide rich information.

The researcher used both purposive and random sampling during data collection. Simple random sampling was used to select Karugutu SACCO members where the researcher requested the list of the SACCO members from Karugutu SACCO chairperson with the help of the loans officer and selected names at random. The loans officer together with the researcher moved from home to home between 8:00 am and 5:00 pm distributing the questionnaires. Every member of the population had an equal chance of being chosen. Purposive sampling was used to select the staff, the area commercial officer and the board members of the SACCO since they were believed to be relevant in the investigation process and were able to give rich information. Board Members were involved in conducting this study as they were the direct subjects in monitoring members' savings, assessment and evaluation and were close to members as far as the saving and loaning process was concerned. The researcher included the staff because they assess borrowers' capabilities, disburse loans and receive the repayments from them. Board Members were involved because they were the proper administrators and they monitor daily SACCO activities. The Area Commercial Officer was involved in the study being a key informant and one of the people who guide in implementing financial policies and providing records that affect the SACCO members and loaning process in KASACCO in Karugutu Town Council, Ntoroko District.

A list of the sampling frame was determined based on the active membership numbers where a list of 3643 members was generated. The sample of SACCO members was achieved using a lottery method where each member on the list was assigned a unique number from 1 to the total population size. The numbers were written on separate slips of paper and the slips were mixed thoroughly in a container. 300 slips were drawn slips from the container without looking to form the sample size for the current study. However, a target sample of 3643 was not achieved due to a limited number of members who attended the survey.

The SACCO members were considered the main respondents because they are great resources in providing real information about the study. A simple random sampling method was used

because it is cheap and convenient in selecting respondents.

3.6 Data collection methods and instruments

The researcher used questionnaires and interview guides as data collection instruments.

3.6.1 Questionnaires

A questionnaire is a data collection instrument used to gather data from a large number of respondents (Kombo and Tromp, 2006). The instrument was preferred because it is flexible to the sample category and easily generated detailed data from the respondents. Questionnaires were used on SACCO members. Both open and closed-ended questions were used in this study. The questions were concerned with the views, opinions and experiences of SACCO members on the problem under study. The questionnaire was self-administered to the members and translated into the local language for those members who are not familiar with English.

3.6.2 Interview Guide

An interview guide is a set of questions that the researcher asks during the interview (Namara, 2009). An interview guide was administered to the key informants (commercial officers, board members and staff members of the SACCO). Interviews are good methods of data collection since they allow the researcher to seek clarification in case he/she does not understand a given concept, something one cannot do in the case of a questionnaire (McLeod, 2014). Interview schedules were administered to the board members, staff members and commercial officers because they gave rich information. Responses given from the interview were noted down.

3.7 Data quality control methods

To ensure the quality of the data, two quality control methods were used in this study. These are; validity and reliability.

Validity

Validity is the accuracy and meaningfulness of inferences, which are based on the research results. Validity is the degree to which the results obtained from the analysis of the data represent the phenomenon under study (Mugenda&Mugenda, 2003). The validity of research instruments was achieved by ensuring that test items covered all objectives and variables of the study. Consultations and discussions with the supervisor were done to establish the content validity.

A content validity test was conducted using the CVI whose formula is:

$$CVI = \frac{\text{Number relevant items (Y)}}{\text{Total Number of Items (N)}} \times 100 = \frac{15}{20} \times 100 = 75\%$$

Where CVI= content validity index/item, Y= number of items in the questionnaire declared by the researcher which was 15 and the supervisor and number of items in the questionnaire which was 20 items. Since the CVI value is 75% which is higher than the recommended 70% in accordance to Amin (2003), then the instruments were declared valid. The instrument was further corrected to remove unworthy items.

Reliability

Reliability refers to the extent to which the instrument measures consistently what it is supposed to measure (Mugenda&Mugenda,2003). Piloting was done to test whether the research instruments were clearly stated and whether they could collect what was supposed to be collected. During piloting, the researcher checked the flow of questions in questionnaires and interviews and whether she would have problems asking questions and filling in questionnaires. The reliability of data was established by applying the questionnaire twice in the same conditions to see if the researcher obtained similar results. This is called test-retest reliability. Reliability was assessed using Cronbach's alpha formula which measures internal consistency reliability;

$$\alpha = \frac{N \cdot C}{v + (N-1) \cdot C}$$

where:

- α is Cronbach's alpha.
- N is the number of items in the test or survey = 20.
- C is the average covariance between item pairs = 0.8.
- v is the average variance of each item = 0.5.

$$\alpha = \frac{20 \cdot 0.8}{0.5 + (20-1) \cdot 0.8} = 0.788$$

Since Cronbach's alpha was approximately 0.79 which was within the **0.70 ≤ α < 0.80 range**; this indicated acceptable reliability.

Random errors arise due to unclear instructions to the respondents, ambiguous questionnaires and attention deficit during interviews. The researcher minimized random errors by cross-checking the questionnaires during piloting.

3.8 Data collection procedure

The researcher obtained an introductory letter from the School of Graduate Studies and Research to introduce her to KASACCO Administrators in Karagutu Town Council, Ntoroko District to allow her to conduct research in their SACCO. The researcher agreed with the SACCO administrators on when to distribute questionnaires to the Board Members and staff and they agreed on

when to interview the SACCO members and the area commercial officer about the intended purpose. The researcher returned to the KASACCO on the agreed dates for data collection.

3.9 Measurement of variables

The variables were measured on the Likert Scale. The agreement and disagreements with statements were rated with 1- Strongly Agree, 2- Agree, 3- Not Sure, 4- Disagree and 5- Strongly disagree.

3.9 Data analysis techniques

Data collected was coded and tested for completeness and then presented by descriptive and inferential statistics using Statistical Package of Social Scientists (SPSS) Version 20 and presented using tables, charts and graphs for easy interpretation and analysis of coded data. Qualitative data was coded for entering into the SPSS software and analyzed using the content analysis technique. Correlation and linear regression analysis were used to establish the relationship between variables. These types of inferential statistics were easy to compute and interpret and they also helped in making conclusions. Descriptive techniques (frequencies and percentages) were employed to analyze field data from questionnaires to assist in the interpretation of data.

3.10 Ethical considerations

According to Mugenda (2003,), ethical considerations are critical for any research. Leedy and Omrod (2005), affirm that most ethical issues in research fall into four categories, protection from harm, informed consent, right to privacy and honesty with professionalism. In this study, ethical guidelines were embraced to ensure that ethical values are not violated. The researcher will establish a report with the respondents ensuring that the purpose of the study and its potential benefits are clearly explained. The research was conducted on condition of confidentiality and anonymity of the respondents. This was done by ensuring that respondents' responses were only used for academic purposes. Further, the respondents' names did not appear anywhere in the data write-up.

3.11 Limitations of the study

Financial constraints. The researcher faced expenses for transport to travel to Karugutu SACCO to collect data. Writing and printing out questionnaires also attracted other costs. However, this was solved by mobilizing funds from different sources to make the study successful.

Delay of respondents. Some respondents could not return the questionnaires in time, some could not understand the questionnaires especially the board members and the staff. Others expected to be paid some money before responding to the questionnaires. The researcher solved this by explaining the consent form to the respondents that there is no direct benefit from the study but the response they give would be relied on by policymakers while implementing some programs that may be of benefit to the saving and credit cooperative.

CHAPTER FOUR

Data Presentation, Analysis and Interpretation

4.1 Introduction

This chapter presents the details of the findings on interest rates and loan repayment in Karugutu Savings and Credit Cooperative in Karugutu Town Council, Ntoroko District. The chapter gives a detailed analysis of both the quantitative and qualitative findings on the relationship between liquidity risk and loan repayment, multiple loans and loan repayment and evaluating the relationship between risk analysis and loan repayment in Karugutu Savings and Credit Cooperatives; in Karugutu Town Council, Ntoroko district.

4.2 Response Rate

The study aimed to survey 370 participants, but only 300 responded, resulting in a response rate of 81.1%. Despite not reaching the initial target, this response rate is sufficient enough to conclude the entire population of savings and credit cooperatives in Karugutu town council, Ntoroko district.

4.3 Background information

Table 4.1: Background characteristics of respondents

Variable List	Categories	Frequency	Per cent
Gender	Female	225	75.0
	Male	75	25.0
Highest level of education	Certificate and Below	270	90.0
	Diploma	28	9.3
	Degree	02	0.7
Age bracket	24 and below	19	6.3
	25 – 30	110	36.7
	31 – 35	35	11.7
	36 – 40	130	43.3
Number of years in the cooperative	Less than 2 years	06	2.0
	2 - 5 years	200	66.7
	5 - 8 years	79	26.3
	8 - 11 years	15	5.0

Source: Field data, 2024

The results from Table 4.1 above show that most participants were females. All participants were educated holding at least a certificate of education. The respondents were of mature age with the youngest aged 24 years. The majority of the respondents were experienced at work.

4.4 Descriptive Analysis

This study employed descriptive statistical methods to depict the relationship between liquidity risk, multiple loans and risk analysis

with loan repayment in Karugutu Savings and Credit Cooperative in Karugutu Town Council, Ntoroko district.

4.4.1. The relationship between liquidity risk and loan repayment in Karugutu Savings and Credit Cooperative.

Participants were requested to express their level of agreement or disagreement on the matters raised regarding liquidity risk and loan repayment in Karugutu Savings and Credit Cooperative. The results are summarized in Table 4.2 below.

Table 4.2: The table shows how liquidity risk influences loan repayment in Karugutu Savings and Credit Cooperative.

Statement	Strongly Disagree (%)	Disagree (%)	Not Sure (%)	Agreement (%)	Strongly Agree (%)
Liquidity Risk	25.0	0.8	6.2	68.1	0.0
1. Loan-to-deposit ratio measures liquidity risk					
2. The larger the disbursement amount, the higher the risk.	23.7	0.0	8.2	68.1	0.0
3. Increasing interest rate on loans lowers loan repayment.	0.1	11.0	0.0	86.7	2.2
4. The more the grace period, the higher the default rate.	0.0	6.7	13.0	80.0	0.3
5. Non-performing loans influence loan repayment.	0.7	22.0	0	77.0	0.4

Source: Field data, 2024

The study found that, the loan-to-deposit ratio measures liquidity risk and that the larger the disbursement amount, the higher the risk as agreed by equally 68.0% of the respondents (Table 4.2). The study also revealed that increasing interest rate on loans lowers loan repayment as suggested by 88.9% of the respondents. It was further revealed by the study findings that the more the grace period, the higher the default rate as supported by 80.3% of the respondents and 77.4% of the respondents were in agreement with the statement that non-performing loans influence loan repayment in Karugutu Savings and Credit Cooperative.

Correlation Analysis

Correlation is a statistical method that assesses the strength and direction of the relationship between two sets of variables. It uses the correlation coefficient to measure the degree of the strength of the relationship, and the sign of the correlation coefficient to determine the nature of the relationship between two numerical variables. Correlations below 0.4 ($0.0 < r < 0.40$) are considered weak, correlations between 0.40 to 0.59 ($0.40 < r < 0.60$) are considered moderate, while correlations above 0.60 are considered strong.

In order to assess whether liquidity risk has a relationship with loan repayment in Karugutu Savings and Credit Cooperatives, the researcher computed a correlation coefficient between liquidity risk and loan repayment and the results were presented in Table 4.3.

Table 4.3: Correlation test of liquidity risk with loan repayment.

		1	2	3	4	5
Liquidity Risk	Pearson Correlation	1				
	Sig. (2-tailed)					
Interest Rate	Pearson Correlation	.514**	.852**	.697**	1	
- 4	Sig. (2-tailed)	.000	.000	.000		
Loan Repayment	Pearson Correlation	.169	.644**	.415**	.611**	1
- 5	Sig. (2-tailed)	.097	.000	.000	.000	

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

The statistical analysis indicates that there is a very weak and insignificant relationship between Liquidity risk and loan repayment ($r = .169$; $p > .05$).

Regression analysis

Multiple regression is a statistical method used to predict how a set of independent variables will influence a dependent variable. In the present study, Beta coefficients were used to measure the degree of influence between liquidity risk and loan repayment and the results are displayed in Table 4.4 below;

Table 4.4: Regression test of liquidity loans with loan repayment.

	Unstandardized Coefficients		Standardized	Sig.	
			Coefficients		
	B	Std. Error	Beta		
(Constant)	1.247	.433	2.883	.005	
Liquidity Risk	.073	.090	.066	.813	.418

R = .657; R Square = .431; Adjusted R Square = .413; Std. Error of Estimate = .47090.

Dependent Variable: Loan Repayment b: Predictors: (Constant), liquidity risk.

The regression results revealed a Beta coefficient of 0.066 (6.6%) which is positive, indicating a positive relationship between liquidity risk and loan repayment. These results mean for every one-unit increase in the liquidity risk assessment, the loan repayment is expected to increase by 0.066 units, holding all other factors constant.

In investigating, the relationship between liquidity risk and loan repayment in Karugutu Savings and Credit Cooperatives, the results from the key informants were presented as;

“...Liquidity risk helps credit officers monitor cash flows, analyse funding sources and develop approaches for loan repayment. Credit officers assess potential liquidity stress scenarios, implement liquidity risk

management frameworks, and establish contingency plans to mitigate liquidity risks...” (Key Informant 1).

In a related interview on the relationship between liquidity risk and loan repayment, one respondent said,

“...Liquidity risk helps to reduce loss resulting from the inability to meet payment obligations in full and on time when they become due. Liquidity risk is inherent to the SACCOs business and results from the mismatch in maturities between assets and liabilities...” (Key Informant 2).

4.4.2 The relationship between multiple loans and loan repayment in Karugutu Savings and Credit Cooperative.

Participants were requested to express their level of agreement or disagreement on the relationship between multiple loans and loan repayment in Karugutu Savings and Credit Cooperative. The results are summarized in table 4.5 below.

Table 4.5: The table shows how liquidity risk influences loan repayment in Karugutu Savings and Credit Cooperative.

Statement	Strongly Disagree (%)	Disagree (%)	Not Sure (%)	Agreement (%)	Strongly Agree (%)
Multiple loans					
1. Different types of loans given to borrowers contribute to repayment failure.	13.0	0.4	0	86.0	0.6
2. Loan defaulting results from inappropriate repayment schedules.	15.0	04	0	84.0	0.5
3. Multiple loans cause financial distress	32	0.0	0	68	0.0

Source: Field data, 2024

The study also agreed that different types of loans given to borrowers contribute to repayment failure as supported by 86.0% of the respondents. The study also revealed that loan defaulting results from inappropriate repayment schedules as agreed by 84.0% of the respondents. However, 68% of the respondents agreed that financial distress results from multiple loans.

Correlation Analysis

To assess whether multiple loans have a relationship with loan repayment in Karugutu Savings and Credit Cooperatives, the Pearson correlation coefficient was computed and the results were presented in Table 4.6 below;

Table 4.6: Correlation test of multiple loans with loan repayment.

		1	2	3	4	5
Multiple loans -1	Pearson Correlation	.199	1			
	Sig. (2-tailed)	.050				
	Pearson Correlation	-.056	.491**	1		
Interest Rate - 2	Pearson Correlation	.514**	.852**	.697**		1
	Sig. (2-tailed)	.000	.000	.000		
Loan Repayment - 3	Pearson Correlation	.169	.644**	.415**	.611**	1
	Sig. (2-tailed)	.097	.000	.000	.000	

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

According to the statistics, there is a strong and statistically significant correlation ($r = .644$; $p < .05$) between the multiple loans and loan repayment. Comparing the associations between multiple loans with loan repayment. The association between multiple risk and loan repayment is stronger.

Regression Analysis

In order to establish how multiple loans vary with loan repayment, the researcher computed a regression analysis and the results were presented in table 4.7 below.

Table 4.7: Regression test of multiple loans with loan repayment.

	Unstandardized Coefficients		Standardized	Sig.	
			Coefficients		
	B	Std. Error	Beta		
(Constant)	1.247	.433		2.883	.005
Multiple Loans	.495	.082	.560	6.019	.001

R = .657; R Square = .431; Adjusted R Square = .413; Std. Error of Estimate = .47090

Dependent Variable: Loan Repayment b: Predictors: (Constant), multiple loans.

The regression results revealed a Beta coefficient of 0.560 (56%) which indicates a positive and moderate effect of the multiple loans on loan repayment. The study also revealed a p-value of 0.001 which is $p < 0.05$ indicating a significant relationship between multiple loans and loan repayment Karugutu Savings and Credit Cooperatives.

Commenting on how multiple risks influence loan repayment, one interviewee said:

"...multiple borrowing has a positive effect on loan repayment and sustainability of SACCOs while others show that it leads to over-indebtedness and consequently default on loan..." (Key Informant 3).

When asked what they have done to ensure that loan repayment is effectively done amongst the SACCO members. The key informant also reveals:

"...multiple risk management builds member trust and significantly improves the rates of loan repayment..."
(Key Informant 4)

4.4.3 The relationship between risk analysis with loan repayment in Karugutu Savings and Credit Cooperatives.

The main respondents were requested to give their views on the relationship between risk analysis and loan repayment in Karugutu Savings and Credit Cooperatives, and their views are presented in Table 4.8 below.

Statement	Strongly Disagree (%)	Disagree (%)	Not Sure (%)	Agreement (%)	Strongly Agree (%)
Risk analysis	14.4	0.0	0	85.0	0.6
1. The SAACO does not give loans to risky members.					
2. The SAACO conducts risk analysis before giving out loans.	18.0	0.0	0	81.0	1.0
3. Before giving out a loan potential, borrowers are evaluated using the 5Cs of credit.	7.2	0.0	12.4	80.4	0.0
4. The SACCO lends the members with a low level of risk	9.3	0.0	14.4	76.3	0.0
5. Borrowers' concentration on loans is a measure of risk analysis.	28.0	0.8	0	71.0	0.2
6. The SACCO offers loans to borrowers in different sectors	18.0	0.5	20.6	60.0	0.8

Source: Field data, 2024

The study findings showed that the SAACO does not give loans to risky members supported by 85.0% of the respondents and 81.5% of the respondents agreed that SAACO conducts risk analysis before giving out loans. It was also revealed by 80.4% of the respondents that before giving out a loan potential, borrowers are evaluated using the 5Cs of credit. It was also revealed that the SACCO lends the members with a low level of risk as supported by 76.3% of the respondents. The study also showed that 71.0% of the respondents agreed that borrowers' concentration on loans is a

measure of risk analysis. It was also established that the SACCO offers loans to borrowers in different sectors as supported by 60.8% of the respondents investigated.

Correlation analysis

To establish the relationship between risk analysis and loan repayment, Pearson correlation coefficients were computed and results were presented in Table 4.9 below.

Table 4.9: correlation test for the relationship between risk analysis and loan repayment.

		1	2	3	4	5
Risk Analysis						
-1	Sig. (2-tailed)	.583	.000			
Interest Rate	Pearson Correlation	.514**	.852**	.697**		1
-2	Sig. (2-tailed)	.000	.000	.000		
Loan Repayment	Pearson Correlation	.169	.644**	.415**	.611**	1
-3	Sig. (2-tailed)	.097	.001	.002	.000	

** . Correlation is significant at the 0.02 level (2-tailed)

The statistical analysis indicates that the correlation between risk analysis and loan repayment is moderate and statistically significant as revealed by $r = 0.415$ and p – value of 0.02 ($p < .05$).

Regression analysis

Regression analysis was further used to measure the influence of risk analysis on loan repayment while utilizing Beta coefficients and significant values as key indicators of associations. The results are summarized in Table 4.10 below.

Table 4.10: Regression test of risk analysis with loan repayment.

	Unstandardized Coefficients		Standardized Coefficients	Sig.
	B	Std. Error	Beta	
(Constant)	1.247	.433	2.883	.005
Risk Analysis	.152	.096	.144	.003

R = .657; R Square = .431; Adjusted R Square = .413; Std. Error of Estimate = .47090

Dependent Variable: Loan Repayment b: Predictors: (Constant), risk analysis.

The study found a Beta value of 0.144 which suggests a modest positive effect. The results meant that as the risk analysis score increased by one unit, the loan repayment outcome improved by 0.144 units. The results were also supported by a significant level of 0.003 which indicates that there is a significant relationship between risk analysis and loan repayment.

In summary, the combined regression analysis results showed a combined impact of interest rates on loan repayment of 43.1%, as indicated by an R Square value of 0.431. The study finds a strong and statistically significant relationship ($r = .611$; $p < .05$) between interest rates and loan repayment in savings and credit cooperatives in Karugutu Town Council in Ntoroko district.

The statistical analysis shows there is a 14.4% positive change in loan repayment for every unit increase in the number of clients

using risk analysis from savings and credit cooperatives in Karugutu Town Council. However, the insignificant value of the test statistic, which is greater than 0.05, suggests that the effect of risk analysis on loan repayment is not statistically significant.

The findings from key informants on whether risk acceptance levels contribute to risk analysis and loan repayment in Karugutu Savings and Credit Cooperatives in Karugutu Town Council. In response, the respondent said:

“...Yes, risk acceptance levels play a crucial role in risk analysis and loan repayment within a cooperative savings and credit organization. Risk acceptance levels directly influence loan repayment strategies and policies by helping in setting loan criteria, tailoring loan products, mitigating potential default risk and ensuring continuous monitoring of loan portfolios...” (Key Informant).

CHAPTER FIVE

Discussion of the Study Findings

5.1 Introduction

This chapter presents the discussion of findings by the study objectives.

5.2 Discussion of study findings

5.2.1 The relationship between liquidity risk and loan repayment

The study findings showed a weak relationship between liquidity risk and loan repayment in Karugutu savings and credit cooperatives. The regression results revealed a Beta coefficient of 6.6% indicating a weak positive relationship between the liquidity risk and loan repayment. These results mean for every one-unit increase in the liquidity risk assessment, the loan repayment is expected to increase by 0.066 units, holding all other factors constant.

The results mean that the impact between liquidity risk on loan repayment is only 6.6%. However, the Beta value was not

statistically significant as revealed by a p-value of 0.418 which is greater than the level of significance 0.05 ($p > 0.05$) indicating that the relationship between liquidity risk and loan repayment is not statistically significant. The findings align with Ameni G. (2017), HasnaChaibi B. (2017) and Mohamed Ali BrahimOmri (2017) who investigated the relationship between credit risk and liquidity risk and its impact on bank stability. Their results showed that credit risk and liquidity risk do not have an economically meaningful reciprocal contemporaneous or time-lagged relationship. However, both risks separately influence bank stability and their interaction contributes to bank instability. Liquidity risk describes the risk that a business will be unable to meet its short-term financial commitments (paying back a bank loan, paying a service provider, salaries, and tax debt. Therefore, accounting liquidity risk usually describes the risk of cash flow issues, which is the inability to meet one's short-term (less than one year) financial commitments. Such issues may result in payment defaults on the part of the business in question, or even in bankruptcy.

The study results also showed that to deposit ratio measures liquidity risk and that the larger the disbursement amount, the higher the risk as agreed by equally 68.0% of the respondents. According to Stuart (2019), Liquidity risk is the risk that a bank will not be able to meet its short-term financial obligations due to an inability to convert assets into cash quickly without a significant loss in value. Based on this definition, the results mean that the loan-to-deposit ratio (LDR) indicates how well SACCO can cover its loan commitments with its deposit base. Essentially, it reflects the proportion of the SACCO's deposits that have been lent out. A high LDR (typically above 80-90%) suggests that a SACCO has lent out a large portion of its deposits, leaving it with fewer liquid assets to cover withdrawals or other short-term obligations for an SACCO might struggle to meet sudden withdrawal demands. This can lead to a liquidity crunch if the SACCO cannot quickly liquidate enough assets to cover the outflows.

A low LDR (typically below 70-80%) indicates that a SACCO has retained a larger portion of its deposits as liquid assets and that suggests inefficiency and missed opportunities for income generation. Therefore SACCOs must aim for an optimal LDR that balances profitability and liquidity. The loan-to-deposit ratio is a crucial indicator of a bank's liquidity risk, highlighting the balance between utilizing deposits for loans (which generate income) and maintaining sufficient liquid assets to meet withdrawal demands and other obligations. A well-managed LDR reflects a bank's ability to effectively balance profitability with liquidity risk.

The study also revealed that increasing interest rate on loans lowers loan repayment as suggested by 88.9% of the respondents. When interest rates increase, the monthly payments on variable-rate loans (such as adjustable-rate mortgages, credit card balances, and some personal loans) also increase. Borrowers must pay more in interest, leading to higher overall repayment amounts. A larger portion of each payment goes toward paying interest rather than reducing the principal, which can extend the loan term or require larger payments to pay off the loan in the same period.

It was further revealed by the study findings that the longer the grace period, the higher the default rate, as supported by 80.3% of the respondents. The result indicates a positive relationship between the length of the grace period and the loan default rate. The results agree with (Boussada, Hakimi and Karmani, 2020) findings the longer the grace period allowed before loan repayments begin, the higher the likelihood of borrowers defaulting on their loans. Longer grace periods might reduce the immediate pressure on borrowers to start repayments, potentially leading to complacency or financial mismanagement, thereby increasing the default rate. This suggests that the cooperative may need to reconsider its grace period policies to mitigate the risk of defaults.

In terms of non-performing loans and loan repayment, 77.4% of the respondents were in agreement with the statement that non-performing loans influence loan repayment in Karugutu Savings and Credit Cooperative. A significant majority of respondents believe that non-performing loans (NPLs) have an impact on the overall loan repayment process. NPLs are loans in which the borrower is not making interest payments or repaying any principal. These results concur with the global reports by Nadebu Philbert Caleb et al, (2023) indicate that of the loans disbursed in the United States of America, 45% of borrowers default on

repayment, 60% of whom eventually end up as non-performing. Sometimes the presence of NPLs can strain the cooperative's financial health, potentially leading to stricter lending criteria and reduced liquidity. This consensus among respondents suggests that managing and reducing NPLs is crucial for improving the loan repayment performance of the cooperative.

The results also showed that liquidity risk helps reduce loss resulting from the inability to meet payment obligations in full and on time when they become due and is used by credit officers to monitor cash flows, analyse funding sources and develop approaches for loan repayment. However, the findings in the current study were contrary to studies done on MFBs in Kenya by Beck, Jakubik and PiloIU 2015; Nadebu Philbert Caleb, Mule Robert Kisavi and Nyongesa DestaingsNyenyi, 2023) that showed that a unit change in liquidity management results into 2.01% significant change in loan repayment ($\beta=0.020110$, $p=0.0085$) with $R^2=82.7\%$. From the results, the relationship between liquidity risk and loan repayment was positive and significant but weak. The change in results could be due to reliance on strict management of internally generated and external funding of MFBs from the Kenyan government and other supportive agencies which Karugutu Savings and Credit Cooperatives have not accessed.

5.2.2 The relationship between Multiple Loans and loan repayment

The study results revealed a significant relationship between multiple loans and loan repayment, with a p-value of 0.001. This indicates that the relationship is statistically significant (since $p < 0.05$), meaning the effect of multiple loans on loan repayment is unlikely due to chance. The results also showed a regression Beta coefficient of 0.560 (56%) which indicates a positive and moderate effect of the multiple loans on loan repayment in Karugutu Savings and Credit Cooperatives. This means that as the number of multiple loans increases, the likelihood or extent of loan repayment also increases. The 56% Beta coefficient signifies that for every one-unit increase in multiple loans, there is a 56% increase in the repayment behaviour, indicating a substantial impact. Borrowers with multiple loans might prioritize repayments to maintain their creditworthiness or access to further credit. This behaviour could be due to the pressure to manage multiple financial obligations or incentives provided by the cooperative. Offering multiple loans might lead to better repayment rates, possibly due to the borrowers' need to maintain good standing with the cooperative.

These results concur with Faruqee et al. (2011) and Kipyego and Wandera (2013) who found that borrowing from multiple sources can exacerbate credit default risks, especially when financial institutions lack the means to share credit information effectively. This aligns with the study's finding that multiple loans significantly influence loan repayment performance. The results also concurred with Iqbal, Rao, and Ahmad (2024) who investigated the impact of multiple borrowing on loan repayment performance in the context of Pakistani microfinance banks and found a direct impact of multiple borrowing on client-business performance (CBP).

Their findings indicated that while multiple borrowing alone might not directly affect loan repayment, its impact on business performance indirectly influences repayment capabilities. This study also explored the moderating effects of the COVID-19 pandemic, providing a nuanced view of how external factors can

alter the relationship between multiple loans and repayment performance and the relationship between multiple loans and repayment performance was statistically significant. However, the current results contradict Goodluck Charles and Neema Mori's (2017) findings who reported that clients with multiple loans are associated with poor loan repayment due to increased debt levels, highlighting a negative aspect of multiple borrowing which can lead to repayment issues. The findings also noted that progressive lending improves repayment outcomes, suggesting that structured and informed borrowing can mitigate some risks associated with multiple loans.

While the studies mentioned generally support the relationship between multiple loans and repayment performance, they highlight different dynamics, such as the role of information asymmetry, credit rationing, and the importance of progressive lending and structured borrowing. These nuances provide a broader understanding of the context-specific nature of multiple borrowing's impact on loan repayment. This means that SACCOs should as well operate their credit businesses based strictly on the established lending guidelines that outline the business growth priorities of the senior management, as well as the conditions to satisfy to qualify for loan approval; and that there should be prior customer evaluation before accessing the loan. The high percentage suggests that multiple loans have a significant role in explaining variations in loan repayment.

5.2.3 The relationship between risk analysis and loan repayment

The study results showed that there is a significant relationship between risk analysis and loan repayment as evidenced by a significant level of 0.003 and a Beta value of 0.144 which suggests a modest positive effect. The results meant that as the risk analysis score increased by one unit, the loan repayment outcome improved by 0.144 units. A Beta value of 0.144 in the relationship between risk analysis and loan repayment in a bank indicates a modest positive effect, meaning that better risk analysis (higher scores) is associated with better loan repayment outcomes. A small increase in the risk score leads to a slight improvement in the repayment performance, possibly due to more stringent loan approval criteria or better risk management practices. If a borrower's risk analysis score increases by 1 point, their loan repayment performance improves by 0.144 units. This could mean a higher likelihood of timely repayment or a higher repayment amount. If the risk analysis score ranges from 0 to 100, an increase from 50 to 51 in the risk score would be associated with a 0.144 unit improvement in the loan repayment metric. The significant level of 0.003 suggests that there is a significant relationship between risk analysis and loan repayment.

The current results align with the findings of a study on micro and small enterprises in Dire-Dawa, Ethiopia, which found a positive relationship between risk management factors and loan repayment. Among the risk factors assessed were grace period, loan size and timeliness. The results revealed that loan repayment period, grace period, and timeliness of loan release have a statistically significant relationship on the loan repayment performances of borrowers. Loan size has a statistically insignificant relationship with the loan repayment performance of borrowers. Timeliness of loan release and the repayment period were significant factors influencing loan repayment rates. This aligns with the positive relationship indicated in the current study, suggesting that effective risk

analysis contributes to better loan repayment outcomes (YitbarekKiros, 2023). It is important to note, however, that SACCO lending may not ensure high repayment rates at all times. When loans are received based on joint liability, the risk of loan default by a particular member is shared by his/her peers. It may also be that the borrower's assessment of his or her peer's likelihood of defaulting triggers the borrower's own decision to default. Also, SACCOs beyond a certain size may experience increased difficulty in communication and coordination so that both information and monitoring advantages of the SACCO are dilute (Manohar & Zeller, 1997). And also, the lenders cannot observe the behaviours of their clients whether they are honest or dishonest. They only observe the outcome, whether the clients repay or not. Hence, the loan repayment problem is one of the critical issues of SACCOs that cause failure of SACCOs.

The results are also supported by research on commercial banks in Nepal indicated that effective credit risk management significantly impacts bank performance, including loan repayment. This study highlighted the importance of systematic risk management in maintaining loan quality and repayment rates, supporting the modest positive effect of risk analysis on loan repayment as seen in the current study findings (Tribhuvan Kumar Bhatt and Muhammad Babar Iqbal, 2023). To guarantee that the borrower can return the whole loan amount on time without missing any payment dates, the lender must undergo a credit evaluation procedure. This is incredibly important for SACCO because it influences the firm's capital and interest revenue (Ahmadyan 2018). This indicates that every type of loan application must go through a loan evaluation process. The preferred maturity period should be specified, the maximum suitable amount must be indicated, and insurance coverage must be obtained for the loan. Loans may generally be secured by collateral, and approval channels should be documented and approved by the relevant officers. This is because weak loan policies and short-sighted credit analysis can have a large negative impact on the profitability and performance of SACCO.

Even though, the study findings showed that there is a 14.4% positive change in loan repayment for every unit increase in the number of clients using risk analysis from savings and credit cooperatives in Karugutu Town Council, the test statistic showed a p-value slightly greater than 0.05. This suggested that the risk analysis on loan repayment was not statistically significant. The results contradicted (Enock Omwenga Okero and Fredrick Warui Waweru, 2023) findings that were undertaken to probe how credit risk assessment affects loan repayment in development financial institutions, with Kenya Industrial Estates Ltd as a case study. The regression analysis suggested that borrowers' character and capacity positively and significantly affected loan repayment and concluded that risk analysis has a profound effect on loan repayment. The change in results can be explained by Kyamuhunga's study (2006), which found that many people involved in SACCOs are illiterate or semi-illiterate and may not understand all elements of risk analysis. The study further stated that other factors such as high interest rates, short loan periods, high investment amounts and disbursements and insufficient loan amounts are some factors that lead to poor loan repayment.

However, results from key informants revealed that risk analysis plays a crucial role in loan repayment within a cooperative savings

and credit organization. Adding "risk acceptance levels" directly influences loan repayment strategies. Policies by helping the setting of loan criteria, tailoring loan products, mitigating potential default risk and ensuring continuous monitoring of loan portfolios. This means that by assessing credit risk, banks can maximize their profits by extending credit to only those borrowers most likely to

pay them back and reduce their losses by not extending credit to those who may default on their loans. Therefore financial institutions need to screen borrowers' credit history and debt-to-income ratio thoroughly before advancing loans to improve loan repayment.

CHAPTER SIX

Conclusion and Recommendations

6.1. Introduction

This chapter presents the conclusion and recommendation based on the research findings. The conclusion and recommendations are presented in accordance with the study-specific objectives.

6.2 Conclusions

6.2.1 The relationship between liquidity risk and loan repayment

The study results revealed a weak positive relationship between liquidity risk and loan repayment. Liquidity risk management is a crucial factor in interest rate determination and influences loan repayment. The results of the study showed that while liquidity risk has a weak positive effect on loan repayment in Karugutu Savings and Credit Cooperatives, focusing solely on liquidity risk is not enough. A more holistic and integrated approach to risk management and borrower support is essential for enhancing loan repayment rates and ensuring the financial stability of the cooperative. This finding implies that while liquidity risk management is important, it alone may not be sufficient to ensure improved loan repayment rates. The cooperative might need to focus on other risk factors or borrower-specific conditions to enhance repayment performance. Effective liquidity risk management is still crucial as it ensures the cooperative's ability to meet short-term obligations. However, the weak relationship with loan repayment suggests that the cooperative should also consider other types of risks (e.g., credit risk, operational risk) in their overall risk management strategy.

6.2.2 The relationship between multiple loans and loan repayment

The study confirms a significant positive relationship between multiple loans and loan repayment in Karugutu Savings and Credit Cooperatives. This finding highlights the importance of understanding borrower dynamics and leveraging this knowledge to enhance loan repayment rates. The study findings confirm that multiple loans have a meaningful impact on loan repayment behavior suggesting that borrowers who take multiple loans are more likely to repay their loans effectively, possibly due to better financial management or increased motivation to maintain good credit standing. It is essential, however, to ensure that the borrowers do not become over-leveraged, which could lead to repayment difficulties in the long term. By implementing targeted strategies and providing adequate support, the cooperative can optimize its loan portfolio and improve financial outcomes for both the institution and its members.

6.2.3 The relationship between risk analysis and loan repayment

The study confirms a significant and modest positive relationship between risk analysis and loan repayment in Karugutu Savings and Credit Cooperative. This finding highlights that risk analysis is an important factor influencing loan repayment behaviour. This implies that thorough and effective risk analysis can enhance the likelihood of loan repayment. The findings also showed that while risk analysis has a positive impact on loan repayment, the effect is modest. This means that improvements in risk analysis can lead to better loan repayment outcomes, but the effect size is not large. The findings suggest that incorporating comprehensive risk analysis into their lending practices can help improve loan repayment rates. However, since the effect is modest, it should be part of a broader strategy to enhance loan performance. By integrating comprehensive risk management strategies and continuously improving risk analysis procedures, the cooperative can optimize its loan portfolio and achieve better financial outcomes for the institution and its members.

6.3 Recommendations

Based on the study findings, the researcher recommends the following;

6.3.1 The relationship between liquidity risk and loan repayment

The management at Karugutu Savings and Credit Cooperatives should ensure holistic risk assessment. They should implement a comprehensive risk management framework that includes not only liquidity risk but also credit risk, operational risk, and market risk. This broader approach can provide a more accurate assessment of factors affecting loan repayment.

The management of Karugutu Savings and Credit Cooperatives should enhance credit evaluation. Strengthening credit evaluation processes will help to better assess the repayment capacity of borrowers. This could involve a more detailed analysis of borrowers' financial health and repayment history.

The management of Karugutu Savings and Credit Cooperatives should introduce borrower support programs for borrowers facing repayment difficulties. These financial education and advisory services will help borrowers manage their finances better and improve their ability to repay loans.

The management should develop diversified risk mitigation strategies. Exploring and implementing various risk mitigation

strategies, such as credit guarantees, insurance products, and diversification of the loan portfolio will help to spread and manage risk more effectively.

6.3.2 The relationship between multiple loans and loan repayment

The cooperative might consider policies that support responsible borrowing and ensure that borrowers do not over-extend themselves, while still providing access to multiple loans for those who can manage them effectively.

Credit officers should provide monitoring and support for multiple loan borrowers. They should implement monitoring systems to track the repayment behaviour of borrowers with multiple loans. Providing financial education and support can help these borrowers manage their debts effectively.

The management of Karugutu Savings and Credit Cooperatives should introduce risk management strategies. Develop risk management strategies that account for the possibility of over-leveraging. This includes setting limits on the number of concurrent loans a borrower can have based on their repayment history and financial stability.

Credit officers should design loan products tailored to the needs of borrowers who require multiple loans. These products can include features such as flexible repayment schedules or consolidation options to ease the repayment process.

6.3.3 The relationship between risk analysis and loan repayment

Karugutu Savings and Credit Cooperatives should invest in advanced risk assessment tools and methodologies to improve the accuracy and effectiveness of risk analysis. This could include adopting machine learning algorithms or more detailed financial analysis techniques.

Karugutu Savings and Credit Cooperatives should combine risk analysis with other borrower-specific factors such as credit history, income stability, and economic conditions to develop a holistic approach to loan approval and monitoring.

Karugutu Savings and Credit Cooperatives should provide training for staff on advanced risk analysis techniques and the importance of comprehensive risk management in improving loan repayment rates.

Karugutu Savings and Credit Cooperatives should regularly review and update risk analysis procedures to ensure they remain effective in the changing financial environment. Adapt strategies based on feedback and observed outcomes to continuously improve loan repayment performance.

6.4 Recommendations for further research

Further research could explore other variables that significantly impact loan repayments, such as borrower characteristics, economic conditions, and the effectiveness of different risk management practices. Additionally, comparative studies with other cooperatives or financial institutions could provide more insights into best practices for improving loan repayment performance.

Further research could explore the reasons behind the positive relationship between multiple loans and loan repayment. Studies

could examine borrower characteristics, financial behaviours, and the economic context to provide deeper insights. Additionally, comparing these findings with cooperatives or financial institutions can help identify best practices and areas for improvement.

Further research could explore the impact of different types of risk analysis methods on loan repayment. Additionally, studying the interaction between risk analysis and other factors influencing loan repayment could provide deeper insights. Comparative studies with other cooperatives or financial institutions can also help identify best practices and areas for improvement.

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APPENDIX A: Questionnaire for Respondents (staff)

Dear respondent, I am MBAMBU JANNET a student of the School of Graduate Studies and Research, Team University pursuing a Degree of Master of Science in Finance under the topic "Interest rate and loan repayment in savings and credit cooperative in Karugutu Town Council, Ntoroko District"

You have been randomly selected to participate in this study and your participation is voluntary. I kindly request you to answer the questions asked in this questionnaire by ticking the box provided. The information is basically for academic purposes only.

Instructions

1. Tick the correct answer among the alternatives.
2. Fill in the blank spaces with the appropriate answer.

SECTION A: Social Demographic Characteristics. (Tick where appropriate)

SECTION A: BACKGROUND INFORMATION OF THE RESPONDENTS

(Please tick in the most appropriate box)

1. Age bracket

- | | | | |
|----------|--------------------------|-----------------|--------------------------|
| a. 18-25 | ☐ | d. 46-55 | ☐ |
| b. 26-35 | ☐ | e. 56-65 | ☐ |
| c. 36-45 | ☐ | f. 66 and above | ☐ |

2. Gender

- a. Male b. Female

☐
☐

3. Education Level

- a. No formal education c. Secondary

b. Primary d. Tertiary

☐
☐
☐
☐

4. Marital Status

- a. Single c. Married

b. divorced/separated d. Other

☐
☐
☐
☐

5. Occupational status

- a. Beneficiaries

b. employees

☐
☐

PART ONE OF SECTION B (staff)

The section is divided into three subsections; liquidity risk, multiple loans and risk analysis.

In the information below, choose or tick the right answer that fits your opinion.

SA- Strongly Agree, A- Agree, D- Disagree, SD-Strongly Disagree

	Liquidity risk	SA	A	D	SD
1	loan to deposit ratio measures liquidity risk				
2	The larger the disbursement amount, the higher the risk				
	Multiple loans	SA	A	D	SD
3	Different types of loans given to borrowers contribute to repayment failure.				
4	Loan defaulting results from inappropriate repayment schedules.				
5	Financial distress results from multiple loans.				
	Risk analysis				
6	The SAACO does not give loans to risky members.				
7	The SAACO conducts risk analysis before giving out loans.				
8	Before giving out a loan potential, borrowers are evaluated using the 5Cs of credit.				
9	The SACCO lends members with low levels of risk.				
10	Borrowers' concentration on loans is a measure of risk analysis.				
11	The SACCO does not take into consideration concentration risk before using loans.				
12	The SACCO offers loans to borrowers in different sectors.				
13	The financial discipline of borrowers is a measure of risk analysis	SA	A	D	SD
	Dependent variable: loan repayment				
14	Change in interest rate on loans affects loan repayment.				
	Loan default increases with interest rate.				
15	The more the grace period, the higher the default rate.				
16	Loan defaulting affects loan repayment.				
17	Non-performing loans influence loan repayment.				

PART ONE OF SECTION B (SACCO Members)

The section is divided into three subsections; liquidity risk, multiple loans and risk analysis.

In the information below, choose or tick the right answer that fits your opinion.

SA- Strongly Agree, A- Agree, D- Disagree, SD-Strongly Disagree

	Liquidity risk	SA	A	D	SD
1	The amount of deposit I hold with the SACCO determines the amount of loan I can borrow.				
2	Large loan amounts are hard to pay.				

	Multiple loans	SA	A	D	SD
4	Multiple loans increase the rate of loan default				
5	The SACCO does not allow to give more than one loan.				
6	I acquire multiple loans when financially distressed.				
7	Loan defaulting has been caused by high interest rates.				
8	Multiple loans are determined by financial distress.				
	Risk analysis				
9	Risk acceptance levels are a measure of risk analysis.				
10	The SACCO requires collateral before giving a loan.				
11	The SACCO assesses the capital base of my business before granting me a loan.				
12	Borrowers' concentration on loans is a measure of risk analysis.				
13	The SACCO has never denied me a loan because of the type of business I am engaged in				
14	The financial discipline of borrowers is a measure of risk analysis	SA	A	D	SD
	Dependent variables: loan				
15	I often delay paying my loan because of high interest.				
16	A higher loan default rate affects loan repayment.				
17	I have defaulted on my loan repayment because it is of huge amount.				

APPENDIX B: Interview Guide for the Board Members

How long have you worked with Karugutu Savings and Credit Cooperative?

.....

Do you have any liquidity risk management strategies in place?

.....

If yes, what are they?

.....

Do you think liquidity risk has contributed to loan repayment?

.....

Has loan defaulting been caused by a high interest rate hence affecting the loan repayment schedule?

.....

How do multiple risks influence loan repayment in your SACCO?

.....

Do you think loan defaulting may lead to poor loan repayment in Karugutu co-operative savings and credit?

.....

Do risk acceptance levels contribute to risk analysis and loan repayment in Karugutu cooperative savings and credit?

What have you done to ensure that loan repayment is effectively done amongst the SACCO members?

Suggest some of the ways the government has done to support arugula savings and credit cooperatives.

APPENDIX III: SAMPLE SIZE DETERMINATION TABLE BY KREJCIE AND MORGAN

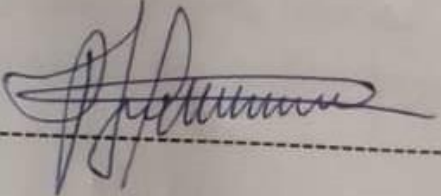
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2,800	338
15	14	110	86	290	165	850	265	3,000	341
20	19	120	92	300	169	900	269	3,500	346
25	24	130	97	320	175	950	274	4,000	351
30	28	140	103	340	181	1,000	278	4,500	354
35	32	150	108	360	186	1,100	285	5,000	357
40	36	160	113	380	191	1,200	291	6,000	361
45	40	170	118	400	196	1,300	297	7,000	364
50	44	180	123	420	201	1,400	302	8,000	367
55	48	190	127	440	205	1,500	306	9,000	368
60	52	200	132	460	210	1,600	310	10,000	370
65	56	210	136	480	214	1,700	313	15,000	375
70	69	220	140	500	217	1,800	317	20,000	377
75	63	230	144	550	226	1,900	320	30,000	379
80	66	240	148	600	234	2,000	322	40,000	380
85	70	250	152	650	242	2,200	327	50,000	381
90	73	260	155	700	248	2,400	331	75,000	382
95	76	270	159	750	254	2,600	335	100,000	384

Source: from R. V Krejcie and D.W. Morgan (1970), as cited by Amin E. (2005): primary data 2024.

N- Number and S- Sample size.

APPROVAL

This dissertation has been submitted in partial fulfillment of the requirement for the Degree of Team University Uganda, with my approval as a supervisor.

Sign  _____

Date 28/9/2024

Research Supervisor

Date.....