INTEREST RATE AND LOAN PORTFOLIO PERFORMANCE OF COMMERCIAL BANKS IN UGANDA: CASE OF STANBIC BANK

BY

MWEBESA SAMSON

2020/A/MBA/1910/W

A DISSERTATION SUBMITTED TO THE DIRECTORATE OF POST GRADUATE STUDIES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF BUSINESS ADMINISTRATION OF KABALE UNIVERSITY

APRIL, 2023

DECLARATION

I hereby declare that this dissertation titled **Interest rate and loan portfolio performance of commercial banks in Uganda: Case of Stanbic Bank** represents my original work and has not been previously included in a study or dissertation submitted to this or any other institution for a degree, diploma or other qualifications.

Signature:………………………………… Date:………………………………………

Mwebesa Samson

APPROVAL

This study titled,**Interest rate and loan portfolio performance of commercial banks in Uganda: Case of Stanbic Bank** has been submitted in partial fulfilment of requirements for the Master of Business Administration at Kabale University.

Signature …………………………… Date ………………………………

Principal Supervisor Dr AbanisTuryahebwa

Senior Lecturer, Kabale University

Signature ………………………………. Date………………………………….

Co- Supervisor: Miss MiriaNyangoma

Assistant Lecturer, Kabale University

DEDICATION

This research work is dedicated to my Mum Mrs BatabaraAnnah,mydear wife Mrs Nankunda Oliver Mwebesaand my children OwokundaShanel, Oyesigye Shield, Ohereza Shalom, Abaho Sheldon Jenkins whose prayers and support made this submission a reality. God reward you immensely!

ACKNOWLEDGEMENTS

First and foremost, I thank the almighty for allowing me to reach this far particularly the completion of this research dissertation.

I also acknowledge this piece of work to the family of the late BanyijusyaGershomKanunu for their moral uplift, prayers and encouragement during my whole life struggles. Thank you, the sky is the limit.

Special thanks also go my academic supervisors Dr AbanisTuryahebwaandMiss MiriaNyangomafor their parental piece of advice, patience and commitment during my dissertation writing.

I wish to acknowledge my report to my friends; Dr Arthur Sunday, Patrick Baguma, Kasozi Richard, Tukundande Gerald, TiberondwaAmon, Moses Byaruhanga and Mugume Herbert, for academic advice, discussions and company during my study. Thank you and God bless you.

Finally my felt thanks go my beloved respondents from Stanbic Bank that presented maximum cooperation through responding positively to the study tools during the process of data collection. Without your input, this research wouldn't be a success.

May the Almighty God the owner and giver of everything, in his faithful way reward you all.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

ACCA	Association of Certified Chartered Accountants
BOU	Bank of Uganda
CRB	Credit Reference Bureau
FIA	Financial Institutions Act
GDP ratio	Gross Domestic Ratio
GNPA ratio	Gross Non-Performing Asset Ratio
LPM	Loan portfolio management
MDI	Micro Deposit taking Institutions
MFIs	Microfinance Institutions
MFPED	Ministry of finance planning and economic development
NPL	Non-Performing Loan
SACCO	Savings and Credit Cooperative Associations

ABSTRACT

The study was about interest rate and loan portfolio performance of commercial banks in Uganda with a reference to Stanbic Bank, Kampala. The major objective of the study was to establish the relationship between interest rates and loan performance in commercial banks in Uganda. The specific objectives were to establish the effect of central bank rate on loan performance in Stanbic Bank, Kampala head office; to investigate the effect of prime lending rate on loan performance of commercial banks in Uganda; and, to establish how collateral affect portfolio performance in commercial banks. The study adopted a cross-sectional design. The study population included Credit Officers, Client Relationship Managers, Credit Evaluation Managers, and Branch managers. A sample of 108 units was selected from 150 units using both simple random and purposive sampling techniques. Data were collected using self-administered questionnaires, and personal interviews. Data were analysed using multiple regression, aided by SPSS version 23. The findings show that the effect of prime lending on loan portfolio performance is that Central bank rate and collateral security have non-significant effects on loan portfolio performance. The study concludes that commercial banks in Uganda that vary their interest rates show superior loan portfolio performance.Byimplication, interest rates remain a key driver of portfolio performance. From a policy perspective, commercial banks should empower their credit officers with knowledge of the portfolio's composition and its inherent risks. This can guide customers on the time of loan application as well as during the time of loan portfolio monitoring.

CHAPTER ONE

INTRODUCTION

1.1   Introduction

The purpose of this research was to investigate the correlation between interest rates and loan portfolio performance at Stanbic Bank in Uganda. This chapter provides an overview of the study, including the background, problem statement, research objectives, research questions, scope, significance, and conceptual framework. The study analyzed the impact of lending interest rates on the bank's loan portfolio performance, and evaluated how the bank manages its loan portfolio to ensure compliance with regulatory requirements and maintain satisfactory limits. Additionally, the study investigated how the bank handles problem loans through rescheduling and restructuring to enhance performance. The research covered the period from 2017 to 2020, although previous periods were also considered for proportional purposes.

1.2   Background of the study

1.2.1   Historical Perspective

Loan portfolio performance management has a historical background dating back to the 1920s, where American banks aimed to increase their asset risk and capital while minimizing deposit default risk. However, in the early 1930s, banks faced pressure from depositors to decrease deposit risk due to high loan losses and expensive capital raising costs. Consequently, banks lowered dividends and avoided new stock offers to keep their capital low, leading to a gradual decrease in loan availability to mitigate depositor risk and prevent withdrawals. This approach indicates that a lack of capital contributed to loan portfolio risk during the Depression era, but it remains unclear what factors drove loan portfolio risk in the post-Depression period.

Although careful loan approval and monitoring have always been crucial to managing loan portfolios, previous credit issues have highlighted the importance of taking additional measures. This includes considering credit risk management not only for individual loans, but also for specific portfolio segments and the overall portfolio. In the past, banks focused on monitoring specific loans while managing overall credit risk, but the credit crises of the 1980s revealed that this approach alone was insufficient in preventing such crises. As a result, incorporating a portfolio approach to risk management, in addition to traditional risk management techniques, may be necessary to reduce losses

Loan portfolio management involves the management and control of the risks associated with the credit process, which includes planning for the loan portfolio, customer screening, and credit risk management. The loan portfolio consists of individual loans held by a bank or finance company at a specific time. Customer screening requires an assessment of the financial stability and ability of loan applicants to repay the loan. Banks must have a thorough understanding of critical factors such as the client's financial strength, credit score history, and evolving payment patterns to reduce the risk of bad debt and overexposure.

Banks are financial establishments that conduct various activities such as lending, borrowing, issuing, exchanging, receiving deposits, safeguarding, and managing money according to the regulations and laws of their respective countries. A bank's loan portfolio is a significant source of revenue, but it also poses a substantial risk to the bank's stability and security. Throughout history, loan portfolio problems have been a primary cause of bank losses and bankruptcies. These issues result from various factors such as lack of oversight, relaxed credit standards, inadequate management of portfolio risk, or economic downturns.

Efficiently managing a bank's credit function and loan portfolio is vital for its successful and safe operation. Evaluating a bank's risk management during the credit process is a critical component of Loan Portfolio Management (LPM) assessment. Abass and Khan (2020) suggest that identifying and managing risks associated with groups of loans is equally important to managing risks associated with individual loans. Various factors such as GDP, inflation, unemployment, deposit volume, return on equity, return on assets, capital adequacy, total loans, liquidity, bank size, excessive lending, interest rates, brand reputation, and others can influence loan performance.

Loan portfolio planning, customer screening, and credit risk control are crucial for banks to achieve their desired performance, which includes loan interest installment, loan reimbursement, realized profitability, and fulfilling client objectives. As banks rely on interest revenues for funding, efficient loan portfolio management is critical for their profitability and stability. Therefore, it is crucial to have an effective loan portfolio management system. The portfolio management team must have a solid foundation in credit handling and possess expertise in quantitative analytics, marketing, and other related fields.

Effective management of a bank's loan portfolio is critical for the bank's profitability, and it is essential to monitor and evaluate the factors that affect the effectiveness of loan portfolio

management. The loan portfolio is the primary source of income for banks, and the failure of the loan staff to address performance issues can result in significant losses for the bank. Proper credit risk management and administration methods can minimize poor loan performance and improve the bank's profitability.

In East Africa, Kenya has a higher interest rate spread compared to Tanzania but a lower one compared to Uganda. The reason for this is that Kenyan banks charge higher interest rates to risky borrowers in anticipation of potential defaults, and they factor in loan loss provisions in their interest rate calculations, according to Hamid (2011). Overhead expenses, taxes, and required reserves are also considered in interest rates in Kenya.

Akhtar, et al. (2009) suggest that a wide interest rate spread in Kenya could be a sign of either inefficiencies in the banking sector or an indication of financial development. On the other hand, Chepkorir, et al. (2018) attributed the banking failures in Uganda, which occurred after the crises of 1986 to 1989, 1993/1994, and 1998, to non-performing assets caused by the interest rate spread. They argued that these issues began as early as 1986.

Starting from the early 1990s, lending interest rates in Uganda have been averaging 21%, which is a significant concern since the financial sector liberalization was intended to boost bank competition and reduce interest rates (Adam and Doreen, 2018). Operational costs play a major role in driving lending interest rates as banks have substantial overhead costs. Additionally, the size of the bank and its clients also contribute to overhead expenses.

Small businesses and individuals who primarily rely on lenders face high operational costs, and banks depend heavily on interest revenues from loans. This often leads to high lending interest rates. Moreover, small and medium-sized businesses typically lack reliable credit histories, which forces banks to use alternative methods for credit risk management and repayment assurance. These methods require ongoing monitoring, which is reflected in the high interest rates charged on loans. The interest rate charged by lenders depends on the loan's intended purpose and the risk involved in the loan.

Stanbic Bank Uganda has implemented various measures to manage the performance of its loan portfolio, such as the Credit Relief Programs, which aim to lower the prime lending rate to 16% by 2020. This rate is among the lowest among retail financial institutions in the country. Given this, it was deemed essential to examine the relationship between interest rates and the management of loan portfolio performance.

1.2.2 Theoretical perspective

The present study examines two economic theories: the Theory of Austrian School and the Neo-Classical Theory. The former, developed by Eugen von Bohm-Bawerk and Ludwig von Mises, explains the relationship between the interest rates charged by commercial banks and the law of marginal utility and people's time-preference for capital, money, and goods. The Theory of Austrian School proposes that commercial banks offer low interest rates on savings and high interest rates on credit, leading to a decrease in the value of savings over time and an increase in the value of credit. This relationship is monitored by commercial banks to increase credit creation. Conversely, the Neo-Classical Theory, formulated by Jeremy Bentham, Carl Menger, Leon Walras, and Hermann Heinrich Gossen, posits that the interest rate is determined by the laws of diminishing marginal utility. This implies that the additional satisfaction derived from increased consumption of a commodity may not be as substantial as that derived from previous consumption. The theory also contends that the optimal exchange ratio of goods and price equals the ratio of marginal utility of goods in circulation.

The theory of liquidity, formulated by John Maynard Keynes (1883-1946), posits that the supply and demand of money influences interest rates (Ansgar&Belke, 2009). In this study, the central bank raises interest rates to reduce the amount of money in circulation and strengthen the currency's value. However, as liquidity declines, borrowing costs increase, which can have a negative impact on commercial bank performance. Thus, the central bank must set a minimum interest rate (known as the Central Bank Rate) at which commercial banks can borrow to prevent their ability to create credit by mobilizing deposits and providing credit services from being hindered, such as prime lending and collateral security

1.2.3 Conceptual perspective

Saurina (2005) describes interest rates as the charge or payment for the use of money, typically expressed as an annual percentage of the principal amount. This represents the cost of money that borrowers bear and lenders receive. From this user perspective, the authors view interest rates.

In contrast, Piana (2002) defines interest rates as the profit generated over time by financial instruments. It is the percentage difference between the amount borrowed and the amount repaid, taking into account the time elapsed. Piana conceptualizes interest rates from the perspective of the profit earned on borrowed money. The bank agrees to an interest rate slightly higher than the rate it would be required to borrow from other lending institutions in the interbank market.

Sankar (2008) defines interest rates in terms of credit creation as the funds that banks acquire through accepting deposits for lending purposes. While there are certain exceptions such as savings bank deposits, export credit, and small loans, most interest rates on deposits, loans, and advances can be determined by banks. The banker's objective is to ensure that the borrower repays the loan amount along with interest, which allows the banker to repay the deposit amount along with interest to the customer.

Loan portfolio management (LPM) refers to the process of managing and mitigating risks inherent in the credit process. It is a crucial supervisory activity that involves reviewing the steps taken by bank management to identify and control risks throughout the credit process. The primary objective of the assessment is to identify potential issues before they turn into problems. As noted by Spuchlakova et al. (2015), loan portfolio planning includes policies such as loan segmentation, risk identification, cost allocation, and profit maximization. The goal of loan segmentation is to reduce deficiencies in the portfolio and maximize financial performance from the returns of portfolio management. However, commercial banks in Uganda face the risk of default, and questions arise about how they develop sub-portfolios to support their business. Obamuyi (2007) defines a loan as performing if the principal and interest are paid according to the agreed contractual terms of repayment, and non-performing if they are not paid, with an additional classification of "Substandard" and "Doubtful" depending on the number of days past due. Interest rate volatility is a leading cause of financial catastrophes, making the economy vulnerable to fragility and increasing the likelihood of financial default, credit crunch, distress, and ultimately, a crisis (Gunsel, 2008).

Baxley (1996) noted that lending is the primary business activity of most commercial banks, and their loan portfolio usually represents their largest asset and primary source of revenue. Consequently, it poses significant risk to a bank's stability and security. Inadequate credit standards, suboptimal management of portfolio risks, or economic weaknesses have historically led to loan portfolio problems resulting in bank losses and failures. Therefore, proper management of the loan portfolio and credit function is critical to ensuring a bank's safety and soundness.

1.2.4 Contextual perspective

In Uganda, the financial system comprises formal, semi-informal, and informal institutions, including banks, microfinance institutions, credit institutions, insurance companies, development

banks, pension funds, savings and credit cooperative associations (SACCOs), and village savings and loans associations. However, formal institutions are mainly concentrated in urban areas and cater to only 14% of the rural population, while informal institutions are more prevalent in rural areas, serving approximately 12% of the rural population.

Despite the presence of various financial institutions in Uganda, the country's financial system remains underdeveloped, with a large proportion of the population lacking access to financial services. Specifically, about 62% of the population has no access to financial services, and only 33% of the bankable population, equivalent to 4 million people, have bank accounts. Additionally, the savings to GDP ratio is low at 16%, and private sector credit is also weak, accounting for only 11.8% of GDP. Banks in Uganda have taken advantage of the high central bank rate, resulting in many of them raising their lending rates. For instance, Stanbic Bank increased its lending rate to 34%.

1.3   Problem statement

Proper management of a bank's loan portfolio is critical to its overall performance, as interest income is its primary revenue source. Consequently, effective loan portfolio management is essential for ensuring the bank's stability and soundness (Crabb& Keller, 2006). In the event of an increase in non-performing loans (NPLs) and unstable or rising interest rates, private sector growth may be hampered, and banks may suffer losses that can erode their equity (Fofack, 2005). Such a situation can be compared to self-destruction.

Over the years, Stanbic Bank has witnessed significant growth in its client loan portfolio, rising from 2.1 trillion in 2017 to 2.5 trillion in 2018, 2.8 trillion in 2019, and 3.4 trillion in 2020. However, despite the bank's efforts to manage loan portfolio risks through strict policies and guidelines, it has experienced a surge in non-performing loans, reaching 120 billion in 2019 and 128 billion in 2020. The bank has been grappling with this issue, even after reducing interest rates and expanding its loan portfolio, which raises doubts about whether interest rates are the primary reason for the increase in non-performing loans. To address this challenge, the study aims to explore the correlation between interest rates and loan portfolio performance, seeking to identify effective strategies for enhancing loan portfolio management at Stanbic Bank Uganda.

1.4   Purpose of the study

The purpose of this study was to establish the relationship between interest rates and loan portfolio performance in commercial banks in Uganda.

1.5   Specific objectives

i.   To establish the effect of central bank rate on loan performance in Stanbic bank, Kampala head office;

ii.   To investigate the effect of prime lending rate on loan performance of commercial banks in Uganda;

iii.   To establish how loan collateral affectportfolio performance in commercial banks.

1.6   Research questions

i.   How does central bank rate affect loan portfolio performance of commercial banks in Uganda?

ii.   How does prime lending rate affect loan portfolio performance of commercial banks in Uganda?

iii.   How does loan collateral affect portfolio performance in commercial banks?

1.7   Scope of the study

1.7.1   Content Scope

The study's sample consisted of employees from various departments at the Stanbic Bank head office, including the central loan verification unit, credit unit, account management unit, credit evaluation unit, and loan recovery and rehabilitation unit. In addition, customers of the bank and employees of Bank of Uganda were also included in the sample.

1.7.2 Time Scope

From December 2021 to May 2022, this study examined loan portfolio performance over a three-year period from 2017 to 2020, with a particular emphasis on the impact of interest rates. However, it gave less consideration to other factors that could also affect loan portfolio performance.

1.7.3   The Geographical Scope

The study was carried out in Kampala at Stanbic Bank Head Office and its branches. The study was carried out among all employees working in Credit Department at head office because many of the decisions are made at head office.

1.8   Significance of the study

This study on the relationship between interest rates and loan portfolio performance in commercial banks in Uganda would have significant benefits for various stakeholders, including the banking industry, staff, the government, the central bank, and customers.

It could contribute to the development of regulatory guidelines for lending practices in Ugandan commercial banks, which would reduce interest rate disparities among banks offering similar products.

The findings could assist Stanbic Bank in directing its attention to managing its loan portfolio, providing insight into actions that would improve its performance.

By understanding how interest rates affect loan portfolios, bank employees could prioritize items with fewer names in the non-performing category over those with numerous names.

Customers would also gain a better understanding of why Stanbic Bank charges specific interest rates for specific loan products and periods, enabling them to repay their debts more quickly.

This study could also shed light on why non-performing loans still exist in the loan book despite Stanbic Bank's efforts to increase interest rates.

The study's results could inspire the researcher to pursue further research, while other scholars in related fields could use the study as a resource, ultimately reducing the knowledge gap in the field, particularly in Uganda.

1.9   Conceptual framework

The diagram below shows a conceptual relationship between interest rates and loan portfolio performance.

Figure 1: Conceptual framework

Interest Rates (IV)

```
┌─────────────────────────────┐
│ Central Bank rate:          │
│  • Regulatory environment   │
│  • Credit Reference Bureau  │
│    (CRB)                    │
│                             │
└─────────────────────────────┘
```

Loan Portfolio Performance (DV)

```
┌─────────────────────────────┐
│ Prime lending rate:         │
│                             │
│ Market interest rate        │
│                             │
│ Margin                      │
│                             │
└─────────────────────────────┘
```

```
┌─────────────────────────────┐
│  • Customer screening       │
│  • Credit risk control      │
│  • Loan portfolio planning  │
│                             │
└─────────────────────────────┘
```

```
┌─────────────────────────────┐
│ Loan collateral based       │
│ interest rate               │
│ Secured loans               │
│                             │
│ Un secured loans            │
│                             │
└─────────────────────────────┘
```
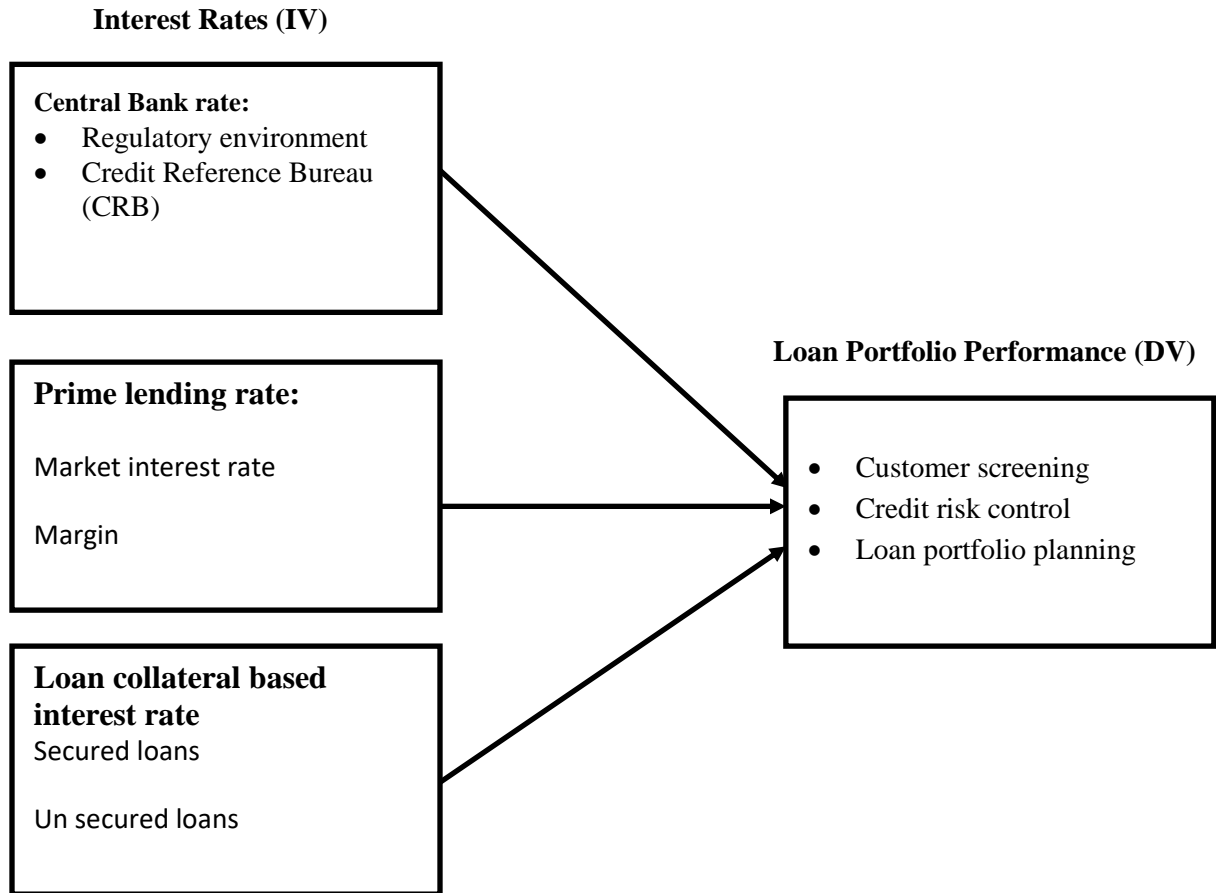
Source: Literature Review by Balkenhol & Schutte (2011); Jefferis, Kasekende, Rubatsimbira, & Ntungire (2020); Mabati & Onserio (2020)

In the diagram, interest rates are depicted as the independent variable, while the dependent variable is the loan portfolio's performance. To measure interest rates, the study utilized the central bank rate, prime lending rates, and collateral security. The study assessed the loan portfolio's effectiveness in customer screening, credit risk management, and portfolio planning. The study's argument is that changes in lending rates significantly impact loan portfolio performance. For instance, a central bank's increase in lending rates results in higher credit risk due to increased borrowing costs.

The study also asserts that although interest rates can accurately predict changes in loan portfolio performance, there may be hidden variables that affect the cause-and-effect relationship between interest rates and loan portfolio performance, such as government policies, bank operational capital, and borrowers' business profiles. Borrowers may also default on loans, and when

commercial banks increase their prime lending rates, borrowers may become excluded and less inclined to seek credit, impacting the lenders' portfolio performance.

LITERATURE REVIEW

2.1 Introduction

This section provides an overview of the analysis of previous research on the correlation between interest rates and loan portfolio performance. The information was collected from diverse sources such as academic research papers, journals, magazines, textbooks, and published reports. The literature review is structured into three parts: thematic review, empirical review, and research gap analysis. The thematic review examines the various themes that arise from the conceptual framework, while the empirical review assesses the different research studies that have been conducted on the subject. Finally, the research gap section summarizes the knowledge gaps identified in the previous studies.

2.2 Theoretical Review

The present study is grounded in the Austrian School theory, which was formulated by Eugen von BohmBawerk (1902) and Ludwig von Mises (1960). This theory posits that the interest rate is a reflection of the law of marginal utility of goods, which is tied to individuals' "time-preference" for capital, money, and traded or produced goods (Eugen von BohmBawerk, 1890). This is determined by the selection of goods and the exchange procedures involving commodities, money, or loans (AnsgarBelke, 2009; Friedrich von Wieser, 1915).

The study concentrates on commercial banks, which provide low interest rates on savings but levy high interest rates on credit (such as prime lending rates and collateral security). This leads to the erosion of the worth of savings over time while the value of credit (loan) appreciates. When financial intermediaries like commercial banks monitor the relationship between interest earned on savings and interest earned on loans, it results in a surge in credit creation.

The interest rate is explained by the Neo-Classical Theory, which is associated with scholars such as Jeremy Bentham, Carl Menger, Leon Walras, and Hermann Heinrich Gossen. This theory utilizes the laws of decreasing marginal utility to explain the interest rate. Gossen's laws propose that while increased consumption of a commodity generates a positive benefit, the additional satisfaction gained from consuming more may not be as significant as the previous consumption. In optimal conditions, the ratio of the exchange of goods/price is equal to the ratio of the marginal utility of goods in circulation.

Conversely, the Theory of Liquidity, which is mainly represented by John Maynard Keynes, posits that interest rates are determined by the demand and supply of money. In the present study, the central bank rate is increased to decrease public liquidity and bolster the currency value. However, this reduction in liquidity causes an uptick in loan rates, which negatively impacts commercial banks' performance. To prevent choking their ability to create credit through deposit mobilization and credit services, the central bank establishes a minimum interest rate (Central Bank Rate) at which commercial banks can borrow.

2.3   Thematic Review

2.3.1   Interest rates

According to Saurina (2005), interest refers to the compensation paid by a borrower to a lender for the use of their money, while interest rates indicate the percentage of the principal amount charged as interest. Typically, interest rates are expressed as an annual percentage and are calculated by dividing the amount of interest by the principal amount. In general, interest rates tend to increase during times of inflation, higher credit demand, limited money supply, or increased reserve requirements for banks. An increase in interest rates can adversely impact business activity and the stock market.

As highlighted by Baxley (1996), lending is the primary business activity for most commercial banks, with the loan portfolio being their biggest asset and primary revenue source. Consequently, it also poses the greatest risk to a bank's safety and soundness. Issues in the loan portfolio, whether due to poor risk management, relaxed credit standards, or economic weakness, have historically been the main cause of bank losses and failures. Thus, effective management of the loan portfolio and credit function is crucial for ensuring a bank's safety and soundness.

Piana (2002) explains that the interest rate is the return earned over time from financial instruments. When borrowing money, the interest rate reflects the percentage difference between the amount initially received and the amount paid back, factoring in the duration of the loan. Commercial banks globally rely on benchmark interest rates, such as the Central Bank Base Lending Rate (BLR), to establish interest rates for the public. For reputable large corporations, banks may agree to a slightly higher interest rate than the interbank market rate. However, smaller industrial firms typically face substantially higher interest rates due to their greater credit risk.

Pasha and Khemraj (2010) have noted that loan portfolios are significantly influenced by real interest rates, and a high real interest rate has a positive impact on this variable. Meanwhile, Fofack

(2005) has identified economic growth, real exchange rate appreciation, real interest rates, net interest margins, and inter-bank loans as significant determinants of loan portfolio in several Sub-Saharan African countries. The author argues that the strong link between macroeconomic factors and non-performing loans is due to the undiversified nature of some African economies.

In contrast, a report by UNDP (2005) reveals that commercial banks in Uganda have poor loan portfolios, with an estimated 36% of non-performing advances out of their total loan portfolios. The report also highlights high percentages of insider lending and credit concentration among commercial banks, which have led to significant numbers of loan defaults and bank failures.

Rajan and Dhal (2003) propose that if a borrower fails to repay a loan according to the agreed-upon schedule, the amount is deemed "overdue" in the loan account, and the bank must take appropriate measures to recover it. One such measure is to issue "Preliminary Notices" immediately to both the borrower and the guarantors, requesting repayment of the overdue amount along with interest. These notices must contain factual information such as the loan amount sanctioned, the date of sanction, the names of the guarantors, and the current amount of overdues with interest. The bank should also inform the borrower and guarantors that further action will be taken if the amount is not repaid. Banks must be vigilant from the time the loan is disbursed until full repayment is made, and effective supervision must be in place to ensure that loans are sanctioned appropriatel

Sankar (2008) explains that one of the fundamental functions of banks is to create credit by collecting deposits and providing loans. Banks generally have the freedom to set interest rates on deposits and loans, except for certain cases such as small loans and savings bank deposits. The primary responsibility of urban co-operative banks is to safeguard the depositors' interests and repay the deposit amount with interest upon maturity. While the customer is the owner of the deposit amount, the bank acts as its custodian. Therefore, it is crucial for banks to ensure that borrowers repay their loans with interest, as this enables them to repay the deposit with interest to the customer. If the bank fails to recover the loan amount, it may face difficulties in repaying the deposit amount to the customer.

According to Hogman (1960), the risk of default increases with higher interest rates, leading to lending losses. Hence, rational lenders aim to keep loan interest rates below the market-clearing levels to avoid this situation and limit credit supply. When there is more demand for loans than the

supply at the interest rate set by banks, credit rationing occurs. However, banks do not raise loan interest rates to market-clearing levels, even when there is excess demand for credit.

As a solution to the problem of excessive loan demand, non-price factors are utilized for credit rationing. Samuelson (1945) suggests that portfolio loans may be a viable option for borrowers, but many banks are reluctant to provide fixed-rate, long-term loans due to the risks associated with interest rates. Usually, loans are fixed for a certain period, typically ranging from one to seven years, before becoming adjustable-rate loans. At that point, the borrower should consider the maximum rate that can be charged, which is referred to as the loan ceiling. They should also examine the maximum allowable adjustment per year or per instance. This adjustment is usually around two percent over an index, which is the interest rate to which the loan is linked, such as the London Inter Bank Offer Rate or a Federal Home Loan Bank Board district rate. As a result, a sample loan may have a two percent margin, two percent over the index, a ceiling of six percent, and an annual cap rate of two percent. This loan structure is similar to secondary market loans and can be offered as a portfolio product that could be sold later if desired by the lender

The loan portfolio performance.

Srivastava (2007) states that managing and mitigating the risks associated with the credit process is the crux of loan portfolio management, as explained by Kipngetich (2011). This involves several steps such as loan portfolio planning, customer screening, and credit risk control. Kasibante (2001) explains that loan portfolio planning involves devising strategies for categorizing loans, assessing loan sizes and risks, and determining loan pricing. Meanwhile, customer screening involves evaluating the financial stability of loan applicants, assessing their ability to repay the loan, and evaluating their capacity to derive benefits from it. Credit risk control is crucial for limiting bad debt and over-exposure, and entails considering factors such as the client's financial strength, credit score history, and changing payment patterns (Moti et al., 2012).

According to Afroz (2013), effective loan portfolio management is critical for the security and profitability of banks. Portfolio management personnel should possess credit handling experience, quantitative analytics skills, marketing skills, and experience to perform their duties effectively. The loan portfolio planning process involves developing policies for loan segmentation, identifying risks, allocating costs, and maximizing profits. The goal is to profitably offer loans to low-income individuals in groups with guarantees to help them achieve their business or developmental objectives (Kasibante, 2011; Kasekende&Aleema, 2009).

Loan portfolio planning includes dividing the loan portfolio into sub-portfolios with similar risk characteristics, known as loan portfolio segmentation, as well as estimating loan size and risk, and pricing loans. The goal of segmentation is to create a risk-efficient portfolio and maximize returns while minimizing risk. This approach reduces portfolio risk by better identifying and diversifying risks and increasing profitability by reducing volatility and increasing customer profitability. However, Bohnstedt (2010) raises concerns about how loan portfolio segmentation is carried out in Uganda's MFIs given their vulnerability to default risk and failure to recover loaned funds from borrowers, resulting in lower returns than anticipated.

Loan portfolio management involves managing and controlling the risks associated with the credit process, with loan portfolio planning, customer screening, and credit risk control being the primary components. Loan portfolio planning encompasses the development of strategies for loan segmentation, estimation of loan size and risk, and policies for loan segmentation, risk identification, cost allocation, and profit maximization. The process also focuses on loan pricing, which includes identifying and allocating loan origination costs, fixed overhead, servicing costs, and variable servicing and marketing costs over the total loan portfolio. This step is crucial for creating a risk-efficient portfolio and maximizing stockholder value. It forms the foundation for loan screening, control, and performance and sets all loan terms and conditions that can determine the success or failure of a bank. Effective loan portfolio management is crucial for maintaining bank safety and profitability and requires staff with credit handling experience, quantitative analytics skills, and marketing skills.

2.3.2   Loan portfolio planning

Effective loan portfolio planning policies have a significant impact on portfolio performance, particularly in terms of reducing risk and increasing risk-adjusted returns. The segmentation planning policy aims to create a portfolio that is efficient in terms of risk and return by evaluating the potential risks associated with specific loans, including default and repayment, which are key components of portfolio performance. Client screening involves analyzing and evaluating loan applicants' creditworthiness, including their capacity to repay loans. This involves obtaining information from their financial statements, credit ratings, trade history, and business experience, which can help determine both their loan eligibility and the likelihood of bad debts. This information is used to make informed decisions before extending loans to borrowers.

2.3.3 Criteria for selecting clients

Credit standards are crucial in assessing the eligibility of loan applicants. The evaluation of individual credit applications is based on the five C's of credit, which include character, capacity, condition, collateral, and security capital, according to Jacobson and Roszback (2003). Stricter credit standards may result in the loss of potential customers, while lenient standards may lead to bad debts and financial loss for the firm (Norell, 2011). Therefore, credit standards are usually established after examining past borrowers and market conditions to minimize the risk of default or non-payment (Pandey, 2008).

To evaluate the repayment potential of loan applicants, client screening analyzes their creditworthiness, trustworthiness, business type, and information provided to the bank (Hartmut, 2007). This assessment aims to determine the bank's level of confidence in the applicant's ability to repay the loan. To assess a borrower's creditworthiness, previous financial statements can be analyzed to evaluate historical financial indicators such as liquidity, solvency, profitability, efficiency, and debt repayment capacity, as noted by ACCA (2005). This information is essential for lenders to assess the borrower's current financial status and past performance. The indicators should be compared against the lender's underwriting standards to determine the borrower's creditworthiness. If the borrower has more loans than assets, it indicates a higher risk of default, while a high equity to assets ratio indicates a sound financial position and a better ability to repay the loan.

Berger and Gregory (2004) emphasized the importance of effective client screening in reducing default risk and ensuring loan recovery. Management must have a good understanding of the loan applicants to evaluate their ability to repay the loan. Therefore, if the loan portfolio's performance falls short of expectations, it may be necessary to review the adequacy of client screening procedures.

Kasibante (2011) highlighted the critical role of client screening in determining a potential borrower's creditworthiness by examining their financial statements. However, ACCA (2005) cautioned that granting additional loans to borrowers who are heavily reliant on loans may lead to further indebtedness and increase the likelihood of default. Martin et al. (2005) stressed that effective client screening requires an understanding of the market potential and characteristics of the business seeking a loan, and poor screening can result in poor portfolio performance.

Loan portfolio control encompasses the processes of monitoring, reviewing, and supervising loans to ensure that they are disbursed in accordance with the agreed-upon terms and that the borrower has the ability to repay the loan (Oketch, 2008). Loan disbursement is determined by factors such as loan size, interest rates, and repayment terms (Meeker, 2008). To minimize the risk of default, Berger and Gregory (2004) recommend monitoring loans to ensure the borrower is using the funds correctly and providing advice on how to best use the loan. Proper loan portfolio control is beneficial not only to the lending institution but also to borrowers as it helps them succeed in their business ventures. MFPED (2005) recommends that loan repayment and grace periods be set based on crop harvesting time, especially for microfinance institutions that lend to agricultural clients, to ensure that clients can repay their loans without going bankrupt.

According to Kagwa-Pafula (2002), follow-up actions are a crucial element of loan portfolio control. They involve implementing loan recovery strategies when clients display signs of late or default payments. Banks may recover their loaned funds by distributing the defaulted amount among all members of the group that guaranteed the loan. The effectiveness of this strategy is vital for ensuring the recovery of the loaned money, as noted by Garber (2007).

2.3.4   Types of loans

Jiménez et al. (2012) stated that commercial credit worldwide can be categorized into four main types: asset-based loans, cash flow loans, trade finance agreements, and leases, each with its own collateral type. Collateral characteristics, such as liquidation value, pledgeability, and durability, play a significant role in determining the available commercial credit types. Although some differences may not be related to the collateral asset itself but instead to the collateral repossession process, such as in asset-based loans versus leasing (Eisfeldt and Rampini, 2009; Gavazza, 2011). Both asset-based loans and leasing are secured by large, usually registered physical assets with clear liquidation values. However, leasing separates asset ownership and use, making it easier for the lender to repossess the asset in case of a default (Eisfeldt and Rampini, 2009). Even if the physical asset pledged as collateral is the same for both loan types, differences in pledgeability result in different default recovery processes (Paravisini et al., 2015).

As per Lian and Ma (2018), a considerable portion of commercial credit comprises cash flow loans, with estimates indicating that up to 80% of syndicated credit in the US is of this type. Unlike asset-based loans that rely on specific physical assets as collateral, cash flow loans give the lender a

senior claim on all the borrower's unencumbered assets. Nevertheless, collateral in cash flow loans is frequently less durable, has a lower liquidation value, and is less pledgeable due to uncertainty about its value, such as intellectual property or retailer inventory, or a lack of title, such as computers and office furniture. Unlike asset-based loans, cash flow loans are evaluated based on the borrower's ability to make interest and amortization payments, explaining the term "cash flow" loan.

B2B transactions are supported by trade finance loans, which constitute another form of commercial credit. Amiti and Weinstein (2011) point out that trade finance loans are secured by the goods involved in the transaction, with collateral being well-defined, valued, and insured, and the title of the goods being transferred. Although trade finance agreements are similar to cash flow loans in some respects, the pledgeability of the collateral is higher in this case. However, there are other unique features of trade finance agreements, including multiple counterparties and credit risk that is not solely borne by the borrower, as Bentolila et al (2018) have pointed out.

Although there are additional differences between the four types of commercial loans in terms of their procedures and funding sources, borrowers frequently have various outstanding loans of various types. The collateral for these loans can usually be allocated without creating any disagreement among lenders. It is essential to note that each loan type carries different credit risks and requires different strategies for dealing with negative shocks. Moreover, fluctuations in the value of collateral can have varying impacts on different loan types (Jiménez, Mian, Peydró&Saurina, 2019).

2.4 The challenges in loan portfolio management

Mohd and Shagufta (2020) state that loan portfolio managers have traditionally focused on loan approval and monitoring, but recent analysis of credit issues indicates that this approach may not be sufficient. Effective loan portfolio management requires consideration of various factors, such as management strategies, staff competencies, lending methodology, and management information systems (Derrick et al., 2008). Relying solely on trailing indicators of credit quality, such as delinquency, nonaccrual, and risk rating trends, which are conventional practices, is no longer adequate. These indicators do not provide enough lead time for corrective action during systemic increases in risk, such as those seen during pandemics. To maintain the required level of loan growth and performance while providing credit, banks must manage the risk of default (i.e., risk of interest and principal repayment) effectively.

To manage risk effectively, it is crucial to comprehend the relationships between different risk factors. In many cases, risks will either move in tandem or in opposite directions with one another. Certain actions or events can impact correlated risks in similar ways. For instance, reducing problematic assets can result in a decrease in credit risk, liquidity risk, and reputation risk. On the other hand, when two risks are negatively correlated, mitigating one risk may potentially increase the other. For example, a bank may lower overall credit risk by increasing its investments in residential mortgages, but this could lead to interest rate risk rising due to the interest rate sensitivity and optionality of the mortgages (Rashid &Samad, 2006).

Spuchlakova, Valaskova, and Adamko (2015) indicate that credit risk can originate from several sources, including investment portfolios, overdrafts, letters of credit, and other services such as derivatives, foreign exchange, and cash management. The bank's practices for managing credit risk can either increase or decrease the likelihood of repayment risk, which refers to the possibility that the borrower may default. To mitigate excessive credit risk, banks need to establish robust underwriting standards, an efficient approval process, and a skilled lending team. Borrowers with questionable capacity or character may experience rapid credit quality deterioration due to personal or external economic pressure. Proper loan structuring and monitoring are also crucial to maintaining sound credit decisions. (Nawai & Shariff, 2010).

Banks that engage in international lending are exposed to country risks that do not exist for domestic lenders. Country risks refer to uncertainties that arise from a country's economic, social, and political conditions, which may impact the payment of foreign debt and equity investments. These uncertainties may include pandemics, political and social unrest, nationalization or expropriation of assets, government rejection of external indebtedness, exchange controls, and currency devaluation or depreciation. While such developments may not necessarily render a loan uncollectible unless a country repudiates its external debt, a delay in collection can still weaken the lending bank. (Loan Analytics, 2014).

To evaluate the potential interest rate risk faced by a bank, it is necessary to examine the structure of its loan portfolio and determine how its loan terms, such as maturity, rate structure, and options, can make the bank's revenue stream susceptible to interest rate fluctuations. The bank must make pricing and portfolio maturity decisions while taking into account funding costs and maturities. If certain credits or portfolio segments show high sensitivity to interest rate risk, stress testing should

be performed periodically. The asset or liability management committee, which is responsible for managing the bank's interest rate risk, requires sufficient reports on loan portfolio and pipeline composition and trends. Examples of such reports include the maturing loans report, pipeline report, and rate and repricing report.

2.5   Empirical Review

Commercial banks in Uganda mainly rely on lending as their primary business activity, with their loan portfolio being the primary revenue source but also posing the greatest risk to the bank's stability and reliability. The level of interest rate risk associated with a bank's lending activities depends on the types of loans in its portfolio and the extent to which their terms, such as maturity, rate structure, and embedded options, expose the bank's revenue stream to changes in interest rates. Effective management of the loan portfolio and credit function is crucial to the bank's stability and reliability, which involves controlling and managing the inherent risks in the credit process. Loan portfolio managers carefully approve loans and monitor their performance to mitigate these risks. (Adapted from Comptroller's Handbook, 1998: 9).

2.5.1   Central Bank Rate and Loan Portfolio in Uganda

The financial system in Uganda comprises a range of formal and informal institutions. The formal sector includes commercial banks, microfinance deposit-taking institutions, credit institutions, insurance companies, development banks, pension funds, and capital markets. The semi-informal sector consists of savings and credit cooperative associations (SACCO) and other microfinance institutions, while the informal sector includes village savings and loan associations. The Bank of Uganda, established on August 15, 1966, is the central bank wholly owned by the Ugandan government. Although it operates independently, it works closely with the Ministry of Finance, Planning, and Economic Development. The primary objective of the Central Bank is to promote price stability and maintain a stable financial system, while also collaborating with other institutions to uphold macroeconomic stability in Uganda (Bank of Uganda, 2013).

2.5.1.1   Regulatory framework

According to the Bank of Uganda's Annual Supervision report (2011:7), the banking sector underwent significant growth in 2011 and introduced new sophisticated products. As a result, the

Bank of Uganda made adjustments to the financial sector's regulatory framework to enhance coordination among regulators at the regional level.

2.5.1.2   *The overview of regulatory framework*

- ❖ According to the Bank of Uganda Statute of 1993, Section 5(2)(j), the regulatory framework of the banking sector in Uganda is under the complete control of the Bank of Uganda. Its responsibilities include supervising, regulating, controlling, and disciplining all financial institutions.

- ❖ The oversight and management of banks and credit institutions are governed by the Financial Institutions Act 2004, while microfinance institutions are subject to the Micro-Finance Deposit-Taking Institutions Act 2003.

- ❖ The Bank of Uganda's Supervision Function plays a crucial role in implementing a regulatory framework aimed at creating a secure, stable, and robust financial system. To achieve this goal, the framework is supported by nine implementing regulations, including licensing, capital adequacy requirements, credit classification and provisioning, limits on credit concentration and large exposure, insider-lending limits, liquidity, corporate governance, ownership and control, and credit reference bureaus. These regulations were gazetted in 2005 under Chapter 51, Section 39(1) of the Bank of Uganda Act. In addition, the Bank of Uganda, in consultation with the responsible minister, may also prescribe credit and interest rate controls through statutory instruments.

- ❖ The bank has the authority to set a duration within which each financial institution is constrained in the aggregate or particular sum of investments, loans, advances, bills, and discounted promissory notes they can maintain outstanding.

- ❖ The class of business underlying investments and bills and promissory notes discounted and the purpose for which loans and advances may be granted are specified.

- ❖ Financial transactions are subject to various specifications, such as the maximum loan and advance period, the minimum required security type and amount, and the longest maturity allowed for discounted bills and promissory notes. Moreover, financial institutions are bound by limits on the interest rates and charges they can offer on deposits or liabilities and on the rates they can charge for credit extended in any form.

- ❖ *Financial institutions are restricted in the maximum fees they can levy on any banking transaction as stipulated by the Bank of Uganda Act. Moreover, any guidelines established*

under Section 39(1) must consider agreements made between financial institutions and their clients before the implementation of the statutory instrument, and must not show bias towards any financial institution. Nevertheless, if a financial institution contravenes any guideline, it may be required to pay a fine of up to one million shillings upon the request of the bank.

❖ *The Bank of Uganda has issued Financial Consumer Protection Guidelines to commercial banks and credit institutions operating in Uganda, which are applicable to all regulated financial service providers and their agents. The guidelines aim to encourage fair and just financial practices. (Source: Bank of Uganda Annual Supervision Report, 20)*

2.5.1.3 Credit Reference Bureau in Uganda

In response to the closure of five commercial banks in 1998-1999, the Bank of Uganda conducted a comprehensive review of the legal, regulatory, and supervisory framework to improve its capacity to fulfill its mandate of safeguarding depositors' funds and maintaining a stable financial system. (Adapted from Bank of Uganda Annual Supervision Report, 2012:22).

On December 3rd, 2008, the Governor of the Bank of Uganda, Mr. Emmanuel Tumusiime Mutebile, inaugurated the Credit Reference Bureau (CRB) in Uganda, which marked a significant milestone in monitoring credit behavior in regulated banks. The launch of the CRB was the outcome of extensive consultations and resulted in the creation of key legislation, such as the Micro Deposit Taking Institutions Act 2003 (MDI Act) and the Financial Institutions Act 2004 (FIA). The FIA allows the Central Bank, its appointed agent, or authorized individuals to establish a CRB for the purpose of sharing credit information among BOU-regulated financial institutions, also known as Participatory Institutions (PIs), to facilitate credit decisions.

According to Mutebile's statement in 2008, the lack of a Credit Reference Bureau (CRB) in Uganda posed a significant challenge in expanding private sector credit. This issue has been consistently cited by Ugandan businesses, including small and medium-sized enterprises, as a major obstacle to their operations. The absence of infrastructure for information sharing and borrower identification has made it impossible for Participating Institutions (PIs), such as commercial banks, credit institutions, and microfinance deposit-taking institutions, to check and share information on the credit history of borrowers. As a result, PIs have faced high credit risks and increased borrowing costs, making credit more expensive. To address this issue, the Bank of Uganda (BOU) supervises the CRB and has also introduced the Financial Consumer Protection

Guidelines (FCS) to ensure that the information collected is securely and responsibly managed in accordance with the agreement signed with Compuscan. BOU has issued guidelines to specify the standards that the CRB should implement to ensure a dependable data processing mechanism.

Chepkorir et al. (2018) carried out a study in Kenya aimed at investigating the correlation between the central bank rate and the performance of commercial banks, which have been experiencing a decrease in performance over the past decade. The study utilized correlation analysis to examine this association and discovered that a one-unit change in the central bank rate had only a minimal impact of increasing commercial bank performance by 0.025. The study did not present any performance metrics for commercial banks and was unable to support the hypothesis that the reduction in performance was caused by the central bank rate.

Mabati and Onserio (2020) investigated the relationship between the financial performance of commercial banks in Kenya and the Central Bank Rate, utilizing the Classical Theory of Interest Rates. Their study used liquidity risk, inflation rate, and central bank rate on a quarterly basis to conceptualize interest rates and analyzed data from 43 licensed commercial banks. By utilizing correlation and regression analysis, the study discovered that the predictor variables had a significant correlation with financial performance, with central bank rate having the least impact. However, the study did not present a comprehensive conceptualization of financial performance beyond the loan portfolio. The present study seeks to delve deeper into this aspect.

Nyakundi and Jagongo (2013) explored the reasons for commercial banks in Kenya being hesitant to decrease their lending rates, even when offered cost-effective alternatives by the Central Bank of Kenya. The study identified non-performing loans, intense competition in the banking sector, and rigid internal policies as the primary obstacles preventing banks from reducing interest rates. The recommendations of the Central Bank of Kenya were met with resistance by many financial institutions due to the significant challenges faced by the industry. Meanwhile, Akhtar, Lorie, and Petersend (2009) assessed the ability of central banks in selected member countries of the Asian Development Bank in Central and South Asia to provide a regulatory framework and promote economic recovery during financial crises. The study focused on the capacity of central banks to formulate and implement monetary policies, and found that they were unable to assist the government and private sector in securing external borrowing on market terms. Moreover, the study discovered that commercial banks experienced a decrease in deposit volumes due to the decline in economic activity and capital inflows. However, the study's findings were limited to the

23

overall economic restructuring of the country and did not specifically address commercial bank performance, which is the focus of the present study.

2.5.2 Prime lending Rates and portfolio management

In Sub-Saharan African nations, including Gambia, Ghana, Mozambique, Malawi, Guinea, Kenya, and Nigeria, commercial banks impose high interest rates on loans compared to developed nations, with lending rates ranging from 17% to 30.6% in 2019. In contrast, borrowing rates in developed nations are approximately 4.3% (Ibenyenwa et al., 2020).

Shakeba and Sherene (2015) conducted a study that investigated the relationship between revenue, loan diversification, and the performance of commercial banks in Jamaica from 2005 to 2015. The findings revealed that diversification of loan portfolios improved the stability and profitability of banks, but it also resulted in a decline in loan quality, particularly in smaller banks. In contrast, larger banks had sufficient capital buffers to absorb the risks associated with diversification. Moreover, loan portfolio diversification had an impact on interest revenue, risk-adjusted profitability, and the probability of bank insolvency. It remains unclear whether Stanbic bank is sufficiently large to diversify its loan risks, and this is where the current study is necessary to investigate the different strategies employed in loan risk diversification

Aromorach's (2013) study investigated the loan portfolio performance of commercial banks in Uganda, with a focus on the relationship between credit management policies and loan performance. The study revealed that credit terms and standards had a significant impact on loan performance and suggested that enhancing staffing and customer relations could enhance credit recovery and simplify the loan scoring process. However, the study did not address the issue of interest rates, which is the focal point of the present study.

Jefferis, Kasekende, Rubatsimbira, and Ntungire (2020) conducted a study to investigate the factors responsible for interest rate variations in Uganda. The study identified return on assets, market structure, non-performing loans, and exchange rate as key determinants of interest rates across banks. The researchers recommended that commercial banks adopt better credit management techniques to reduce non-performing loans. However, the study did not specifically focus on loan portfolio management, which is the subject of investigation in the present study.

Kipngetich (2011) examined the relationship between interest rates and the financial performance of commercial banks in Kenya. Using secondary data from published reports between 2006 and 2010, the study found no significant impact of interest rates on the short-term profitability of

commercial banks. However, the study recommended further research to investigate other factors that influence bank profitability. The current study aims to address the concept of portfolio performance, which was not covered in Kipngetich's research. By exploring additional factors that impact profitability, the financial performance of commercial banks in Kenya can potentially be enhanced.

Bashir and Sami (2021) conducted a study in Jordan to assess the performance of commercial banks and identify variables that affect their performance. The findings indicated that loan diversification was a crucial predictor of bank performance, and lending to individual and corporate clients had a positive impact on performance, while lending to government and small and medium-sized enterprises (SMEs) had a negative impact. However, the study did not provide a rationale for why lending to government and SMEs had such an effect on bank performance. In another study, Al-tarawneh and Khataybeh (2015) examined the portfolio behavior of commercial banks in Jordan and discovered that interest rates were not significant predictors of portfolio performance. Instead, banks were more inclined to enhance their portfolio performance by diversifying their funding sources.

2.5.3 Collateral Security and loan portfolio performance

Balkenhol and Schutte (2011) have noted that research indicates that the use of collateral can help mitigate default risks and improve loan repayment. Nevertheless, lenders are reluctant to use collateral due to the perceived additional costs associated with monitoring and repayment appraisal, such as transaction expenses, collateral substitutes, and the expenses incurred while using the collateral during the loan term.

Murira (2010) conducted a study examining the connection between the loan portfolio and financial performance of commercial banks in Kenya. The findings revealed a substantial correlation between loan portfolio and financial performance, with loan portfolios forming the major component of assets in lending institutions such as government loans, business loans, and mortgage loans. The research recommended that successful banks should aim for a portfolio mix that emphasizes business and government loans, rather than personal loans and educational loans.

A study conducted by Nangila (2019) aimed to explore the impact of collateral security on the financial performance of commercial banks in Kenya. The study involved 117 managers who were responsible for 39 licensed commercial banks, and the data collected revealed a significant relationship between collateral security and financial performance. The researcher suggested that

collateral security plays a crucial role in ensuring loan repayment, which, in turn, promotes the overall performance of loan portfolios.

2.6   Summary of Literature Review

Loan portfolio management encompasses a range of practices, including planning, screening, and control, which aim to manage and mitigate the inherent risks in the lending process. The planning stage involves establishing policies for loan segmentation, identifying risks, allocating costs, and maximizing profits. Screening involves evaluating the creditworthiness of loan applicants based on their ability to service and repay loans. Control involves monitoring the use of disbursed loans to ensure compliance with loan terms. However, loan portfolio management is faced with several challenges, including fluctuating interest rates across various bank products, exposure to credit risk through activities such as foreign exchange, derivatives, and cash management services, and the need for management to comprehend and manage the bank's risk profile and credit culture to ensure effective credit risk management

CHAPTER THREE
METHODOLOGY

3.1   Introduction

This section outlines the methodology employed in the study, with reference to the research questions stated in section 1.4 of chapter one. The study population, sample size and sampling techniques, data collection methods, instruments, procedure, and analytical tools are also discussed in this chapter

3.2   Research design

The study utilized a cross-sectional design that incorporated both qualitative and quantitative research methods (Lavrakas, 2008). The cross-sectional design aims to provide a snapshot of a phenomenon, depicting its prevalence at a particular point in time. The researcher employed this design to present the state of loan portfolio performance. This design is advantageous as it facilitates the quick collection of raw data and enables the researcher to interact with individuals who possess practical experience with the topic under study (Kothari, 2004) to assess their perceptions, opinions, and feelings.

Additionally, the researcher utilized both qualitative and quantitative research methods. A research method refers to the approach or direction taken by the research to gather and analyze data. The current study employed the quantitative approach to understand loan portfolio performance from a scientific and objective standpoint, where numerical data is collected and analyzed using quantitative techniques. The study utilized the quantitative approach to statistically measure the relationship between interest rates and loan portfolio performance. The qualitative approach was used to capture the personal experiences of loan managers and their perspectives on loan recovery.

3.3   Study population

The study aimed to target a population of 150 individuals, comprising various positions within Stanbic Bank, including 80 Credit Officers, 40 Client Relationship Managers, 10 Credit Evaluation Managers, and 20 Branch Managers, as stated in the Human Resource Report from 2020. The selection criteria for these individuals were their experience of at least one year working with the bank's loan portfolio, providing them with valuable insights and expertise on the impact of interest rates on loan portfolio performance in commercial banks. It is essential to note that the individual employees served as the units of observation for this study.

3.4 Sample Size and selection

To draw a conclusion, a sample of the population is selected. The sample size is the minimum number of units required from the population to form a sample. The sample size for this study was determined using established methods. The study population consisted of 108 participants, as shown in the table. Krejcie and Morgan's (1970) tables were used to determine the sample size, as presented in Table 1.

Table 1:Number of participants per category

Category	Population	Sample size	Sampling Strategy
Branch managers	20	14	Purposive
Credit Evaluation Managers	10	7	Purposive
Branch Credit Officers	80	58	Simple random sampling
Client relationship Managers	40	29	Simple random sampling
Total respondents	**150**	**108**	

Source: Human Resource Report (2020)

The presented table outlines the method applied for determining the sample size of quantitative data participants, while for those providing qualitative data, the researcher utilized a rule of thumb. As per Creswell (2008) and Ritch& Lewis (2003), studies that rely on key informant interviews need a sample size of not more than 50, whereas ethnographic studies necessitate a sample size ranging from 15 to 30. Thus, to strike a balance, this study opted for 15 participants to be interviewed, without going to either extreme.

3.5 Sampling Methods

For the study, branch managers and credit evaluation managers were selected using purposive sampling, a non-probability sampling method used to choose specific and well-known participants (Creswell, 2008). In this method, the researcher manually selects the sample for the study. As for tellers, client relationship managers, and branch credit officers, they were chosen using simple random sampling, which was preferred because it helps avoid selection bias and gives all participants an equal chance of being selected (Lavrakas, 2008).

3.6 Data collection methods and Instruments

3.6.1 Sources of data

To address the research questions, the study utilized questionnaires and other data collection instruments. Data was collected from two distinct sources - primary and secondary. Primary data is the initial and firsthand information that the researcher obtains and disseminates. In this study, primary data was gathered from original sources to comprehend the loan portfolio performance and interest rates. Conversely, secondary data pertains to information that was previously collected by other sources but is accessible to the researcher for analysis. The researcher acquired secondary data from sources such as bank statements, loan performance reports, and financial reports.

3.6.2 Data collection methods

This study used the survey method of data collection, which focused on the questionnaire and interviews.

3.6.2.1 Questionnaire

Researchers use questionnaires as a means of collecting information from respondents by posing a series of questions (Babbie, 2014). One key benefit of using questionnaires is that they can be completed with relative ease and without the need for the researcher to be present during the process. This attribute is particularly advantageous when dealing with a vast population where individual interviews would be impracticable (Lavrakas, 2008).

In the present study, a single questionnaire was utilized to collect all the pertinent information from all the respondent categories, as per the research objectives (refer to section 1.4). The questionnaire consisted of a five-point Likert scale and was administered to all the participants in the study. Since most of the respondents were known, the questionnaire was administered door-to-door. The Likert scale was selected for its flexibility and ease of construction (Amin, 2005). The respondents rated the study instruments on a scale ranging from 1 to 5, where 1 indicated

"strongly disagree," 2 indicated "disagree," 3 indicated "not sure," 4 indicated "agree," and 5 indicated "strongly agree." A five-point scale is comparatively straightforward and user-friendly, enabling researchers to include a significant number of individuals in intricate attitudinal concepts while also giving respondents the opportunity to express their level of agreement or disagreement or uncertainty regarding the research issue (Peter & Peter, 2003). Please refer to Appendix 2 for more details.

3.6.2.2 Interview method

This refers to a method of collecting data where the researcher engages with respondents to obtain information. The process involves conversing with the respondents and asking questions that yield multiple pieces of information. Interviews are valuable in acquiring confidential information that may not be easily accessible through questionnaires. This method is also ideal for busy respondents who may not have the time to complete questionnaires. In this study, the researcher conducted interviews with branch managers and credit evaluation managers who possess substantial experience in commercial banking and loans as assets to commercial banks.

To steer the interview process, the researcher developed an interview guide consisting of open-ended questions aimed at eliciting detailed information on key loan portfolio and interest rate issues. The questions were created to cover all research objectives and provide comprehensive information in a face-to-face interaction. Please see Appendix 4 for the interview guide.

3.7 Procedure for data Collection

The researcher secured a letter of introduction from the Faculty of Economics and Management Sciences of Kabale University, which was used to introduce the study to Stanbic Bank and seek permission from the branch managers and credit managers to conduct the research. After obtaining the necessary permissions, the researcher distributed questionnaires to the relevant categories of respondents and collected them once they were completed.

Before commencing the main study, the researcher sought approval for the questionnaires from their supervisor. Subsequently, a pretest was conducted on a selected group of 25 respondents who were given the same approved questionnaires. The purpose of the pretest was to ensure that the questionnaires were clear and understandable, and to gather feedback on the question wording to identify any necessary rephrasing. The reliability statistics are presented in the table below.

Table 2: Reliability Tests

Variable List	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Interest rates	.704	.749	15
Loan portfolio performance	.867	.868	10
Overall	**0.786**	**0.809**	**25**

Source: Field data, 2023

The statistics on reliability indicate that the Cronbach's alpha coefficient is α = .809, which is above the acceptable threshold of 0.7. This implies that the questionnaire used in the survey has internal consistency, and the findings can be considered dependable for making generalizations. Essentially, this means that if the instrument were used repeatedly on samples with comparable characteristics, it would yield consistent results.

3.8 Data Analysis

The data collected in this study was analyzed using the SPSS computer software package for social scientists. Initially, the collected data was sorted, edited, and cleaned to prepare it for analysis. Descriptive data in the form of frequencies, percentages, means, and standard deviations were then generated through the software package. To address the research objectives, multiple regression analysis was utilized to determine the effect of each predictor variable on the dependent variable. Regarding the qualitative data collected through interviews, content analysis was employed to screen for occurrence and frequency of occurrence. Categories were identified, and themes were generated. Since the study adopted a mixed research approach, verbatim were integrated into the quantitative analysis.

3.9 Conclusion

This chapter provides a detailed description of the research methodology that was utilized in this study. It primarily explains the research design that was adopted, which is a cross-sectional survey design that mainly utilized quantitative approaches. The chapter also discusses the population and sample that was used in the study, as well as the sampling technique that was employed to select the participants. Additionally, the chapter describes the data collection methods and instruments, which involved the use of questionnaires. Finally, it explains the data analysis process that was

used to obtain statistics, which led to the presentation of findings in the following chapter, organized according to each research objective.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1   Introduction

This chapter presents the details of the findings on interest rates and loan portfolio performance. The chapter gives a detailed analysis of both the quantitative and qualitative findings.

4.2   Response Rate

The study aimed to survey 108 participants, but only 97 responded, resulting in a response rate of 89.8%. Despite not reaching the initial target, this response rate is considered high and sufficient to draw conclusions about the entire population of commercial banks in Uganda.

4.3   Background Characteristics

Table 3: Background characteristics

Variable List	Categories	Frequency	Percent
Gender	Male	72	74.2
	Female	25	25.8
	Total	97	100
Highest level of education	Diploma	4	4.1
	Degree	81	83.5
	Masters'	12	12.4
	Total	97	100
Age bracket	Below 24	9	9.3
	25 – 30	30	30.9
	31 – 35	22	22.7
	36 – 40	31	32
	41 – 45	5	5.2
	Total	97	100
Number of years in the bank	Less than 2 years	6	6.2
	2 - 5 years	44	45.4
	5 - 8 years	32	33
	8 - 11 years	15	15.5
	Total	97	100

Source: Field data, 2023

The study's data indicates that 74.2% of the participants were male while only 25.8% were female. This data suggests that the majority of participants in the study were men, which may be explained by the fact that the credit officers and client relationship managers, who made up a significant portion of the sample, were mostly men. These positions are known to involve complex responsibilities, such as frequent travel to hard-to-reach areas to serve customers and the risk of facing abuse from customers who struggle to repay loans. As a result, many female employees may prefer to work in less complex departments, such as operations.

In terms of the highest level of education, the majority of participants (83.5%) in the study were Bachelor's degree holders, followed by 12.4% Master's degree holders and only 4.1% Diploma holders. This suggests that the banking industry predominantly employs individuals with at least a Bachelor's degree, as many entry-level roles require this level of education. Additionally, the incentive system in the industry does not motivate employees to pursue further education beyond a Bachelor's degree.

Regarding age, the statistics indicate that 62.9% of participants were 35 years old or younger, while 37.2% were over 35 years old. A small percentage (9.3%) were below 24 years old, while only 5.2% were over 40 years old. This suggests that the majority of employees in the commercial banking industry are younger individuals, likely due to the industry's hierarchical structure, which places more emphasis on lower-level positions that are often filled by recent graduates. Additionally, the increasing popularity of graduate trainee programmes in commercial banks may also contribute to the higher number of young employees.

The data suggests that 45.2% of the participants had banking experience ranging from 2 to 5 years, while 33% had experience ranging from 5 to 8 years. The relatively low percentage of participants with less than 2 years of experience may imply a reduced need for new employees in commercial banks due to the Covid-19 pandemic. This could be attributed to the pandemic forcing many banks to adopt digitization and remote work, resulting in a decreased need for physical staff. Consequently, fewer employment opportunities were available during this period, leading to a limited number of employees with 2 years or less of experience. In addition, most of the participants had been working in the bank for about 2 to 5 years, likely due to employees being less likely to leave commercial banks during the pandemic, as banks were regarded as essential service providers by the government and the Ministry of Health.**Descriptive Analysis**

This study employed descriptive statistical methods to depict the interest rates in various Stanbic Bank branches within Kampala. The mean was utilized to comprehend how the participants' viewpoints on interest rates converge, while the standard deviation was used to determine how their opinions varied from one participant to another.

4.3.1 Interest rates

Participants were requested to express their level of agreement or disagreement on the matters raised regarding interest rates in Stanbic Bank. The study combined participants' responses on 'strongly agree' and 'agree' and reported them as 'agreement'. In the same way, the study combined responses on 'strongly disagree' and 'disagree' and reported them as 'disagreement'. The table presented below provides an overview of interest rates at Stanbic Bank.

Table 4: Interest Rate

Variable List	Disagreement (%)	Not sure (%)	Agreement (%)
Central Bank Rate			
1. The target interest rates at which this bank can lend other banks inconveniences our operations	25.8	6.2	68.1
2. The current central bank rate has made borrowing cheaper	23.7	8.2	68.1
3. The current central bank rate has increased the cost of borrowing	60.8	0	39.2
4. The discount rate at which this bank borrows from central bank inconveniences our operations	85.5	0	14.4
Average	**49.0**	**7.2**	**47.5**
Prime Lending Rate			
1. I am aware of many customers in this bank who use different types of credit	13.4	0	86.6
2. I am aware of some customers who regularly make inquiries on new credit	15.4	0	84.5
3. This bank has many borrowers who repay their loans on time	32	0	68

4. At any point in time, most of the borrowers have low amount in outstanding debt	15.4	17.5	67
5. I know of many customers who have had a credit card open for a long time	18.6	14.4	67
Average	**19.0**	**16.0**	**74.6**
Collateral Security			
1. I know of some borrowers in this bank who have used real estates as collateral	14.4	0	85.6
2. I am aware of some borrowers in this bank who have secured financing based on their outstanding invoices	18.6	0	81.5
3. I am aware of some borrowers in this bank who have used business equipment as collateral	7.2	12.4	80.4
4. I am aware of some borrowers in this bank who have given the bank the right to seize all their business assets should they fail to repay the loan	9.3	14.4	76.3
5. I am aware of some borrowers in this bank who used inventory as collateral	28.8	0	71.2
6. I know of some borrowers in this bank who have used cash on their personal bank accounts to secure loans	18.5	20.6	60.8
Average	**16.1**	**15.8**	**76.0**

Source: Field data, 2023

The study found that, on average, 45.7% of the participants agreed with the issues raised on interest rates in Stanbic Bank. The statements that received the highest agreement percentage were related to the target interest rate, which inconveniences the bank's operations, and the current central bank rate, which has made borrowing cheaper, with 68.1% agreement in both cases. These results suggest that the central bank rate negatively affects the operations of Stanbic Bank. The frequent changes in the central bank rate (sometimes every month) mean that commercial banks that use variable rates must also adjust their prime lending rates, leading to customer complaints and even legal disputes.

However, the study also found that not all issues with the bank's operations (14.4%) and the increased cost of borrowing (39.2%) can be attributed solely to the discount rate and central bank

rate. Other factors, such as system and network failure, employee fraud, employee turnover, competition, and government policies, also contribute to these issues.

The data shows that, on average, a large proportion of participants (74.6%) concurred with the prime lending rate issues raised in Stanbic Bank. The highest level of agreement was found for the statement that customers use various credit types (86.6%), closely followed by the statement that customers frequently ask about new credit options (84.5%). These findings imply that borrowing using the prime lending rate is a prevalent practice in the bank, as it is the standard rate that enables the bank to recover the cost of the loans issued.

It is important to note that the bank usually adds a risk-based margin to the prime lending rate for loans. Additionally, some loans are priced below the prime lending rate, but these are usually grants that come with specific guidelines from donors. Conversely, the lowest level of agreement was observed for the statement that borrowers tend to keep their credit cards open for a long time (67%) and maintain low balances of outstanding debt (67%). The decision to keep credit cards open for an extended period is typically for emergency purposes. Similarly, keeping low amounts of outstanding debt is to minimize the interest paid on the credit card since the interest charged is based on the amount utilized. Hence, the higher the outstanding debt, the more interest paid.

On average, 76% of the study participants agreed with the issues raised regarding collateral security in commercial banks. The results indicate that real estate (85.6%), outstanding invoices (81.5%), and business equipment (80.4%) are the most commonly used forms of collateral security. The prevalence of real estate as a form of collateral can be explained by the fact that commercial banks prefer collateral that appreciates, such as land or property, which provides a sense of security in the event of a default. Additionally, real estate tends to appreciate in value over time compared to business equipment and inventory.

However, the study found that few borrowers use cash in their personal accounts as collateral security to secure loans. This could be because most customers prefer keeping their funds in personal accounts rather than fixed deposits, where they can access the money whenever they need it. As a result, lenders may find it difficult to rely on these funds as collateral because customers can withdraw them at any time. Moreover, the amounts kept in personal accounts are often insufficient to serve as collateral for the loan amount requested by the customer.

Overall, the results of the study indicate that prime lending rate is a crucial factor in interest rate determination at Stanbic bank. This could be explained by the fact that prime lending rate serves as a fundamental basis for pricing interest rates, with the margin added on top of the prime taking into account factors such as the level of risk involved and the duration of the loan.

4.3.2 Loan portfolio performance

The study requested participants to indicate their level of agreement or disagreement on issues related to the loan portfolio performance in Stanbic bank. The responses given by participants were then grouped into 'agreement' and 'disagreement' categories, based on whether they strongly agreed/agreed or strongly disagreed/disagreed with the issues raised. The following table presents the results related to loan portfolio performance in Stanbic bank.

Table 5: Loan portfolio performance

Variable List	Disagreement (%)	Not sure (%)	Agreement (%)
1. This bank reports the entire outstanding balance of the delinquent loan	5.2	6.2	88.7
2. When borrowers find it difficult to pay, this bank spreads the remaining balance for a longer term	3.1	10.3	86.6
3. Most of the lending in this bank are small business loans	19.6	0	80.4
4. Most of the loans from this bank are repaid monthly	10.3	10.3	79.4
5. I know of some loans, which this bank has written off	8.2	13.4	78.3
6. This bank has got a lot of assets in collaterals	22.7	0	77.4
7. Loans from this bank are less collateralized	25.7	0	74.2
8. Most of the loans in this bank are repaid at the end of the loan period	11.3	16.5	72.2
9. This bank reports the actual late payment on the loan	7.3	24.7	68
10. Most of the loans from this bank are repaid weekly	13.4	19.6	67.1
Average	**12.68**	**10.1**	**77.23**

Source: Field data, 2023

In this study, it was found that, on average, 77.2% of the participants agreed with the issues raised regarding loan portfolio performance. The specific findings indicated that reporting the entire outstanding balance of delinquent loans (88.7%), spreading the remaining balance when borrowers fail to pay (88.6%), and extending small business loans were important aspects of loan portfolio performance. Based on these statistics, it appears that Stanbic bank has been able to effectively manage its loan portfolio performance by reporting the entire outstanding balance of delinquent loans.

The method used by Stanbic bank to report the entire outstanding balance of delinquent loans as a way of managing loan portfolio performance is praiseworthy because it enables the bank to accurately determine the risk involved, estimate possible losses, and take early measures towards loan recovery, thereby reducing the need for provisions for bad debts and the likelihood of loans being written off.

According to the study, the respondents showed the least agreement on the weak loan portfolio performance practices of weekly loan repayments (67.1%) and reporting the actual late payment of the loan (68%). This indicates that these practices may not significantly contribute to loan portfolio performance, and it is possible that the risk of default is low when loan repayments are made on a weekly basis since the bank can recover both the interest and principal regularly.

4.4 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

Table 6: Correlation test

		1	2	3	4	5
Central Bank Rate	Pearson Correlation	1				
- 1	Sig. (2-tailed)					
Prime Lending	Pearson Correlation	.199	1			
Rate -2	Sig. (2-tailed)	.050				
	Pearson Correlation	-.056	.491**	1		

Collateral Security -3	Sig. (2-tailed)	.583	.000			
Interest Rate - 4	Pearson Correlation	.514**	.852**	.697**	1	
	Sig. (2-tailed)	.000	.000	.000		
Loan Portfolio Performance - 5	Pearson Correlation	.169	.644**	.415**	.611**	1
	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 the central bank rate and loan portfolio performance ($r = .169$; $p>.05$). This means that any variation in the central bank rate is only associated with a very small variation in loan portfolio performance in commercial banks. This can be explained by the fact that most commercial banks provide both fixed and variable interest rates, which are chosen based on the customer's preference and the type of loan product applied for. The impact of changes in the central bank rate is therefore limited to loans with variable interest rates, which form a small part of the overall loan portfolio, resulting in a minimal effect on loan portfolio performance.

According to the statistics, there is a strong and statistically significant correlation ($r = .644$; $p<.05$) between the prime lending rate and loan portfolio performance. This suggests that when commercial banks adjust their prime lending rates, there is a strong corresponding impact on loan portfolio performance. The reason for this is that when the prime lending rate increases, interest rates increase as well, which ultimately leads to an increase in loan payments. Some customers may not be able to afford these higher payments, as their ability to repay was based on the lower interest rate. As a result, this may result in poor loan performance.

The correlation between collateral security and loan portfolio performance ($r = .415$; $p<.05$) is moderate and statistically significant. The data suggests that changes in collateral security terms in commercial banks have a moderate effect on loan portfolio performance. If commercial banks modify their collateral security terms, the resulting change in loan performance is only moderate. This could be because customers who cannot meet the new terms will not apply for the loan, and those who can afford the new terms will comply and pay their loans properly.

Compared to the variation between collateral security and loan portfolio performance, the association between prime lending rate and loan portfolio performance is stronger. This could be because customers are mostly attracted to loans with lower interest rates, leading to more demand

for these facilities. Customers tend to take larger loans than they need, as they are more affordable, and may use the excess funds for other purposes, leading to poor loan performance.

In summary, the study finds a strong and statistically significant relationship (r = .611; p<.05) between interest rates and loan portfolio performance in commercial banks in Uganda. This means that when commercial banks change their interest rates, they are likely to see significant changes in their loan portfolio performance. If the interest rates decrease, it becomes easier for customers to afford the loan payments, resulting in better loan performance. Conversely, if interest rates increase, customers may struggle with affordability, but they will likely still try to pay well knowing that the change is temporary.

4.5   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, the independent variables were interest rates, specifically central bank rate, prime lending rate, and collateral security, while the dependent variable was loan portfolio performance. Beta coefficients are used in multiple regression to measure the degree of influence that each independent variable has on the dependent variable. Significant values are used to determine the statistical significance of the relationship between the independent and dependent variables. Multiple regression is used when there are multiple independent variables being measured against a single dependent variable.

Table 7: Regression test

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	**Std. Error**	**Beta**		
(Constant)	1.247	.433		2.883	.005
Central Bank Rate	.073	.090	.066	.813	.418
Prime Lending Rate	.495	.082	.560	6.019	.000
Collateral Security	.152	.096	.144	1.577	.118

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

a: Dependent Variable: Loan Portfolio Performance

b: Predictors: (Constant), Collateral Security, Central Bank Rate, Prime Lending Rate

The study found that the combined impact of interest rates on loan portfolio performance was 43.1%, as indicated by an R Square value of .431. However, after standardizing the variables to make them comparable, the overall effect of interest rates on loan portfolio performance was slightly lower at 41.3%, based on an Adjusted R Square value of .413. These statistics suggest that interest rates can explain up to 41.3% of the differences in loan portfolio performance among the selected Stanbic bank branches in Kampala. This implies that changes in interest rates are likely to have a significant impact on loan portfolio performance. The significant effect of interest rates on loan portfolio performance among Stanbic bank branches in Kampala can be attributed to the fact that high interest rates lead to increased borrowing costs, which can drain business income and erode capital over time, especially for long-term loans. This can eventually lead to poor loan performance.

Effect of central bank rate on loan performance in Stanbic bank, Kampala head office

The impact of central bank rate on loan performance was found to be 6.6%, but the effect was not statistically significant, as indicated by the non-significant p-value of greater than 0.05 (Beta = .066; sig. >.05). This implies that for every unit increase or decrease in central bank rate, the change in loan portfolio performance in commercial banks is only 6.6%. Therefore, commercial banks in Uganda that rely on central bank rate to ensure their loan portfolio performance are unlikely to face significant challenges in the banking industry. This may be because central bank rates do not fluctuate frequently and can sometimes remain constant for up to six months without any changes. Responding to the way central bank influences the functioning of commercial banks in the country, evidence from the respondent in an interview reveals:

> "…*central bank implements the monetary policies, which monitor the flow of national income in the country. Central bank functions rigidly in the interest of both micro and macro development but as a banker, the high interest rate affects increases the cost of lending*… (Key Informant 3)

In a related interview on the relationship between central bank rate and commercial bank, one respondent said,

> "…*when the central bank increases their interest rate, we have no option but to raise the lending rate. This reduces the volume of credits clients apply for…even when they come for financial credit, clients find it hard to pay*…" (Key Informant 6)

Based on the conversations, the researcher has observed that the central bank's operations benefit both the lenders and borrowers while also protecting the national interests. Thus, when the central bank rate is not favorable, commercial banks may face challenges in their credit creation. The insignificant effect of the central bank rate on the loan portfolio performance of Stanbic Bank is in line with Akhtar, Lorie, and Petersend's (2009) findings, who studied the performance of central banks in Central and South Asia. The authors discovered that central bank policies had no significant impact on the declining volume of deposits during the economic downturn. While there is no indication of a decline in deposit volumes in Stanbic Bank's findings, there are traces of delinquent loan balances that the bank struggles to report annually.

The lack of significance of the central bank rate in predicting loan portfolio performance in the current study contradicts the results of Mabati and Onserio (2020), who examined the relationship between the Central Bank Rate and the financial performance of commercial banks in Kenya. While they found a significant correlation between predictor variables and financial performance, they also found that the central bank rate had the least impact on financial performance. However, it is important to note that the incongruence in the findings may be due to differences in the predictor variable, as the current study focused specifically on loan portfolio performance in Stanbic bank.

4.5.1 Effect of prime lending rate on loan performance of commercial banks in Uganda

According to the study, the impact of prime lending rate on loan portfolio performance was substantial, with a percentage of 56.0%, as indicated by (Beta = .560; sig. <.05). This means that a change in the number of clients who take loans at prime lending rate will affect the loan portfolio performance of commercial banks by 56%. The high percentage suggests that prime lending rate

has a significant role in explaining variations in loan portfolio performance. The findings also reveal that prime lending rate has a statistically significant effect on loan portfolio performance, given the significant value of less than 0.05.

It is likely that the reason for the significant effect of prime lending rate on loan portfolio performance is due to the fact that an increase in prime lending rate results in an increase in interest rate, which in turn leads to an increase in loan installment payments. This increase in installment payments may make it difficult for some customers to afford their loan payments, as their affordability was based on the lower interest rate at the time of the loan origination. As a result, failure to pay may reflect poorly on loan performance.

Commenting on the importance of prime lending to the success of commercial banking, one interviewee said:

> "…it acts like a motivation, call it a reward to, or recognition of outstanding clients. I must say that prime lending is very discriminative and unfair to some clients…but benefiting the bank. You see the more credit issued the more the profitability. As a bank, we only regret giving out loans only when the clients fail to repay…" (Key Informant 2)

When asked why prime lending rates are not commonly published in the banking halls and the media adverts, one key informant reveals:

> "…banks give prime rates to clients that have a proven credit record with a given bank. Your credit history in another bank is not the basis of qualifying for a prime rate in our bank. I think you can see why we do not publish these rates to all bank customers. Actually, the deal for prime lending is negotiated between the branch manager and client upon successful evaluation…" (Key Informant 1)

The interviews conducted shed light on the situations in which prime lending affects the financial performance of the bank. Prime lending is provided to customers who have a reliable credit history and are assessed by the bank for their ability to repay. The significant impact of prime lending on loan portfolio performance of commercial banks contradicts the findings of Ibenyenwa et al. (2020), who indicate that lending interest rates of commercial banks in developing countries are high and hover around 4.3%. Although the research at Stanbic bank did not disclose the exact prime lending rate, the high number of customers continuously making inquiries for new credit is a strong indication that prime lending rates have a significant effect on loan portfolio performance.

The significant impact of prime lending rate on Stanbic bank's loan portfolio performance is in agreement with Shakeba and Sherene's (2015) study on revenue and loan diversification in Jamaican commercial banks between 2005 and 2015. The study found that diversification of the loan portfolio enhances banking stability and profitability. Similarly, Bashir and Sami (2021) demonstrated that loan diversification predicts the performance of commercial banks, with individual and corporate lending positively impacting commercial bank performance. The current study provides evidence of loan diversification in Stanbic bank, which positively affects loan portfolio performance. The practice of loan diversification appears to be more prevalent in larger banks such as Stanbic bank, which have substantial capital buffers.

The results of the present study, which demonstrate the significant impact of prime lending rates on loan portfolio performance in Stanbic bank, are in line with the findings of Aromorach (2013). Aromorach examined the relationship between credit management policies and loan portfolio performance in commercial banks in Uganda and found a significant association between credit terms and credit standards and the loan performance of commercial banks. In the case of Stanbic bank, the use of various types of credit by a number of clients suggests that credit management policies are being implemented, although specific policies are not specified in the study. The fact that clients continue to make inquiries for new credit further supports the existence of these policies The observation of a significant effect of prime lending rates on the loan portfolio performance of Stanbic bank contradicts the results of Kipngetich (2011), who found that interest rates do not significantly impact the profitability of commercial banks in the short run. In addition, the findings do not align with those of Al-tarawneh and Khataybeh (2015), who concluded that interest rates are not a significant predictor of the portfolio performance of Jordanian banks. However, the present study indicates that maintaining open credit card accounts for extended periods and having a low level of outstanding debts may negatively affect loan portfolio performance.

This is possibly because the customer can access cash to pay installment in case of an emergency where he is unable to raise funds and keeps a clean repayment record hence a good loan performance.

4.5.2 Effect of loan collateral on portfolio performance in commercial banks

The statistical analysis showed that there is a 14.4% positive change in loan portfolio performance for every unit increase in the number of clients using collateral security to secure loans from commercial banks. However, the insignificant value of the test statistic, which is greater than 0.05,

suggests that the effect of collateral security on loan portfolio performance is not statistically significant. This could be due to the fact that commercial banks offer a variety of unsecured loans, such as salary loans, prequalified loan facilities based on account performance, cash advances, and others, which may not require collateral

One of the respondents was asked why commercial banks stick to collateral security do even when they limit many interested borrowers from applying for credit. In response, the respondent said:

> "…*credit creation is one of the activities in the bank that are risky and indeed risky. From diverting the loan to investing it to failing ventures…. you just cannot guarantee the recovery*…" (Key Informant 2)

Another respondent reacted to the question of sticking to collateral, yet it eliminates many borrowers from accessing credit said,

> "…*I will tell you of one client in Iganga who secured a loan and bought kilos of meat, kilos of rice, a cock, and fish on the very day he secured the loan. Tell me, how can you guarantee the recovery of such a loan?*" (Key Informant 3)

he interviews conducted in this study highlight the importance of collateral in mitigating the risk of default on loans. Given the unpredictable nature of the business world, collateral serves as a form of security for banks to safeguard their investment. The lack of collateral puts banks at risk of losing money to borrowers who invest in uncertain ventures. The finding that collateral security has a non-significant effect on loan portfolio performance in Stanbic bank aligns with Balkenhol and Schutte's (2011) research, which suggests that lenders perceive collateral as an additional cost in terms of monitoring and repayment evaluation, thus making loans more expensive. They argue that collateral involves transaction costs, collateral substitutes, and the costs of using collateral during the loan period. The fact that some clients in Stanbic bank use cash from their personal accounts and inventory to secure loans suggests that collateral is associated with extra costs during the loan period

The lack of significant effect of collateral security on loan portfolio performance in Stanbic bank contradicts the findings of Nangila (2019), who found a significant impact of collateral security on financial performance. Despite this, there is evidence of customers using collateral to secure loans in Stanbic bank, such as real estates, outstanding invoices, and business equipment.

These findings are consistent with Murira (2010), who investigated the relationship between loan portfolio and financial performance of commercial banks in Kenya. The study found a significant

relationship between loan portfolio and financial performance, with the strength of the relationship associated with the backbone of the assets in lending institutions, including mortgage loans, business loans, and government loans. The study suggests that performing banks should have a portfolio mix that leans more towards business and government loans than personal and educational loans

4.6   Chapter Summary

Based on the results of this study, it can be concluded that interest rates play a crucial role in predicting loan portfolio performance in commercial banks. Specifically, prime lending rates are the most significant predictor of loan portfolio performance. These findings suggest that commercial banks in Uganda that prioritize prime lending, also known as corporate lending, are more likely to enhance their loan portfolio performance compared to those that do not. In addition to prime lending, disclosing the full extent of delinquent loans and extending the repayment period for difficult-to-repay loans are also beneficial in improving loan portfolio performance for commercial banks in Uganda.

CHAPTER FIVE
DISCUSSION OF FINDINGS, SUMMARY AND CONCLUSION

5.1 Introduction

This chapter presents the summary of the findings, conclusion, and recommendations on interest rates and loan portfolio performance. The summary, conclusion, and recommendations are presented according to the study objectives.

5.2 Summary of findings

The study showed that interest rates are a significant factor in determining loan portfolio performance in commercial banks, with prime lending rates being the most influential factor. The overall effect of interest rates on loan portfolio performance was 43.1%, according to the R Square value. The effect of central bank rates, on the other hand, was not statistically significant, with only a 6.6% effect, based on a Beta value of .066 and a significance level greater than 0.05. Collateral security, with a Beta value of .144 and a significance level greater than 0.05, had a 14.4% effect on loan portfolio performance.

5.3 Discussion of findings

5.3.1 Effect of central bank rate on loan performance in Stanbic bank, Kampala head office

The results indicating a lack of significant impact of the central bank rate on Stanbic bank's loan portfolio performance align with the findings of Akhtar, Lorie, and Petersend (2009) who examined the performance of central banks in Central and South Asia under economic decline. They found that central bank policies had a non-significant effect on the decrease in deposit volume. Though Stanbic bank's study did not find a decline in deposit volume, it did show the presence of outstanding balances of delinquent loans, which the bank had difficulty reporting each year.

The current study's results differ from those of Chepkorir et al. (2018), who found a significant relationship between central bank rate and commercial bank performance. The authors were motivated by the declining performance of commercial banks in Kenya in the past decade and concluded that a one-unit change in central bank rate increased commercial bank performance by a negligible 0.025. Even though the current study was conducted on a commercial bank, its non-significant finding on the effect of central bank rate on loan portfolio performance seems to support Chepkorir and colleagues' conclusion that central bank rate is not significant in the loan portfolio performance of Stanbic Bank

The non-significant impact of central bank rate on loan portfolio performance in this study contradicts the results of Mabati and Onserio (2020), who examined the relationship between the Central Bank Rate and financial performance in commercial banks in Kenya. The authors discovered a significant correlation between the predictor variables and financial performance, although central bank rate had the least predictive impact on financial performance. In contrast, the present study included central bank rate as a predictor variable and found it to be non-significant in predicting loan portfolio performance. The disparity in results could be attributed to variations in the predicted variables, which were loan portfolio performance in Stanbic bank and financial performance in Kenyan commercial banks.

5.3.2   Effect of prime lending rate on loan performance of commercial banks in Uganda

The significant impact of prime lending rates on loan portfolio performance in commercial banks contradicts the findings of Ibenyenwa et al. (2020) who suggest that lending rates in developing countries are high. The authors found that the lending rates of commercial banks in these countries hover around 4.3%. Although the actual prime lending rate in Stanbic bank was not reported in the current study, the high number of clients continuously inquiring about new credit is sufficient evidence to support the significant effect of prime lending rates on loan portfolio performance.

The significant effect of prime lending rate on loan portfolio performance observed in Stanbic bank is in agreement with Shakeba and Sherene's (2015) findings, which examined the revenue and loan diversification of Jamaican commercial banks between 2005 and 2015. The study revealed that diversifying loan portfolios can enhance banking stability and profitability. Similarly, Bashir and Sami (2021) found that loan diversification can predict commercial bank performance, and that individual and corporate lending can promote such performance. The availability of different types of credit to clients in the current study is a clear indication that diversification is practiced and has a positive effect on loan portfolio performance in Stanbic bank. The evidence suggests that loan diversification is more common in large banks such as Stanbic bank, which have significant capital buffers.

The results of the current study, which indicate that prime lending rates have a significant impact on the loan portfolio performance of Stanbic bank, align with the findings of Aromorach (2013). Aromorach's study examined credit management policies and loan portfolio performance in commercial banks in Uganda and found a significant relationship between credit terms and credit standards with loan performance. Similarly, the current study shows that the use of different types

of credit by a number of clients in Stanbic bank supports effective credit management policies. Although the specific credit management policies employed by Stanbic bank are not disclosed, the fact that clients continuously inquire about new credits provides evidence of the effectiveness of such policies.

The observed significant effect of prime lending rates on loan portfolio performance in Stanbic bank appears to contradict the findings of Kipngetich (2011), who found that interest rates have no significant effect on the short-term profitability of commercial banks. Similarly, the results disagree with Al-tarawneh and Khataybeh's (2015) study, which showed that interest rates do not have predictive power for the portfolio performance of Jordanian banks. The current study found some evidence suggesting that having open credit cards for a longer time and maintaining low amounts of outstanding debts might improve loan portfolio performance. This could be because customers can access cash to pay instalments in case of emergencies where they are unable to raise funds, resulting in a good repayment record and, hence, better loan performance.

5.3.3 Effect of loan collateral on portfolio performance in commercial banks

The findings that collateral security does not have a significant effect on loan portfolio performance in Stanbic bank align with Balkenhol and Schutte's (2011) study, which suggests that lenders view collateral as an added cost of monitoring and repayment assessment that increases the cost of the loan. The authors argue that collateral involves transaction costs, collateral substitute, and the costs of using the collateral during the loan period. The fact that some clients in Stanbic bank use their personal accounts and inventory to secure loans provides evidence that collateral is indeed associated with extra costs during the loan period.

Despite the fact that some customers in Stanbic bank use collateral to secure loans, the non-significant effect of collateral security on loan portfolio performance contradicts Nangila's (2019) research, which showed that collateral security has a significant impact on financial performance. Nonetheless, the study demonstrated that a considerable percentage of the participants were aware of bank customers who use real estates, outstanding invoices, and business equipment as collateral when borrowing from Stanbic bank.

The results of the study are consistent with Murira's (2010) findings, which showed a significant relationship between loan portfolio and financial performance of commercial banks in Kenya. This is because loan portfolios form a significant part of lending institutions' assets, including mortgage loans, business loans, and government loans. It is suggested that successful banks should have a

portfolio mix that focuses more on business and government loans, rather than personal loans and educational loans.

5.4   Conclusion

The current study has found that prime lending rates have a significant impact on the loan portfolio performance of Stanbic bank. Ugandan commercial banks that vary their interest rates demonstrate better loan portfolio performance, as high interest rates are associated with poor loan performance while low interest rates are linked to good loan performance. This conclusion is in line with previous research studies that suggest that interest rates have a significant impact on loan portfolio performance, such as those by Al-tarawneh and Khataybeh (2015), Bashir and Sami (2021), and Ibenyenwa et al. (2020).

The research discovered that the Central Bank Rate had no significant impact on the loan portfolio performance of Stanbic Bank in Uganda. Commercial banks that rely on adjustments to the Central Bank Rate as a long-term determinant of their loan portfolio performance may face insolvency because there are other costs, such as changes in technology and operational expenses, that also need to be factored into pricing. Furthermore, central banks may find it challenging to set flexible rates for commercial banks, particularly when the economy is experiencing the unprecedented effects of macroeconomic factors.

The research revealed that there is a significant impact of prime lending rates on the loan portfolio performance of Stanbic bank in Uganda. Commercial banks that include prime lending rates in their loan portfolio management strategy have better performance compared to those that do not. The significance of prime lending rates is because it helps guide commercial banks on the appropriate margin to set for a given facility based on factors such as loan term, risk, and type of loan. However, commercial banks should be aware of customers who have credit cards open for a prolonged period and those with low outstanding debts. This is because credit card debts ought to be paid within 30 days to prevent them from falling into arrears.

According to the study, collateral security does not have a significant effect on the loan portfolio performance of Stanbic bank in Uganda. Commercial banks that rely heavily on collateral security to ensure portfolio performance may face the risk of insolvency. This is because some borrowers may use their property as collateral, but may have issues with their property due to family conflict or other reasons, and may not be willing to repay the loan, knowing that the lender cannot dispose of the property after default. However, the use of real estate, business equipment, and outstanding

invoices may improve loan portfolio performance. Business equipment can be easily converted into cash, while lending against an invoice provides assurance of payment, simplifying recovery. Additionally, invoice financing does not cover the entire cost, and the customer is typically responsible for 60% to 80% of the cost, depending on the project's risk.

5.5   Recommendations

This study has established that central bank rate does not have a significant effect on loan portfolio performance in Stanbic bank.

To improve loan portfolio management, it is recommended that commercial banks update their human resource policies to provide credit officers with comprehensive understanding of the portfolio's makeup and associated risks. This would enable credit officers to guide customers in the timely application of loans and monitor loan portfolios effectively

To enhance customer decision-making and satisfaction, commercial banks should consider revising their financial policies to facilitate the flow of information on loan terms and interest rates offered. This will enable customers to make informed decisions based on their business needs and preferences.

The study has found that collateral security has no significant impact on the loan portfolio performance of Stanbic bank. To assist customers with their loan processes, commercial banks should create sufficient information profiles of their businesses that include loan pricing, systems, and controls. Commercial banks should also provide adequate information to customers about loan terms and conditions. Customers should also seek independent advice to gather insights and make informed decisions about borrowing.

The research has shown that interest rates have a significant impact on the loan portfolio performance of commercial banks in Uganda. Therefore, it is recommended that the Bank of Uganda, through its fiscal policies, should provide commercial banks with affordable interest rates, which will ultimately benefit borrowers.

To avoid negative impacts on loan portfolios, commercial banks should provide beneficial grace periods, moratoriums, and rescheduling options for loan facilities in cases where borrowers face difficulties in loan repayment. It is crucial for banks to act promptly to prevent any adverse effects on the loan portfolio.

In conclusion, Stanbic bank should implement an efficient tracking system to monitor borrower commitments and usage to prevent laxity in loan repayment. Failure to fulfill loan covenants may result in automatic increase in interest rates.

5.6   Areas for future research

This study was conducted basing on Stanbic bank in Kampala branches. The findings are limited to Stanbic bank as a commercial bank. Future researchers should consider a comparative study of the effects of interest rates on the financial performance of commercial banks in Uganda.

The study was limited to banking staff. Such a population could not give a practical experience on borrowers' experiences on collateral security. Future researchers should consider assessing the role of collateral security in securing credit from a borrowers' perspective.

The study adopted a cross-sectional design, which reports situations are they stand at the time of investigation. Such a design cannot explain the loan portfolio performance in the previous period. Future researchers should consider a longitudinal study on the loan portfolio performance of commercial banks in Uganda.

REFERENCES

Aballey, F. B. (2009). Bad Loans Portfolio: The Case of ADB. Unpublished MBA Thesis, *Kwame Nkrumah University of Science and Technology.*

Abass M. B. & Khan, S. T. (2020). Scrutinize the effectiveness of loan portfolio management: challenges and remedial. *UGC Care Listed Journal.*Vol-40-Issue 59-(2020).

Adamu, I., Asongo, A.I. &Nyor, N. (2014). Credit portfolio management in microfinance banks: Conceptual and practical insights. ModibaAdama University of Technology, Yola, Nigeria.

Afroz, N. N. (2013). Credit Portfolio Management of Bangladesh KrishiBank.*Global Journal of Management and Business Research Administration and Management*, *13*(12), 15-20.

Akhtar, S., Lorie, H., & Petersend, A. (2009). *Effectiveness of central banks and their role in the global financial crisis. A case of selected economies in Central and South Asia.* Philippines: Asian Development Bank.

Allen, N. B., Richard, J. H., & Giorgio, P. S. (2005).The role of capital in financial institutions, Finance and Economics Discussion Series 95-23. Board of Governors of the Federal Reserve System (U.S.)

Al-tarawneh, A., & Khataybeh, M. (2015). Portfolio Behaviour of Commercial Banks: The Expected Utility Approach: Evidence from Jordan. *International Journal of Economics and Financial Issues, 2015, 5(2), 312-323*

Aromorach, P. (2013). *Credit management poicies and oan portolio performance in Commercial bankks A case o Equity Bank, Adjuman.* Kampala: Uganda Management Institute.

Balkenhol, B., & Schutte, H. (2011). *Collateral, Collateral Law and Collateral Substitutes.* Geneva: International Labor Organization.

Bashir, A. K., & Sami, A. (2021). Portfolio lending strategy and bank performance in Jordan: What to do? *Academy of Accounting and Financial Studies Journal, 25*(3).

Berger, A. N. & Gregory, F. U. (2004).The institutional memory hypothesis and procyclicality of bank lending behaviour.*Journal of financial intermediation* 13, 458-495

Boissay, F. (2011). Credit rationing, output gap, and business cycles. *ECB Working Paper*, (87), 1-38.

Chepkorir, C., Ondiek, B. A., & Charles, T. (2018). The relationship between interest rate and performance of commercial banks in Kenya. *International Journal of Economics, Commerce and Management, 6*(11), 1–16.

Crabb, P. R., & Keller, T. (2006).A Test of Portfolio Risk in Microfinance Institutions.*Faith& Economics*, *47/48*-Spring/Fall, 25-39.

Creswell, J. W. (2008). *Research design, qualitative & quantitative approaches.* London: Sage.

David, C., & Dionne, C. (2005).Banks' Loan Portfolio Diversification. Unpublished Master's Thesis in Industrial and Financial Economy School of Economics and Commercial Law at the University of Gothenburg, Sweden.

Derrick, T. H., Peterson, L., &Premschak, C. (2008).Loan Portfolio Management.

Egert, B., Backe, P., &Zumer, T. (2006). Credit growth in Central and Eastern Europe new (over)shooting stars? European Central Bank, Working Paper Series No. 687.

Foos, D., Norden, L., & Weber, M. (2010).Loan growth and riskiness of banks.*Journal of Banking and Finance, 34,* 2929–2940.

Garber, C. (2007).*Private Investment as a Financing Source for Micro Credit*. University of Miami: The North-South Center.

George, et al, (2013). An Analysis of Loan Portfolio Management on Organization Profitability: Case of Commercial Banks in Kenya. *Research Journal of Finance and Accounting*, *4*(8), 24-35.

Helms, B. (2008). Cost allocation for multi-service microfinance institutions: Occasional paper No.2 April 2008. CGAP: Washington DC.

Huang, C., When, Y.,& Liu, Z. (2014).Analysis on financing difficulties for SMEs due to asymmetric information.*Global Disclosure of Economics and Business, 3*(2).

Ibenyenwa, E., Ezeabasili, V., Okaro, C., & Ogbonna, K. S. (2020). Interest rates and commercial bank kcredit: Evidence from selected emerging African Economies 1991–2018. *Discovery, 56*(294), 321–332.

Jefferis, K., Kasekende, E., Rubatsimbira, K. D., & Ntungire, N. (2020). *Exploring the Determinants of Interest Rate Spreads in the Uganda Banking System WP No. 17/2020.* Kampala: Bank of Uganda.

Kagwa-Pafula. (2000). Financial Institutions Loan Portfolio Performance in Uganda: A Comparative Study of Commercial Banks and Micro Finance Institutions, Kampala: University: Unpublished MSc Dissertation

Kasekende, L., &Aleema, I. (1999).*Reforming Finance in a Low Income Country: The Case of Uganda*, Kampala: Bank of Uganda

Kasibante, M. (2000).Interest Rates for the Micro Finance Banker, Vol. 1, Issue 1, June

Keirungi, J. (2006). Internal Controls and Service Delivery Performance at Makerere University, Makerere University: Unpublished MBA Dissertation

Kibor, A. M., Ngatu, S. T., &Kwasira, J. (2015).The Impact of Credit Risk Management on Loan Performance in Commercial Banks in Nakuru County, Kenya.

King, R. G., & Levine, R. (2014). Finance, Entrepreneurship and Growth, *Journal of Monetary Economics,* 3 (108) 717-737.

Kipngetich, K. M. (2011). *The relationship between interest rates and inancial performance of commercial banks in Kenya.* Nairobi: University of Nairobi.

Kono, H., &Takahashi, K. (2010). Microfinance revolution: Its effects, innovations and challenges. *Development Economics Journal*48, no. 1, pp.15-73.

Krejcie, R., & Morgan, D. (1970).Determining sample size for research activities.*Educational and psychological measurement*, 30, 607 – 610.

Loan Analytics (2014).*Dealing in Commercial Loans: Loan Portfolio Management*, http: //www.exodusdesign.com/analytics/portfolio_cost_allocation.html

Mabati, J. R., & Onserio, R. F. (2020). The Effect of Central Bank Rate on Financial Performance of Commercial Banks in Kenya. *Journal of Accounting and Finance, 4*(5), 24–40.

Mbanga, J. (2009). Interest rates: Bank of Uganda changes tactics, The Weekly Observer.

Mugenda, O.M., &Mugenda, A.G. (1999). Research Methods: Quantitative & Qualitative approaches, Acts Press

Murira, M. M. (2010). *The relationship between loan portfolio composition and financial performance of commercial banks in Kenya.* Nairobi: University of Nairobi.

Mutebile, T. E. (2008). Uganda's new credit reference bureau.Speech by Governor of the Bank of Uganda, at the launch of the Credit reference bureau, Bank of Uganda.Retrieved from: http://www.bis.org/review/r081205c.

Nangila, M. A. (2019). Collateral security as a determinant of commercial banks financial performance. *International Journal of Science and Technology, II*.

Nyaundi, D. O., & Jagongo, A. (2013). Effects of Lowering Central Bank Rate on Bank's Prime Rate: an Analysis of Kenyan Commercial Banks. *Journal of Finance and Bank Management, 1*(2), 1–9.

Ritchie, J., & Lewis, J. (2003). *Qualitative Research Practice. A guide for social science students and researchers.* New Delhi: SAGE Publications.

Shakeba, F., & Sherene, B. (2015). *Does Revenue and Loan Portfolio Diversification Improve Bank Performance & Stability? Evidence from Jamaican Commercial Banks.* Jamaica: Bank of Jamaica.

APPENDIX 1: SURVEY QUESTIONNAIRE FOR RESPONDENTS

Dear respondent

My name is Mwebesa Samson I am doing research on the relationship between interest rates and loan portfolio performance in commercial banks in Uganda a case of Stanbic Bank, you have been identified as a respondent for this study. This survey will help us better understand the effect of interest rates on loan portfolio management at Stanbic Bank Uganda. The survey should take no more than one hour of your time. Your participation is voluntary, and you can withdraw at any time without penalty. Of course, all data will be kept confidential. By completing the survey, you indicate that you voluntarily participate in this research. Thank you for your time.

Respondents' background information (please tick your most right choice).

1. What is your gender?

    1. Male
    2. Female

2. What is your highest level of education?

    1. O-level Secondary
    2. A-level Secondary School
    3. Diploma
    4. Degree
    5. Master's degree
    6. Others specify………………………

3. What is your age bracket?

    1. Below 24 years
    2. 25-30
    3. 31-35
    4. 36-40
    5. 41-45
    6. 46-above

5. How long have you been working with this bank?

1. Less than 2 years

2. 2-5years

3. 5-8 years

4.8-11years

7. 11 years and above

Section B: Interest Rates

In the following section, tick to indicate your opinion on the following statements on interest rates in your bank. Use

5 = strongly Agree   4 = Agree   3 = Not Sure 2 = Disagree 1 = Strongly disagree

SN	Claims	5	4	3	2	1
	a) Central Bank Rate					
1.	The target interest rates at which this bank can lend other banks inconveniences our operations					
2.	The discount rate at which this bank borrows from central bank inconveniences our operations					
3.	The current central bank rate has increased the cost of borrowing					
4.	The current central bank rate has made borrowing cheaper					
	b) Prime lending Rate					
5.	This bank has many borrowers who repay their loans on time					
6.	At any any point in time, most of the borrowers have low amount in outstanding debt					
7.	I know of many customers who have had a credit card open for a long time					
8.	I am aware of many customers in this bank who use different types of credit					
9.	I am aware of some customers who regularly make inquiries on new credit					
	c) Collateral Security					
10.	I know of some borrowers in this bank who have used real estates as collateral					
11.	I am aware of some borrowers in this bank who have used business equipment as collateral					
12.	I am aware of some borrowers in this bank who used inventory as collateral					
13.	I am aware of some borrowers in this bank who have secured financing based on their outstanding invoices					

14.	I am aware of some borrowers in this bank who have given the bank the right to seize all their business assets should they fail to repay the loan					
15.	I know of some borrowers in this bank who have used cash on their personal bank accounts to secure loans					

Section B: Loan portfolio performance

In the following section, tick to indicate your opinion on the following statements about loan portfolio performance in your bank. Use

5 = strongly agree   4 = Agree   3 = Not Sure 2 = Disagree 1 = strongly disagree

Variable Claims on loan portfolio performance	**5**	**4**	**3**	**2**	**1**
1.	This bank reports the actual late payment on the loan					
2.	This bank reports the entire outstanding balance of the delinquent loan					
3.	When borrowers find it difficult to pay, this bank spreads the remaining balance for a longer term					
4.	Most of the loans from this bank are repaid weekly					
5.	Most of the loans from this bank are repaid monthly					
6.	Most of the loans in this bank are repaid at the end of the loan period					
7.	I know of some loans, which this bank has written off					
8.	Most of the lending in this bank are small business loans					
9.	Loans from this bank are less collateralized					
10.	This bank has got a lot of assets in collaterals					

Thank you for participating

APPENDIX 2: INTERVIEW GUIDE FOR BRANCH CREDIT MANAGERS, BRANCH MANAGERS, AND CREDIT EVALUATION MANAGERS

1. From your banking experience and your knowledge of the functioning of the central bank, how do the functioning of central bank affect the banking industry as a whole?

2. It has been reported in many business fora that the central bank rate is harmful to the effective operations of commercial banks. Why so yet central bank is actually fulfilling its mandate?

3. Practically, how increasing or decreasing the central bank rate may affect the loan portfolio motive of commercial banks.

4. Talk about the prime lending rate. What is it? Of what importance is it in the effective management of loan portfolio?

5. Why do commercial banks stick to collateral security even when they limit many interested borrowers from applying for credit?

APPENDIX 3: SAMPLE SIZE DETERMINATION TABLE

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	20000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	100000	384

SOURCE: From R. V. Krejcie and D. W. Morgan, "Determining Sample Size for Research Activities," *Education and Psychological Measurement, 30,* p. 608, copyright © 1970 Sage Publications, Inc., Reprinted by permission of Sage Publications, Inc.