CREDIT RESTRUCTURING STRATEGIES, RISK MONITORING, AND LOAN RECOVERY OF COMMERCIAL BANKS IN NAKURU COUNTY, KENYA

BY

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DECLARATION

This project is my original work and has not been submitted in this or any other university known to me.

Sign……. Date……

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DEDICATION

This project is dedicated to my kids Joy and Hope as well as my parents and siblings.

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ABSTRACT

The Central Bank of Kenya (CBK) has taken steps to address the pressing issue of loan recovery, by implementing measures like regulatory forbearance and proposed amendments to the Banking Act. Credit restructuring strategies gained prominence as a crucial tool for providing financial relief to borrowers during economic stress and enhancing loan recovery. Moreover, a lack of understanding regarding the effectiveness of the credit restructuring strategies in place could result in a suboptimal financial system in Kenya. Loan recovery trends extend beyond the banking sector, impacting borrowers, investors, regulators, and the broader economy. An effective loan recovery ensures financial stability by reducing the prevalence of non-performing loans. The purpose of the study was to examine the moderating role of risk monitoring on the relationship between credit restructuring strategies, and loan recovery of commercial banks in Nakuru County. The specific objectives were: to determine the effect of extended repayment plan, interest rate reduction, principal forbearance, debt consolidation and balloon payment extension on loan recovery of commercial banks in Nakuru County, Kenya. Agency Theory and the Financial Distress Theory underpinned the study variables. The research adopted an explanatory research design. The target population comprised of 348 bank employees in the credit section drawn from 30 commercial banks. The sample size was 186 bank employees. Using SPSS Version 25, the researcher computed the descriptive statistics including frequencies, means and percentages, while inferential statistics involved the use of Pearson correlations and hierarchical regression analysis to determining the associations and effects between the study variables. The study findings indicated that the credit restructuring strategies specifically; extended repayment plan ($\beta=0.846$, $p<0.05$), interest rate reduction ($\beta=0.229$, $p<0.05$), principal forbearance ($\beta=0.758$, $p<0.05$), debt consolidation ($\beta=1.086$, $p<0.05$) and balloon payment extension ($\beta=0.335$, $p<0.05$) have a positive and significant effect on the loan recovery of commercial banks. Additionally, risk monitoring depicted an enhancing moderating effect on the relationship between; extended repayment plan ($\Delta R^2=0.028$, $\beta=0.596$, $p<0.05$), interest rate reduction ($\Delta R^2=0.121$, $\beta=0.567$, $p<0.05$), principal forbearance ($\Delta R^2=0.08$, $\beta=0.758$, $p<0.05$), debt consolidation ($\Delta R^2=0.004$, $\beta=1.086$, $p<0.05$), balloon payment extension ($\Delta R^2=0.01$, $\beta=0.335$, $p<0.05$), and loan recovery of commercial banks. In conclusion, the credit restructuring strategies, including extended repayment plans, interest rate reduction, principal forbearance, debt consolidation, and balloon payment extension, positively and significantly influence loan recovery of commercial banks. Moreover, risk monitoring strengthens the effectiveness of these strategies by further enhancing their impact. It is recommended for the commercial banks should adopt and enhance these credit restructuring strategies, particularly with robust risk monitoring, to improve loan recovery outcomes. Future research should consider other mediating and moderating variables that could impact the relationship between credit restructuring strategies and loan recovery.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS AND ABBREVIATIONS

AfDB	African Development Bank
CBK	Central Bank of Kenya
DSSI	Debt Service Suspension Initiative
EBA	European Banking Authority
G20	Group of Twenty
GSI	Global Standing Instruction
HAMP	Home Affordable Modification Program
IMF	International Monetary Fund
NACOSTI	National Commission for Science, Technology and Innovation
NPLs	Non-Performing Loans
SACCOs	Savings and Credit Cooperatives
SPSS	Statistical Package for Social Sciences
UN	United Nations

OPERATIONAL DEFINITION TERMS

Balloon Payment Extension: This refers to the postponement of a large, lump-sum payment (balloon payment) that becomes due at the end of a loan term. This strategy provides a borrower with additional time before the balloon payment is required, offering short-term relief while considering their financial circumstances (Rehman et al., 2019; Hawkins & Turner, 2021).

Debt Consolidation: This involves the amalgamation of multiple existing debts into a single, manageable loan with revised terms. This strategy aims to simplify repayment for borrowers, potentially lowering interest rates and extending repayment periods. Debt consolidation is utilized as part of credit restructuring to enhance borrower financial adaptability and overall loan recovery (World Bank, 2021; Grigorian, 2021).

Extended Repayment Plan: This refers to an extended repayment plan refers to a structured arrangement between a borrower and a lending institution, involving the extension of the repayment duration beyond the initially agreed-upon terms. This strategy aims to provide financial flexibility to borrowers facing economic challenges, allowing them an extended timeframe to meet their loan obligations (Grigorian, 2021).

Interest Rate Reduction: This involves the deliberate lowering of the interest rates charged on existing loans by a lending institution. This strategy is implemented to ease the financial burden on borrowers, increase affordability, and stimulate timely repayments. It is a key component of credit restructuring strategies aimed at enhancing loan recovery (World Bank, 2020; Grigorian, 2023).

Credit restructuring Strategies: Credit restructuring strategies encompass a set of financial measures and adjustments employed by lending institutions to modify the terms and conditions of existing loans.

These strategies include extended repayment plans, interest rate reduction, principal forbearance, debt consolidation, and balloon payment extension. The goal is to address challenges faced by borrowers, improve loan performance, and enhance overall loan recovery (Rehman et al., 2019).

Loan Recovery: Loan recovery refers to the successful retrieval of loaned funds by a lending institution, achieved through the implementation of effective strategies and measures. It involves the timely repayment of loans by borrowers and aims to minimize non-performing loans (NPLs) in the banking portfolio, contributing to the financial health and sustainability of the lending institution (CBK, 2021).

Risk Monitoring: refers to the continuous process of identifying, assessing, and tracking potential risks associated with credit restructuring strategies to ensure their effectiveness in enhancing loan recovery. It involves systematically evaluating the impact of these strategies on risk levels and adjusting them as needed to optimize loan recovery outcomes for commercial banks (Mistry & McKeon, 2018).

Principal Forbearance: Principal forbearance refers to the temporary suspension or reduction of the repayment of the principal amount of a loan by a lending institution. This strategy provides short-term relief to borrowers facing financial difficulties, allowing them to navigate economic challenges without the immediate burden of repaying the full principal amount (AfDB, 2021; Hawkins & Turner, 2021).

CHAPTER ONE

INTRODUCTION

1.0 Introduction

Chapter One establishes the foundation for this study by exploring the background, problem statement, and research objectives. It begins with the background of the study, followed by statement of the problem. The chapter outlines the general and specific objectives guiding the research, presents the research hypothesis for testing variable relationships, and discusses the study's significance, emphasizing its potential contributions to theory, practice, and policy. Finally, it defines the study's scope, setting the boundaries within which the research was conducted.

1.1 Background of the Study

In today's dynamic financial landscape, the importance of maintaining a healthy credit system cannot be overstated. Financial institutions play a crucial role in economic stability by providing the capital necessary for both individuals and businesses to thrive. However, with the extension of credit comes the inevitable risk of non-repayment, which can threaten the financial health of lending institutions and the broader economy. Loan recovery in commercial banks worldwide is a critical aspect of financial management, ensuring the viability and stability of banking institutions.

The process of loan recovery involves strategies and mechanisms employed by banks to retrieve funds from borrowers who have defaulted on their loan obligations. With the increasing complexity of the global financial landscape, loan recovery has garnered significant attention from researchers and practitioners alike. European firms rely heavily on bank lending to finance investment and working capital, and thus loan

recovery is inevitably of essence (European Investment Bank, 2022). The importance of effective loan recovery strategies cannot be overstated, as they directly impact the financial health and stability of commercial banks. Successful loan recovery mitigates credit risk, preserves asset quality, and safeguards the profitability and liquidity of banks (Bofondi & Gobbi, 2020). In the aftermath of economic downturns or during periods of financial instability, the effectiveness of loan recovery efforts becomes even more pronounced, as banks seek to minimize losses and maintain operational resilience.

In recent years, several trends have emerged in the realm of loan recovery, reflecting evolving market dynamics and regulatory frameworks. One notable trend is the increasing adoption of technology-driven solutions in loan recovery processes. Advancements in data analytics, artificial intelligence, and machine learning have empowered banks to enhance their capabilities in assessing credit risk, identifying early warning signals of potential defaults, and implementing targeted recovery strategies (Cohen & Scatigna, 2021). Additionally, the rise of digital platforms and fintech innovations has facilitated more seamless communication and engagement between banks and borrowers, streamlining the loan recovery process and improving overall efficiency. Another trend is the growing emphasis on sustainable and responsible lending practices, driven by regulatory initiatives and societal expectations. Banks are increasingly integrating environmental, social, and governance (ESG) considerations into their loan recovery strategies, aligning with broader sustainability goals and ethical principles (Gallagher & Mee, 2020).

The implications of loan recovery trends extend beyond the banking sector, impacting borrowers, investors, regulators, and the broader economy. Effective loan recovery

contributes to financial stability by reducing the prevalence of non-performing loans and enhancing confidence in the banking system (Cordell et al., 2021). Moreover, successful loan recovery efforts support economic growth and development by ensuring the efficient allocation of capital and promoting access to credit for businesses and individuals. Conversely, challenges in loan recovery, such as prolonged default cycles or systemic weaknesses in recovery mechanisms, can pose risks to financial stability and hinder economic recovery efforts (Claessens et al., 2020). As such, policymakers and regulatory authorities play a crucial role in shaping the regulatory framework governing loan recovery practices, striking a balance between facilitating lending activities and safeguarding financial stability. In summary, the background of the study on loan recovery in commercial banks across the world underscores its significance, highlights key trends shaping the landscape, and emphasizes the broader implications for stakeholders and the economy as a whole.

In the aftermath of the global financial crisis, the vulnerability of lending institutions to economic downturns became evident, emphasizing the need to protect both borrowers and lenders (Rehman et al., 2019). Credit restructuring strategies gained prominence as a crucial tool for providing financial relief to borrowers during economic stress and enhancing loan recovery (Grigorian, 2023). The commercial banking sector in the European economies has witnessed the emergence of credit restructuring strategies as pivotal in addressing challenges in loan recovery (Hawkins & Turner, 2021). The COVID-19 pandemic intensified the global need for these strategies, leading governments and financial institutions, including commercial banks, to implement various programs aimed at assisting affected borrowers (Hawkins & Turner, 2021).

Internationally, interest rate reduction and various debt relief initiatives have been common approaches to alleviate the financial burden on borrowers (World Bank, 2020). However, challenges exist, including the participation of private creditors, insufficient relief amounts, and potential negative impacts on credit ratings (AfDB, 2021). For instance, the G20 Debt Service Suspension Initiative (DSSI), which provides temporary suspension of debt service payments for eligible low-income countries, has faced difficulties in securing the full participation of private creditors, who hold a significant share of the debt of these countries (AfDB, 2021). Moreover, the DSSI only provides liquidity relief, not debt reduction, and thus may not be sufficient to address the debt sustainability challenges of some countries (AfDB, 2021). Furthermore, the DSSI may have adverse effects on the credit ratings of the beneficiary countries, as some rating agencies may view it as a sign of distress or default (AfDB, 2021).

In Africa, credit restructuring has been critical due to increased debt-to-GDP ratios, with specific challenges faced by countries like Ethiopia, Chad, and Zambia (World Bank, 2021). These countries have requested debt relief under the G20 Common Framework for Debt Treatments, a process that aims to provide comprehensive and coordinated debt restructuring for low-income countries (UN, 2023). However, the implementation of the Common Framework has been slow and complex, as it involves negotiations with multiple creditors, including official bilateral, multilateral, and private creditors. The IMF has called for quick creditor agreements on these countries' debts, as this could unlock IMF financing programs and disbursements for them (Zawya, 2023). The IMF has also stressed the need to monitor the impact of credit restructuring on the banking sector, as it could pose risks such as weakening profitability, eroding capital buffers, and impairing asset quality. Therefore, the IMF

has recommended sound regulatory and supervisory frameworks, enhanced transparency and disclosure, and regular performance and impact assessments (IMF, 2021).

Credit restructuring played a significant role in responding to the economic challenges posed by the pandemic in Kenya, (CBK, 2021). The removal of the interest rate cap in November 2019 also influenced credit restructuring and recovery dynamics, impacting both positively and negatively (CBK, 2019). Loan recovery is a pressing issue in Kenya, with the non-performing loan (NPL) ratio increasing, particularly in sectors like tourism, trade, transport, and manufacturing (CBK, 2021). The Central Bank of Kenya (CBK) has implemented measures to enhance loan recovery, including regulatory forbearance and proposed amendments to the Banking Act (CBK, 2021). Equity Bank in Kenya has actively utilized credit restructuring strategies, making it a focal point for studying the effectiveness of such strategies in navigating economic uncertainty (Munyua, 2020; Orok, Okon & Titus, 2022).

The study on credit restructuring strategies in commercial banks in Nakuru County becomes crucial in evaluating the impact of such strategies amid economic challenges, regulatory changes, technological advancements, shifting customer behaviors, and competitive dynamics (CBK, 2020; Omondi & Owino, 2021; Kibe et al., 2018). Factors such as environmental and social considerations, political and economic stability, and global economic trends also play roles in influencing Equity Bank's approach to loan recovery (Nyang'au et al., 2020; Kenya Bankers Association, 2018; World Bank, 2021). Understanding how these diverse factors interact can contribute to the resilience of Kenya's financial system and provide insights into adapting credit restructuring strategies in dynamic environments (Kamau et al., 2019).

1.1.1 Banks in Nakuru County

In recent years, commercial banks in Kenya have faced persistent challenges with loan recovery, leading to elevated levels of non-performing loans (NPLs) that undermine their financial health (Boudina, 2023). The COVID-19 pandemic exacerbated these challenges, causing economic disruptions that strained borrowers' ability to repay loans. Despite efforts by banks to implement stringent credit risk assessment measures, including the use of credit reference bureaus, loan defaults persist due to factors such as limited access to credit, inadequate collateral, and weak legal frameworks for loan recovery.

Non-performing loans (NPLs) have been a persistent challenge for banks in Kenya. Factors such as slow economic growth, business failures, and inadequate credit risk management have contributed to the rise in NPLs. Data by the Central Bank of Kenya (CBK) shows that the banking sector’s gross non-performing loans (NPLs) increased by 25.67 percent to Ksh.635.8 billion ($4.37 billion) in November 2023, from Ksh.505.9 billion ($3.48 billion) in the same period in 2022. The ratio of NPLs to gross loans increased by 150 basis points to 15.3 percent from 13.8 percent in the same period (Anyanzwa, 2024).

The high NPL levels have prompted banks to adopt more aggressive debt collection strategies, including restructuring loans. However, these efforts have not been entirely successful in addressing the underlying issues contributing to loan defaults, highlighting the need for a multifaceted approach to enhance loan recovery mechanisms (Oganda, Mogwambo & Otieno, 2019). Banks have been working diligently to address this issue through credit restructuring, improved credit assessment processes, and enhanced recovery mechanisms.

In Nakuru County, commercial banks play a pivotal role in supporting the local economy by providing loans to individuals and businesses. However, the loan recovery status of commercial banks in Nakuru County has been a subject of concern, with many banks facing challenges in recovering loans from borrowers (Karanja, 2021). Despite efforts to mitigate non-performing loans (NPLs), several factors contribute to the high levels of loan defaults in the region. These factors include economic fluctuations, which affect the ability of borrowers to repay loans, as well as inadequate credit risk assessment practices by banks, leading to higher default rates. Moreover, the lack of effective collateral management mechanisms and challenges in legal frameworks for loan recovery exacerbate the problem of non-performing loans in Nakuru County.

In response to the loan recovery challenges, commercial banks in Nakuru County have increasingly adopted credit restructuring strategies as a means to address non-performing loans and improve their recovery status (Kaigu & Theuri, 2019). Credit restructuring involves modifying the terms of existing loans to make them more manageable for borrowers facing financial difficulties, thereby reducing the likelihood of default. These restructuring strategies may include extending the loan repayment period, reducing interest rates, or offering payment holidays to borrowers. By implementing credit restructuring measures, banks aim to provide relief to struggling borrowers while also minimizing potential losses from non-performing loans (Mahlangu & Chowa, 2022). However, the success of these restructuring efforts depends on effective communication and collaboration between banks and borrowers, as well as robust risk management practices to assess the viability of restructuring arrangements and ensure long-term loan sustainability. Therefore, there is need to investigate these aspects in the context of commercial banks in Nakuru County

1.2 Statement of the Problem

Loan recovery in commercial banks is indispensable for ensuring financial stability and viability, as it directly impacts the institution's asset quality, liquidity, and overall profitability. The primary challenge in loan recovery lies in efficiently reclaiming overdue funds while maintaining positive customer relationships and adhering to regulatory standards. Financial institutions often find themselves walking a tightrope, balancing the need for assertive collection practices with the risk of damaging their reputation and customer loyalty. This dual pressure of effective recovery and compliance adherence can strain resources.

Effective strategies are imperative to retrieve funds from defaulted borrowers, as non-performing loans can significantly erode a bank's balance sheet and impede its ability to lend further. Moreover, successful loan recovery efforts enhance investor confidence, bolster regulatory compliance, and contribute to the sustainability of the banking sector. Therefore, implementing robust and efficient recovery strategies is paramount for commercial banks to mitigate risks, maintain financial health and sustainably support economic growth and development (Hawkins & Turner, 2021).

Nevertheless, despite various credit restructuring strategies and risk monitoring mechanisms, commercial banks in Kenya, including those in Nakuru County, continue to face challenges in recovering loans (Rehman et al., 2019). In Q1 2022, the bad debt stock in Kenya soared to $4 billion (KSh 473 billion), indicating a significant challenge in loan recovery within the commercial banking sector (National Treasury of Kenya, 2023). The loan performance has been a concern, with a significant rise in bad loans from Ksh 27.5 billion in 2020 to Ksh 43.9 billion in 2021. There was a 10.9% increase in gross NPLs in the first quarter of 2023 compared to the

previous quarter. Despite efforts, loan recovery by commercial banks continued to fall short of expectations throughout 2023 (Central Bank of Kenya, 2023). These statistics underscore the pressing need for enhanced loan recovery strategies and mechanisms within the banking industry to mitigate the adverse effects of non-performing loans on financial stability and economic growth. This scenario underscores the urgency to investigate the moderating role of risk monitoring on the effectiveness of credit restructuring strategies in Nakuru County's commercial banks.

The dynamic economic landscape in Kenya is influenced by factors such as the COVID-19 pandemic. The emergence of the COVID-19 pandemic has exacerbated existing economic vulnerabilities, leading to disruptions in business operations, reduced consumer spending, and increased unemployment rates, all of which contribute to higher default rates among borrowers. Additionally, frequent regulatory changes, aimed at enhancing financial stability and consumer protection, require banks to continuously adapt their lending practices and risk management frameworks, potentially impacting loan recovery strategies. Moreover, rapid technological advancements have transformed the banking industry, facilitating digital lending platforms and altering customer preferences and behaviors, further complicating the loan recovery process. Overall, navigating these multifaceted challenges demands innovative approaches and robust risk management strategies from commercial banks to effectively recover loans in Kenya's evolving economic environment. (Munyua, 2020; CBK, 2020; Kariuki, 2019; Omondi & Owino, 2021; Mbaka & Mwangi, 2019; Kibe et al., 2018; Nyang'au et al., 2020; Kenya Bankers Association, 2018). These challenges manifest in potential hurdles faced by banks, emphasizing the need for a deeper understanding of the effectiveness of credit restructuring strategies amidst these complexities (Orok, Okon & Titus, 2022). The investigation into the moderating

role of risk monitoring is therefore crucial to enhance risk management frameworks, optimize loan recovery efforts, and safeguard financial viability amidst evolving economic dynamics and regulatory requirements in Nakuru County's commercial banks.

Furthermore, a lack of empirical evidence on the effectiveness of credit restructuring strategies and the role of risk monitoring may hinder economic growth and lead to a suboptimal financial system in Kenya. Therefore, this study aims to address these gaps by investigating the moderating role of risk monitoring on the effect of credit restructuring strategies on loan recovery in commercial banks in Nakuru County. By delving deeper into the challenges surrounding loan recovery and assessing the effectiveness of various credit restructuring strategies, this research endeavor sought to provide insights that can inform policy decisions and improve the resilience and responsiveness of the financial system.

1.3 Objectives of the Study

1.3.1 General Objective

To examine the moderating role of risk monitoring on the relationship between credit restructuring strategies, and loan recovery of commercial banks in Nakuru County.

1.3.2 Specific Objectives

1. To analyze the effect of extended repayment plan on loan recovery of commercial banks in Nakuru County
2. To assess the effect of interest rate reduction on loan recovery of commercial banks in Nakuru County
3. To explore the effect of principal forbearance on loan recovery of commercial banks in Nakuru County

4. To examine the effect of debt consolidation on loan recovery of commercial banks in Nakuru County
5. To analyze the effect of balloon payment extension on loan recovery of commercial banks in Nakuru County
6. To assess the moderating effect of risk monitoring on the relationship between:

   6a. Extended repayment plan and loan recovery of commercial banks in Nakuru County.

   6b. Interest rate reduction and loan recovery of commercial banks in Nakuru County.

   6c. Principal forbearance and loan recovery of commercial banks in Nakuru County.

   6d. Debt consolidation and loan recovery of commercial banks in Nakuru County.

   6e. Balloon payment extension and loan recovery of commercial banks in Nakuru County.

1.4 Research Hypothesis

HO1: Extended Repayment Plan has no statistically significant effect on the loan recovery of commercial banks in Nakuru County.

HO_2: Interest rate reduction has no statistically significant effect on the loan recovery in commercial banks in Nakuru County.

HO_3: Principal forbearance has no statistically significant effect on loan recovery in commercial banks in Nakuru County.

HO_4: Debt consolidation has no statistically significant effect on the loan recovery in commercial banks in Nakuru County.

HO_5: Balloon payment extension has no significant effect on the loan recovery in commercial banks in Nakuru County.

HO_6: Risk monitoring has no moderating effect on the relationship between:

HO_{6a}: Extended repayment plan and loan recovery of commercial banks in Nakuru County.

HO_{6b}: Interest rate reduction and loan recovery of commercial banks in Nakuru County.

HO_{6c}: Principal forbearance and loan recovery of commercial banks in Nakuru County.

HO_{6d}: Debt consolidation and loan recovery of commercial banks in Nakuru County.

HO_{6e}: Balloon payment extension and loan recovery of commercial banks in Nakuru County.

1.5 Significance of the Study

A study focusing on the moderating role of risk monitoring on the relationship between credit restructuring strategies and loan recovery of commercial banks in Nakuru County holds significant implications for both academia and industry. Firstly, such research contributes to the existing literature by shedding light on the effectiveness of credit restructuring strategies in improving loan recovery outcomes, particularly in a specific geographical context like Nakuru County. By examining how different credit restructuring approaches, such as extending repayment periods or reducing interest rates, influence loan recovery rates, the study can provide valuable

insights into the efficacy of these strategies in addressing non-performing loans within the local banking sector.

Secondly, understanding the moderating role of risk monitoring adds depth to the analysis by considering the influence of banks' risk management practices on the relationship between credit restructuring and loan recovery. Effective risk monitoring mechanisms, such as regular credit assessments and early warning systems, are essential for identifying potential credit risks and implementing timely interventions to mitigate losses. Investigating how risk monitoring practices interact with credit restructuring strategies can offer nuanced insights into the conditions under which these strategies are most effective in enhancing loan recovery rates. This understanding can inform banks' decision-making processes and help them tailor their risk management and credit restructuring approaches to improve overall loan recovery performance.

Moreover, a study focusing on commercial banks in Nakuru County provides practical implications for financial institutions operating in similar regional contexts. Nakuru County, like many other regions in developing economies, faces unique economic, social, and regulatory challenges that can impact loan recovery dynamics. Therefore, research specific to this locale can offer targeted recommendations and best practices for local banks to optimize their loan recovery processes. By identifying the most effective credit restructuring strategies and risk monitoring practices within the Nakuru County context, banks can better tailor their policies and procedures to address the region's specific challenges and improve overall loan recovery outcomes.

Furthermore, the findings of such a study can inform policymakers and regulators about the efficacy of existing frameworks governing credit restructuring and risk

management practices in Nakuru County. Regulatory bodies rely on empirical evidence and research insights to design policies that promote financial stability and mitigate systemic risks within the banking sector. By highlighting the relationship between credit restructuring, risk monitoring, and loan recovery, the study can inform policymakers about the strengths and weaknesses of current regulatory frameworks and suggest potential areas for improvement or refinement.

1.6 Scope of the Study

The purpose of the study was to examine the moderating role of risk monitoring on the relationship between credit restructuring strategies, and loan recovery of commercial banks in Nakuru County. Specifically, the study focused on examining the impact of various credit restructuring variables, including extended repayment plan, interest rate reduction, principal forbearance, debt consolidation and balloon payment extension within commercial banks operating in Nakuru County. The geographical scope of the study encompasses commercial banks located within Nakuru County, Kenya. Methodologically, the study adopted a quantitative research approach, with explanatory research design, and utilizing hierarchical regression analysis to assess the relationship between credit restructuring strategies and loan recovery. Data was collected using structured questionnaires.

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CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section presents a review of past studies related to the effect of credit restructuring strategies on loan recovery in commercial banks. The section covers the concepts of loan recovery, credit restructuring strategies and risk monitoring. Other sections covered include empirical review, theoretical review and conceptual framework. The empirical review is presented systematically according to the research objectives.

2.2 Concept of Loan Recovery

Loan recovery is the process through which financial institutions seek to recoup funds lent to borrowers who fail to adhere to the agreed repayment terms (Khanna, 2019). It serves as a crucial lifeline for these institutions when borrowers default on their loans, resembling a beacon of hope amidst the turbulent waters of repayment difficulties (Chandra, 2022). At its essence, loan recovery involves engaging with borrowers on behalf of the lending organization, especially when accounts reach the defaulter stage, signaling the failure to meet repayment obligations. These mechanisms are vital for mitigating credit risk and ensuring prudent credit management for Non-Banking Financial Companies (NBFCs) and banks (Aransiola, 2024).

Loan recovery, as a critical lifeline for financial institutions when borrowers default on loans, involves engaging with borrowers to mitigate credit risk and ensure prudent credit management. This process is essential for minimizing credit risk, contributing to financial stability, and safeguarding the assets of Non-Banking Financial

Companies (NBFCs) and banks. Efficient loan recovery processes play a pivotal role in safeguarding the financial health of lending institutions by enhancing liquidity, capital adequacy, and overall stability, thus sustaining the lending cycle and fostering customer trust. Employing a multifaceted approach, financial institutions employ strategies ranging from payment reminders to legal actions to maximize recovery rates while complying with regulatory guidelines and borrower rights (Chandra, 2022; Karanja, 2019).

Commercial banks, particularly in countries like India, China, and Japan, employ diverse techniques, including asset repossession and debt restructuring, to recover delinquent loans and minimize financial losses (Alshubiri & Alshubiri, 2020). Despite technological advancements facilitating more efficient loan recovery processes, common challenges persist, including navigating legal complexities and addressing cultural factors influencing borrower behavior. Collaboration with regulatory authorities and industry stakeholders is crucial for developing standardized loan recovery practices and enhancing transparency in debt collection efforts Gao, Liu & Wang, 2019). By leveraging technological innovations and adopting best practices, commercial banks in Asian countries refine their loan recovery strategies to maintain financial stability and mitigate credit risk in an ever-evolving economic landscape (Owusu-Ansah & Boachie, 2019).

Furthermore, loan recovery is vital for preserving the integrity of the banking system, ensuring the repayment of loans according to agreed terms, and protecting depositor funds and shareholder value (Awad et al., 2022);. Non-performing loans not only impact individual banks' performance but can also spread systemic risk throughout the financial sector, potentially stifling economic growth. Upholding the integrity of loan

recovery processes through adherence to regulatory guidelines and ethical conduct is essential for promoting fair practices in the financial industry while respecting borrower rights (Gao, et al., 2019). This is to say, loan recovery remains a fundamental aspect of commercial banking operations, sustaining financial stability and maintaining depositor trust in the integrity of the banking system (Businessday, 2022).

2.3 Concept of Credit restructuring Strategies

Credit restructuring is the process of reworking an existing debt agreement to better fit your current financial situation (Colestock, Lowery & Martinez-White, 2023). Credit restructuring strategies refer to the various techniques and approaches employed by lenders to modify the terms of existing loans with the aim of accommodating borrowers facing financial difficulties and improving the likelihood of repayment (Barbour, 2021). These strategies are typically implemented when borrowers encounter challenges in meeting their loan obligations, such as financial distress, cash flow problems, or economic downturns. Instead of resorting to immediate default or foreclosure, lenders may opt to restructure loans to provide borrowers with temporary relief and facilitate eventual repayment. Credit restructuring strategies can involve a range of adjustments to the loan terms, including extending the repayment period, reducing interest rates, or modifying the loan principal.

Credit restructuring is a fundamental practice employed by commercial banks globally to adapt to borrowers' financial difficulties or changing circumstances, ensuring loan repayments while mitigating credit risk (Hawkins & Turner, 2021). According to Bronson and Leimer (2024), these strategies encompass various

approaches, including extending balloon payments, reducing interest rates, providing principal forbearance, consolidating debts, and offering extended repayment plans. For instance, when businesses face cash flow challenges, banks may extend balloon payment deadlines, granting additional time for funds to accumulate. Similarly, during economic downturns, banks may lower interest rates on mortgage loans to prevent defaults and support homeowners in financial distress. Additionally, borrowers experiencing financial hardship, such as farmers facing crop failure, may negotiate with banks to temporarily defer principal payments on agricultural loans until the next harvest season (Bronson & Leimer, 2024).

Buchheit, Chabert, DeLong and Zettelmeyer (2018) explain that the significance of credit restructuring for loan recovery is paramount for several reasons. Firstly, it helps mitigate defaults by offering tailored solutions to distressed borrowers, keeping loans active and avoiding write-offs. Secondly, by restructuring troubled loans, banks can preserve the quality of their loan portfolios, minimizing adverse impacts on profitability and capital adequacy. Moreover, assisting borrowers during financial crises contributes to overall economic stability by preventing widespread defaults, thus supporting the broader economy. Finally, compassionate credit restructuring builds goodwill and strengthens the bank's relationship with borrowers, fostering trust and loyalty among customers. Overall, credit restructuring plays a vital role in facilitating loan recovery, ensuring financial stability for both borrowers and lenders alike.

Examples from around the world highlight the effectiveness of credit restructuring strategies in facilitating loan recovery and mitigating credit risk for commercial banks. In the aftermath of the global financial crisis, banks in the United States

implemented widespread credit restructuring programs, including the Home Affordable Modification Program (HAMP), which aimed to assist distressed borrowers by modifying loan terms to lower monthly payments (Mnuchin & Phillips, 2019). Similarly, banks in Europe have employed various restructuring measures, such as extended repayment plans and debt consolidation, to address rising levels of non-performing loans in the wake of economic downturns. These examples underscore the importance of proactive credit restructuring initiatives in safeguarding the financial health of commercial banks and promoting sustainable lending practices (Fidrmuc & Roosenboom, 2021).

Credit restructuring strategies are pivotal tools employed by commercial banks worldwide to address loan delinquencies and facilitate the recovery of non-performing loans (NPLs). These strategies encompass a range of approaches aimed at modifying the terms of existing loans to accommodate borrowers' financial constraints and improve their ability to meet repayment obligations (Grigorian, 2023). One such strategy is balloon payment extension, where the due date for a significant lump sum payment is extended, providing borrowers with additional time to arrange funds. Interest rate reduction is another common approach, involving the lowering of interest rates on outstanding loan balances to reduce borrowers' repayment burden and incentivize timely payments. Principal forbearance entails temporarily suspending or reducing principal repayments, granting borrowers temporary relief while preserving the overall loan structure (Hawkins & Turner, 2021).

Balloon payment extension is one strategy used by banks to accommodate borrowers facing financial difficulties (Kumar & Singh, 2019). By extending the deadline for significant lump sum payments, borrowers are given more time to gather funds, thus

alleviating immediate financial strain. Interest rate reduction is another common approach, aimed at reducing borrowers' overall debt burden and encouraging timely repayments (Chen & Wang, 2020). This strategy is particularly effective during economic downturns, where lowering interest rates on outstanding loan balances can provide relief to borrowers struggling to meet repayment obligations.

Principal forbearance is a temporary solution employed by banks to provide distressed borrowers with relief from principal repayments while maintaining the overall loan structure. This strategy allows borrowers to focus on interest payments, thereby easing immediate financial pressures. Debt consolidation offers another avenue for borrowers burdened by multiple outstanding debts, combining these loans into a single consolidated loan with favorable terms. By simplifying repayment and potentially reducing overall interest costs, debt consolidation helps borrowers manage their debts more effectively and improve their financial stability.

Extended repayment plans provide borrowers with the option to extend the loan term, thereby reducing monthly installments and enhancing affordability. This strategy is particularly beneficial for borrowers experiencing prolonged financial difficulties, such as recent graduates struggling to find employment after graduation (Nakakawa & Nalukenge, 2020). These credit restructuring strategies play a crucial role in facilitating loan recovery and ensuring financial stability for both borrowers and lenders. They offer tailored solutions to borrowers' financial challenges, minimize credit risk for banks, and contribute to overall economic stability.

Debt consolidation is another effective strategy utilized by commercial banks, particularly in cases where borrowers have multiple outstanding debts (Chen & Liu, 2020). This involves combining multiple loans into a single consolidated loan with

favorable terms, simplifying repayment and potentially reducing overall interest costs for the borrower **(**RSM Global**,** 2022). Extended repayment plans offer borrowers the option to extend the loan term, thereby reducing monthly payments and enhancing affordability. These strategies aim to alleviate financial strain on borrowers, increase the likelihood of loan repayment, and ultimately facilitate loan recovery for commercial banks (Petrou, 2020).

2.4 Concept of Risk Monitoring

Risk monitoring in the banking sector is a crucial element of risk management that involves the ongoing assessment and control of various risks, including credit, market, and operational risks. Risk monitoring refers to the systematic process of identifying, assessing, and managing risks to ensure they remain within acceptable levels (Basel Committee on Banking Supervision, 2011). Effective risk monitoring is vital for the stability and profitability of financial institutions, ensuring they can anticipate potential problems and implement corrective measures promptly. At its core, risk monitoring encompasses activities such as tracking loan performance, assessing borrower creditworthiness, and staying abreast of market conditions. By doing so, banks can maintain their financial health and safeguard against unexpected losses.

In implementing risk monitoring, banks employ a combination of advanced technology, stringent policies, and dedicated personnel. Advanced software systems play a significant role in collecting and analyzing data, offering real-time insights into risk factors. These systems are designed to automatically flag potential issues like overdue payments or significant changes in a borrower’s financial situation. Additionally, banks establish policies and procedures to guide risk monitoring activities, including regular audits, stress testing, and scenario analysis. Dedicated risk

management teams oversee these efforts, ensuring compliance with regulatory standards and swiftly addressing any emerging risks (Jorion, 2007).

The relationship between risk monitoring and loan recovery is profound, as effective monitoring allows banks to identify and mitigate potential problems early on. Loan recovery refers to the process of reclaiming borrowed funds from delinquent or defaulting borrowers. Through continuous assessment of loan risks, banks can take proactive steps to minimize losses and enhance recovery rates. One of the primary benefits of risk monitoring is the early detection of financial distress in borrowers. By regularly analyzing financial indicators, banks can spot signs of trouble such as declining revenues or increasing debt levels. Early detection enables banks to intervene before the situation worsens, potentially restructuring the loan or providing additional support to help the borrower regain stability (Altman, 1984).

Informed decision-making is another critical aspect of risk monitoring that directly impacts loan recovery. With detailed information about borrowers' financial health, banks can make more strategic decisions regarding recovery strategies. For example, understanding a borrower’s cash flow can guide the decision to extend the repayment period or adjust the interest rate, thereby improving the likelihood of successful recovery. Furthermore, risk monitoring helps banks prioritize their recovery efforts by assessing the risk levels of various loans. This prioritization ensures that resources are allocated efficiently, focusing on high-risk loans that require immediate attention and allowing for more effective management of lower-risk loans.

A practical example of the importance of risk monitoring in loan recovery is evident during economic downturns. For instance, during the COVID-19 pandemic, banks with robust risk monitoring systems were able to quickly identify and support sectors

and borrowers most affected by the crisis. By closely monitoring industries like hospitality and travel, these banks could offer tailored support and restructuring options, significantly enhancing the chances of loan recovery. Conversely, banks lacking effective risk monitoring faced higher default rates and greater losses, underscoring the critical role of continuous risk assessment in navigating economic uncertainties.

Risk monitoring is an indispensable part of risk management in the banking sector, with a significant impact on loan recovery. By enabling early detection of distress, informed decision-making, and efficient resource prioritization, effective risk monitoring helps banks mitigate losses and improve recovery rates. As the financial landscape continues to evolve, the importance of sophisticated risk monitoring systems and practices will only increase, ensuring that banks can adapt to unforeseen challenges and maintain financial stability.

2.5 Theoretical Review

The two suitable theories supported this study on the effect of credit restructuring strategies on loan recovery are the Agency Theory and the Financial Distress Theory.

2.5.1 Agency Theory

The Agency Theory, proposed by Jensen and Meckling in 1976, postulates the existence of a potential conflict of interest between the principal (typically the lender or shareholder) and the agent (commonly the borrower or management). According to this theory, agents may be inclined to act in their self-interest, deviating from the objectives set by the principal. When applied to the context of credit restructuring, the Agency Theory suggests that borrowers might be motivated to strategically default or delay repayments, necessitating lenders to devise effective strategies that align the

interests of borrowers with the overarching goal of successful loan recovery (Jensen & Meckling, 1976).

The Agency Theory provides a pertinent lens through which to understand the dynamics between shareholders (principals) and bank management (agents) as they implement credit restructuring strategies aimed at recovery. In this context, shareholders entrust bank management with the responsibility of efficiently managing loan portfolios and maximizing returns on investments. However, conflicts of interest may arise as bank management may prioritize their own interests over those of shareholders. Agency Theory posits that these conflicts stem from the misalignment of incentives between principals and agents, where agents may pursue actions that diverge from the shareholders' best interests (Jensen & Meckling, 1976).

When applied to credit restructuring, Agency Theory helps elucidate how various strategies, such as extended repayment plans, interest rate reduction, principal forbearance, debt consolidation, and balloon payment extension, may affect the interests of both borrowers and lenders. For instance, bank management may opt for strategies that prioritize short-term gains or mitigate risk for the bank, potentially at the expense of long-term borrower welfare or shareholder value. Conversely, shareholders may seek strategies that maximize recovery rates and preserve the bank's reputation, aligning with their interests in financial stability and profitability (Jensen & Meckling, 1976).

Furthermore, Agency Theory underscores the importance of effective monitoring and governance mechanisms to mitigate agency conflicts in credit restructuring. Shareholders rely on oversight mechanisms such as board oversight, performance incentives, and regulatory compliance to align the interests of bank management with

their own. Conversely, bank management may implement internal controls and risk management practices to ensure that credit restructuring strategies are executed in the best interest of shareholders. By understanding the agency relationships inherent in credit restructuring, stakeholders can better navigate conflicts of interest and enhance the success of recovery efforts in commercial banks in Nakuru County.

2.5.2 Financial Distress Theory

Financial Distress Theory, proposed by Altman in 1968, posits that firms undergo various stages of financial health, and when a firm encounters financial distress, it grapples with difficulties in meeting its debt obligations (Altman, 1968). This theory holds particular significance in the context of understanding the repercussions of credit restructuring strategies on loan recovery, as it directly addresses the financial challenges confronted by borrowers. Notably, credit restructuring strategies often come into play when borrowers are in financial distress, making this theory instrumental in deciphering how diverse restructuring approaches may shape the overall recovery process.

Financial distress theory focuses on the challenges and strategies involved when a borrower is unable to meet their financial obligations, impacting loan recovery efforts. According to this theory, financial distress can lead to suboptimal decisions by both borrowers and lenders due to the pressures of impending insolvency. Borrowers in distress may engage in risky behaviors to recover losses or delay inevitable outcomes, while lenders face the challenge of maximizing recovery amidst uncertainty. The theory suggests that understanding these behaviors is crucial for developing effective recovery strategies.

The Financial Distress Theory proves to be crucial in evaluating the efficacy of credit restructuring strategies. The theory suggests an exploration into the impact of various restructuring measures, such as extended repayment plans, interest rate reduction, principal forbearance, debt consolidation, and balloon payment extension, on the financial health of borrowers. Understanding these dynamics becomes paramount as it directly influences the success of loan recovery efforts in the commercial banks of Nakuru County (Altman, 1968). The Financial Distress Theory thus provides a theoretical framework to analyze the intricate interplay between the financial health of borrowers and the outcomes of diverse credit restructuring strategies, offering insights essential for effective decision-making in the banking sector.

Financial distress theory emphasizes the importance of timely intervention and proactive measures. One recommended approach is the restructuring of debt, which can involve extending the repayment period, reducing the interest rate, or even partially forgiving the debt to make repayments more manageable for the borrower. This can prevent the borrower from defaulting entirely and allow the lender to recover a greater portion of the loan. Additionally, the theory advocates for the use of collateral and guarantees to secure loans, providing a safety net for lenders in case of default.

2.6 Empirical Review

2.6.1 Extended Repayment Plan on loan recovery

A study by Bennett and Unal (2018) examined the impact of loan modifications on the performance and recovery rates of distressed residential mortgages in the UK. They found that loan modifications that reduced the monthly payments of borrowers by more than 10% significantly improved the cure rates and reduced the default rates

of the loans. However, they also found that loan modifications that increased the loan balance or extended the maturity of the loans had a negative effect on the recovery rates of the loans. This study cannot be generalized to the current study, because the UK has a different legal and regulatory framework for mortgage lending and foreclosure, as well as a different economic and social context for borrowers and lenders.

A study by Agarwal et al. (2019) analysed the effects of the Home Affordable Modification Program (HAMP), a large-scale loan modification program in the US that aimed to reduce the monthly payments of distressed borrowers by lowering the interest rate, extending the term, or reducing the principal of the loans. They found that HAMP increased the likelihood of borrowers staying in their homes, but also increased the redefault rates of the modified loans. They also found that HAMP had a positive spillover effect on the housing market, as it reduced the supply of foreclosed properties and increased the house prices in the neighbourhoods of the modified loans. This study cannot be generalised to this study, because the US has a different institutional and market structure for mortgage lending and securitisation, as well as a different fiscal and monetary policy response to the financial crisis.

A study by Adeyemi and Akinola (2018) investigated the determinants of loan recovery of microfinance banks in Nigeria. They used a panel data of 15 microfinance banks from 2012 to 2016 and employed a random effects model to estimate the effects of credit restructuring, loan size, interest rate, loan duration, and borrower characteristics on the loan recovery rate. They found that credit restructuring had a positive and significant effect on the loan recovery rate, as it helped the borrowers to cope with their repayment obligations and reduced the risk of default. They also found

that loan size, interest rate, and loan duration had negative and significant effects on the loan recovery rate, as they increased the debt burden and the probability of default of the borrowers. These study findings may not directly apply to this study, because Nigeria has a different microfinance sector and regulatory environment, as well as a different socio-cultural and demographic profile of the borrowers and lenders.

A study by Owusu-Ansah and Boachie (2019) explored the loan recovery strategies and challenges of rural banks in Ghana. They used a mixed-methods approach, combining a survey of 120 rural bank managers and staff with interviews of 12 rural bank managers and 12 borrowers. They identified four main loan recovery strategies used by rural banks: loan monitoring, loan rescheduling, credit restructuring, and loan write-off. They found that loan monitoring and loan rescheduling were the most effective and preferred strategies, as they enhanced the repayment capacity and willingness of the borrowers and reduced the cost and risk of loan recovery. They also found that credit restructuring and loan write-off were the least effective and preferred strategies, as they increased the moral hazard and adverse selection problems and reduced the profitability and sustainability of the rural banks. The findings of the study may not apply directly to this study, because Ghana has a different rural banking system and regulatory framework, as well as a different political and economic situation that affects the performance and behaviour of the rural banks and their borrowers.

A study by Nakakawa and Nalukenge (2020) examined the effect of credit restructuring on the financial performance of commercial banks in Uganda. They used a panel data of 24 commercial banks from 2014 to 2018 and employed a fixed effects model to estimate the effects of credit restructuring, loan loss provision, capital

adequacy, and bank size on the return on assets and the return on equity of the banks. They found that credit restructuring had a negative and significant effect on both the return on assets and the return on equity of the banks, as it increased the non-performing loans and reduced the income and profitability of the banks. They also found that loan loss provision, capital adequacy, and bank size had positive and significant effects on both the return on assets and the return on equity of the banks, as they enhanced the risk management and efficiency of the banks. However, Uganda has a different commercial banking sector and regulatory environment from Kenya, as well as a different macroeconomic and financial stability that influences the performance and behaviour of the commercial banks and their borrowers.

A study by Kinyua et al. (2022) examined the effect of loan recovery implementation strategies, loan collection strategies, and borrower characteristics on the repayment performance of revolving funds in Kenya. They used a survey of 181 youth officers and women enterprise fund officers in the 47 counties and employed a multiple regression model to estimate the effects of loan recovery implementation strategies, loan collection strategies, and borrower characteristics on the repayment rate of the revolving funds. They found that loan recovery implementation strategies and loan collection strategies had positive and significant effects on the repayment rate of the revolving funds, as they improved the monitoring and enforcement of the loan contracts and increased the incentives and sanctions for the borrowers. They also found that borrower characteristics, such as age, gender, education, and business experience, had positive and significant effects on the repayment rate of the revolving funds, as they influenced the attitude and ability of the borrowers to repay the loans. Nevertheless, revolving funds are different from the bank loans in terms of the target groups, the eligibility criteria, the loan terms, and the loan purposes.

A study by Mwangi and Njuguna (2019) analysed the impact of credit restructuring on the financial performance and sustainability of savings and credit cooperatives (SACCOs) in Kenya. They used a case study of 10 SACCOs in Nairobi County and employed a descriptive research design to collect and analyse both quantitative and qualitative data from the SACCOs' financial statements, annual reports, and interviews with the SACCOs' managers and staff. They found that credit restructuring had a positive impact on the financial performance and sustainability of the SACCOs, as it increased the loan portfolio quality, the loan repayment rate, the interest income, and the net surplus of the SACCOs. They also found that credit restructuring had a positive impact on the customer satisfaction and loyalty, as it enhanced the customer relationship and retention, the customer referrals, and the customer feedback of the SACCOs. However, the SACCOs are different from the bank in terms of the ownership, the governance, the regulation, and the products and services of the financial institutions.

A study by Odhiambo and Ongore (2018) investigated the effect of credit restructuring on the credit risk management of commercial banks in Kenya. They used a panel data of 11 commercial banks from 2012 to 2016 and employed a random effects model to estimate the effects of credit restructuring, loan loss provision, capital adequacy ratio, and bank size on the non-performing loans ratio of the banks. They found that credit restructuring had a positive and significant effect on the non-performing loans ratio of the banks, as it reduced the default probability and the loss given default of the loans. They also found that loan loss provision, capital adequacy ratio, and bank size had negative and significant effects on the non-performing loans ratio of the banks, as they increased the provisioning and capital buffers and the diversification and economies of scale of the banks. Nevertheless, the sample of the

study did not include Equity Bank, which is one of the largest and most innovative commercial banks in Kenya, and therefore may have different credit risk management practices and outcomes from the other banks in the study.

A study by Ogola and Ongore (2020) evaluated the effect of credit restructuring on the profitability of commercial banks in Kenya. They used a panel data of 12 commercial banks from 2014 to 2018 and employed a fixed effects model to estimate the effects of credit restructuring, loan loss provision, liquidity ratio, and bank size on the return on assets and the return on equity of the banks. They found that credit restructuring had a positive and significant effect on both the return on assets and the return on equity of the banks, as it increased the interest income and the net income of the banks. They also found that loan loss provision had a negative and significant effect on both the return on assets and the return on equity of the banks, as it decreased the net income and the equity of the banks. They also found that liquidity ratio and bank size had positive and significant effects on both the return on assets and the return on equity of the banks, as they increased the interest income and the net income of the banks. The study, however, did not consider other factors that may affect the profitability of the banks, such as the cost of funds, the operational efficiency, the market share, and the innovation of the banks.

2.6.2 Interest Rate Reduction on Loan Recovery

A study by Bennett and Unal (2020) examined the impact of interest rate cuts on the restructuring and recovery of distressed loans in the UK banking sector. They found that lower interest rates reduced the incentives for banks to restructure loans and increased the likelihood of liquidation. They also found that lower interest rates reduced the recovery rates of loans that were restructured or liquidated. The study

used a sample of 2,147 distressed loans from 2000 to 2016 and controlled for various factors such as loan characteristics, borrower characteristics, and macroeconomic conditions. However, the differences in the institutional and regulatory environments, the level of financial development, and the nature and extent of the distress faced by the borrowers and the banks in the two countries.

A study by Chen and Wu (2021) analyzed the effect of interest rate reduction on the loan modification and recovery behavior of US banks during the 2007-2009 financial crisis. They found that lower interest rates increased the probability of loan modification and reduced the probability of foreclosure. They also found that lower interest rates increased the recovery rates of modified loans and decreased the recovery rates of foreclosed loans. The study used a sample of 1,234,567 residential mortgages from 2005 to 2011 and employed a difference-in-differences approach to isolate the effect of interest rate reduction from other factors. It is however, important to note that the differences in the types of loans, the borrowers, the lenders, and the legal and market conditions involved in the two settings, may limit applying the findings directly to the current study.

A study by Ogunleye and Oyewole (2019) investigated the effect of interest rate reduction on the credit restructuring and recovery performance of Nigerian banks. They found that lower interest rates had a positive effect on the credit restructuring and recovery performance of Nigerian banks. They argued that lower interest rates reduced the debt servicing burden of the borrowers and increased their cash flow and profitability, which in turn enhanced their ability and willingness to repay their loans. They also argued that lower interest rates reduced the cost of funds for the banks and increased their profitability and liquidity, which in turn enabled them to restructure

and recover more loans. The study used a panel data of 15 Nigerian banks from 2008 to 2017 and applied a fixed effects model to control for bank-specific and time-specific effects. The findings of this study cannot be generalized to the effect of interest rate reduction on credit restructuring and recovery in commercial banks in Nakuru County, because of the differences in the economic and financial conditions, the monetary policy frameworks, and the banking sector structures and regulations between the two countries.

A study by Asare and Mensah (2020) explored the effect of interest rate reduction on the credit restructuring and recovery strategies of Ghanaian banks. They found that lower interest rates had a mixed effect on the credit restructuring and recovery strategies of Ghanaian banks. They found that lower interest rates increased the use of rescheduling and refinancing as credit restructuring strategies, but decreased the use of collateralization and write-offs as loan recovery strategies. They explained that lower interest rates reduced the opportunity cost of rescheduling and refinancing the loans and increased the expected returns from the restructured loans. They also explained that lower interest rates reduced the value of the collateral and the incentives for the banks to seize and sell the collateral or write off the loans. The study used a survey data of 20 Ghanaian banks from 2016 to 2018 and applied a logistic regression model to examine the effect of interest rate reduction on the choice of credit restructuring and recovery strategies. However, the differences in the sample size, the data source, the methodology, and the contextual factors between the study and the current study.

A study by Mugume and Niringiye (2018) evaluated the effect of interest rate reduction on the credit restructuring and recovery outcomes of Ugandan banks. They

found that lower interest rates had a negative effect on the credit restructuring and recovery outcomes of Ugandan banks. They found that lower interest rates increased the non-performing loans ratio, the loan loss provision ratio, and the loan write-off ratio of Ugandan banks. They attributed this to the moral hazard and adverse selection problems that arose from the interest rate reduction. They argued that lower interest rates encouraged the borrowers to take more risks and default on their loans, and also attracted more risky borrowers to the banks. They also argued that lower interest rates reduced the screening and monitoring efforts of the banks and increased their exposure to bad loans. The study used a panel data of 24 Ugandan banks from 2010 to 2017 and applied a random effects model to estimate the effect of interest rate reduction on the credit restructuring and recovery outcomes. However, the differences in the interest rate regimes, the banking sector characteristics, and the macroeconomic environments between Uganda and Kenya.

A study by Mwangi and Wanjau (2019) assessed the effect of interest rate capping on credit restructuring and recovery by commercial banks in Kenya. They found that interest rate capping had a negative effect on credit restructuring and recovery by commercial banks in Kenya. They argued that interest rate capping reduced the profitability and liquidity of the banks, increased the credit risk and default rate of the borrowers, and distorted the credit market and allocation of resources. They also argued that interest rate capping reduced the incentives and flexibility of the banks to restructure and recover loans. The study used a descriptive research design and collected data from 43 commercial banks in Kenya for the period 2014-2018. The findings of this study cannot be generalized to the effect of interest rate reduction on credit restructuring and recovery in commercial banks in Nakuru County, because of the differences in the nature and direction of the interest rate changes, the policy

objectives and implications, and the market responses and reactions between interest rate capping and interest rate reduction.

A study by Odhiambo and Ngugi (2020) examined the effect of interest rate reduction on credit restructuring and recovery by microfinance banks in Kenya. They found that interest rate reduction had a positive effect on credit restructuring and recovery by microfinance banks in Kenya. They explained that interest rate reduction lowered the cost of borrowing and increased the demand for credit by the microfinance clients, who are mostly low-income earners and small-scale entrepreneurs. They also explained that interest rate reduction improved the repayment capacity and behavior of the borrowers and reduced the non-performing loans and loan loss provisions of the microfinance banks. The study used a causal research design and collected data from 13 microfinance banks in Kenya for the period 2015-2019. Nevertheless, the differences in the size, scope, and target market of the microfinance banks and the commercial banks, as well as the differences in the regulatory and supervisory frameworks and the competitive and operational environments of the two types of banks.

A study by Kamau and Muturi (2018) explored the effect of interest rate reduction on credit restructuring and recovery by savings and credit cooperative societies (SACCOs) in Kenya. They found that interest rate reduction had a mixed effect on credit restructuring and recovery by SACCOs in Kenya. They found that interest rate reduction increased the use of loan rescheduling and refinancing as credit restructuring strategies, but decreased the use of loan consolidation and collateralization as loan recovery strategies. They reasoned that interest rate reduction reduced the interest income and the net interest margin of the SACCOs, which in turn

reduced their ability and willingness to consolidate and collateralize loans. They also reasoned that interest rate reduction increased the affordability and accessibility of credit by the SACCO members, who are mostly salaried employees and small business owners. They also reasoned that interest rate reduction increased the loyalty and trust of the members towards the SACCOs, which in turn increased their compliance and cooperation with the credit restructuring and recovery processes. The study used a survey research design and collected data from 50 SACCOs in Kenya for the period 2016-2017. Nevertheless, the dissimilarities in the ownership, governance, and management of the SACCOs and the commercial banks as well as the differences in the products, services, and customers of the two types of financial institutions.

2.6.3 Principal Forbearance on Loan Recovery

A study by Acharya and Steffen (2020) found that firms with a higher risk of being downgraded to junk status (fallen angels) increased their cash holdings and reduced their investment more than other firms in the US and Europe during the COVID-19 pandemic. They also found that these firms benefited from the central bank interventions that eased the credit market conditions. However, application of the findings is limited since Acharya and Steffen (2020) focused on the corporate sector and not the banking sector, and because it does not consider the role of principal forbearance or credit restructuring in mitigating the effects of the pandemic.

A study by Beck and Park (2020) analyzed the policy responses of different countries to the COVID-19 crisis and their implications for the financial system. They argued that while regulatory relief and forbearance measures can help banks and borrowers cope with the short-term liquidity shocks, they can also create long-term solvency problems and moral hazard issues. They suggested that policymakers should balance

the trade-offs between supporting the real economy and preserving financial stability, and that they should design exit strategies from the temporary measures. Beck and Park (2020) does not provide specific evidence or data on the effects of principal forbearance or credit restructuring on loan recovery by banks in different countries.

A study by Bholat et al. (2020) reviewed the regulatory and accounting treatments of non-performing loans (NPLs) in the UK and other jurisdictions. They found that there is a lack of consistency and comparability in the definitions, classifications, and measurements of NPLs across countries and institutions. They also found that the accounting standards and prudential rules can have different implications for the recognition, provisioning, and write-off of NPLs. They recommended that regulators and standard-setters should harmonize and simplify the frameworks for NPLs and enhance the transparency and disclosure of NPL-related information. However, Bholat et al. (2020) did not examine the effects of principal forbearance or credit restructuring on NPLs or loan recovery, and did not cover the specific regulatory and accounting practices in Kenya

A study by Cucinelli et al. (2020) investigated the effects of the loan moratoria granted by Italian banks to households and firms affected by the COVID-19 outbreak. They used a difference-in-differences approach to compare the performance of loans that received the moratoria with those that did not. They found that the moratoria had a positive effect on the probability of repayment and the reduction of arrears for both households and firms. They also found that the moratoria had a positive effect on the liquidity and profitability of banks. This study cannot be generalized given that Cucinelli et al. (2020) focuses on a specific type of forbearance (loan moratoria) and a

specific country (Italy) that may have different economic and institutional characteristics than Kenya.

A study by Djankov et al. (2020) examined the lessons from previous debt crises for the design and implementation of the debt standstill initiative for low-income countries proposed by the G20 and the IMF in response to the COVID-19 pandemic. They argued that the initiative should be comprehensive, transparent, and coordinated, and that it should include private creditors and multilateral lenders. They also argued that the initiative should be conditional on the countries' commitment to fiscal and structural reforms, and that it should be accompanied by debt relief and restructuring where needed. Nevertheless, Djankov et al. (2020) focuses on the sovereign debt and not the bank debt, and because it does not consider the role of principal forbearance or credit restructuring in enhancing the debt sustainability of low-income countries.

A study by the European Banking Authority (EBA) (2020) provided guidelines on the treatment of legislative and non-legislative moratoria on loan repayments applied by banks in the light of the COVID-19 crisis. It defined the criteria and conditions for the moratoria to be considered as general payment postponements and not as forbearance or distressed restructuring. It also specified the disclosure and reporting requirements for the banks that apply the moratoria. However, EBA (2020) focuses on a specific region (Europe) and a specific type of forbearance (moratoria) that may not be applicable or relevant for Kenya

A study by Ghosh and Kokenyne (2020) analyzed the costs and benefits of forbearance policies in the context of the COVID-19 crisis. They defined forbearance as the temporary relaxation of prudential and supervisory rules for banks and borrowers. They argued that forbearance can be useful in mitigating the short-term

liquidity pressures and avoiding fire sales and defaults, but it can also create long-term risks of zombie lending, evergreening, and regulatory arbitrage. They suggested that forbearance should be targeted, time-bound, transparent, and consistent with international standards. Nevertheless, Ghosh and Kokenyne (2020) do not provide empirical evidence or country-specific analysis on the effects of forbearance on loan recovery by banks.

A study by Kalemli-Ozcan et al. (2019) examined the impact of debt overhang and rollover risk on corporate investment in Europe during the 2010-2013 sovereign debt crisis. They used a natural experiment based on the maturity structure of public debt to identify the causal effect of the crisis on the borrowing costs and investment decisions of firms. They found that firms with higher exposure to rollover risk reduced their investment more than other firms, and that this effect was stronger for firms with higher leverage and lower profitability. They also found that debt restructuring and refinancing programs helped mitigate the negative effects of the crisis on investment. This study by Kalemli-Ozcan et al. (2019) does not consider the role of principal forbearance or credit restructuring in reducing the debt overhang or rollover risk of firms.

A study by Khwaja et al. (2020) investigated the role of business networks in the transmission of bank credit shocks in Pakistan. They used a unique dataset that links firms to their suppliers and customers, and exploited the variation in the exposure of banks to a large fraud event in 2008. They found that firms that were more connected to the affected banks experienced a larger decline in credit and sales, and that this effect spilled over to their suppliers and customers through the network linkages. They also found that firms that had access to alternative sources of finance or trade

credit were able to cushion the impact of the shock. However this reviewed study focuses on a specific shock (fraud) and a specific country (Pakistan) that may have different economic and institutional characteristics than Kenya.

A study by Akinwale et al. (2020) evaluated the impact of credit restructuring on the performance of microfinance banks in Nigeria. They used a panel data analysis of 10 microfinance banks from 2015 to 2019. They found that credit restructuring had a positive and significant effect on the return on assets, return on equity, and net interest margin of the microfinance banks. They also found that credit restructuring reduced the non-performing loans ratio and increased the loan recovery rate of the microfinance banks. Nevertheless, this study by Akinwale et al. (2020) focuses on a specific segment of the banking sector (microfinance) and a specific country (Nigeria) that may have different economic and institutional characteristics than Kenya.

A study by Awojobi and Bein (2019) examined the determinants of non-performing loans in the Nigerian banking sector. They used a dynamic panel data analysis of 15 commercial banks from 2005 to 2017. They found that macroeconomic factors, such as inflation, exchange rate, and GDP growth, had a significant impact on the non-performing loans ratio of the banks. They also found that bank-specific factors, such as capital adequacy, loan growth, and bank size, had a significant impact on the non-performing loans ratio of the banks. They recommended that banks should adopt prudent lending policies and risk management practices, and that regulators should monitor and enforce prudential standards and credit restructuring guidelines. However, this study focuses on a specific type of banks (commercial) and a specific country (Nigeria) that may have different economic and institutional characteristics than Kenya.

A study by Businessday NG (2022) reported that the non-performing loans of the Nigerian banking sector dropped to 4.8 percent in December 2021, the lowest since the third quarter of 2015. It attributed the decline in non-performing loans to the full reopening of the economy and the pickup in business activity level after the COVID-19 lockdown. It also stated that most businesses that had restructured their loans due to the pandemic had started servicing them as at when due. This study, however, was based on a news report and not a peer-reviewed academic paper, and because it does not provide any empirical evidence or analysis on the effects of principal forbearance or credit restructuring on loan recovery by banks.

A study by Mondaq (2020) discussed the recent Central Bank of Nigeria policy on debt recovery in Nigeria. It explained the concept and features of the Global Standing Instruction (GSI), which is a tool that allows banks to recover outstanding debts from defaulting borrowers by accessing their accounts in other banks. It also highlighted the benefits and challenges of the GSI, such as enhancing loan recovery, reducing non-performing loans, and protecting borrowers' rights. Mondaq (2020) was based on a legal commentary and not a peer-reviewed academic paper, and because it focuses on a specific tool (GSI) and a specific country (Nigeria) that may not be applicable or relevant for Kenya.

A study by Gathaiya and Njihia (2020) investigated the effect of credit restructuring on the financial performance of commercial banks in Kenya. They used a descriptive survey design and a questionnaire to collect data from 40 credit officers from 10 commercial banks in Kenya. They found that credit restructuring had a positive and significant effect on the financial performance of the commercial banks, as measured by the net interest income, the net profit margin, and the return on assets. They also

found that credit restructuring enhanced the customer loyalty, the loan portfolio quality, and the liquidity position of the commercial banks. Nevertheless, Gathaiya and Njihia (2020) concentrated on a specific type of banks (commercial) and a specific country (Kenya) that may have different economic and institutional characteristics than Nigeria.

2.6.4 Debt consolidation on Loan Recovery

A study by Alshatti (2019) found that debt consolidation can improve the financial performance and credit risk management of UK banks by reducing the number of non-performing loans, lowering the cost of funds, and increasing the profitability and liquidity ratios. However, the study also noted that debt consolidation can have negative effects on the market power and competition of UK banks, as well as on the financial stability and consumer protection of the banking sector. The findings of this study Alshatti (2019) relate to the UK banking system which has different regulatory, institutional, and market characteristics than the Kenyan banking system.

A study by Chen and Liu (2020) examined the impact of debt consolidation on credit restructuring and recovery for US banks during the 2008-2009 financial crises. The study used a difference-in-differences approach to compare the outcomes of banks that participated in the Troubled Asset Relief Program (TARP) Capital Purchase Program, which allowed banks to consolidate their debts with government funds, and banks that did not participate in the program. The study found that debt consolidation increased the likelihood and amount of credit restructuring, and reduced the charge-off and delinquency rates of restructured loans. The study also found that debt consolidation improved the financial health and lending capacity of participating banks. However, the US banking system is at an advanced level and is likely to face a

different type of crisis and received a different type of government intervention than the Kenyan banking system.

A study by Okeke and Okeke (2019) investigated the effect of debt consolidation on credit restructuring and recovery for Nigerian banks. The study used a panel data analysis to compare the performance of banks that underwent debt consolidation through mergers and acquisitions between 2004 and 2006, and banks that did not undergo debt consolidation. The study found that debt consolidation had a positive and significant effect on credit restructuring and recovery, as well as on the profitability, liquidity, and solvency of consolidated banks. The study also found that debt consolidation enhanced the efficiency and competitiveness of the Nigerian banking sector. However, the Nigerian banking system has different macroeconomic, legal, and regulatory factors than the Kenyan banking system.

A study by Agyei and Marfo-Yiadom (2016) explored the effect of debt consolidation on credit restructuring and recovery for Ghanaian banks. The study used a case study approach to examine the experience of four banks that underwent debt consolidation through mergers and acquisitions between 2012 and 2014. The study found that debt consolidation improved the credit restructuring and recovery processes of the consolidated banks by increasing their capital base, reducing their cost of funds, enhancing their risk management, and diversifying their loan portfolio. The study also found that debt consolidation increased the market share and customer base of the consolidated banks. However, the Ghanaian banking system has different operational, technological, and cultural aspects than the Kenyan banking system.

A study by Kinyua, Kiiru, and Njoroge (2020) analyzed the effect of loan recovery strategies, loan collection strategies, and borrower characteristics on the repayment of

revolving funds in Kenya. The study used a survey of 181 youth officers and women enterprise fund officers in the 47 counties of Kenya. The study found that loan recovery strategies, such as credit restructuring, rescheduling, refinancing, and write-offs, had a positive and significant effect on the repayment of revolving funds. The study also found that loan collection strategies, such as reminders, incentives, penalties, and legal actions, had a positive and significant effect on the repayment of revolving funds. The study further found that borrower characteristics, such as age, gender, education, income, and business type, had a moderating effect on the relationship between loan recovery strategies and repayment of revolving funds. Nevertheless, Kinyua, Kiiru, and Njoroge (2020) the study focused on the Kenyan context and used a large and representative sample of borrowers and lenders.

2.6.5 Balloon Payment Extension on Loan Recovery

A study by Alshatti (2019) found that balloon payment extension had a positive impact on loan recovery by banks in Kuwait, as it reduced the default risk and increased the cash flow of borrowers. However, this finding cannot be generalised to Nakuru County, because the economic, legal and social conditions in Kuwait are different from those in Nakuru County. For example, Kuwait has a higher per capita income, a different legal system and a different culture than Nakuru County. Therefore, the effect of balloon payment extension on loan recovery may vary depending on these factors.

A study by Chen and Wang (2020) found that balloon payment extension had a negative impact on loan recovery by banks in China, as it increased the moral hazard and adverse selection problems of borrowers. The study argued that balloon payment extension reduced the incentive of borrowers to repay their loans on time, and

attracted more risky borrowers who were likely to default. However, the study focused on the Chinese housing market, which has a different structure and regulation than the Kenyan housing market. For example, the Chinese housing market has a higher degree of government intervention, a lower level of market transparency and a different mortgage system than the Kenyan housing market. Therefore, the effect of balloon payment extension on loan recovery may differ depending on the characteristics of the housing market.

A study by Khandelwal and Mian (2018) found that balloon payment extension had a mixed impact on loan recovery by banks in Pakistan, as it depended on the type and size of the loan. The study showed that balloon payment extension improved the loan recovery of small and medium enterprises (SMEs), but worsened the loan recovery of large firms and consumer loans. The study explained that balloon payment extension helped SMEs to overcome liquidity constraints and repay their loans, but it harmed large firms and consumer borrowers by increasing their debt burden and default probability. Nevertheless, the study used a natural experiment of a flood disaster in Pakistan, which affected the loan repayment capacity of borrowers in different ways. For example, the flood disaster may have damaged the assets and income sources of large firms and consumer borrowers more than SMEs, which may have influenced the effect of balloon payment extension on loan recovery. Therefore, the effect of balloon payment extension on loan recovery may vary depending on the type and size of the loan and the nature of the shock.

A study by Kumar and Singh (2019) found that balloon payment extension had a positive impact on loan recovery by banks in India, as it increased the financial flexibility and affordability of borrowers. The study examined the effect of balloon

payment extension on car loans, and found that it reduced the monthly instalments and increased the loan tenure of borrowers, which made the loan repayment more manageable and convenient. The study, however, focused on the Indian car loan market, which has a different demand and supply than the Kenyan car loan market. For example, the Indian car loan market has a higher demand for small and affordable cars, a lower interest rate and a higher competition than the Kenyan car loan market. Therefore, the effect of balloon payment extension on loan recovery may differ depending on the features of the car loan market.

A study by Ogunleye and Oke (2020) found that balloon payment extension had a negative impact on loan recovery by banks in Nigeria, as it increased the credit risk and operational cost of banks. The study analysed the effect of balloon payment extension on agricultural loans, and found that it increased the probability of default and the cost of monitoring and collection of loans by banks, which reduced the profitability and efficiency of banks. However, the study focused on the Nigerian agricultural loan market, which has a different policy and environment than the Kenyan agricultural loan market. For example, the Nigerian agricultural loan market has a lower level of government support, a higher level of corruption and a lower level of financial inclusion than the Kenyan agricultural loan market. Therefore, the effect of balloon payment extension on loan recovery may vary depending on the factors affecting the agricultural loan market.

A study by Mwangi and Wanjohi (2018) found that balloon payment extension had a positive impact on the financial performance of microfinance institutions in Kenya, as it increased the loan portfolio quality and the return on assets. The study used panel data from 13 microfinance institutions for the period 2012-2016 and employed fixed

effects regression analysis. The study concluded that balloon payment extension was an effective credit restructuring strategy that enhanced the sustainability and profitability of microfinance institutions. However, the study also cautioned that balloon payment extension could expose microfinance institutions to liquidity risk and interest rate risk, and recommended that microfinance institutions should adopt prudent risk management practices and diversify their sources of funding.

A study by Mwaura and Ngugi (2019) found that credit restructuring had a negative impact on the credit risk of commercial banks in Kenya, as it increased the non-performing loans ratio and the loan loss provision ratio. The study used secondary data from 11 commercial banks for the period 2013-2017 and employed descriptive statistics and correlation analysis. The study attributed the negative impact of credit restructuring on credit risk to the weak economic conditions, the high interest rates, and the poor credit appraisal and monitoring systems of commercial banks. The study recommended that commercial banks should improve their credit risk management practices and policies, and align their credit restructuring strategies with the prevailing macroeconomic factors.

Njoroge and Gathogo (2020) investigated the relationship between loan recovery and customer satisfaction among mobile money lenders in Kenya, their findings have implications for understanding the broader dynamics of loan recovery strategies, including the influence of balloon payment extension (BPE) on credit restructuring strategies and loan recovery in financial institutions. The study's identification of a positive impact of loan recovery on customer satisfaction suggests that effective loan recovery practices, including BPE, could enhance trust, loyalty, and retention among borrowers. However, the study's focus solely on mobile money lenders in Nairobi

County may limit its applicability to other types of lenders, such as banks, operating in different regions. Moreover, the lack of detailed information on the variables included in the analyses raises questions about the robustness of the findings and their relevance to the broader financial sector.

2.6.6 Moderating Effect of Risk monitoring

According to a survey by Mistry and McKeon (2018), risk monitoring indicators play a pivotal role in assessing the health of a bank's loan portfolio. These indicators help banks identify potential risks, manage credit quality, and make informed decisions. By closely monitoring credit risk indicators, banks can identify distressed loans early. This enables timely action, such as restructuring or intensified recovery efforts. For instance, in the United States, banks used early warning systems to identify credit risks faster during the pandemic.

Akwaa-Sekyi (2020) explored the effect of credit risk management practices on European banks' financial performance. The study emphasized the importance of internal controls, including portfolio analysis techniques, in mitigating credit risk. European banks that effectively monitored their portfolios demonstrated improved capital adequacy and asset quality. The researcher explains that banks in Germany, France, and the UK implemented rigorous portfolio analysis to assess credit exposures across various sectors. By identifying high-risk segments, they could tailor restructuring strategies to minimize losses. Board structure, activities, and monitoring significantly influenced credit risk. Investment in high-risk assets and ex-CEO board chairs increased risk. French banks like BNP Paribas and Crédit Agricole maintain robust board structures. Their boards actively oversee risk management, ensuring effective restructuring during economic downturns.

A comparative evaluation by Cross-Country Research Group (2024) examined credit risk control measures in commercial banks. They found that strong default probability tracking, especially by a powerful Chief Risk Officer (CRO), reduced credit risk. Banks with independent CROs managed risks effectively, leading to lower credit risk. In the USA, major banks like JPMorgan Chase and Citibank closely track default probabilities for individual borrowers. When restructuring loans, they consider the likelihood of default to tailor repayment terms.

A study by The European Central Bank (ECB) (2021) highlighted credit risk management as a priority area in 2021. The study revealed that Effective risk exposure monitoring was crucial for maintaining bank profitability. The ECB emphasized the need for robust monitoring systems to prevent excessive risk-taking. Spanish banks, such as Banco Santander and BBVA, closely monitor risk exposure across their loan portfolios. By doing so, they promptly identify deteriorating credits and implement restructuring measures.

Carpenter (2023) explains that Loan delinquencies refer to overdue payments by borrowers. High delinquency rates signal potential credit risk. Banks track delinquency trends to assess the effectiveness of their credit restructuring strategies. For instance, if a bank observes a surge in delinquencies, it may need to revisit its loan recovery processes and consider restructuring options. Loan Delinquencies: Indicates the percentage of loans with overdue payments. High delinquency rates signal potential credit risk

Temba et al. (2024) investigated credit risk management practices in Tanzanian commercial banks. While not directly in Asia, the study sheds light on risk monitoring. Tanzanian banks' risk assessment, credit process quality, and risk

supervision positively influenced financial performance. The study reported that in Japan, Mizuho Bank and Sumitomo Mitsui Banking Corporation employ sophisticated risk monitoring systems. Their real-time dashboards track exposure to various industries and help guide restructuring decisions.

A study by Isidor Temba et al. (2024) emphasized risk assessment and approval. The study revealed that Nigerian banks face unique challenges. However, excessive risk assessment negatively impacted liquidity. Nigerian banks must strike a balance between thorough assessment and liquidity needs. it was revealed that Access Bank Nigeria and Zenith Bank closely assess credit risks in sectors like oil and gas. Their restructuring strategies consider industry-specific challenges.

Islamic Banking Research Group (2021) compared credit risk between Islamic banks (IBs) and conventional banks (CBs). The study observed the increased number of nonperforming loans during the COVID-19 pandemic raised concerns. IBs and CBs faced similar credit risk challenges but employed different strategies. It was fund that in Malaysia, CIMB Islamic Bank (IB) and Maybank (CB) both restructured loans during the pandemic. While CBs focused on collateral-based restructuring, IBs emphasized profit-sharing arrangements compliant with Sharia principles.

McKinsey & Company (2021) report on managing credit risk after the pandemic emphasized adaptive strategies. Banks worldwide adjusted their risk monitoring approaches. Real-time data analytics and scenario modeling became essential. for instance, Barclays Bank (UK) and Bank of America (USA) enhanced their risk exposure monitoring tools post-pandemic. Loan Loss Provisioning Research Consortium (2023) investigated the relationship between risk monitoring and loan loss provisions. They found that banks with robust risk monitoring systems tended to

make more accurate provisions for potential losses. Accurate provisioning facilitated smoother credit restructuring processes. UniCredit (Italy) and Nordea Bank (Sweden) closely monitor credit risk indicators. Their proactive approach to provisioning allowed them to swiftly adjust loan loss reserves during economic downturns.

A study by Gupta et al. (2022) emphasized the role of technology in credit risk management. Banks that adopted advanced analytics, machine learning, and AI for risk monitoring demonstrated better outcomes. Real-time data processing enabled timely restructuring decisions. For instance, ING Group (Netherlands) and DBS Bank (Singapore) leveraged AI algorithms to monitor credit risk. Their systems flagged potential defaults early, leading to effective restructuring interventions.

A cross-country analysis (2024) explored how sector-specific risk monitoring influenced credit restructuring. Banks that tailored their strategies based on industry-specific risks achieved better results. The study highlighted the importance of understanding sector dynamics. In Nigeria, First Bank of Nigeria and Guaranty Trust Bank closely monitored credit risks in the oil and gas sector. Their targeted restructuring efforts aligned with the unique challenges faced by this industry.

A study by Temba, Mwakajinga and Mwakapenda, (2024) in Tanzania and Nigeria emphasized risk assessment and approval. The study revealed that Nigerian banks face unique challenges. However, excessive risk assessment negatively impacted liquidity. Nigerian banks must strike a balance between thorough assessment and liquidity needs. It was revealed that Access Bank Nigeria and Zenith Bank closely assess credit risks in sectors like oil and gas. Their restructuring strategies consider industry-specific challenges.

According to (Ekai (2023), the Non-Performing Loans Ratio (NPL Ratio) serves as a crucial metric in Risk monitoring and the Effect of Credit Restructuring Strategies on Loan recovery of commercial banks, indicating the proportion of non-performing loans within a bank's portfolio, encompassing those loans in default or nearing default. A high NPL ratio is indicative of heightened credit risk, a factor that commercial banks meticulously monitor due to its direct implications on their financial stability and profitability. As exemplified in Kabalega's study in Uganda (2021), the credit monitoring practices of Centenary Bank significantly influenced its financial performance, underscoring the pivotal role of NPL ratio in assessing credit risk and its impact on bank operations and outcomes.

2.6.7 Summary and Gaps

The literature on loan recovery strategies highlights multiple approaches that financial institutions have employed to address distressed loans. The Extended Repayment Plan, particularly, has shown significant promise in various contexts. Bennett and Unal (2018) showed that reductions in monthly payments significantly improved cure rates and reduced defaults among borrowers in the UK. Similarly, Agarwal et al. (2019) found that the Home Affordable Modification Program (HAMP) positively influenced borrower retention while also creating re-default challenges. However, the geographical and regulatory differences in these studies present difficulties in generalizing their findings to other contexts, such as Kenya or similar developing countries (Kinyua et al., 2022; Mwangi & Njuguna, 2019). Furthermore, research by Adeyemi and Akinola (2018) highlights factors affecting loan recovery rates among microfinance institutions, reiterating the need for context-specific strategies in varying financial ecosystems.

In the context of interest rate reduction as a strategy for loan recovery, the research reflects mixed outcomes across different countries. Bennett and Unal (2020) demonstrated that interest rate cuts in the UK led to reduced incentives for banks to restructure loans, potentially lowering recovery rates. In contrast, Ogunleye and Oyewole (2019) noted the benefits of interest rate reductions in the Nigerian banking sector, where lower rates correlated with improved borrower cash flow and increased loan repayment capabilities. However, the applicability of these findings remains limited given differences in regional economic environments (Chen & Wu, 2021; Mwangi & Wanjau, 2019). These disparate results underscore the necessity for localized examinations of interest rate policies tailored to specific financial markets and consumer behavior patterns.

A substantial body of research focusing on principal forbearance elucidates its role in loan recovery, with various studies illustrating the trade-offs involved. Acharya and Steffen (2020) provided insights into firms enhancing cash reserves during crises, emphasizing the importance of assessing the ability of forbearance solutions to address liquidity stresses. However, studies like those by Beck and Park (2020) raise concerns about potential long-term consequences, such as moral hazard and solvency issues stemming from extended relief measures. Other studies, like those from the European Banking Authority (2020), elaborate on the complexities surrounding non-performing loans (NPLs) during times of economic upheaval. Despite the informative nature of these studies, gaps persist in focusing on the effects of forbearance in predominantly emerging markets, where institutional and regulatory frameworks differ (Cucinelli et al., 2020).

Research on debt consolidation as a means of enhancing loan recovery illustrates a variety of outcomes influenced by regional banking practices. Alshatti (2019) found that debt consolidation improved the financial performance of UK banks, whereas studies in the US context (Chen & Liu, 2020) demonstrated similar benefits during financial crises. Contrarily, the situation in Nigeria, as reported by Okeke and Okeke (2019), revealed positive effects on profitability and recovery resulting from consolidation strategies. The inconsistency in outcomes highlights the necessity for research focused on understanding the implications of debt consolidation and recovery strategies in the Kenyan banking system and local financial conditions (Agyei & Marfo-Yiadom, 2016).

Finally, the literature emphasizes the implications of balloon payment extensions on loan recovery, yielding distinct results across regions. Studies like those by Mwangi and Wanjohi (2018) underline the potential for balloon payment extensions to boost the financial performance of microfinance institutions in Kenya. Conversely, research in other countries such as China and Nigeria pointed to negative consequences associated with increased moral hazard and operational costs, thus complicating the perceived benefits of balloon payment extensions (Khandelwal & Mian, 2018; Ogunleye & Oke, 2020). This variability underscores the need for targeted research that takes into account the sociocultural, economic, and regulatory contexts of specific regions, as well as the diversity of borrower profiles that may be influenced by such financial strategies (Kumar & Singh, 2019).

A critical gap in the existing literature is the regional variance within the empirical studies on loan recovery strategies. Many studies, such as those by Bennett and Unal (2018) and Agarwal et al. (2019), primarily focus on advanced economies like the UK

and the US, which have different financial and regulatory frameworks compared to emerging markets. For instance, the uniqueness of the Kenyan banking landscape is not sufficiently addressed in a comparative sense, particularly regarding its susceptibility to factors like economic instability, regulatory changes, and cultural attitudes towards debt repayment (Agarwal et al., 2019; Adeyemi & Akinola, 2018).

Moreover, while significant findings have been made regarding borrower behavior in response to interest rate modifications, studies often lack a rigorous exploration of the socio-economic variables influencing these behaviors. Research in this area, such as that conducted by Ogunleye and Oyewole (2019) and Bholat et al. (2020), tends to underrepresent the impact of broader macroeconomic indicators—such as inflation, economic growth, and employment rates—on the efficacy of interest rate reductions as a strategy for enhancing loan recovery (Chen & Wu, 2021; Kinyua et al., 2022).

Principal forbearance and its impact on long-term borrower behavior form another research gap. Current studies, including those by Beck and Park (2020) and Bholat et al. (2020), highlight potential moral hazard situations without fully analyzing the complexities that arise from different borrower profiles and their repayment capabilities. Consequently, there is a significant need for research to provide deeper insights into how borrower-specific factors like income level, financial literacy, and prior credit behavior influence the outcomes of forbearance strategies, especially in unique contexts such as Kenya (Acharya & Steffen, 2020; Cucinelli et al., 2020).

The varying effects of debt consolidation and balloon payment extensions across different economies represent another underexplored area. Particularly, more comprehensive research is needed to determine how debt consolidation strategies perform in different market conditions, as illustrated by studies in Nigeria and South

Africa, while failing to address the Kenyan context directly (Kinyua et al., 2020; Okeke & Okeke, 2019). Further, balloon payment extensions are seen to present both advantages and disadvantages—understanding these implications at a local level requires further academic inquiry that aims at identifying contextual triggers impacting repayment behavior, loan defaults, and customer satisfaction (Mwaura & Ngugi, 2019; Kumar & Singh, 2019).

Lastly, the temporal aspect of loan recovery strategies remains inadequately examined. While several studies have documented short-term outcomes associated with various recovery tactics, the long-term sustainability of these strategies on both borrower and lender performance is seldom addressed (Mwangi & Njuguna, 2019; Ogola & Ongore, 2020). This longitudinal approach may provide indispensable insights into the best practices for loan recovery and afford a more robust understanding of the changing dynamics of borrower-lender relationships over time.

2.7 Conceptual Framework

The conceptual framework in Figure 2.1 shows the relationship between the independent and dependent variables to be used in the study. The conceptual framework establishes a robust structure for investigating examine the moderating role of risk monitoring on the relationship between credit restructuring strategies, and loan recovery of commercial banks in Nakuru County with carefully chosen qualitative indicators to ensure a comprehensive understanding of stakeholder dynamics. The independent variables encompass diverse credit restructuring strategies, including Extended Repayment Plans, Interest Rate Reduction, Principal Forbearance, Debt Consolidation, and Balloon Payment Extension. Extended Repayment Plans are assessed based on the impact of repayment duration on

borrowers, their financial adaptability, and the potential for preventing defaults. Interest Rate Reduction is evaluated through borrower affordability assessments, the influence on the cost of borrowing, and the likelihood of timely repayment. Principal Forbearance is analyzed by considering the short-term relief provided, the stability of borrowers' financial positions, and the effectiveness in mitigating default risks. Debt Consolidation is examined in terms of its ability to simplify financial obligations, assist in borrower debt management, and enhance overall loan repayment. Balloon Payment Extension is scrutinized for its impact on repayment flexibility, default risk, and the facilitation of borrower financial planning.

The dependent variable, Loan Recovery, is measured by assessing the timely repayment rate, reduction in default rates, and improvements in debt settlement facilitated by the implemented credit restructuring strategies. This variable provides insights into the effectiveness of the chosen strategies in recovering loans within the commercial banks in Nakuru County. The study moderating variable is Risk monitoring, and this is measured through portfolio analysis techniques, default probability tracking, and risk exposure monitoring.

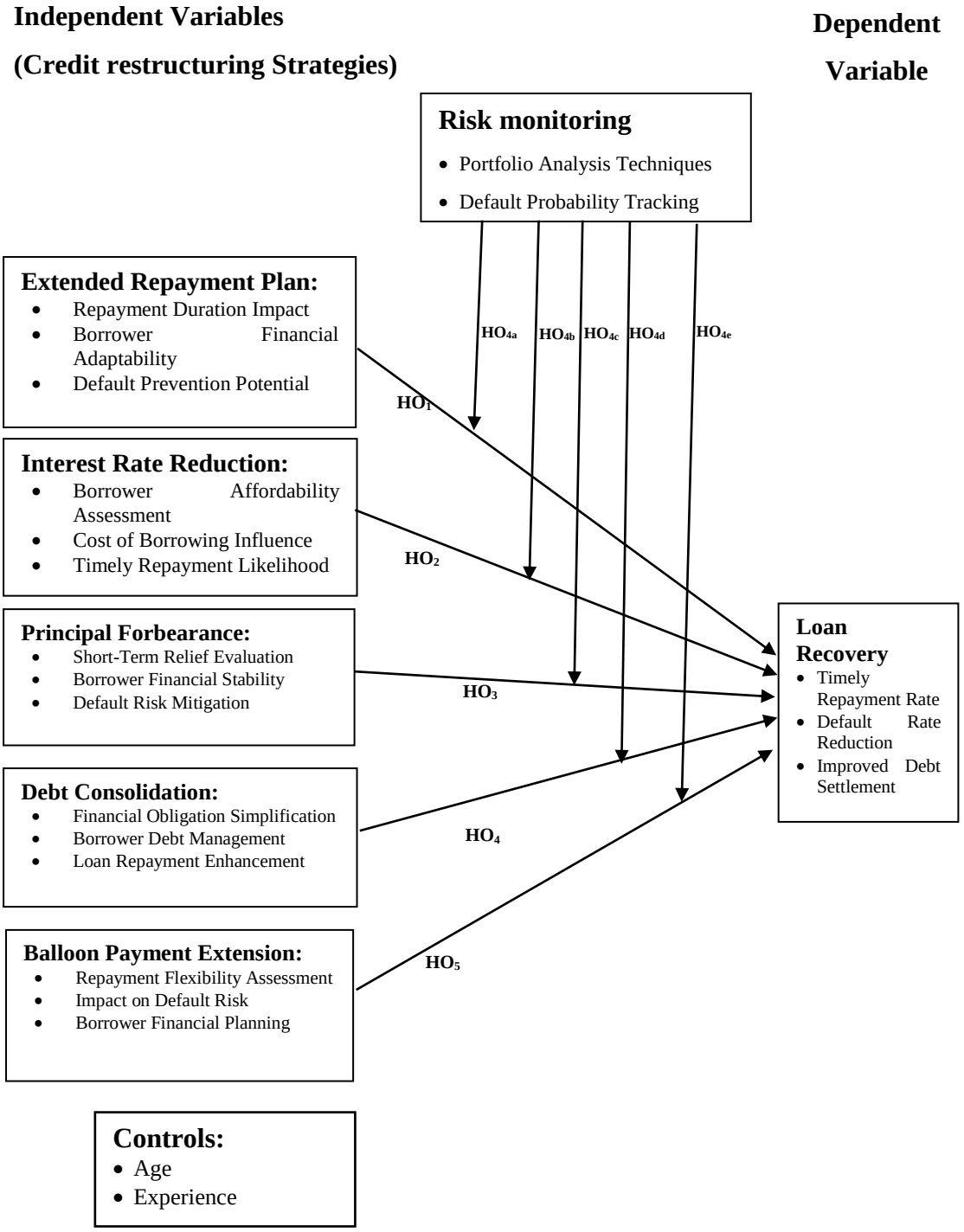

Figure 2. 1: Conceptual Framework

Source: *Researcher (2024)*

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research methodology employed in examining the moderating role of risk monitoring on the relationship between credit restructuring strategies, and loan recovery of commercial banks in Nakuru County. The methodology provides a detailed plan for data collection, analysis, and interpretation, ensuring the study's reliability and validity.

3.2 Research Design

The research employed the explanatory research design. This design is chosen because it allows for a deeper understanding of the causal relationships between credit restructuring strategies and loan recovery outcomes in commercial banks in Nakuru County. By employing this design, the study aims to explain how and why certain credit restructuring strategies impact the recovery of loans in commercial banks. It involves collecting quantitative data on various credit restructuring strategies implemented by banks and their corresponding outcomes in terms of loan recovery. Additionally, qualitative data may be gathered through interviews or surveys to gain insights into the underlying factors influencing the effectiveness of these strategies (Creswell & Plano Clark, 2017). Overall, the explanatory research design is ideal for examining the cause-and-effect relationships between credit restructuring strategies and loan recovery, providing valuable insights for both researchers and practitioners in the banking sector.

3.3 Population of the Study

The population under study included all the commercial banks operating in Nakuru County targeting bank employees responsible for loan management. The county has 30 established commercial banks. The study focused on all the 30 commercial banks among the employees dedicated to the credit section. The target population comprises of 348 bank employees working in the credit section, that is, those responsible for loan management from the commercial banks in Nakuru County, based on the results. This included credit analysts, loan officers, credit managers, risk assessors, and support staff involved in processing, evaluating, and managing loan applications and credit portfolios.

Table 3. 1: Target Population

No.	Population Category	Target Population
1	Credit Analysts	28
2	Loan Officers i/c	132
3	Credit Managers i/c	37
4	Risk Assessors i/c	47
5	Credit Admins	104
	Total	**348**

3.4 Sampling Frame

Sampling refers to the process of selecting a subset of individuals or items from a larger population for the purpose of conducting research or analysis. It involves systematically choosing representative elements from the population to make inferences about the entire population (Aslam & Ozturk, 2020). This list was obtained from relevant financial and regulatory institutions. Sampling is essential in research because it allows researchers to collect data more efficiently and cost-effectively than attempting to study the entire population. Additionally, sampling enables researchers

to generalize their findings from the sample to the larger population with a certain level of confidence, provided that appropriate sampling techniques are employed.

3.5 Sample and Sampling Technique

A simple random sampling technique was employed to select Employees in the credit section in the 30 commercial banks from the population. The criteria for selection included the banks' size, loan portfolio, and their engagement in credit restructuring activities. The sample size was determined based on the principle of saturation, ensuring that enough data is collected to draw meaningful conclusions. The sample was determined using the Slovin formula.

$n = N \div (1 + Ne^2)$

$n = 348 \div (1 + 348 \times 0.0025)$

$n \approx 186.0962567$.

Thus 186, which is distributed in Table 3.2

Table 3. 2: Sample Distribution Matrix

No.	Population Category	Target Population	N%	Sample (N%*186)
1	Credit Analysts	28	8%	15
2	Loan Officers i/c	132	38%	70
3	Credit Managers i/c	37	11%	20
4	Risk Assessors i/c	47	14%	26
5	Credit Admins	104	30%	55
	Total	348	100%	186

The sample for each population category in Nakuru's 37 banks inclusive of branches is as follows: 15 Credit Analysts, 70 Loan Officers in Charge (i/c), 20 Credit Managers in Charge, 26 Risk Assessors in Charge, and 55 Credit Admins. This

distribution reflects the proportional representation of each category within the total population of 348 employees, with Credit Analysts (8%) and Loan Officers comprising (11%), Credit Managers and Risk Assessors 14%, and Credit Admins constituting the largest proportion at 38%. The sample size of 186 individuals is derived by multiplying the percentage of each population category by the total sample size, ensuring a representative subset of the entire population for research and analysis purposes. The study applied 30% to determine the participating commercial banks, thus 18 commercial banks yield the target sample.

3.6 Research Instrument

A structured questionnaire was developed as the primary research instrument. The questionnaire consisted of both closed-ended and Likert scale questions to gather quantitative data on credit restructuring strategies and loan recovery. Data collection instruments are the tools or methods used to gather data from the research participants or sources. A questionnaire is a common data collection instrument that consists of a set of questions designed to elicit information on a specific topic or issue (McLeod, 2023). A questionnaire can be either structured or unstructured, depending on the type and format of the questions. A structured questionnaire has predefined and fixed questions that can be answered in a limited number of ways, such as yes/no, multiple choice, or Likert scale. A structured questionnaire is suitable for quantitative research, as it allows for easy and consistent data analysis. For this study, a structured questionnaire was developed as the primary research instrument. The questionnaire consisted of both closed-ended and Likert scale questions to gather quantitative data on credit restructuring strategies and loan recovery. The questionnaire was administered to the bank employees.

3.7 Data Collection Procedure

Data was collected through a survey administered to the selected commercial banks. The survey required the approval of the relevant authorities, such as the National Commission for Science, Technology and Innovation (NACOSTI), the bank management, and the research ethics committee. A letter of introduction was sent to the participating banks, explaining the purpose, objectives, and benefits of the study, as well as the confidentiality and anonymity of the respondents. The questionnaire was administered to bank employees in the credit section. The data collection approach involves the researcher personally administering the questionnaire to the participants. This method entails the researcher guiding the respondents as they fill out the questionnaire, providing any necessary clarification or assistance. After the respondents complete the questionnaire, the researcher waited to collect the filled forms. This hands-on approach ensures that the researcher can address any questions or concerns from the participants in real-time, thereby enhancing the quality of data collected and facilitating a more thorough understanding of the respondents' perspectives and insights.

3.8 Pilot Test

A pilot test was conducted with a small group of banks to assess the clarity, comprehensibility, and relevance of the questionnaire. The pilot test involved 19 bank employees responsible for loan management (10% of the sample size) from commercial banks in Nandi County, which is 2 banks out of the 18 commercial banks of the banks (10% x 18 banks) from which 2 Credit Analysts, 7 Loan Officers in Charge, 2 Credit Managers in Charge, 3 Risk Assessors in Charge, and 5 Credit Admins was selected to participate. Menon (2021) recommended that 10% of the

study sample is ideal for piloting. The feedback from the pilot study guided the necessary modifications to enhance the instrument's effectiveness.

3.9 Reliability of Research Instruments

Reliability of the research instruments refers to the consistency and stability of the results obtained from the questionnaire. To ensure the reliability of the research instruments, the questionnaire was pre-tested on a small sample of banks not included in the main study. The pre-test helped identify and rectify any ambiguities or issues with the questions, such as wording, clarity, relevance, and format. The pre-test also helped to estimate the time required to complete the questionnaire and the response rate. The reliability of the questionnaire was measured using Cronbach's alpha, which is a statistical indicator of the internal consistency of the questions. The Cronbach's alpha value ranges from 0 to 1, with higher values indicating higher reliability. A threshold of 0.7 was used to indicate acceptable reliability. Any questions that have low reliability or validity was modified or removed from the questionnaire.

3.10 Validity of Research Instruments

Validity of the research instruments refers to the accuracy and appropriateness of the results obtained from the questionnaire. To ensure the validity of the research instruments, the questionnaire was subjected to construct, face, and content validity tests. Construct validity refers to the extent to which the questionnaire measures the intended theoretical constructs, such as credit restructuring strategies and loan recovery. Face validity refers to the extent to which the questionnaire appears to measure what it claims to measure, based on the judgment of the respondents. Content validity refers to the extent to which the questionnaire covers all the relevant and important aspects of the research topic, based on the judgment of the experts. To

ensure construct, face, and content validity, the questionnaire was consulted with experts in the field, such as academics, practitioners, and regulators, to review the questionnaire for relevance and clarity. Additionally, the feedback from the pilot test was used to refine and improve the questionnaire. The validity of the questionnaire was measured using factor analysis, which is a statistical technique that identifies the underlying dimensions or factors that explain the correlations among the questions. A threshold of 0.5 was used to indicate acceptable validity. Any questions that have low validity or reliability was modified or removed from the questionnaire.

3.11 Measurement of Variables

Table 3. 3: Measurement of Variables

Variables	Scale	Measurement	Source
1. Extended repayment plan	5-point-likert scale	6 items	Bennett and Unal (2020)
2. Interest Rate reduction	5-point-likert scale	6 items	Bennett and Unal (2020)
3. Principal forbearance	5-point-likert scale	6 items	AfDB, 2021; Hawkins & Turner, 2021
4. Debt consolidation	5-point-likert scale	6 items	Chen & Liu (2020)
5.Balloon payment extension	5-point-likert scale	6 items	Rehman et al., 2019; Hawkins & Turner, 2021
6. Risk monitoring	5-point-likert scale	6 items	Mistry & McKeon, 2018
7. Loan recovery	5-point likert scale	6	Alshubiri & Alshubiri, 2020

3.12 Data Analysis and Presentation

Data analysis is the process of transforming, organizing, and interpreting the data collected from the questionnaire to answer the research questions and test the hypotheses. Quantitative data was analyzed using statistical software such as SPSS,

which is a powerful and user-friendly tool for performing various statistical tests and procedures. Descriptive statistics, such as mean, standard deviation, frequency, and percentage, was employed to summarize and describe the characteristics and distribution of the data. Correlation analysis, which is a technique that measures the strength and direction of the association between two variables, was employed to explore the possible factors that influence credit restructuring strategies and loan recovery. Regression analysis, which is a technique that examines the effect of the dependent variable and on the dependent variable was employed to test the effect of credit restructuring strategies on loan recovery. The findings were presented through tables, charts, and graphs for better interpretation and visualization of the data. The findings were also discussed and compared with the existing literature and theory. The model further takes the 8 hierarchical regression equations. Hierarchical regression is a powerful statistical technique that allows to examine the incremental contribution of different sets of predictors to the outcome variable. The following hierarchical regression models were used to test the hypotheses at a significance level of 5%:

$$LR = \beta_0 + \beta_1 Age + \beta_2 EXPE + \varepsilon \quad \text{.....1}$$

$$LR = \beta_0 + \beta_1 C + \beta_2 EP + \beta_3 RR + \beta_4 PF + +\beta_5 DC + \beta_6 BP + \varepsilon \quad \text{.....2}$$

$$LR = \beta_0 + \beta_1 C + \beta_2 EP + \beta_3 RR + \beta_4 PF + \beta_5 DC + \beta_6 BP + \beta_7 RM + \varepsilon \quad \text{.....3}$$

$$LR = \beta_0 + \beta_1 C + \beta_2 EP + \beta_3 RR + \beta_4 PF + +\beta_5 DC + \beta_6 BP + \beta_7 RM + \beta_8 EP * RM + \varepsilon \quad \text{.....4}$$

$$LR = \beta_0 + \beta_1 C + \beta_2 EP + \beta_3 RR + \beta_4 PF + \beta_5 DC + \beta_6 BP + \beta_7 RM + \beta_8 EP * RM + \beta_9 RR * RM + \varepsilon \quad \text{.....5}$$

$$LR = \beta_0 + \beta_1 C + \beta_2 EP + \beta_3 RR + \beta_4 PF + \beta_5 DC + \beta_6 BP + \beta_7 RM + \beta_8 EP * RM + \beta_9 RR * RM + \beta_{10} PF * RM + \varepsilon$$

……..…….6

$$LR = \beta_0 + \beta_1 C + \beta_2 EP + \beta_3 RR + \beta_4 PF + \beta_5 DC + \beta_6 BP + \beta_7 RM + \beta_8 EP * RM + \beta_9 RR * RM + \beta_{10} PF * RM + \beta_{11} DC * RM + \varepsilon$$

……..…7

$$LR = \beta_0 + \beta_1 C + \beta_2 EP + \beta_3 RR + \beta_4 PF + \beta_5 DC + \beta_6 BP + \beta_7 RM + \beta_8 EP * RM + \beta_9 RR * RM + \beta_{10} PF * RM + \beta_{11} DC * RM + \beta_{12} BP * RM + \varepsilon$$

……..…8

Where:

AGE: Age

EXPE: Experience

EP: Extended Repayment Plan

RR: Interest Rate Reduction

PF: Principal Forbearance

DC: Debt Consolidation

BP: Balloon Payment Extension

RM: Risk Monitoring

LR: Loan Recovery

3.13 Diagnostic Tests

In regression analysis, several assumptions must be met to ensure the validity of the results. These assumptions include normality, linearity, multicollinearity, and homoscedasticity, each of which plays a crucial role in interpreting the regression model's output.

3.13.1 Normality

Normality refers to the assumption that the residuals (errors) of the regression model are normally distributed (Navarro, 2023). If this assumption is violated, it can affect the validity of hypothesis testing and confidence interval estimation. To test for normality, the researcher can visually inspect a histogram of the residuals or conduct formal tests such as the Shapiro-Wilk test. A significant departure from normality may require the researcher to consider data transformations or robust regression techniques to address the issue.

3.13.2 Linearity

Linearity assumes that the relationship between the independent variables and the dependent variable is linear. Violation of linearity may result in biased coefficient estimates and inaccurate predictions. Diagnostic tests for linearity included the use of RAMSEY test. If a discernible pattern is observed in the plots, it may indicate a violation of linearity, prompting further investigation or model refinement.

3.13.3 Multicollinearity

Multicollinearity occurs when independent variables in the regression model are highly correlated with each other. This can lead to inflated standard errors and inaccurate coefficient estimates. To test for multicollinearity, the researcher can compute variance inflation factors (VIFs) for each independent variable. VIF values above 10 indicate multicollinearity may be present and require further investigation or remedial action.

3.13.4 Homoscedasticity

Homoscedasticity assumes that the variance of the residuals is constant across all levels of the independent variables. Violation of homoscedasticity can lead to biased

standard errors and inefficient parameter estimates. Diagnostic tests for homoscedasticity include the Levene's test. If significant heteroscedasticity is detected, the researcher may need to consider robust standard errors or data transformation techniques to address the issue.

Diagnostic tests for normality, linearity, multicollinearity, and homoscedasticity are essential for ensuring the reliability and validity of regression analysis results. These tests provide insights into the adequacy of the model and help identify potential issues that need to be addressed before interpreting the regression coefficients.

3.14 Ethical Consideration

In conducting this study, ethical considerations are paramount. The research adhered to the guidelines set forth by the National Commission for Science, Technology and Innovation (NACOSTI) to ensure compliance with ethical standards. Informed consent was obtained from all participants, outlining the purpose, procedures, potential risks, and benefits of the study before their involvement. Participants had the right to withdraw from the study at any time without penalty. Confidentiality was strictly maintained, with all data anonymized and stored securely to protect the privacy of participants. Any identifiable information was kept confidential and used only for research purposes. Additionally, measures were taken to ensure that the research does not cause harm to participants or infringe upon their rights. Furthermore, the study strived to maintain integrity and transparency in all aspects of research conduct, including data collection, analysis, and reporting.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, AND INTERPRETATION

4.0 Introduction

The previous chapter explained the reasoning and justification for the statistical methods and data analysis techniques employed. This chapter presents the findings on how credit restructuring strategies influences the loan recovery of commercial banks in Nakuru County. Kenya, and investigates the moderating role of role of risk monitoring in this relationship. It starts with a demographic overview of the participants who provided data, followed by the presentation of data related to the research objectives, including factor analysis, regression analysis, and the results of mediation and moderation effects.

4.1 Response Rate

Table 4.1 illustrates the questionnaire response rate, highlighting the efficiency of the data collection process. Out of the 186 questionnaires administered, all were successfully distributed, representing 100% of the intended sample. Of these, 177 questionnaires were returned, translating to a commendable response rate of 95%, which indicates a high level of participation and willingness from respondents. This high return rate suggests that the participants were both accessible and motivated to engage with the study. Moreover, out of the returned questionnaires, 173, or 93%, were considered usable, meaning that only a small fraction of the returned responses was incomplete or invalid. This reflects positively on the clarity of the questions and the attentiveness of the respondents, as most provided sufficient and relevant information for analysis. The high percentage of usable responses strengthens the

validity of the data, ensuring that the findings of the study are based on a comprehensive and reliable set of responses. The results are shown in Table 4.1.

Table 4. 1: Questionnaire Response Rate

Responses	No.	Percentages
Administered questionnaires	186	100%
Returned	177	95%
Usable questionnaires	173	93%

Source: ***Research Findings (2024)***

4.2 Data Screening and Cleaning

Data screening and cleaning involve carefully reviewing the collected data to identify and correct any errors that might significantly affect the analysis (Osborne, 2013). This process typically entails addressing missing values, preparing raw data for analysis, and evaluating normality and outliers (Tabachnick & Fidell, 2014).

4.2.1 Examination of Missing Data

Missing data is a common issue in social research and can influence the results of statistical analyses (Hayes, 2012; Fichman, 2005). To address this, the study identified and managed any missing values within the dataset. Following the recommendations of Hair (2010) and Tabachnick & Fidell (2014), cases with more than 50% missing data were excluded. For cases with less than 50% missing data, pairwise exclusion was applied, as it offers benefits such as convergence, unbiased factor loading estimates, and ease of use (Hair, 2010).

4.2.2 Treatment of Personal Values Data

Personal values data from the Schwartz Value Survey (SVS) were processed according to established guidelines. Responses showing bias, such as consistently rating 3 or 5, were excluded following Glazer & Beehr (2002). After this cleaning process, 173 cases were retained for further analysis.

4.2.3 Management of Data for Subsequent Analysis

The data was then prepared for additional analyses. Personal values data were transformed in line with Schwartz's SVS manual. The scores were aggregated and centered on each participant's mean rating, and then calculated for the three dimensions of taxpayer education before being aggregated for analysis (Ralston et al., 2011). To ensure accuracy, the 'average score approach' was employed to calculate total scores while excluding any missing responses (Osborne, 2013).

4.2.4 Assessment of Outliers

Outliers, defined as observations that significantly deviate from the rest of the data, were identified and addressed to avoid skewing the statistical results (Churchill Jr. & Iacobucci, 2004; Tabachnick & Fidell, 2013). Box plot analysis revealed two extreme outliers in the conservation variable, which were subsequently removed.

4.2.5 Non-Response Bias

To ensure the sample was representative, non-response bias was assessed. The study used the extrapolation method proposed by Armstrong & Overton (1977) and conducted t-tests to compare early and late responses. The findings indicated no significant differences, confirming that the sample was both representative and free of bias.

4.3 Demographic Information

Table 4.2 provides a summary of the demographic information of the respondents. In terms of gender, the majority of the participants were male, accounting for 61.3% (106), while females made up 38.7% (67) of the sample, indicating a gender imbalance in favor of males. Regarding age distribution, most respondents fell within the 31-40 years age bracket, representing 54.3% (94), followed by 19.1% (33) aged between 20-30 years, and 13.9% (24) between 41-50 years. Only 12.7% (22) of respondents were over 50 years, suggesting that the majority of participants were in their early to mid-career stages. Concerning educational qualifications, more than half of the respondents (54.9%, 95) held a bachelor's degree, while 24.3% (42) had attained a master's degree, and 20.8% (36) possessed a certificate or diploma. This distribution shows a well-educated sample, with a significant portion having advanced degrees. Finally, the respondents' work experience varied, with 45.7% (79) reporting 2-5 years of experience, followed by 19.7% (34) with less than 2 years, and 19.1% (33) having 6-10 years of experience. A smaller group, 15.6% (27), had over 10 years of work experience, indicating a diverse range of professional backgrounds within the sample.

Table 4. 2: Demographic Information

		Frequency	Percent
Gender	Male	106	61.3
	Female	67	38.7
	Total	**173**	**100**
Age	Aged 20-30 years	33	19.1
	Aged 31 – 40 years	94	54.3
	Aged 41 – 50 years	24	13.9
	Over 50 years	22	12.7
	Total	**173**	**100**
Level of Education	Certificate/Diploma	36	20.8
	Bachelor degree	95	54.9
	Master degree	42	24.3
	Total	**173**	**100**
Experience	Less than 2 years	34	19.7
	Aged 2-5 years	79	45.7
	Aged 6-10 years	33	19.1
	Over 10 years	27	15.6
	Total	**173**	**100**

Source: ***Research Findings (2024)***

4.4 Descriptive Statistics Results for the Study Variables

4.4.1 Loan Recovery

The descriptive statistics for loan recovery, as shown in Table 4.3, offer insight into the effectiveness of the bank's measures for encouraging loan repayment and managing defaults. The mean scores for all items range between 3.71 and 3.91, suggesting a generally positive perception among respondents regarding the bank's loan recovery strategies. For instance, the statement "The bank effectively encourages timely repayment of loans through clear communication and incentives" and "The bank's policies and procedures facilitate prompt loan repayment by clients" both yielded a mean score of 3.838, reflecting agreement that communication and policies support timely repayment.

Similarly, statements such as "The bank's proactive measures and strategies have contributed to a noticeable decrease in the default rate of loans over time" and "The

implementation of credit restructuring initiatives has been successful in reducing the occurrence of loan defaults within our bank" recorded means of 3.734, further indicating a favorable view on the bank's efforts in reducing default rates. Respondents also expressed satisfaction with the bank’s debt settlement procedures (M = 3.711), which is critical for minimizing losses.

In terms of variability, the standard deviations range from 0.639 to 0.874, suggesting moderate agreement among respondents. The skewness values for all items are negative, with the highest skewness observed in the statement "The bank's efforts in facilitating improved debt settlement negotiations with borrowers have positively impacted our overall loan recovery" (-1.487). This indicates that responses were skewed towards higher agreement levels, meaning most respondents leaned towards perceiving these recovery measures as effective. Kurtosis values across the items, ranging from 1.238 to 1.840, demonstrate that the distribution is more peaked than a normal distribution, which is typical in survey data that leans towards positive agreement.

Overall, the results indicate that respondents believe the bank's loan recovery measures such as communication, policies, restructuring initiatives, and debt settlement procedures are effective in managing loans and reducing defaults.

Table 4. 3: Loan Recovery

n=173	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
The bank effectively encourages timely repayment of loans through clear communication and incentives."	1	5	3.838	0.697	-1.299	1.840
The bank's policies and procedures facilitate prompt loan repayment by clients, leading to timely closure of outstanding loans	1	5	3.838	0.710	-1.219	1.238
The bank's proactive measures and strategies have contributed to a noticeable decrease in the default rate of loans over time.	1	5	3.734	0.639	-1.305	1.579
The implementation of credit restructuring initiatives has been successful in reducing the occurrence of loan defaults within our bank.	1	5	3.734	0.747	-1.447	1.528
I am satisfied with the effectiveness of our bank's debt settlement procedures in resolving overdue loans and minimizing potential losses."	1	5	3.711	0.874	-1.342	1.715
The bank's efforts in facilitating improved debt settlement negotiations with borrowers have positively impacted our overall loan recovery	1	5	3.907	0.691	-1.487	1.414

Source: Research Findings (2024)

4.4.2 Extended Repayment Plan

Table 4.4 provides an analysis of respondents' perceptions regarding the effectiveness of extended repayment plans in loan recovery. The statement "Extended repayment plans are effective in improving the likelihood of loan recovery" received a mean score of 4.01, with a standard deviation of 0.687. This suggests that respondents generally agree with the effectiveness of such plans, as indicated by the negative

skewness of -1.278, which shows a tendency toward favorable responses. The relatively low standard deviation indicates that responses were fairly consistent, reflecting a shared belief in the positive impact of extended repayment plans on loan recovery.

Further, the statement "The extended repayment plan helps borrowers adjust their payments according to their financial circumstances" garnered a higher mean score of 4.21, with a standard deviation of 0.720. This suggests strong agreement among respondents, with a skewness of -1.229 pointing toward a favorable consensus. Respondents acknowledge that these plans provide flexibility for borrowers, allowing them to better manage their financial obligations.

Additionally, the statement "By offering an extended repayment plan, the risk of the borrower failing to meet their loan obligations is minimized" recorded the highest mean score of 4.41, with a standard deviation of 0.649. This reflects a strong belief that extended repayment plans mitigate the risk of loan default, supported by the skewness of -1.505, indicating a high level of agreement. The slightly lower variability in responses further underscores the respondents' confidence in the effectiveness of these plans in reducing default risks.

Conversely, the statement "The extended repayment plan lowers the amount of each monthly loan installment" received a mean score of 3.85 and a standard deviation of 0.737, indicating that respondents moderately agree with this assertion. The skewness of -1.437 reflects a leaning towards agreement, though the relatively higher standard deviation suggests more varied responses, perhaps due to differing experiences with how these plans impact monthly payments.

The statement "An extended repayment plan leads to a higher total amount of interest paid over the life of the loan" had a slightly lower mean of 3.70, with a standard

deviation of 0.674, suggesting that while respondents agree that extended plans result in increased interest payments, this is acknowledged with some variability. The skewness of -1.442 reflects a general consensus on this outcome.

Finally, the statement "The extended repayment plan affects the credit rating of the borrower" scored a high mean of 4.35, with a standard deviation of 0.671. This indicates that respondents strongly agree that these plans have implications for borrowers' credit ratings, as shown by the skewness of -1.387, which points to a consistent belief that extended repayment plans can impact creditworthiness. Overall, the responses suggest a general agreement on the benefits and trade-offs of extended repayment plans in loan management.

Table 4. 4: Extended Repayment Plan

n=173	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Extended repayment plans are effective in improving the likelihood of loan recovery	1	5	4.01	0.687	-1.278	1.730
The extended repayment plan helps borrowers adjust their payments according to their financial circumstances.	1	5	4.21	0.720	-1.229	1.318
By offering an extended repayment plan, the risk of the borrower failing to meet their loan obligations is minimized.	1	5	4.41	0.649	-1.505	1.769
The extended repayment plan lowers the amount of each monthly loan installment.	1	5	3.85	0.737	-1.437	1.562
An extended repayment plan leads to a higher total amount of interest paid over the life of the loan	1	5	3.70	0.674	-1.442	1.625
The extended repayment plan affects the credit rating of the borrower.	1	5	4.35	0.671	-1.387	1.424

Source: Research Findings (2024)

4.4.3 Interest Rate Reduction

Table 4.5 highlights respondents' perceptions of the impact of interest rate reductions on loan repayment and management within the bank. The statement "Interest rate reduction has positively influenced the repayment duration of loans in our bank" received a high mean score of 4.42, with a standard deviation of 0.587. This indicates strong agreement among respondents, suggesting that lowering interest rates has effectively shortened loan repayment periods. The negative skewness of -1.487 implies that the majority of respondents leaned towards favorable responses, while the kurtosis of 1.642 suggests a clustering of opinions around the mean.

Similarly, the statement "Reducing interest rates has improved borrowers' ability to adapt financially and meet their repayment" scored a mean of 4.43, with a standard deviation of 0.820, indicating broad agreement. The skewness of -1.199 reflects a positive consensus, showing that respondents believe lower interest rates have enhanced borrowers' financial flexibility, enabling them to meet their repayment obligations more comfortably.

Regarding the statement "Lower interest rates have a significant potential to prevent loan defaults among our customers," the mean score of 4.41 and a standard deviation of 0.730 underscore the belief that reducing interest rates helps prevent loan defaults. The skewness of -1.238 further supports this agreement, suggesting that respondents recognize lower rates as a valuable tool in reducing the risk of default.

The statement "Interest rate reduction has led to an increase in the loan recovery rates in our bank" received a slightly lower mean of 4.11 and a standard deviation of 0.677. While still positive, this suggests that respondents perceive a strong, though slightly less unanimous, link between lower interest rates and improved loan recovery rates. The

skewness of -1.137 indicates a general agreement on this point, but with a bit more variability in respondents' views.

In contrast, the statement "Our customers have expressed higher satisfaction levels due to the reduction in interest rates" received a lower mean of 3.83 and a standard deviation of 0.795. Although the skewness of -1.621 shows a tendency towards agreement, this score suggests that respondents are slightly more divided on the extent to which interest rate reductions directly correlate with customer satisfaction. This may indicate that while customers appreciate the lower rates, other factors also influence their overall satisfaction.

Finally, the statement "Reducing interest rates has been an effective strategy in managing the credit risk of our loan portfolio" received a mean of 4.23, with a standard deviation of 0.662, suggesting a strong consensus that interest rate reductions help in managing credit risk. The skewness of -1.437 reflects this positive sentiment, showing that respondents view interest rate reductions as a key strategy in maintaining a healthy loan portfolio. Overall, the results indicate that interest rate reductions are perceived as a highly effective tool for improving loan repayment, reducing defaults, and managing credit risk.

Table 4. 5: Interest Rate Reduction

n=173	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Interest rate reduction has positively influenced the repayment duration of loans in our bank	1	5	4.42	0.587	-1.487	1.642
Reducing interest rates has improved borrowers' ability to adapt financially and meet their repayment	1	5	4.43	0.820	-1.199	1.298
Lower interest rates have a significant potential to prevent loan defaults among our customers.	1	5	4.41	0.730	-1.238	1.318
Interest rate reduction has led to an increase in the loan recovery rates in our bank	1	5	4.11	0.677	-1.137	1.531
Our customers have expressed higher satisfaction levels due to the reduction in interest rates.	1	5	3.83	0.795	-1.621	1.541
Reducing interest rates has been an effective strategy in managing the credit risk of our loan portfolio	1	5	4.23	0.662	-1.437	1.522

Source: Research Findings (2024)

4.4.4 Principal Forbearance

Table 4.6 presents descriptive statistics on respondents' views regarding principal forbearance as a loan management strategy. The statement "Offering principal forbearance grants temporary relief to the borrower" received a mean score of 4.37 with a standard deviation of 0.642, suggesting that respondents strongly agree that this measure provides borrowers with temporary financial relief. The skewness of -1.470 indicates a notable tendency towards positive responses, while the kurtosis of 1.631

shows that opinions are closely clustered around the mean, signifying strong consensus.

Similarly, the statement "Implementing principal forbearance enhances the borrower's financial stability" received an even higher mean score of 4.44 with a standard deviation of 0.733, further reinforcing the idea that respondents see forbearance as a critical tool for maintaining or restoring a borrower’s financial health. The skewness of -1.384 reflects a strong lean towards agreement, while the kurtosis value of 1.544 indicates a shared perspective among respondents.

The statement "Principal forbearance helps reduce the risk of loan default" received a mean of 4.23, with a relatively low standard deviation of 0.522, reflecting agreement with slightly less variability in responses. The skewness of -1.283 points to a general consensus that forbearance contributes to minimizing loan default risks, further highlighting its perceived effectiveness in financial management.

However, the statement "When principal forbearance is applied, the loan's outstanding balance rises" received a lower mean score of 3.98 and a standard deviation of 0.634. While respondents acknowledge this outcome, the skewness of -1.352 suggests some variability in perceptions. This may indicate that while most agree that principal forbearance increases the loan balance, some may see this as a secondary concern compared to the relief it provides.

The statement "Deferring loan repayment is a result of principal forbearance" garnered a mean of 3.88 and a standard deviation of 0.734, indicating moderate agreement among respondents. The skewness of -1.462 shows that most respondents

lean towards agreement, although the standard deviation suggests a wider range of opinions, perhaps reflecting different experiences with repayment deferral.

Finally, the statement "Principal forbearance impacts the bank's cash flow" received a mean score of 4.15 and a standard deviation of 0.783, suggesting that respondents agree that forbearance affects the bank's financial position. The skewness of -1.329 indicates that this view is widely shared, while the kurtosis of 1.410 points to relatively clustered responses. Overall, respondents generally perceive principal forbearance as an effective tool for aiding borrowers, with the understanding that it also carries implications for loan balances and the bank's cash flow.

Table 4. 6: Principal Forbearance

n=173	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Offering principal forbearance grants temporary relief to the borrower.	1	5	4.37	0.642	-1.470	1.631
Implementing principal forbearance enhances the borrower's financial stability.	1	5	4.44	0.733	-1.384	1.544
Principal forbearance helps reduce the risk of loan default.	1	5	4.23	0.522	-1.283	1.361
When principal forbearance is applied, the loan's outstanding balance rises.	1	5	3.98	0.634	-1.352	1.421
Deferring loan repayment is a result of principal forbearance.	1	5	3.88	0.734	-1.462	1.509
Principal forbearance impacts the bank's cash flow.	1	5	4.15	0.783	-1.329	1.410

Source: Research Findings (2024)

4.4.5 Debt Consolidation

Table 4.7 presents respondents' views on the effectiveness of debt consolidation as a financial strategy. The statement "The debt consolidation simplifies the financial

obligation of the borrower" received a mean score of 4.02, with a standard deviation of 0.642, indicating that respondents largely agree with this assertion. The negative skewness of -1.371 suggests a strong tendency toward favorable responses, while the kurtosis of 1.431 reflects the clustering of opinions around the mean, demonstrating consensus on the simplification benefits of debt consolidation.

Regarding the statement "Debt consolidation strengthens the borrower's debt management," a higher mean score of 4.35 and a standard deviation of 0.791 shows even stronger agreement. The skewness of -1.285 reflects positive perceptions, indicating that respondents see consolidation as a valuable tool for enhancing debt management capabilities. Similarly, the kurtosis of 1.314 indicates that most respondents share this view.

The statement "Loan repayment efficiency is boosted by debt consolidation" received a mean of 4.23 with a standard deviation of 0.738, underscoring respondents' belief that debt consolidation improves repayment efficiency. The negative skewness of -1.384 points to a general consensus in favor of this statement, supported by the kurtosis value of 1.461, suggesting that the majority of respondents hold similar opinions on the efficiency gains from debt consolidation.

The statement "By consolidating debt, the loan's interest rate is lowered" garnered a mean score of 3.98 and a standard deviation of 0.574, reflecting moderate agreement among respondents. The skewness of -1.353 indicates that the majority of participants view debt consolidation as a means to lower interest rates, although the slightly lower mean suggests that some respondents may have differing experiences or perceptions regarding this benefit.

"A good credit history is necessary for debt consolidation" received a slightly lower mean of 3.78, with a standard deviation of 0.514. The skewness of -1.457 shows that most respondents agree with this statement, although the somewhat lower mean score suggests there may be differing levels of awareness or belief in the importance of credit history for accessing debt consolidation services.

Lastly, the statement "The relationship between the borrower and the original lenders is impacted by debt consolidation" received a mean score of 4.15 and a standard deviation of 0.673. The skewness of -1.329 indicates that respondents largely agree that debt consolidation influences the borrower's interactions with their original lenders. This could imply that respondents recognize both the practical and relational implications of debt consolidation. Overall, the results indicate that respondents generally view debt consolidation as a beneficial strategy for simplifying obligations, strengthening debt management, and improving loan repayment efficiency, with some varying views on its impact on interest rates and credit history requirements.

Table 4. 7: Debt Consolidation

n=173	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
The debt consolidation simplifies the financial obligation of the borrower.	1	5	4.02	0.642	-1.371	1.431
Debt consolidation strengthens the borrower's debt management.	1	5	4.35	0.791	-1.285	1.314
Loan repayment efficiency is boosted by debt consolidation.	1	5	4.23	0.738	-1.384	1.461
By consolidating debt, the loan's interest rate is lowered.	1	5	3.98	0.574	-1.353	1.529
A good credit history is necessary for debt consolidation.	1	5	3.78	0.514	-1.457	1.621
The relationship between the borrower and the original lenders is impacted by debt consolidation.	1	5	4.15	0.673	-1.329	1.410

Source: Research Findings (2024)

4.4.6 Balloon Payment Extension

Table 4.8 illustrates respondents' perspectives on the effects of extending balloon payments on loan management and repayment dynamics. The statement "Extending the balloon payment enhances the loan's repayment flexibility" received a mean score of 4.21 and a standard deviation of 0.711, indicating that respondents generally agree that extending balloon payments improves flexibility in managing loan repayment. The negative skewness of -1.412 suggests a strong tendency towards positive responses, while the kurtosis value of 1.633 shows that most responses are closely clustered around the mean, reflecting a general consensus on the advantages of this flexibility.

The statement "With the balloon payment extension, the default risk of the loan is lessened" garnered an even higher mean score of 4.36 with a standard deviation of 0.731. This suggests that respondents strongly believe that extending balloon payments reduces the risk of loan default. The skewness of -1.274 indicates that the majority of respondents agree with this view, and the kurtosis of 1.611 suggests that opinions are relatively consistent, with limited divergence among respondents.

Regarding the statement "Borrowers must plan their financial future when a balloon payment extension is involved," the mean score of 4.13 and a standard deviation of 0.642 reflect that respondent agree on the importance of financial planning when extending balloon payments. The skewness of -1.483 highlights that respondents predominantly lean towards agreeing with this statement, while the kurtosis of 1.576 indicates that responses are largely homogeneous, underscoring shared concerns about financial planning.

In contrast, the statement "The extension of the balloon payment heightens the uncertainty of loan repayment" received a mean score of 4.28 with a slightly higher standard deviation of 0.834. This result implies that respondents acknowledge that extending balloon payments may introduce uncertainty into the repayment process. The skewness of -1.751 suggests a stronger inclination towards agreement, while the kurtosis value of 1.639 highlights some variability in the intensity of responses, perhaps reflecting different levels of experience with such extensions.

The statement "Extending the balloon payment results in a higher total interest paid on the loan" received a lower mean score of 3.78 with a standard deviation of 0.512, indicating more moderate agreement among respondents. The skewness of -1.671 suggests that many respondents recognize the financial costs associated with extending balloon payments, though the lower mean score and tighter standard deviation reflect a more balanced view on this issue compared to other statements.

Finally, the statement "The bank's liquidity is influenced by the balloon payment extension" had a mean score of 4.05 and a standard deviation of 0.733. This result shows that respondents generally agree that balloon payment extensions impact the bank’s liquidity, with a skewness of -1.793 indicating strong agreement. The kurtosis of 1.676 suggests that respondents’ views are closely aligned, reinforcing the perception that such extensions have significant implications for the bank’s financial health. Overall, the findings suggest that while balloon payment extensions offer increased flexibility and reduced default risk, they also introduce financial planning challenges, potential uncertainty, and greater long-term costs for both borrowers and lenders.

Table 4. 8: Balloon Payment Extension

n=173	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Extending the balloon payment enhances the loan's repayment flexibility.	1	5	4.21	0.711	-1.412	1.633
With the balloon payment extension, the default risk of the loan is lessened.	2	5	4.36	0.731	-1.274	1.611
Borrowers must plan their financial future when a balloon payment extension is involved.	1	5	4.13	0.642	-1.483	1.576
The extension of the balloon payment heightens the uncertainty of loan repayment.	1	5	4.28	0.834	-1.751	1.639
Extending the balloon payment results in a higher total interest paid on the loan.	1	5	3.78	0.512	-1.671	1.721
The bank's liquidity is influenced by the balloon payment extension.	2	5	4.05	0.733	-1.793	1.676

Source: *Research Findings (2024)*

4.4.7 Risk Monitoring

Table 4.9 presents descriptive results related to risk monitoring in banking, focusing on credit risk assessment and mitigation. The statement "The bank employs sophisticated portfolio analysis techniques to assess credit risk" received a mean score of 3.89 and a standard deviation of 0.692, indicating that while respondents generally agree that such techniques are in place, the responses show some variability. The negative skewness of -1.630 suggests that more respondents leaned toward agreement, and the kurtosis of 1.331 indicates a relatively close clustering of responses around the mean.

In terms of training and support, the statement "We receive adequate training and support to effectively utilize portfolio analysis techniques in assessing credit risk"

yielded a higher mean of 4.04, reflecting stronger agreement. The standard deviation of 0.773 indicates slightly more variability in responses, while the skewness of -1.484 shows a notable inclination towards agreement. The kurtosis of 1.474 suggests that respondents' views on this matter are moderately consistent, highlighting the perceived adequacy of the training and support provided.

The statement "We closely monitor the probability of default for individual loans in our portfolio" had a mean score of 4.13, suggesting that respondents are in strong agreement regarding the close monitoring of default probabilities. With a standard deviation of 0.788, the responses show some variability, while the skewness of -1.783 reflects a strong bias toward agreement. The kurtosis value of 1.531 further underscores a consistent level of agreement among respondents.

When asked about procedures for tracking and managing loans with high default probabilities, the statement "There are clear procedures in place to track and manage loans with high default probabilities" received a mean score of 3.91. This indicates that while respondents generally agree that such procedures are in place, there is a degree of variability, as evidenced by the standard deviation of 0.649. The skewness of -1.655 suggests that most respondents agree with this assertion, and the kurtosis value of 1.810 indicates a more concentrated distribution of responses.

The statement "We regularly evaluate our exposure to credit risk across various sectors and industries" stands out with a higher mean of 4.32, indicating strong agreement among respondents. The standard deviation of 0.828 shows some variability in responses, but the skewness of -0.698 suggests a slight asymmetry, indicating that a few respondents expressed lower levels of agreement. The negative kurtosis of -1.781 reflects a wider spread of responses, suggesting diverse views on the regularity of evaluating credit risk across sectors.

Lastly, the statement "I am confident in our bank's ability to identify and mitigate potential risks associated with loan portfolios" received a mean score of 3.95 and a low standard deviation of 0.533, indicating a strong consensus among respondents. The skewness of -1.649 reflects a notable tendency towards agreement, while the kurtosis of 1.742 shows that most responses are tightly clustered around the mean, suggesting high confidence in the bank's risk identification and mitigation strategies. Overall, the results reflect a generally positive perception of the bank's risk monitoring practices, with room for improvement in procedural clarity and training.

Table 4. 9: Risk Monitoring

n=173	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
The bank employs sophisticated portfolio analysis techniques to assess credit risk."	1	5	3.89	0.692	-1.630	1.331
We receive adequate training and support to effectively utilize portfolio analysis techniques in assessing credit risk	1	5	4.04	0.773	-1.484	1.474
We closely monitor the probability of default for individual loans in our portfolio	1	5	4.13	0.788	-1.783	1.531
There are clear procedures in place to track and manage loans with high default probabilities."	1	5	3.91	0.649	-1.655	1.810
We regularly evaluate our exposure to credit risk across various sectors and industries."	1	5	4.32	0.828	-0.698	-1.781
I am confident in our bank's ability to identify and mitigate potential risks associated with loan portfolios	1	5	3.95	0.533	-1.649	1.742

Source: *Research Findings (2024)*

4.5 Reliability

The concept of reliability, as outlined by Mugenda and Mugenda (2003), refers to the consistency of an instrument in producing consistent outcomes across different trials. Reliability helps determine whether the instrument yields consistent results in varied conditions. According to the Cronbach's alpha results presented in Table 4.10, *Balloon Payment Extension* demonstrated the highest reliability coefficient ($\alpha = 0.883$), indicating strong internal consistency, followed by *Debt Consolidation* ($\alpha = 0.847$) and *Interest Rate Reduction* ($\alpha = 0.829$). *Loan Recovery* also displayed high reliability with a coefficient of $\alpha = 0.823$. *Risk Monitoring* ($\alpha = 0.799$) and *Extended Repayment Plan* ($\alpha = 0.794$) exhibited strong reliability, while *Principal Forbearance* had the lowest reliability coefficient ($\alpha = 0.738$), though it still falls within the acceptable range. These findings align with Hair et al.'s (2010) guideline, which posits that coefficients above 0.7 signify high reliability, while Sekaran (2003) suggests that values between 0.5 and 0.8 indicate adequate internal consistency. Given that all alpha coefficients in this study exceed 0.7, the instrument's reliability is confirmed. As such, all items within the survey were retained, and the data gathered was deemed reliable for further analysis. Table 4.10 outlines the specific alpha coefficients for each variable.

Table 4. 10: Reliability Analysis

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
Loan Recovery	0.823	0.823	6
Extended Repayment Plan	0.794	0.794	6
Interest Rate Reduction	0.829	0.829	6
Principal Forbearance	0.738	0.738	6
Debt Consolidation	0.847	0.847	6
Balloon Payment Extension	0.883	0.883	6
Risk Monitoring	0.799	0.799	6

Source: *Research Data, (2024)*

4.6 Factor Analysis

Factor analysis, as described by Bortz (2005), is utilized to condense extensive datasets by identifying commonalities among variables and grouping them into fewer factors. This analytical approach was employed in this study to uncover latent variables within the dataset and prepare it for subsequent regression analysis (William et al., 2010; Idinga, 2015). Principal Component Analysis (PCA), the primary method used, begins by extracting maximum variance and assigning it to the first factor, sequentially reducing the dataset by explaining variance with each subsequent factor.

PCA was selected due to its effectiveness in identifying factors that capture both shared and distinct variance (Idinga, 2015), thereby reducing the dataset while retaining essential information to identify variable clusters. All factors with Eigenvalues exceeding 1, following Kaiser's criterion (1960), were retained as significant contributors to variance. Factor loadings above the conventional threshold of 0.5 indicated satisfactory loadings, ensuring each factor's robust representation. The Kaiser-Meyer-Olkin (KMO) Measure assessed sampling adequacy, yielding

values above 0.5 with statistical significance ($p < 0.05$), as shown in Table 4.10, confirming the suitability of the dataset for factor analysis.

Construct validity was further affirmed through exploratory factor analysis (EFA) and confirmatory factor analysis (CFA), aligning with Tang et al. (2007)'s recommendations. EFA validated individual constructs, with all items demonstrating strong loadings. Table 4.9 displays EFA outcomes using principal component analysis and orthogonal factor rotation, with VARIMAX rotation enhancing interpretability by identifying highly loaded variables per factor. CFA verified item loadings on respective constructs, confirming theoretical expectations of factor association with measured variables.

4.6.1 Factor Loadings

Factor analysis was conducted to assess the underlying constructs related to various loan management strategies, including effective communication, extended repayment plans, interest rate reductions, principal forbearance, debt consolidation, balloon payment extensions, and portfolio analysis techniques. The analysis aimed to categorize these items into relevant factors to ensure their appropriate alignment with the constructs under investigation (Wibowo, 2008).

The results, as illustrated in Table 4.11, demonstrated that all variables exceeded the 0.5 threshold for factor loadings, indicating their strong relevance to the respective factors. Principal component analysis with VARIMAX rotation and Kaiser Normalization revealed significant loadings for each item on its designated factor, confirming the appropriateness of these variables for further examination.

The KMO measures and Bartlett's Test results further supported the adequacy of the dataset for factor analysis. For the various loan management strategies: effective communication and incentives (KMO = 0.747), extended repayment plans (KMO = 0.838), interest rate reductions (KMO = 0.749), principal forbearance (KMO = 0.823), debt consolidation (KMO = 0.939), balloon payment extensions (KMO = 0.823), and portfolio analysis techniques (KMO = 0.749) showed satisfactory KMO values and significant Bartlett's Test results ($p < 0.05$), affirming the dataset's suitability for factor analysis.

These findings validate that all items associated with the discussed loan management strategies were appropriately categorized and retained for subsequent analyses, ensuring the dataset's robustness for further factor analysis and interpretation.

Table 4. 11: Factor Analysis

Items	F1	F2	F3	F4	F5	F6	F7
The bank effectively encourages timely repayment of loans through clear communication and incentives."	0.747						
The bank's policies and procedures facilitate prompt loan repayment by clients, leading to timely closure of outstanding loans	0.795						
The bank's proactive measures and strategies have contributed to a noticeable decrease in the default rate of loans over time.	0.751						
The implementation of credit restructuring initiatives has been successful in reducing the occurrence of loan defaults within our bank.	0.859						
I am satisfied with the effectiveness of our bank's debt settlement procedures in resolving overdue loans and minimizing potential losses."	0.826						
The bank's efforts in facilitating improved debt settlement negotiations with borrowers have positively impacted our overall loan recovery	0.767						

Items	F1	F2	F3	F4	F5	F6	F7
Extended repayment plans are effective in improving the likelihood of loan recovery		0.838					
The extended repayment plan helps borrowers adjust their payments according to their financial circumstances.		0.791					
By offering an extended repayment plan, the risk of the borrower failing to meet their loan obligations is minimized.		0.719					
The extended repayment plan lowers the amount of each monthly loan installment.		0.884					
An extended repayment plan leads to a higher total amount of interest paid over the life of the loan		0.814					
The extended repayment plan affects the credit rating of the borrower.		0.779					
Interest rate reduction has positively influenced the repayment duration of loans in our bank			0.749				
Reducing interest rates has improved borrowers' ability to adapt financially and meet their repayment			0.685				
Lower interest rates have a significant potential to prevent loan defaults among our customers.			0.854				
Interest rate reduction has led to an increase in the loan recovery rates in our bank			0.913				
Our customers have expressed higher satisfaction levels due to the reduction in interest rates.			0.854				
Reducing interest rates has been an effective strategy in managing the credit risk of our loan portfolio			0.901				
Offering principal forbearance grants temporary relief to the borrower.				0.823			
Implementing principal forbearance enhances the borrower's financial stability.				0.846			
Principal forbearance helps reduce the risk of loan default.				0.766			
When principal forbearance is applied, the loan's outstanding balance rises.				0.874			
Deferring loan repayment is a result of principal forbearance.				0.766			
Principal forbearance impacts the				0.874			

Items	F1	F2	F3	F4	F5	F6	F7
bank's cash flow.							
The debt consolidation simplifies the financial obligation of the borrower.					0.939		
Debt consolidation strengthens the borrower's debt management.					0.759		
Loan repayment efficiency is boosted by debt consolidation.					0.766		
By consolidating debt, the loan's interest rate is lowered.					0.692		
A good credit history is necessary for debt consolidation.					0.759		
The relationship between the borrower and the original lenders is impacted by debt consolidation.					0.766		
Extending the balloon payment enhances the loan's repayment flexibility.						0.823	
With the balloon payment extension, the default risk of the loan is lessened.						0.846	
Borrowers must plan their financial future when a balloon payment extension is involved.						0.766	
The extension of the balloon payment heightens the uncertainty of loan repayment.						0.874	
Extending the balloon payment results in a higher total interest paid on the loan.						0.766	
The bank's liquidity is influenced by the balloon payment extension.						0.874	
The bank employs sophisticated portfolio analysis techniques to assess credit risk."							0.749
We receive adequate training and support to effectively utilize portfolio analysis techniques in assessing credit risk							0.685
We closely monitor the probability of default for individual loans in our portfolio							0.854
There are clear procedures in place to track and manage loans with high default probabilities."							0.913
We regularly evaluate our exposure to credit risk across various sectors and industries."							0.854
I am confident in our bank's ability to identify and mitigate potential risks associated with loan portfolios							0.901

KMO and Bartlett's Test

Measure	F1	F2	F3	F4	F5	F6	F7
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.624	0.647	0.633	0.562	0.614	0.632	0.614
Bartlett's Test of Sphericity, Approx. Chi-Square	730.49	727.34	706.75	723.46	751.31	768.44	781.42
Sig.	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Source: Research Findings (2024)

4.7 Regression Assumptions

Since a regression analysis was performed to test the hypotheses, it was crucial to verify that the fundamental assumptions of regression were satisfied. This section outlines the critical assumptions evaluated to validate the regression model employed in the research, encompassing normality, linearity, multicollinearity, and homoscedasticity.

4.7.1 Normality Regression Assumption

The assumption of normality was assessed both at the univariate level, considering the distribution of scores for each item individually, and at the multivariate level, examining the distribution of scores across combinations of two or more items. To evaluate the shape of the distributions in this study, the Shapiro-Wilk Test (Shapiro & Wilk, 1965) was employed for each variable. The normality of the data can be determined by examining the p-values from the Shapiro-Wilk Test. If the p-value is greater than 0.05, the data are considered to follow a normal distribution; conversely, if the p-value is below 0.05, the data significantly deviate from normality. In this analysis, as shown in Table 4.12, all variables had p-values greater than 0.05, indicating that the data conform to a normal distribution. The Lilliefors significance correction, which is also used to assess whether the data come from a normally distributed population, was applied. Given that the alternative hypothesis was

rejected, it was concluded that the data follow a normal distribution. The results presented in Table 4.12 confirm that none of the variables were significant (p-value > 0.05), thereby fulfilling the normality assumption necessary for further analysis.

Table 4. 12: Normality

	Shapiro-Wilk		
	Statistic	**df**	**Sig.**
Loan Recovery	0.886	173	0.502
Extended Repayment Plan	0.873	173	0.392
Interest Rate Reduction	0.856	173	0.284
Principal Forbearance	0.872	173	0.498
Debt Consolidation	0.965	173	0.791
Balloon Payment Extension	0.836	173	0.584
Risk Monitoring	0.651	173	0.343

Source: *Research Findings (2024)*

4.7.2 Linearity Regression Assumption

The test of linearity between loan recovery (LR) and various independent variables, as shown in Table 4.13, reveals significant linear relationships across all comparisons. For the relationship between LR and the extended repayment plan (ERP), the F-value of 495.72 and a significance level of 0.00 indicate a strong linear association. The R-square value of 0.46 shows that 46% of the variation in loan recovery can be explained by ERP, while the Eta and Eta squared values of 0.79 and 0.64, respectively, suggest a substantial association between the two variables.

Similarly, the linearity test between LR and interest rate reduction (IRR) yields an F-value of 774.32, with a significance level of 0.00. The R-square value of 0.57 indicates that 57% of the variation in loan recovery can be attributed to IRR. The Eta value of 0.83 and Eta squared value of 0.73 further confirm the strength of this relationship.

For principal forbearance (PF), the F-value of 564.41 and significance of 0.00 suggest a strong linearity with loan recovery. The R-square value is 0.66, indicating that 66% of the variance in loan recovery is explained by PF, and the high Eta (0.76) and Eta squared (0.76) values reinforce this finding.

Debt consolidation (DC) also shows a significant linear relationship with loan recovery, with an F-value of 456.62 and a significance level of 0.00. The R-square value is 0.48, meaning that 48% of the variance in loan recovery is explained by DC. The Eta and Eta squared values, at 0.71 and 0.65, respectively, indicate a moderately strong association.

For balloon payment extension (BPE), the F-value of 674.53 and a significance level of 0.00 indicate a significant linear relationship. The R-square value of 0.63 suggests that 63% of the variance in loan recovery is explained by BPE. The Eta value of 0.54 and Eta squared value of 0.72 indicate a substantial impact on loan recovery.

Finally, risk monitoring (RM) shows a strong linear relationship with loan recovery, as evidenced by an F-value of 735.32 and a significance level of 0.00. The R-square value of 0.58 suggests that 58% of the variation in loan recovery is accounted for by RM, with Eta and Eta squared values of 0.84 and 0.64, respectively, further indicating a robust association. Overall, the results of the test of linearity demonstrate significant linear relationships between loan recovery and the independent variables under study.

Table 4. 13: Test of linearity

	Linearity		Measures of Association		
	F	**Sig.**	**R Square**	**Eta**	**Eta Square**
LR * ERP	495.72	0.00	0.46	0.79	0.64
LR* IRR	774.32	0.00	0.57	0.83	0.73
LR* PF	564.41	0.00	0.66	0.76	0.76
LR* DC	456.62	0.00	0.48	0.71	0.65
LR* BPE	674.53	0.00	0.63	0.54	0.72
LR* RM	735.32	0.00	0.58	0.84	0.64

LR*=Loan Recovery,* ***RR****=Interest Rate Reduction,* ***PF****=Principal Forbearance,* ***DC****=Debt Consolidation,* ***BPE****=Balloon Payment Extension and* ***RM****=Risk Monitoring*

Source: *Research Findings (2024)*

4.7.3 Multicollinearity Regression Assumption

Table 4.14 presents the results of the multicollinearity regression assumption test using tolerance and Variance Inflation Factor (VIF) values. Multicollinearity refers to a situation where independent variables in a regression model are highly correlated, which can inflate the standard errors and make it difficult to assess the significance of predictors. To assess multicollinearity, tolerance values should be above 0.1, and VIF values below 10 are considered acceptable, as recommended by Hair et al. (2010).

Loan recovery has a tolerance value of 0.678 and a VIF of 2.094, both of which fall within acceptable ranges, indicating no multicollinearity concerns. The extended repayment plan shows a tolerance of 0.584 and a VIF of 1.746, suggesting minimal multicollinearity, as both values are comfortably within the acceptable limits. Similarly, interest rate reduction has a tolerance of 0.691 and a VIF of 1.681, again reflecting low multicollinearity risk.

Principal forbearance, with a tolerance value of 0.738 and a VIF of 1.960, also shows no issues of multicollinearity. The debt consolidation variable has a tolerance of 0.576

and a VIF of 1.712, indicating a low level of multicollinearity. The balloon payment extension variable presents a tolerance of 0.558 and a VIF of 1.791, both of which are within acceptable limits, signaling no multicollinearity issues.

Finally, risk monitoring has a tolerance of 0.638 and a slightly higher VIF of 2.860, but this is still well below the threshold of 10, indicating that while there is some correlation with other variables, it does not reach problematic levels. Overall, the multicollinearity test confirms that none of the independent variables exhibit high multicollinearity, ensuring that the regression model's estimates remain reliable and valid. These findings, detailed in Table 4.14, confirm that multicollinearity among the variables is not present.

Table 4. 14: Test of Multicollinearity Regression Assumption

	Collinearity Statistics	
	Tolerance	**VIF**
Loan Recovery	.678	2.094
Extended Repayment Plan	.584	1.746
Interest Rate Reduction	.691	1.681
Principal Forbearance	.738	1.960
Debt Consolidation	.576	1.712
Balloon Payment Extension	.558	1.791
Risk Monitoring	.638	2.860

Source: *Research Findings, (2024)*

4.7.4 Test of Homoscedasticity

Table 4.15 presents the results of the Levene's test for homoscedasticity, which is used to assess the assumption that the variance of errors is constant across all levels of the independent variables. Homoscedasticity is a crucial assumption in regression analysis, as its violation can lead to biased standard errors, affecting the reliability of

hypothesis tests. If the significance (p-value) of the Levene statistic is greater than 0.05, it indicates that the assumption of homoscedasticity is met (Field, 2009).

For loan recovery, the Levene statistic is 2.483 with a p-value of 0.264, meaning the assumption of homoscedasticity is satisfied since the p-value exceeds 0.05. Similarly, extended repayment plan has a Levene statistic of 1.634 with a p-value of 0.350, again confirming the homogeneity of variance assumption. Interest rate reduction, with a Levene statistic of 1.576 and a p-value of 0.226, also meets the assumption, as the p-value is well above the threshold.

The principal forbearance variable reports a Levene statistic of 3.664 and a p-value of 0.355, showing no evidence of heteroscedasticity. Debt consolidation, with a Levene statistic of 5.123 and a p-value of 0.197, further supports the assumption of homoscedasticity, as does balloon payment extension, which has a Levene statistic of 2.624 and a p-value of 0.171. Lastly, risk monitoring shows a Levene statistic of 3.644 and a p-value of 0.245, confirming that the error variance is consistent across groups.

Overall, the results from Levene's test indicate that the assumption of homoscedasticity holds across all variables, suggesting that the variance of errors is constant and that the regression analysis is unlikely to be biased by unequal variances.

These analyses affirm that the regression model meets the required assumptions, ensuring the reliability of the study's regression findings.

Table 4. 15: Homoscedasticity

	Levene Statistic	df1	df2	Sig.
Loan Recovery	2.483	5	173	0.264
Extended Repayment Plan	1.634	5	173	0.350
Interest Rate Reduction	1.576	5	173	0.226
Principal Forbearance	3.664	5	173	0.355
Debt Consolidation	5.123	5	173	0.197
Balloon Payment Extension	2.624	5	173	0.171
Risk Monitoring	3.644	5	173	0.245

Source: *Research Findings (2024)*

4.8 Correlation Results

The correlation results in Table 4.17 highlight the relationships between Loan Recovery (LR) and various credit restructuring strategies. Loan Recovery is the dependent variable, while Extended Repayment Plan (EP), Interest Rate Reduction (RR), Principal Forbearance (PF), Debt Consolidation (DC), Balloon Payment Extension (BP), and Risk Monitoring (RM) are the independent variables. These correlations help identify which restructuring strategies are most effective in supporting loan repayment and reducing defaults. Below is an interpretation of each independent variable's relationship with Loan Recovery.

The correlation coefficient between Extended Repayment Plan and Loan Recovery is 0.443, indicating a positive correlation. This suggests that as the use of extended repayment plans increases, loan recovery tends to improve. By extending the repayment period, borrowers are allowed more time to repay, which reduces the financial burden on a monthly basis and makes it easier for them to meet their loan obligations. The flexibility that extended repayment plans provide helps borrowers

avoid default, leading to higher recovery rates for lenders. This result suggests that offering extended repayment terms is an effective strategy to improve loan recovery.

Similarly, the correlation between Interest Rate Reduction and Loan Recovery is 0.341, showing a positive relationship. This indicates that lowering interest rates tends to support loan recovery efforts. When interest rates are reduced, the overall cost of borrowing decreases, making it easier for borrowers to keep up with their payments. This reduction in financial pressure increases the likelihood of timely repayment and helps prevent defaults, thus enhancing loan recovery.

Furthermore, the correlation between Principal Forbearance and Loan Recovery is 0.348, which indicates a positive relationship. Principal forbearance allows borrowers to temporarily suspend payments on the principal portion of their loans, which provides relief during periods of financial hardship. This arrangement enables borrowers to stabilize their financial situation before resuming full payments. The moderate positive correlation suggests that loan recovery improves when forbearance is offered, as it prevents immediate defaults and gives borrowers time to recover financially. By reducing the immediate repayment burden, principal forbearance helps lenders maintain loan recovery prospects over the long term.

Debt Consolidation also indicated a positive correlation of 0.395, also showing a positive correlation. Debt consolidation combines multiple debts into one, which simplifies the repayment process for borrowers. This simplification reduces the chances of missed payments, as it becomes easier for borrowers to manage a single payment rather than several. As a result, debt consolidation helps borrowers stay on track with their repayment obligations, improving loan recovery for lenders. The

positive correlation highlights the effectiveness of debt consolidation in helping borrowers manage their financial obligations and recover loans more efficiently.

The correlation between Balloon Payment Extension and Loan Recovery is 0.375, indicating a positive relationship. Extending the period to make a large balloon payment gives borrowers more time to accumulate the necessary funds, thus reducing the risk of default at the end of the loan term. This additional time allows borrowers to better plan their finances and meet their obligations, leading to better loan recovery outcomes. The moderate positive correlation suggests that offering more time for balloon payments can improve loan recovery, especially for borrowers who may struggle to make large lump-sum payments on time.

Finally, the results also indicate a positive association between Risk Monitoring and Loan Recovery at 0.457. Risk monitoring involves tracking a borrower's financial status and repayment behavior to identify potential issues before they lead to defaults. By identifying risks early, lenders can take preventive actions, such as adjusting loan terms or providing additional support, to improve the likelihood of loan recovery. The positive correlation shows that effective risk monitoring is crucial in ensuring successful loan recovery. Lenders that implement robust risk monitoring systems are more likely to recover their loans, as they can intervene before a borrower falls too far behind on payments.

Table 4. 16: Correlation Results

	LR	EP	RR	PF	DC	BP	RM
LR	1						
EP	.443**	1					
RR	.341**	-.186*	1				
PF	.348**	-.108	.541**	1			
DC	.395**	.273**	.026	-.054	1		
BP	.375**	.110	-.529**	-.541**	-.026	1	
RM	.457**	.370**	-.246**	-.203**	.360**	.200**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

LR: Loan recovery, Ep: Extended Repayment Plan, RR: Interest Rate Reduction, PF: Principal Forbearance, DC: Debt Consolidation, BP: Balloon Payment Extension, RM: Risk Monitoring

Source: *Research Findings (2024)*

4.9 Regression Results

A hierarchical regression analysis was conducted to examine the moderating effect of risk monitoring on the relationship between Extended Repayment Plan (EP), Interest Rate Reduction (RR), Principal Forbearance (PF), Debt Consolidation (DC), and Balloon Payment Extension (BP) on Loan Recovery (LR). The analysis began by first examining the effects of the control variables, which were loaded into the regression model. After the control variables were accounted for, the independent variables specifically Extended Repayment Plan (EP), Interest Rate Reduction (RR), Principal Forbearance (PF), Debt Consolidation (DC), Balloon Payment Extension (BP), and Risk Monitoring (RM) were introduced into the model. This step allowed for a direct examination of how each of these credit restructuring strategies affects Loan Recovery.

Following the inclusion of the independent variables, a moderator variable was added into the model to explore whether the relationship between the independent variables and Loan Recovery changes with additional variable. The introduction of the moderator helps to identify any potential amplifying or weakening effects that might

exist within the data. Finally, interaction terms between the independent variables and the moderator were added sequentially to further investigate the combined effects and potential synergies between variables.

4.9.1 Direct Effect Regression Results for Control Variables

The In the first model of the hierarchical regression analysis, the control variables, that is Age and Experience were regressed against Loan Recovery (LR) to assess their impact before introducing other key variables. The results, as shown in Table 4.18, provide an understanding of how these respondent characteristics influence Loan Recovery. The R-square value of 0.159 indicates that Age and Experience together explain approximately 15.9% of the variance in Loan Recovery. Furthermore, the model fit, reflected in an F-value of 16.071 with a p-value of 0.000, confirms that the model is statistically significant, indicating that Age and Experience reliably predict Loan Recovery.

The study's control variables, Age has a beta coefficient of 0.218 and a p-value=0.000 which is less than 0.05, showing that for every additional year in age, Loan Recovery increases by 0.218 units. Similarly, Experience has a coefficient of 0.122 with a p-value of 0.002 which is less than 0.05, suggesting that each additional year of experience increases Loan Recovery by 0.122 units. Both variables are statistically significant, showing that older and more experienced respondents respond positively to Loan Recovery.

Table 4. 17: Control Variables Regression Results

	β	Std. Error	Beta values	t-values	P-values
Constant	3.030	0.150		20.191	0.000
Age	0.218	0.038	0.218	5.664	0.000
Experience	0.122	0.039	0.259	3.146	0.002
R Square	0.159				
Adjusted R Square	0.149				
F Statistic	16.071				
F-sig	0.000				
a. Dependent Variable: Loan Recovery					

Source: *Research Findings, (2024)*

4.9.2 Direct Effect Regression Results for Predictor Variables

The Under the second model of the hierarchical regression analysis, the key independent variables were included, that is, Extended Repayment Plan (EP), Interest Rate Reduction (RR), Principal Forbearance (PF), Debt Consolidation (DC), and Balloon Payment Extension (BP), which allowed for a deeper understanding of how these credit restructuring strategies impact Loan Recovery (LR). The results in Table 4.19 show that these variables contribute significantly to explaining the variance in Loan Recovery.

The model explains a substantial portion of the variance in Loan Recovery, as indicated by the R Square value of 0.571, meaning that the variables collectively account for 57.1% of the variance in Loan Recovery. Furthermore, the overall model fit is confirmed by a significant F-value of 31.310 with a p-value = 0.000, indicating that the second model is significantly fit.

Extended Repayment Plan demonstrated a strong positive and significant effect on Loan Recovery, with an unstandardized beta coefficient of 1.043 and a p-value = 0.000, which is less than 0.05. This indicates that for every unit increase in the implementation of an Extended Repayment Plan, Loan Recovery improves by 1.043

units. The large magnitude of this coefficient underscores the importance of providing borrowers with longer repayment periods. By allowing extended timeframes, lenders are more likely to recover loans in full, as borrowers may find it easier to meet their financial obligations under less time pressure. This suggests that Extended Repayment Plan can be a highly effective tool for mitigating default risks and promoting successful loan recovery.

The results of the analysis also reveal that Interest Rate Reduction also plays a meaningful role in improving Loan Recovery, with a beta coefficient of 0.173 and a p-value = 0.003, which is less than 0.05. This positive and significant effect means that a unit reduction in interest rates leads to a 0.173 increase in Loan Recovery. This finding highlights the benefit of offering reduced rates to borrowers, as it may ease their financial burden and enhance their capacity to repay loans. Lenders adopting this strategy can expect higher recovery rates, as the affordability of loans improves with lower interest payments.

The results also show that Principal Forbearance has a positive and significant impact on Loan Recovery, with a beta coefficient of 0.144 and a p-value = 0.020, which is less than 0.05. This indicates that deferring principal payments can lead to a 0.144 unit increase in Loan Recovery. The implication is that forbearance agreements, where borrowers are temporarily relieved from paying the principal amount, can help avoid defaults. By reducing immediate repayment pressures, borrowers are better able to manage their finances, which ultimately support loan recovery efforts over time.

Debt Consolidation also depicted a positive and significant effect between on Loan Recovery, which is evident from a beta coefficient of 0.662 and a p-value = 0.000, which is less than 0.05. This suggests that for every unit increase in debt consolidation

efforts, Loan Recovery improves by 0.662 units. Debt consolidation allows borrowers to combine multiple loan obligations into a single payment, often with more favorable terms. This simplifies the repayment process and reduces the likelihood of default, making it a highly effective mechanism for improving loan recovery.

Balloon Payment Extension also shows a positive and significant effect on Loan Recovery, with a beta coefficient of 0.172 and a p-value = 0.001, which is less than 0.05. This implies that for every unit increase in the extension of balloon payments, Loan Recovery increases by 0.172 units. The positive impact suggests that extending the final, larger payment at the end of a loan term is beneficial for loan recovery. Borrowers will meet these larger payments if given the room to accumulate, leading to an increase in recovery. This finding indicates that balloon payment extensions offer a relief, thus increasing the loan recovery.

Table 4. 18: Predictor Variables Regression Results

	β	**Std. Error**	**Beta values**	**T values**	**P-values**
Constant	-0.101	.280		-.360	.719
Age	0.113	.029	.243	3.896	.000
Experience	0.014	.030	.030	.471	.638
Extended Repayment Plan	1.043	.139	.412	7.493	.000
Interest Rate Reduction	0.173	.058	.197	2.992	.003
Principal Forbearance	0.144	.061	.155	2.348	.020
Debt Consolidation	0.662	.137	.263	4.817	.000
Balloon Payment Extension	0.172	.052	-.218	3.339	.001
R Square	0.571				
Adjusted R Square	0.552				
F Statistic	31.310				
F-sig	0.000				

a. Dependent Variable: Loan Recovery

Source: *Research Findings, (2024)*

4.9.3 Conditional Effect Regression Results

Model 8 was of the hierarchical regression analysis was conducted in order to test the hypotheses on the impact of the predictor variables on Loan Recovery, while moderating for Risk Monitoring. The model's fit was robust, with an R-squared value of 0.930, indicating that 93% of the variance in Loan Recovery was explained by the combination of these predictors and their interactions with Risk Monitoring. The ANOVA results confirmed the overall significance of the model, showing that the independent variables and their interactions contribute significantly to explaining Loan Recovery. The coefficients table 4.19 provides detailed insights into the effects of each predictor and their interaction terms, revealing the direct and moderating influences that these financial interventions have on improving Loan Recovery outcomes.

HO_1: Extended Repayment Plan has no significant effect on Loan Recovery.

The results indicate that the Extended Repayment Plan positively and significantly affect Loan Recovery (β=0.846, p-value=0.002<0.05). The positive beta coefficient (0.846) indicates that for every one-unit increase in the Extended Repayment Plan, Loan Recovery improves by 0.846 units, underscoring the substantial role this intervention plays in improving recovery rates. This implies that implementing an Extended Repayment Plan significantly improves Loan Recovery, thus suggesting that offering longer repayment terms enhances the probability of recovering outstanding loans. Extended Repayment Plan provides borrowers with more time to meet their repayment obligations, which reduces financial strain and makes them more likely to repay their loans. By easing the pressure on short-term financial

commitments, borrowers can allocate their resources more effectively, ensuring they can meet their obligations over time, thereby increasing loan recovery for lenders.

$HO_{2:}$ Interest Rate Reduction has no significant effect on Loan Recovery.

The results reveal that Interest Rate Reduction has a positive and significant effect on Loan Recovery (β=0.229, p-value=0.000< 0.05). This suggests that lowering interest rates can effectively increase Loan Recovery, indicating that borrowers are more likely to repay when their financial burden is reduced. The beta coefficient (0.229) shows that a unit increase in the strategy of reduction in interest rates results in a 0.229 improvement in Loan Recovery. Interest Rate Reduction lowers credit costs, making loan repayment more manageable for borrowers. By decreasing interest rates, monthly payments become more affordable, improving borrowers' cash flow and increasing their ability to stay current on loan payments. This strategy allows financially strained borrowers to stay on track, which enhances recovery rates for lenders by reducing default risk.

$HO_{3:}$ Principal Forbearance has no significant effect on Loan Recovery.

Principal Forbearance is found to have a strong positive and significant effect on Loan Recovery (β=0.758, p-value=0.000< 0.05). The beta coefficient (0.758) suggests that for every one-unit increase in the provision of Principal Forbearance, Loan Recovery increases by 0.758 units. This implies that allowing borrowers to temporarily pause their principal repayments significantly improves Loan Recovery. The Principal Forbearance provides immediate financial relief to borrowers by suspending their obligation to repay the loan principal, thus allowing them to stabilize their financial situations. Borrowers can use the forbearance period to recover financially, which

ultimately enhances their ability to resume regular payments in the future, leading to higher loan recovery.

HO_4: Debt Consolidation has no significant effect on Loan Recovery.

Debt Consolidation has a positive and significant impact on Loan Recovery (β=1.086, p-value=0.000<0.05). The null hypothesis is rejected. The beta coefficient (1.086) demonstrates that each unit increase in Debt Consolidation leads to improvement in Loan Recovery by 1.086 units. This implies that consolidating multiple debts into a single loan increases Loan Recovery. Debt Consolidation simplifies debt management by merging multiple loans into one, thus reducing complexity and the likelihood of missed payments. This streamlined approach allows borrowers to focus on a single repayment schedule and potentially benefit from lower interest rates, making it easier for them to stay on track and meet their financial obligations. For lenders, this increases the chances of recovering the full loan amount by reducing borrower confusion and default risk.

HO_5: Balloon Payment Extension has no significant effect on Loan Recovery.

The results indicate that Balloon Payment Extension has a positive and significant effect on Loan Recovery (β=0.335, p-value=0.000, which is less than 0.05). This suggests that extending balloon payments improves Loan Recovery. The beta coefficient (0.335) indicates that a unit increase in Balloon Payment Extension is associated with a 0.335 increase in Loan Recovery. By extending balloon payments, lenders give borrowers more time to prepare for large, lump-sum payments, reducing the likelihood of default at the end of the loan term. The extension allows borrowers to plan their finances more effectively, ensuring they can meet their final payment

obligation. The increased flexibility leads to higher chances of successful loan recovery, as borrowers are better equipped to meet large payments.

HO_{5a}: Risk Monitoring Does Not Moderate the Relationship Between Extended Repayment Plan and Loan Recovery.

The null hypothesis that states that Risk Monitoring does not moderate the relationship between the Extended Repayment Plan and Loan Recovery was rejected as Risk Monitoring moderate the relationship between the Extended Repayment Plan and Loan Recovery (β=0.596, p-value=0.006 which is less than 0.05). Additionally, the beta coefficient is non-zero, which meets the condition for moderation. Furthermore, there is an R-square change of 0.028, showing an increase in R-square from 0.687 to 0.715. The overall regression model was also significant, as indicated by an F-value of 45.538 with a p-value of 0.000, confirming the model's significance.

This implies that the effectiveness of the Extended Repayment Plan in improving Loan Recovery is significantly influenced by the presence of Risk Monitoring. Risk Monitoring plays an enhancing moderation role in ensuring that individuals enrolled in the Extended Repayment Plan adhere to the terms of the repayment schedule, thus reducing the risk of default and improving loan recovery rates. The moderation effect suggests that the impact of the Extended Repayment Plan is heightened when combined with effective Risk Monitoring practices. This finding underscores the importance of incorporating structured monitoring mechanisms to enhance loan recovery.

HO_{5b}: Risk Monitoring Does Not Moderate the Relationship Between Interest Rate Reduction and Loan Recovery

The hypothesis stated that Risk Monitoring does not moderate the relationship between Interest Rate Reduction and Loan Recovery. However, the findings revealed that this null hypothesis was rejected and concluded that Risk Monitoring moderate the relationship between Interest Rate Reduction and Loan Recovery (β=0.567, p-value=0.000 which is less than 0.05). Additionally, the beta coefficient is non-zero, confirming the condition for moderation. Another condition for moderation was met with an R-square change of 0.121, showing an increase in R-square from 0.715 to 0.836. The overall regression model was significant, with an F-value of 82.674 and a p-value of 0.000, validating the model's significance.

The implication of this result is that the influence of Interest Rate Reduction on Loan Recovery is significantly enhanced when combined with Risk Monitoring. With effective monitoring in place, the reduced interest rates likely help borrowers stay on track, leading to better loan recovery outcomes. This moderation effect highlights the importance of pairing Interest Rate Reduction, with Risk Monitoring so as to maximize the positive impact on Loan Recovery.

HO_{5c}: Risk Monitoring Does Not Moderate the Relationship Between Principal Forbearance and Loan Recovery

The hypothesis stated that Risk Monitoring does not moderate the relationship between Principal Forbearance and Loan Recovery. The null hypothesis was rejected and concluded that Risk Monitoring does moderate the relationship between Principal Forbearance and Loan Recovery (β=2.318, p-value=0.000 which is less than 0.05).

The beta coefficient is non-zero, which satisfies the condition for moderation. An R-square change of 0.08 was observed, indicating an increase in R-square from 0.836 to 0.916. Additionally, the regression model was significant, with an F-value of 160.454 and a p-value of 0.000, confirming the model's Significance. This indicates that all the conditions for moderation were met.

This implies that the positive effects of Principal Forbearance on Loan Recovery are significantly amplified when coupled with Risk Monitoring. It suggests that while Principal Forbearance provides borrowers with temporary relief by deferring payments, the presence of effective Risk Monitoring ensures that borrowers remain compliant with the terms of their forbearance agreements. The moderation effect emphasizes that Risk Monitoring plays a crucial role in managing the deferred payment periods, ultimately enhancing the chances of successful Loan Recovery once the forbearance period concludes. This highlights the importance of not only offering Principal Forbearance as a loan modification strategy but also rigorously monitoring borrower behavior during the forbearance period to improve loan outcomes.

HO_{5d}: Risk Monitoring Does Not Moderate the Relationship Between Debt Consolidation and Loan Recovery

The hypothesis which stated that Risk Monitoring does not moderate the relationship between Debt Consolidation and Loan Recovery was rejected, and concluded that Risk Monitoring moderate the relationship between Debt Consolidation and Loan Recovery (β=0.889, p-value=0.001 which is less than 0.05). The beta coefficient is non-zero, meeting the requirement for moderation. An R-square change of 0.004 was observed, reflecting an increase in R-square from 0.916 to 0.920. Furthermore, the regression model was significant, with an F-value of 153.189 and a p-value of 0.000.

These findings indicate that Debt Consolidation on Loan Recovery is improved when a robust Risk Monitoring is implemented. Debt Consolidation simplifies multiple debt obligations into a single payment, making it easier for borrowers to manage their debts. When combined with Risk Monitoring, this effect is heightened, as it ensures borrowers are continuously monitored, thus reducing the likelihood of default and improving adherence to the consolidated debt repayment terms. This suggests that for Debt Consolidation to effectively contribute to Loan Recovery, a structured Risk Monitoring mechanism is essential to oversee borrower compliance, detect potential risks early, and provide timely interventions.

HO_{5d}: Risk Monitoring Does Not Moderate the Relationship Between Balloon Payment Extension and Loan Recovery

The hypothesis stated that Risk Monitoring does not moderate the relationship between Balloon Payment Extension and Loan Recovery. However, the findings revealed that this null hypothesis was rejected as Risk Monitoring moderate the relationship between Balloon Payment Extension and Loan Recovery (B=0.376, p-value=0.000 which is less than 0.05). The beta coefficient is non-zero, satisfying the condition for moderation. Additionally, an R-square change of 0.01 was observed, with R-square increasing from 0.920 to 0.930. The regression model also showed significance, with an F-value of 162.228 and a p-value of 0.000, indicating the model's fit.

The implication of these results is that the effectiveness of Balloon Payment Extension in improving Loan Recovery is significantly enhanced by the presence of Risk Monitoring. While Balloon Payment Extension allows borrowers to defer a large portion of their payment until the end of the loan term, Risk Monitoring ensures that

borrowers remain on track with their smaller, interim payments. This moderation effect highlights that Balloon Payment Extension works better when it is accompanied by ongoing monitoring, which reduces the risk of borrowers falling behind and improves their ability to make the final balloon payment.

Table 4. 19: Summary of Hypothesis Test

Hypothesis	**Results/Findings**	**Conclusion**
HO_1: Extended Repayment Plan has no significant effect on Loan Recovery	β=0.846, p-value=0.002<0.05	Reject
$HO_{2:}$ Interest Rate Reduction has no significant effect on Loan Recovery.	(β=0.229, p-value=0.000< 0.05	Reject
$HO_{3:}$ Principal Forbearance has no significant effect on Loan Recovery.	(β=0.758, p-value=0.000< 0.05	Reject
HO_4: Debt Consolidation has no significant effect on Loan Recovery.	β=1.086, p-value=0.000<0.05	Reject
HO_5: Balloon Payment Extension has no significant effect on Loan Recovery.	β=0.335, p-value=0.000<0.05	Reject
HO_{6a}: Risk Monitoring Does Not Moderate the Relationship Between Extended Repayment Plan and Loan Recovery.	(β=0.596, p-value=0.006 <0.05	Reject
HO_{6b}: Risk Monitoring Does Not Moderate the Relationship Between Interest Rate Reduction and Loan Recovery	(β=0.567, p-value=0.000 <0.05	Reject
HO_{6c}: Risk Monitoring Does Not Moderate the Relationship Between Principal Forbearance and Loan Recovery	(β=2.318, p-value=0.000<0.05	Reject
HO_{6d}: Risk Monitoring Does Not Moderate the Relationship Between Debt Consolidation and Loan Recovery	β=0.889, p-value=0.001<0.05	Reject
HO_{6e}: Risk Monitoring Does Not Moderate the Relationship Between Balloon Payment Extension and Loan Recovery	β=0.376, p-value=0.000<0.05	Reject

Source: Research Data (2024)

Table 4. 20: Moderation Regression Results

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Constant	(3.030) **	(.280) **	(.257) **	(.449) **	(.0.429) **	(.336) **	(.408) **	(.459) **
AGE	0.218(.038) **	0.113(.029) **	0.080(.025) **	0.070 (.024) **	0.046(.019) **	0.034(.013) **	0.035(.013) **	0.026(.012) **
EXP	0.122(.039) **	0.014(.030) **	0.006(.026) **	0.002 (.025) **	-0.012(.019) **	-0.003(.013) **	-0.005(.013) **	-0.007(.012) **
EP		1.043(.139) **	0.817(.123) **	2.647 (.466) **	1.262(.376) **	1.426(.270) **	1.142(.286) **	0.846(.275) **
RR		0.173(.058) **	0.227(.050) **	0.216(.048) **	0.742(.060) **	0.257(.058) **	0.231(.058) **	0.229(.054) **
PF		0.144(.061) **	0.165(.052) **	0.177(.050) **	0.087(.039) **	0.711(.058) **	0.739(.057) **	0.758(.054) **
DC		0.662(.137) **	0.373(.124) **	0.297(.120) **	0.306(.091) **	0.161(.066) **	0.950(.304) **	1.086(.287) **
BP		0.172(.052) **	-0.198(.044) **	-0.170(.043) **	-0.106(.033) **	-0.057(.024) **	-0.059(.024) **	0.335(.086) **
RM			0.917(.118) **	2.339(.367) **	2.569(.281) **	3.439(.213) **	4.056(.313) **	2.782(.397) **
EP*RM				1.494(.368) **	0.653(.290) **	1.042(.210) **	0.846(.219) **	0.596(.212) **
RR*RM					1.791(.164) **	0.591(.152) **	0.535(.151) **	0.567(.142) **
PF*RM						2.076(.167) **	2.173(.168) **	2.318(.161) **
DC*RM							0.726(.274) **	0.889(.259) **
BP*RM								0.376(.079) **
R-Square	0.159	0.571	0.687	0.715	0.836	0.916	0.920	0.930
Δ in R^2	-	-	-	0.028	0.121	0.080	0.004	0.010
F statistic	16.071	31.310	44.920	45.538	82.674	160.454	153.189	162.228
F-Sig	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

LR: Loan recovery, Ep: Extended Repayment Plan, RR: Interest Rate Reduction, PF: Principal Forbearance, DC: Debt Consolidation, BP: Balloon Payment Extension, RM: Risk Monitoring

Source: Research Data (2024)

4.10 Discussion of the Findings

The results indicate that the Extended Repayment Plan positively and significantly affects Loan Recovery (B=0.846, p-value=0.002, which is less than 0.05). This aligns with studies such as Bennett and Unal (2018), who found that loan modifications reducing monthly payments by over 10% improved cure rates and lowered default risks. Agarwal et al. (2019) similarly noted that structured repayment adjustments, like the Home Affordable Modification Program, increased loan redefault rates. Adeyemi and Akinola (2018) also demonstrated that credit restructuring improves loan recovery by helping borrowers meet obligations and reducing default risks, while Owusu-Ansah and Boachie (2019) identified loan rescheduling as an effective strategy that boosts repayment capacity and reduces recovery costs. These findings highlight that offering extended repayment terms plays a crucial role in improving loan recovery outcomes.

The results show that Interest Rate Reduction positively and significantly affects Loan Recovery (B=0.229, p-value=0.000, which is less than 0.05). This contrasts with Bennett and Unal (2020), who found that lower interest rates reduced recovery rates for restructured loans. However, Chen and Wu (2021) noted that lower interest rates increased loan modification and reduced foreclosure risks, while Ogunleye and Oyewole (2019) reported improved credit restructuring and recovery performance in Nigerian banks. Conversely, Mugume and Niringiye (2018) argued that lower interest rates weakened banks' monitoring efforts, raising exposure to bad loans. These results suggest that lower interest rates generally support loan recovery but depend on lenders' risk management practices.

The results indicate that Principal Forbearance positively and significantly affects Loan Recovery (B=0.758, p-value=0.000, which is less than 0.05). This aligns with Ghosh and Kokenyne (2020), who argued that forbearance can ease short-term liquidity pressures and help avoid defaults, though they caution about long-term risks like zombie lending and regulatory arbitrage. Unlike Ghosh and Kokenyne, who did not provide empirical data on loan recovery, Akinwale et al. (2020) empirically found that credit restructuring, similar to forbearance, improved loan recovery rates, reduced non-performing loans, and enhanced financial performance in microfinance banks. Similarly, Gathaiya and Njihia (2020) found that credit restructuring improved loan portfolio quality and liquidity in commercial banks. These findings suggest that forbearance can be an effective tool in enhancing loan recovery, though potential long-term risks should be managed carefully.

The results show that Debt Consolidation has a positive and significant effect on Loan Recovery (B=1.086, p-value=0.000, which is less than 0.05). This aligns with Chen and Liu (2020), who found that debt consolidation increased credit restructuring, reduced delinquency rates, and improved loan performance. Similarly, Okeke and Okeke (2019) reported that debt consolidation positively influenced credit restructuring and recovery. Agyei and Marfo-Yiadom (2016) also observed that debt consolidation enhanced loan recovery by improving banks' capital base, lowering costs, and diversifying loan portfolios. Additionally, Kinyua, Kiiru, and Njoroge (2020) found that loan recovery strategies, including consolidation, significantly improved repayment rates for revolving funds. These findings support the effectiveness of debt consolidation as a strategy for enhancing loan recovery by simplifying repayment and improving borrowers' financial management.

The results indicate that Balloon Payment Extension positively and significantly affects Loan Recovery (B=0.335, p-value=0.000, which is less than 0.05). This is consistent with Alshatti (2019) and Kumar and Singh (2019), who found that extending balloon payments improves loan recovery by enhancing borrower flexibility. However, Ogunleye and Oke (2020) reported a negative impact in Nigerian banks due to increased credit risk and costs. Conversely, Mwangi and Wanjohi (2018) observed improvements in loan portfolio quality and financial performance in Kenyan microfinance institutions. Njoroge and Gathogo (2020) also noted that balloon payment extension can boost customer satisfaction and loyalty. These results suggest that balloon payment extension generally benefits loan recovery but may have varied effects depending on the context and risk management practices.

The results show that Risk Monitoring significantly moderates the relationship between Extended Repayment Plan and Loan Recovery (B=0.596, p-value=0.006). This finding aligns with Isidor Temba et al. (2024), who emphasized the importance of risk assessment and approval in improving loan recovery outcomes. Effective Risk Monitoring ensures adherence to repayment schedules, thereby enhancing recovery rates when extended repayment terms are implemented. This suggests that integrating robust risk assessment practices into extended repayment plans can significantly improve loan recovery, reinforcing the need for comprehensive monitoring mechanisms.

The findings indicate that Risk Monitoring significantly moderates the relationship between Interest Rate Reduction and Loan Recovery (B=0.567, p-value=0.000). This is consistent with Gupta et al. (2022), who found that advanced analytics, machine learning, and AI in risk monitoring led to better outcomes. The use of sophisticated monitoring tools enhances the effectiveness of interest rate reductions by ensuring

that borrowers benefit from the lower rates and stay on track with repayments. This suggests that integrating advanced risk monitoring technologies can optimize the impact of reduced interest rates on loan recovery.

The results show that Risk Monitoring significantly moderates the relationship between Principal Forbearance and Loan Recovery (B=2.318, p-value=0.000). This supports Ekai (2023), who highlighted that effective risk monitoring, including tracking non-performing loans (NPL) ratios, is crucial for evaluating the impact of credit restructuring on loan recovery. Principal Forbearance combined with rigorous risk monitoring ensures that borrowers can manage deferred payments effectively, improving overall recovery rates. This emphasizes that comprehensive risk monitoring is essential for maximizing the benefits of forbearance strategies.

The results indicate that Risk Monitoring significantly moderates the relationship between Debt Consolidation and Loan Recovery (B=0.889, p-value=0.001). This is in line with Isidor Temba et al. (2024), who stressed the role of risk assessment in enhancing recovery through debt consolidation. Effective monitoring ensures that borrowers adhere to consolidated repayment plans, thereby improving recovery rates. This finding underscores the importance of integrating robust risk monitoring practices to optimize the benefits of debt consolidation strategies.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the study's findings, presents conclusions, and offers recommendations in line with the specific objectives. It also provides recommendations for policymakers and managers, discusses the study's theoretical implications, and suggests areas for further research.

5.2 Summary of the Findings

The findings reveal that the Extended Repayment Plan has a positive and significant impact on Loan Recovery (β=0.846, p-value=0.002). This result suggests that extending repayment terms significantly improves loan recovery rates by providing borrowers with additional time to meet their obligations. The Extended Repayment Plan alleviates financial pressure on borrowers, making it easier for them to repay their loans and thereby enhancing recovery for lenders. This supports the notion that longer repayment periods can be an effective strategy for improving loan recovery.

The analysis shows that Interest Rate Reduction significantly affects Loan Recovery positively (β=0.229, p-value=0.000). Lowering interest rates improves loan recovery by reducing borrowers' financial burdens, making repayments more manageable. This finding indicates that strategies aimed at reducing interest rates can be effective in increasing loan recovery rates by enhancing borrowers' ability to stay current with their payments. The positive relationship underscores the benefit of lower interest rates in improving overall loan performance and reducing default risks.

The results demonstrate that Principal Forbearance has a strong positive and significant effect on Loan Recovery (β=0.758, p-value=0.000). Allowing borrowers to temporarily suspend principal repayments significantly enhances loan recovery. Principal Forbearance provides immediate financial relief, helping borrowers stabilize their financial situation and resume regular payments. This finding highlights the effectiveness of Principal Forbearance as a strategy to improve loan recovery by offering temporary relief during financial difficulties.

The findings indicate that Debt Consolidation has a positive and significant impact on Loan Recovery (β=1.086, p-value=0.000). Consolidating multiple debts into a single loan enhances loan recovery by simplifying debt management for borrowers. This approach reduces the likelihood of missed payments and improves the overall recovery rates by allowing borrowers to focus on a single repayment plan. The positive effect of Debt Consolidation underscores its role in improving financial stability and recovery for lenders.

The results show that Balloon Payment Extension positively and significantly affects Loan Recovery (β=0.335, p-value=0.000). Extending balloon payments improves loan recovery by giving borrowers more time to prepare for large lump-sum payments, thereby reducing the risk of default. This flexibility allows borrowers to manage their finances more effectively and meet their final payment obligations. The positive impact of Balloon Payment Extension highlights its effectiveness in enhancing loan recovery through increased payment flexibility.

The findings indicate that Risk Monitoring significantly moderates the relationship between the Extended Repayment Plan and Loan Recovery (β=0.596, p-value=0.006). This suggests that Risk Monitoring enhances the effectiveness of the Extended

Repayment Plan by ensuring borrowers adhere to their extended repayment schedules, which in turn improves loan recovery rates. This aligns with Isidor Temba et al. (2024), who emphasized the importance of risk assessment and approval, highlighting that structured monitoring mechanisms are crucial for effective loan recovery. The moderation effect underscores the value of integrating Risk Monitoring to optimize the benefits of extended repayment plans.

The results show that Risk Monitoring significantly moderates the relationship between Interest Rate Reduction and Loan Recovery (β=0.567, p-value=0.000). Effective Risk Monitoring amplifies the positive impact of reduced interest rates on loan recovery by helping borrowers stay compliant with their repayment schedules. This finding is supported by Gupta et al. (2022), which demonstrated that advanced risk monitoring techniques like AI and machine learning enhance recovery outcomes. Thus, Risk Monitoring is crucial for maximizing the benefits of interest rate reductions on loan recovery.

The findings reveal that Risk Monitoring significantly moderates the relationship between Principal Forbearance and Loan Recovery (β=2.318, p-value=0.000). This indicates that the positive effects of Principal Forbearance on loan recovery are greatly enhanced when coupled with effective Risk Monitoring. This result supports Ekai (2023), which highlighted that monitoring non-performing loans is essential in managing credit restructuring strategies. Effective Risk Monitoring ensures that borrowers comply with forbearance agreements, thereby improving recovery outcomes and reducing the risk of non-repayment.

The analysis shows that Risk Monitoring significantly moderates the relationship between Debt Consolidation and Loan Recovery (β=0.889, p-value=0.001). This

suggests that Debt Consolidation is more effective in improving loan recovery when accompanied by robust Risk Monitoring. The findings align with the insights from Ghosh and Kokenyne (2020), which emphasize the role of monitoring in managing consolidated debt and ensuring borrower compliance. Effective Risk Monitoring helps mitigate risks associated with Debt Consolidation, leading to better recovery rates by overseeing borrower behavior and detecting potential issues early.

5.3 Conclusions

The findings confirm that the Extended Repayment Plan significantly enhances Loan Recovery. This indicates that extending the repayment period effectively improves the chances of recovering loans, highlighting the value of flexible repayment terms in managing borrower defaults and improving overall financial outcomes.

The results show that reducing interest rates has a substantial positive impact on Loan Recovery. This suggests that lowering interest rates helps in better managing and recovering loans, demonstrating the effectiveness of interest rate adjustments in improving financial stability and recovery rates.

The analysis reveals that Principal Forbearance positively influences Loan Recovery. This means that allowing borrowers temporary relief from payments improves the likelihood of recovering loans, emphasizing the effectiveness of forbearance strategies in managing defaults and enhancing recovery efforts.

The findings indicate that Debt Consolidation positively affects Loan Recovery. This suggests that consolidating debts simplifies repayment processes and improves recovery outcomes, showing that combining multiple obligations into a single payment can be a beneficial strategy for better managing and recovering loans.

The results demonstrate that Risk Monitoring significantly enhances the effectiveness of the Extended Repayment Plan on Loan Recovery. This implies that effective monitoring plays a crucial role in ensuring adherence to repayment plans, thereby improving recovery rates and making the repayment process more successful.

Risk Monitoring effectively improves the impact of Interest Rate Reduction on Loan Recovery. This highlights that integrating strong monitoring practices with interest rate adjustments enhances loan recovery outcomes, underlining the importance of monitoring in optimizing the benefits of reduced interest rates.

The results reveal that Risk Monitoring significantly amplifies the positive effects of Principal Forbearance on Loan Recovery. This underscores the importance of effective monitoring in managing forbearance periods, ensuring borrowers comply with agreements and improving overall loan recovery.

Finally, the findings indicate that Risk Monitoring enhances the impact of Debt Consolidation on Loan Recovery. This suggests that robust monitoring practices strengthen the effectiveness of debt consolidation efforts, ensuring better management of consolidated debts and improved recovery outcomes.

5.4 Recommendations of the Study

5.4.1 Policy Implications

Policymakers should consider implementing or endorsing policies that support flexible repayment options for borrowers, such as extended repayment plans, to improve loan recovery rates and mitigate default risks. Financial regulators should advocate for strategic interest rate reductions, which can serve as a tool for enhancing loan recovery. Additionally, regulations should include provisions for granting

temporary principal forbearance to borrowers facing financial challenges, with robust monitoring systems in place. The Policymakers should also support debt consolidation programs and ensure they are coupled with effective risk monitoring practices. Overall, policies should mandate the integration of comprehensive risk monitoring systems within financial institutions to optimize repayment strategies and loan recovery efforts.

5.4.2 Managerial Implications

Financial institutions should enhance the loan restructuring strategies and ensure they are effectively communicated to borrowers, with staff trained to manage and support these plans. Banks and lending institutions should consider strategically adjusting interest rates to support loan recovery efforts. Lenders should offer principal forbearance options, accompanied by clear guidelines and effective monitoring. Promoting debt consolidation as a viable option for borrowers and investing in compliance monitoring systems can maximize recovery rates. Additionally, establishing or enhancing risk monitoring systems within financial institutions is essential to track and manage borrower behavior, ensuring that repayment plans and financial adjustments are properly enforced.

5.4.3 Theoretical Implications

Theoretical implications of the findings underscore significant alignments with Agency Theory and Financial Distress Theory. The results provide empirical support for Agency Theory, which suggests that aligning the interests of principals (lenders) and agents (borrowers) through various loan modification strategies can enhance loan recovery. By implementing strategies like extended repayment plans, interest rate reductions, and principal forbearance, lenders effectively reduce agency costs and

mitigate conflicts of interest, leading to improved recovery rates. Similarly, the findings resonate with Financial Distress Theory, which posits that financial distress can be alleviated through appropriate restructuring and monitoring practices. The effectiveness of loan modifications and risk monitoring in improving recovery outcomes aligns with this theory, as it demonstrates that mitigating financial distress through structured interventions and close monitoring can enhance borrowers' ability to meet their obligations. Both theories are supported by the observed improvements in loan recovery, highlighting the importance of theoretical frameworks in understanding and managing financial distress and agency issues in lending practices.

5.4.4 Recommendations for Further Research

Future research should focus on broadening the scope of loan restructuring studies across various contexts and settings. This includes examining how different cultural, economic, and institutional environments influence the effectiveness of loan restructuring strategies. Additionally, future studies should explore moderated-mediation methodologies to better understand the complex interplay between different variables and their effects on loan recovery. This approach can offer deeper insights into how various factors interact to impact loan outcomes, providing a more nuanced understanding of the mechanisms underlying effective loan restructuring.

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APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

Dear Sir / Madam,

I hope this letter finds you well. My name is Faith Kipchumba, and I am currently pursuing a research study titled "Credit restructuring Strategies, Risk monitoring, and Loan Recovery of Commercial Banks: A Case of Commercial Banks in Nakuru County" as part of my academic endeavors. I am writing to request your participation in this study, which aims to explore the relationship between credit restructuring strategies, risk monitoring, and loan recovery within commercial banks.

Your participation in this study is invaluable as you possess firsthand experience and insights into the dynamics of loan management and recovery within the banking sector. By sharing your perspectives and experiences, you will contribute significantly to advancing our understanding of the factors influencing loan recovery outcomes in commercial banks in Nakuru County.

Your confidentiality is assured, and anonymity maintained throughout. Participation is voluntary, with the right to withdraw at any time. Please complete the questionnaire provided, ensuring valid and reliable research findings for the benefit of the banking industry

Thank you in advance for considering my request. Should you have any questions or concerns regarding the study, please feel free to contact me at [contact information]. Your support and cooperation are greatly appreciated, and I look forward to your valuable contribution to this research endeavor.

Sincerely,

Faith Kipchumba

APPENDIX II: RESEARCH QUESTIONNAIRE

Please take a moment to complete the questionnaire provided in the sections. Your participation will greatly contribute to our study.

Section A: General Information

1. What is your gender?
   a. Male [ ]
   b. Female [ ]
2. What is your age?
   a. 15-30 years [ ] c. 41-50 years [ ]
   b. 31-40 years [ ] d. Above 50 Years [ ]
3. How long have you been working in your current position?
   a. Less than 2 years [ ] c. 6-10 years [ ]
   b. 2-5 years [ ] d. More than 10 years [ ]
4. What is your highest level of education completed?
   a. Primary Education [ ] d. Secondary Education [ ]
   b. Certificate/Diploma [ ] e. Bachelor's Degree [ ]
   e. Postgraduate Degree [ ]

Section B: Extended Repayment Plan

5. How much do you agree with each of the following claims about Extended Repayment Plan and Loan Recovery? Make use of the scale below: (1) = Strongly Disagree, (2) = Disagree, (3) = Neutral, (4) = Agree, and (5) = Strongly Agree.

Statement	5	4	3	2	1
Extended repayment plans are effective in improving the likelihood of loan recovery					
The extended repayment plan helps borrowers adjust their payments according to their financial circumstances.					
By offering an extended repayment plan, the risk of the borrower failing to meet their loan obligations is minimized.					
The extended repayment plan lowers the amount of each monthly					

loan installment.					
An extended repayment plan leads to a higher total amount of interest paid over the life of the loan					
The extended repayment plan affects the credit rating of the borrower.					

Section C: Interest Rate Reduction

6. How much do you agree with each of the following claims about Interest Rate Reduction? Make use of the scale below: : (1) = Strongly Disagree, (2) = Disagree, (3) = Neutral, (4) = Agree, and (5) = Strongly Agree

	5	4	3	2	1
Interest rate reduction has positively influenced the repayment duration of loans in our bank					
Reducing interest rates has improved borrowers' ability to adapt financially and meet their repayment					
Lower interest rates have a significant potential to prevent loan defaults among our customers.					
Interest rate reduction has led to an increase in the loan recovery rates in our bank					
Our customers have expressed higher satisfaction levels due to the reduction in interest rates.					
Reducing interest rates has been an effective strategy in managing the credit risk of our loan portfolio					

Section D: Principal Forbearance

7. How much do you agree with each of the following claims about Principal Forbearance? Make use of the scale below: : (1) = Strongly Disagree, (2) = Disagree, (3) = Neutral, (4) = Agree, and (5) = Strongly Agree

	5	4	3	2	1
Offering principal forbearance grants temporary relief to the borrower.					
Implementing principal forbearance enhances the borrower's financial stability.					
Principal forbearance helps reduce the risk of loan default.					
When principal forbearance is applied, the loan's outstanding balance rises.					
Deferring loan repayment is a result of principal forbearance.					
Principal forbearance impacts the bank's cash flow.					

Section E: Debt Consolidation

8. How much do you agree with each of the following claims about Debt Consolidation? Make use of the scale below: (1) = Strongly Disagree, (2) = Disagree, (3) = Neutral, (4) = Agree, and (5) = Strongly Agree

	5	4	3	2	1
The debt consolidation simplifies the financial obligation of the borrower.					
Debt consolidation strengthens the borrower's debt management.					
Loan repayment efficiency is boosted by debt consolidation.					
By consolidating debt, the loan's interest rate is lowered.					
A good credit history is necessary for debt consolidation.					
The relationship between the borrower and the original lenders is impacted by debt consolidation.					

Section F: Balloon Payment Extension

1. How much do you agree with each of the following claims about Balloon Payment Extension? Make use of the scale below: (1) = Strongly Disagree, (2) = Disagree, (3) = Neutral, (4) = Agree, and (5) = Strongly Agree

	5	**4**	**3**	**2**	**1**
Extending the balloon payment enhances the loan's repayment flexibility.					
With the balloon payment extension, the default risk of the loan is lessened.					
Borrowers must plan their financial future when a balloon payment extension is involved.					
The extension of the balloon payment heightens the uncertainty of loan repayment.					
Extending the balloon payment results in a higher total interest paid on the loan.					
The bank's liquidity is influenced by the balloon payment extension.					

Section G: Risk monitoring

1. How much do you agree with each of the following claims about Risk monitoring? Make use of the scale below: (1) = Strongly Disagree, (2) = Disagree, (3) = Neutral, (4) = Agree, and (5) = Strongly Agree

	5	**4**	**3**	**2**	**1**
The bank employs sophisticated portfolio analysis techniques to assess credit risk."					
We receive adequate training and support to effectively utilize portfolio analysis techniques in assessing credit risk					
We closely monitor the probability of default for individual loans in our portfolio					
There are clear procedures in place to track and manage loans with high default probabilities."					
We regularly evaluate our exposure to credit risk across various sectors and industries."					
I am confident in our bank's ability to identify and mitigate potential					

risks associated with loan portfolios					

Section H: Loan Recovery

1. How much do you agree with each of the following claims about Loan Recovery? Make use of the scale below: (1) = Strongly Disagree, (2) = Disagree, (3) = Neutral, (4) = Agree, and (5) = Strongly Agree

	5	**4**	**3**	**2**	**1**
The bank effectively encourages timely repayment of loans through clear communication and incentives."					
The bank's policies and procedures facilitate prompt loan repayment by clients, leading to timely closure of outstanding loans					
The bank's proactive measures and strategies have contributed to a noticeable decrease in the default rate of loans over time.					
The implementation of credit restructuring initiatives has been successful in reducing the occurrence of loan defaults within our bank.					
I am satisfied with the effectiveness of our bank's debt settlement procedures in resolving overdue loans and minimizing potential losses."					
The bank's efforts in facilitating improved debt settlement negotiations with borrowers have positively impacted our overall loan recovery					

Thank You

APPENDIX III: LIST OF BANKS

Name of Bank	Number of Branches in Nakuru County	Target Population	Sample Size
1. Absa Bank Kenya	2	18	5.2%
2. Access Bank	1	9	2.6%
3. Bank of Africa	1	9	2.6%
4. Bank of India	1	9	2.6%
5. CFC Stanbic Bank	1	8	2.3%
6. Chase Bank (now SBM Bank Kenya)	1	9	2.6%
7. Commercial Bank of Africa (now part of NCBA)	1	9	2.6%
8. Consolidated Bank	1	9	2.6%
9. Co-operative Bank of Kenya	3	34	9.8%
10. Credit Bank	1	9	2.6%
11. Diamond Trust Bank	1	10	2.9%
12. Eco Bank	1	9	2.6%
13. Equity Bank	4	41	11.8%
14. Family Bank	1	9	2.6%
15. Faulu Micro Finance Bank	1	9	2.6%
16. Guaranty Trust Bank	1	9	2.6%
17. Gulf Bank	1	9	2.6%
18. Housing Finance Bank	1	9	2.6%
19. I&M Bank	1	10	2.9%
20. Kenya Commercial Bank (KCB)	2	35	10.1%
21. Kenya Women Micro Finance Bank	1	8	2.3%
22. Kingdom Bank	1	9	2.6%
23. National Bank of Kenya	1	9	2.6%
24. Paramount Universal Bank	1	7	2.0%
25. Postbank	1	7	2.0%
26. Premier Bank	1	8	2.3%
27. Sidian Bank	1	5	1.4%
28. Stanbic Bank	1	8	2.3%
29. Standard Chartered Bank	1	9	2.6%
30. UBA Kenya Bank	1	5	1.4%
Total	37	348	100.0%

Source: CBK Report (2024)

APPENDIX IV: RESEARCH PERMIT

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **732395**

Date of Issue: **13/September/2024**

RESEARCH LICENSE

This is to Certify that Ms.. FAITH JEPKOGEI KIPCHUMBA of Moi University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nakuru on the topic: CREDIT RESTRUCTURING STRATEGIES, RISK MONITORING AND LOAN RECOVERY OF COMMERCIAL BANKS IN NAKURU COUNTY, KENYA for the period ending : 13/September/2025.

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APPENDIX V: PLAGIARISM REPORT

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MBA/5059/23

In recognition for passing the University's plagiarism

Awareness test for Thesis **entitled: CREDIT RESTRUCTURING STRATEGIES, RISK MONITORING, AND LOAN RECOVERY OF COMMERCIAL BANKS IN NAKURU COUNTY, KENYA** similarity index of 2% and striving to maintain academic integrity.

Word count:33779

Awarded by

Prof. Anne Syomwene Kisilu
CERM-ESA Project Leader Date: 23/09//2024