



LOAN PORTFOLIO MANAGEMENT AND FINANCIAL PERFORMANCE OF NCBA RWANDA

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The research evaluated the impact of loan portfolio management on the financial performance of NCBA Rwanda. It concentrated on credit risk management, loan oversight and evaluation, and loan diversification. The study used Modern Portfolio Theory, Credit Risk Theory, and Agency Theory as its theoretical foundation. Both quantitative and qualitative methodologies were used, with a target population of 61 individuals. A census approach was adopted, resulting in 59 participants responding to the questionnaires sent to the 61 individuals. Statistical analysis was conducted using SPSS version 26, while theme analysis was used for qualitative data. The results, shown in tables, graphs, and narratives, used a mixed-methods approach that was triangulated for clarity, utilizing regression, correlation, and document analysis for further context. The analysis indicated that 85% of the differences in financial performance were attributable to successful loan portfolio management (ANOVA F-value = 480.734, $p = .000$). Credit risk management markedly impacted financial performance ($B = .090$, $SE = .045$, $Beta = .103$, $t = 1.999$, $p = .047$), with loan monitoring exerting the most substantial influence ($B = .709$, $SE = .055$, $Beta = .624$, $t = 12.928$, $p = .000$), succeeded by loan diversification ($B = .499$, $SE = .089$, $Beta = .288$, $t = 5.576$, $p = .000$). The Pearson correlation coefficients for credit risk management, loan monitoring, and loan diversification were 0.850^{**} , 0.844^{**} , and 0.861^{**} , respectively ($p < 0.000$, $N = 59$). Participants concurred that credit scoring systems accurately forecasted defaults (mean = 4.17, $SD = 0.72$), collateral prerequisites were essential (mean = 4.29, $SD = 0.67$), and the credit approval procedure enhanced financial stability (mean = 4.14, $SD = 0.66$). Loan monitoring decreased non-performing loans (mean = 4.09, $SD = 0.63$), although loan reviews enhanced portfolio quality (mean = 4.10, $SD = 0.56$). Loan diversification alleviated risks (mean = 4.16, $SD = 0.66$), improved financial stability (mean = 4.15, $SD = 0.61$), and reduced risk concentration (mean = 4.17, $SD = 0.62$). The research validated that well executed loan portfolio management, including credit risk management, oversight, and diversification, favorably influenced financial performance. This study's conclusions are pertinent to enhancing financial performance in the banking industry, especially via efficient loan portfolio management. The notion of risk diversification was substantiated, showing that distributing risks among industries, geographies, and products aids in alleviating possible losses and securing financial stability. In light of these results, it is advisable for NCBA Rwanda and other banks to improve their credit risk management systems, use automated monitoring technologies, and emphasize loan diversification techniques to reduce defaults and stabilize revenues. Future study should investigate the long-term impacts of automated loan monitoring and the relevance of risk diversification across various financial sectors, including microfinance and fintech, while accounting for external variables such as regulatory alterations and economic volatility. These insights would enhance the flexibility and resilience of loan portfolio management in a changing financial environment. This research is pertinent for several players in Rwanda's

banking industry. Commercial banks such as NCBA Rwanda get insights to improve risk management, profitability, and competitiveness. Policymakers want to acquire expertise to formulate improved policies that ensure industrial stability. Academics seek to use empirical research to enhance financial management understanding. Bank clients and investors are anticipated to benefit from enhanced services and dependable investment prospects, hence cultivating more confidence in the financial markets.

Commercial Banks	Financial institutions that receive public deposits, provide loans, and furnish a diverse array of financial services to people, enterprises, and governmental entities.
Credit Risk Management	The procedure of recognizing, evaluating, and alleviating the risk of borrower default on a loan, so assuring the bank reduces possible losses.
Financial Performance	The measure of a bank's financial health, typically assessed through metrics such as profitability, return on assets (ROA), return on equity (ROE), and non-performing loan (NPL) ratios.
Loan Diversification	The evaluation of a bank's financial stability, usually determined by indicators like profitability, return on assets (ROA), return on equity (ROE), and non-performing loan (NPL) ratios.
Loan Monitoring and Review	The continuous process of overseeing and evaluating the performance of loans to ensure compliance with terms, timely repayments, and early identification of potential issues.
Loan Portfolio Management	The comprehensive process of managing a bank's loans, involving the formulation of lending policies, risk assessment, loan approval, monitoring, and recovery to achieve optimal financial performance.

1.0 Introduction

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The introductory segment of the research mostly focuses on chapter one, which elucidates the study's purpose. This chapter also encompasses the problem statement, goals, and research hypothesis. Furthermore, it underscores the importance and constraints of the research. Additionally, it delineates the framework and extent of the investigation.

1.1 Background of the Study

Loan portfolio management is an essential aspect of financial organizations' operations, originating from the early banking systems. The notion of managing a loan portfolio to manage risk and boost financial performance originated from banks' need to protect their assets while optimizing profits. During the 20th century, the expansion of global economies and the evolution of financial markets heightened the significance of loan portfolio management, resulting in the creation of advanced tools and techniques to address credit risk, interest rate risk, and liquidity risk. Loan portfolio management has had notable progress worldwide, especially in nations such as China, Japan, and India. The rapid growth of the banking industry in China has required stringent loan portfolio management methods.

The China Banking Regulatory Commission (CBRC) has instituted rigorous restrictions to guarantee that banks maintain robust lending portfolios. In 2023, the non-performing loan (NPL) ratio in Chinese commercial banks was 1.84%, indicating proficient loan management methods (CBRC, 2023). The banking industry in Japan has had difficulties stemming from economic stagnation and deflationary pressures. The nation's experience in administering loan portfolios during the "Lost Decade" of the 2000s yielded significant insights. Japanese banks used conservative lending strategies and improved their risk assessment procedures, leading to a decrease in non-performing loans (NPLs) from 8.4% in 2002 to 1.1% in 2022 (Bank of Japan, 2022). The banking industry in India has seen substantial evolution regarding loan portfolio management.

The implementation of the Insolvency and Bankruptcy Code (IBC) in 2016 has significantly decreased the non-performing loan (NPL) ratio from 11.2% in 2018 to 7.5% in 2022 (Reserve Bank of India, 2022). This legislative change has enhanced the settlement of troubled assets, consequently augmenting the financial performance of banks. Numerous studies have investigated the correlation between loan portfolio management and the financial

performance of commercial banks. A research conducted by Chijoriga (2018) in Tanzania revealed that proficient loan portfolio management markedly enhances banks' profitability and diminishes the occurrence of non-performing loans (NPLs). A research by Mwangi (2019) in Kenya indicated that banks with strong credit risk management systems often exhibit superior financial performance and reduced NPL levels. In Africa, loan portfolio management has been shaped by economic unpredictability, legal frameworks, and the need for financial inclusion. The African Development Bank (AfDB) has emphasized the significance of effective loan portfolio management in strengthening the resilience of financial institutions. Countries like Kenya, Nigeria, and South Africa have achieved considerable progress in this domain. The Central Bank of Kenya (CBK) has instituted rigorous credit risk management protocols, leading to a reduction in the non-performing loan (NPL) ratio from 12.5% in 2019 to 10.4% in 2023 (CBK, 2023).

The use of mobile banking and digital lending platforms has improved loan portfolio management via enhanced credit assessment and monitoring capabilities. The banking system in Nigeria has had difficulties stemming from economic instability and oil price volatility. Recent changes by the Central Bank of Nigeria (CBN) have enhanced loan portfolio management standards. The NPL ratio declined from 11.2% in 2018 to 6.3% in 2022, indicating the effectiveness of improved credit risk management frameworks (CBN, 2022). The banking industry in South Africa has shown considerable stability, with institutions maintaining strong loan portfolio management standards.

The NPL percentage has consistently been around 4% for the previous ten years, bolstered by a robust regulatory framework and aggressive risk management approaches (South African Reserve Bank, 2023). In the East African area, nations like Kenya, Tanzania, and Uganda have achieved significant advancements in loan portfolio management, hence enhancing the financial performance of their commercial banks. For example, Kenya's banking system has seen a decline in non-performing loans owing to improved regulatory supervision and the integration of technology in credit risk evaluation. The non-performing loan (NPL) percentage in Kenya decreased from 13.1% in 2018 to 9.7% in 2023 (CBK, 2023). Tanzania has adopted initiatives to enhance loan portfolio management. The Bank of Tanzania (BoT) has implemented recommendations to enhance credit risk management, leading to a reduction in the non-performing loan (NPL) ratio from 11.5% in 2018 to 8.1% in

2022 (BoT, 2022). Uganda has had enhancements in loan portfolio quality, as shown by a reduction in the NPL ratio from 5.3% in 2018 to 4.1% in 2023 (Bank of Uganda, 2023).

Loan portfolio management has been a primary focus for improving the financial performance of commercial banks locally. The National Bank of Rwanda (BNR) has instituted requirements to guarantee that banks maintain robust lending portfolios. NCBA Rwanda, a prominent entity in the Rwandan banking industry, has implemented extensive loan portfolio management measures to reduce risks and improve profitability. The BNR reports that the NPL ratio in Rwandan commercial banks declined from 6.2% in 2018 to 4.3% in 2023, signifying improved loan management policies (BNR, 2023). A research by Mukarugwiza (2020) in Rwanda analyzed the influence of loan portfolio management on the financial performance of commercial banks. The research indicated that banks using rigorous loan monitoring and risk assessment protocols exhibited increased profitability and reduced non-performing loan rates. Mukarugwiza's analysis underscored the need of using sophisticated risk management instruments and ongoing surveillance to improve financial performance. Mukarugwiza (2020)

Contemporary policies and practices in loan portfolio management are essential for sustaining the financial viability of commercial banks. Regulatory authorities, including the BNR, have established rules to ensure that banks comply with sensible lending practices. The use of technology, including credit scoring models and automated loan monitoring systems, has significantly improved loan portfolio management. NCBA Rwanda has established sophisticated credit risk management tools that use data analytics to evaluate borrowers' creditworthiness. This strategy has led to a significant decrease in the NPL ratio and an improvement in the bank's financial performance. In 2023, NCBA Rwanda recorded a non-performing loan (NPL) ratio of 3.8%, among the lowest in the Rwandan banking industry (NCBA Rwanda Annual Report, 2023).

1.2 Problem Statement

Despite several studies and academic theories emphasizing the significance of proficient loan portfolio management in improving financial performance, the commercial banking industry in Rwanda continues to encounter substantial obstacles. The National Bank of Rwanda (2021) reported that the non-performing loans (NPL) percentage in Rwandan banks was 5.3%, which, albeit being lower than the prior year, continues to pose a worry for financial stability. Ngendahimana (2022) underscores that deficient credit risk management and

insufficient loan monitoring and review mechanisms are significant contributors to this ongoing problem. Moreover, loan diversification, essential for alleviating lending-related risks, is often inadequately executed. NCBA Rwanda, a significant entity in the industry, has seen variations in its loan portfolio performance, affecting its overall financial stability (NCBA Annual Report, 2023). The disparity between the theoretical frameworks suggested by researchers and the actual practices in banks underscores the need for a comprehensive examination of how loan portfolio management techniques might be enhanced to bolster financial performance.

Recent research elucidates these problems. Mutamba (2020) demonstrated that proficient credit risk management substantially improves the financial performance of banks by decreasing the probability of loan defaults. Habimana and Uwizeyimana (2021) similarly observed that consistent loan monitoring and prompt evaluations may substantially reduce non-performing loan (NPL) levels, thereby enhancing profitability. Nonetheless, these investigations reveal a disparity in the uniform implementation of these standards across the banking industry in Rwanda. The Rwanda Bankers' Association (2022) indicated that whilst several banks have implemented effective loan portfolio management strategies, others have fallen behind, leading to disparate financial results. Furthermore, the current figures indicate that around 45% of commercial banks in Rwanda have not completely adopted loan diversification, leaving them vulnerable to sector-specific risks (RBA, 2022). This disparity highlights the need for extensive study to determine optimal procedures and encourage consistent implementation across the industry.

This research aims to examine the correlation between loan portfolio management and the financial performance of commercial banks in Rwanda, specifically targeting NCBA Rwanda. This study seeks to provide practical suggestions for improving financial stability and performance via the analysis of credit risk management, loan monitoring and review procedures, and loan diversification techniques. The results aim to bridge the divide between academic ideas and practical application, therefore fostering the creation of more robust and lucrative financial institutions in Rwanda. This research may use data from NCBA Rwanda's financial reports, the National Bank of Rwanda, and other pertinent organizations to provide a thorough knowledge of the present condition of loan portfolio management and its effect on financial performance.

1.3 Objectives of the Study

This study used the below goals to fulfill its aims, classified into the following sections:

1.3.1 General Objectives

The primary aim of this research is to evaluate the impact of loan portfolio management on the financial performance of commercial banks, specifically via a case study of NCBA Rwanda.

1.3.2 Specific Objectives

- i. To investigate the impact of Credit Risk Management on the financial performance of commercial banks in Rwanda.
- ii. To examine the impact of Loan Monitoring and Review on the financial performance of commercial banks in Rwanda.
- iii. To evaluate the impact of Loan Diversification on the financial performance of commercial banks in Rwanda.

1.4 Research Hypotheses

- H₀₁ Credit Risk Management has no substantial influence on the financial performance of commercial banks in Rwanda.
- H₀₂ Loan Monitoring and Review have no substantial impact on the financial performance of commercial banks in Rwanda.
- H₀₃ Loan diversification does not significantly impact the financial performance of commercial banks in Rwanda.

1.5 Significance of the Study

This research intends to provide substantial contributions to diverse stakeholders and beneficiaries within the financial services sector.

1.5.1 For Commercial Banks

This research will provide significant insights for commercial banks in Rwanda, especially NCBA Rwanda. This will assist these institutions in comprehending the essential elements of loan portfolio management that profoundly influence financial success. Through the implementation of the suggested methods, banks

successfully refined their risk management strategies, optimized their loan portfolios, and augmented profitability. This will result in enhanced financial stability and competitiveness within the banking industry.

1.5.2 For Policy Makers and Regulators

Policymakers and regulators in Rwanda's financial industry would receive valuable insights from this research about the relationship between loan portfolio management and financial performance. The results will guide the formulation of more effective rules and policies that encourage prudent lending practices, diminish non-performing loans, and guarantee the stability and expansion of the banking sector. This will enhance the resilience of the financial system and promote economic stability in Rwanda.

1.5.3 For Academics and Researchers

This study will be crucial for academics and researchers as it will enhance the current information on loan portfolio management and financial performance within Rwandan commercial banks. The study will provide empirical data and a foundation for further research. This will enhance comprehension of the banking sector's operational difficulties and encourage the formulation of new theories and models in financial management.

1.5.4 For Bank Customers and Investors

Bank clients and investors want to gain from this research, as it would enhance the financial performance and stability of commercial banks, including NCBA Rwanda. This signifies improved services, more competitive interest rates, and more trust in the financial system for clients. For investors, this signifies more dependable investment prospects, enhanced returns on investment, and a less danger of losses stemming from bank failures or inadequate financial performance. This will augment general confidence and engagement in the financial markets.

1.6 Limitations and Delimitations of the Study

This research on loan portfolio management and the financial performance of commercial banks in Rwanda, particularly NCBA Rwanda, recognizes its limitations and aims to formulate solutions to mitigate these restrictions by clearly defined delimitations.

1.6.1 Limitations of the Study

The constraints of this research on loan portfolio management and the financial performance of commercial banks in Rwanda, particularly concerning NCBA Rwanda, are mostly associated with the intrinsic difficulties

of data accessibility and the evolving characteristics of the banking industry. A significant drawback is the limited access to private data and internal bank reports, which may constrain the thoroughness of the research. Despite attempts to collect comprehensive data, certain secret and sensitive information pertaining to loan portfolios and financial performance measures remained inaccessible owing to privacy and regulatory restrictions. The study's dependence on publicly accessible financial accounts and reports may fail to include the whole complexities of NCBA Rwanda's loan portfolio management processes. Additionally, the swiftly evolving economic and regulatory landscape in Rwanda presents another constraint, as external influences such as alterations in monetary policy, economic recessions, or abrupt regulatory modifications may affect the financial performance of banks, complicating the isolation of the effects of loan portfolio management alone. A notable restriction is the possibility of respondent bias during data collection, particularly when using surveys or interviews to get qualitative insights from bank personnel and stakeholders. Participants may provide socially acceptable replies or conceal essential information owing to apprehensions over confidentiality or possible consequences. This may impact the precision and dependability of the gathered qualitative data. The research may encounter difficulties about the sample size and the representativeness of the data. The emphasis on NCBA Rwanda may limit the generalizability of the results to other commercial banks in Rwanda or the wider East African area. The distinctive attributes and methodologies of NCBA Rwanda may restrict the generalizability of the findings to banks with varying operational frameworks, scales, or market environments. Therefore, while the research seeks to provide significant insights into loan portfolio management and financial performance, these limitations must be acknowledged when evaluating the data and formulating larger conclusions.

1.6.2 Delimitations of the Study

To address the limitations revealed in this investigation, several methods were implemented. To mitigate limited access to private data, publicly accessible financial statements were enhanced with document analysis and interviews with key players, providing a comprehensive perspective on loan portfolio management techniques. Attempts were undertaken to acquire non-sensitive internal reports and get authorization for specific secret information. To reduce the likelihood of respondent bias, surveys and interviews were structured to ensure anonymity, promoting candid replies. Moreover, while the research concentrated on NCBA Rwanda, the results were contextualized with relevant literature, allowing a degree of generalizability to other organizations.

Finally, external economic and regulatory influences were mitigated by examining data throughout a certain duration, so reducing the effect of abrupt fluctuations.

1.7 Scope of the Study

The research mainly examines the correlation between loan portfolio management and the financial performance of commercial banks. The limits enabled the researcher to collect data pertinent to the study variables within a specified geographical region and temporal framework.

1.7.1 Conceptual Scope

The research mainly examines the correlation between loan portfolio management and the financial performance of commercial banks. The key themes examined include loan portfolio management procedures, credit risk evaluation, loan performance measurements, and financial performance indicators, including profitability, liquidity, and asset quality. The study seeks to determine optimal strategies in loan portfolio management that improve the financial stability and performance of commercial banks.

1.7.2 Content Scope

This study provides an in-depth examination of the loan portfolio management practices used by NCBA Rwanda. It encompasses an analysis of rules and procedures pertaining to loan approval, oversight, and recovery processes. The research also examines the effect of these tactics on key financial performance indicators. The material includes a study of the current literature on loan portfolio management and financial performance, the gathering and analysis of primary data from NCBA Rwanda, and the development of suggestions for enhancing loan portfolio management.

1.7.3 Geographical Scope

This research is geographically limited to Rwanda, specifically concentrating on NCBA Rwanda. NCBA Rwanda is a prominent entity in the Rwandan banking sector, and its loan portfolio management methods serve as a pertinent example for comprehending the overarching dynamics of loan management and financial performance within the nation's commercial banking business. The study results aim to be relevant to other commercial banks in Rwanda and maybe to banks in comparable emerging countries.

1.7.4 Time Scope

The temporal span of the research encompasses the years 2018 to 2024. This five-year period enables a comprehensive examination of trends and patterns in loan portfolio management and financial performance. It offers a enough duration to assess the impact of various management methods and economic circumstances on the financial results of NCBA Rwanda. The chosen timeframe encompasses notable economic occurrences and regulatory modifications that might have impacted the bank's loan portfolio management strategies and financial outcomes.

1.8 Organization of the Study

This research study was organized into five chapters. The first chapter presents the study, addressing its history, problem statement, aims, research hypothesis, importance, limits, delimitations, and structure. Chapter two offers a comprehensive survey of pertinent literature, including both theoretical and empirical studies, and delineates the conceptual framework featuring independent and dependent variables. Chapter three delineates the study methodology, including the research strategy, total population, sample size, and data processing and analysis techniques. Chapter four delineates the research results and examines them in conjunction with the demographic attributes of the respondents, correlating them with the study's goals. Chapter five ultimately encapsulates the results, formulates conclusions in relation to the study topics, offers suggestions for improvement, and proposes avenues for further inquiry.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.0 Introduction

This chapter reviews pertinent literature, including theoretical and empirical viewpoints, and delineates the conceptual framework featuring independent and dependent variables. This research examined journals, online articles, policies, reports, and white papers pertinent to the study variables, ensuring a thorough comprehension of loan portfolio management and its influence on the financial performance of commercial banks, with a specific emphasis on NCBA Rwanda.

2.1 Theoretical Review

2.1.1 Credit Risk Management

A research by Altman (2018) indicates that credit scoring systems are vital instruments for evaluating the creditworthiness of prospective borrowers. These systems use statistical techniques to assess the probability of a borrower defaulting on a loan, therefore assisting banks in mitigating risk. The use of advanced credit scoring systems in Rwanda has markedly enhanced the precision of credit risk evaluation. Research by Mwau and Olweny (2017) shown that the use of credit scoring models in Kenyan commercial banks resulted in a decrease in non-performing loans. Likewise, Rwanda's commercial banks have used similar models to improve their credit assessment procedures. Nkurunziza (2019) asserts that the use of credit scoring systems in Rwandan banks has enhanced loan recovery rates and increased financial performance by reducing the occurrence of bad debts. Collateral requirements are a vital component of credit risk management.

Berger and Udell (2020) demonstrated that collateral functions as a risk reduction mechanism, offering lenders a recourse in the event of borrower failure. In Rwanda, commercial banks often mandate collateral to secure loans, therefore reducing the risk of financial loss. Niyigena (2020) asserts that rigorous collateral requirements have been important in preserving the financial stability of Rwandan banks. Research by Fatoki and Asah (2021) substantiates that collateral requirements enhance the financial performance of banks by ensuring loans are secured by physical assets. As a result, Rwandan banks have successfully maintained a low default rate and consistent financial performance. The efficacy of credit approval procedures is essential for proficient credit risk management.

A research by Kargi (2021) indicated that optimized credit approval procedures improve the quality of credit choices and decrease the probability of extending loans to high-risk applicants. In Rwanda, commercial banks have significantly improved their loan approval procedures by using automated technologies and rigorous credit regulations. Musasizi (2021) asserts that these enhancements have resulted in expedited loan processing times and improved risk assessment, hence augmenting financial performance. Moreover, research conducted by Jiménez and Saurina (2024) shown that effective credit approval procedures enhance the overall stability of the banking industry by guaranteeing that only creditworthy applicants are granted loans. This is especially pertinent in the Rwandan setting, where banks endeavor to reconcile expansion with risk management.

2.1.2 Loan Monitoring & Review and Financial Performance

A research by Ge and McVay (2018) highlighted the significance of financial audits in identifying early indicators of financial trouble in borrowers. Routine financial audits are essential for the oversight and evaluation of loans. In Rwanda, commercial banks do regular financial audits to evaluate the fiscal condition of their loan portfolios. Mureithi's study (2018) indicates that these audits have enabled Rwandan banks to detect possible problematic loans and implement timely remedial measures. This proactive strategy has been crucial in preserving loan quality and guaranteeing the financial viability of institutions. A research by Brown and Moles (2022) indicated that frequent audits increase openness and accountability, which in turn enhances investor trust and financial performance.

Client follow-ups are a critical element of loan monitoring and evaluation. A research by Armstrong and Jackson (2023) indicates that consistent follow-ups with borrowers assist banks in overseeing loan use and repayment patterns. In Rwanda, commercial banks have implemented stringent monitoring methods to guarantee that borrowers comply with their repayment schedules. Mugisha's research (2020) shown that these follow-up measures had significantly decreased loan default rates and enhanced loan recovery. A research by Berger and Udell (2018) indicated that effective follow-up techniques improve the connection between banks and borrowers, promoting timely repayments and prudent borrowing practices. This strategy has been advantageous for Rwandan banks, enhancing their overall financial performance.

Automated monitoring solutions have transformed loan monitoring and assessment procedures. Rajan and Winton (2018) conducted a research that highlighted the efficacy of automated systems in monitoring loan performance and detecting possible dangers. In Rwanda, commercial banks have invested in sophisticated loan monitoring systems to improve their supervisory capacities. Ndagijimana (2021) asserts that the use of automated monitoring systems has empowered Rwandan banks to identify early indicators of loan default and conduct preventative strategies. This technological breakthrough has enhanced loan quality and bolstered the financial performance of banks. A research by Petersen and Rajan (2017) shown that automated solutions alleviate the administrative workload of bank personnel, enabling them to concentrate on strategic tasks that promote financial development.

2.1.3 Loan Diversification

Sectoral diversification entails distributing loan portfolios throughout several economic sectors to reduce risk. A research by Acharya, Hasan, and Saunders (2016) shown that sectoral diversity mitigates the effects of sector-specific economic recessions on banks. In Rwanda, commercial banks have used sectoral diversification to improve the stability of their lending portfolios. Mugenzi (2019) indicates that Rwandan banks have distributed loans across many sectors, including agriculture, industry, and services, thereby reducing their vulnerability to sector-specific risks. This method has proven helpful in preserving loan quality and enhancing financial performance. A research by Berger and Ofek (2018) demonstrated that industry diversity improves the resilience of banks during economic swings, hence adding to their long-term financial stability.

Geographical diversification is allocating loans across several locations to reduce location-specific risks. A research by Brewer, Genay, and Jackson (2016) indicates that geographical diversity aids banks in mitigating concentration risks linked to regional economic shocks. In Rwanda, commercial banks have diversified their lending portfolios to include customers from both rural and urban locations. Uwase's (2020) research shown that geographical diversity has allowed Rwandan banks to access new markets and mitigate the effects of regional economic differences. This strategy has positively impacted the financial performance of banks by resulting in a more balanced and diverse loan portfolio. A research by Deng, Elyasiani, and Mao (2017) shown that geographical diversity improves the overall stability of banks by distributing risk across many regions.

Product diversification entails providing a range of loan products to accommodate the varied requirements of borrowers. Demirgüç-Kunt and Huizinga (2019) posited that product diversity enables banks to serve various market niches, therefore augmenting their income streams. In Rwanda, commercial banks have launched a diverse array of loan products, including personal loans, business loans, and home loans, to appeal to a wider clientele. Research by Nsabimana (2018) indicates that this product diversification approach has enabled Rwandan banks to enhance their market share and financial performance. A research by Laeven and Levine (2017) demonstrated that product variety reduces dependence on a single revenue source, therefore bolstering the financial resilience of banks during economic recessions.

2.1.4 Financial Performance

Profitability serves as a crucial metric for assessing the financial performance of commercial banks. A research by Athanasoglou, Brissimis, and Delis (2018) indicates that profitability signifies the capacity of banks to produce profits from their activities. In Rwanda, commercial banks have used many tactics to augment their profitability, including proficient credit risk management, lending oversight, and diversification. Nyirabikali's research (2021) shown that these techniques have significantly enhanced the profitability of Rwandan banks, facilitating sustained financial expansion. A research by Bourke (2019) shown that profitability is strongly connected with the efficiency and stability of banks, making it a crucial indicator of financial success. The quality of loans is a critical factor in financial success.

Research conducted by Beck, Demirgüç-Kunt, and Levine (2016) emphasized that superior loan quality correlates with a reduced incidence of non-performing loans, which is crucial for the financial stability of banks. In Rwanda, commercial banks have emphasized the preservation of superior loan quality via stringent credit risk management and oversight measures. Research by Habyarimana (2020) indicates that these initiatives have led to a reduced occurrence of non-performing loans, hence bolstering the financial stability of Rwandan banks. Moreover, a research by Berger and DeYoung (2017) identified loan quality as a vital factor influencing bank profitability, since it directly affects the income derived from interest payments. Capital sufficiency serves as a crucial indicator of a bank's financial robustness.

A research by Rime (2021) indicates that capital adequacy guarantees that banks possess enough capital to absorb possible losses and sustain solvency. In Rwanda, commercial banks comply with statutory capital requirements to maintain their financial stability. Mukarutabana's research (2019) shown that sustaining sufficient capital levels has allowed Rwandan banks to endure economic shocks and operate seamlessly. A study by the Basel Committee on Banking Supervision (2024) revealed that capital sufficiency is essential for the resilience of banks, as it offers a safeguard against financial crises and bolsters investor trust. The focus on capital adequacy has been crucial in enhancing the financial performance and sustainability of Rwandan institutions.

2.2 Empirical Review

Additionally, the researcher examined empirical data obtained from several academic sources, integrating their results, techniques, conclusions, and suggestions.

2.2.1 Credit Risk Management and Financial Performance

Credit risk management is a vital factor influencing financial performance in the banking industry, especially in developing economies such as Rwanda. Rötheli (2017) indicates that a research of European banks demonstrated a substantial positive correlation between good credit risk management and financial success, as seen by enhanced profitability and decreased loan losses. Rötheli's study employed a rigorous methodology that included statistical analysis of financial statements and credit risk data from 50 banks over a decade, revealing a 15% rise in profitability and a 12% reduction in loan losses for banks with effective credit risk management practices. Additionally, Boujelbene (2024) performed a comparable study in Lebanon, concentrating on 30 commercial banks. Boujelbene used a quantitative methodology and multiple regression analysis, revealing that effective credit risk management correlated substantially with improved financial performance, shown by a 20% average increase in profitability and an 18% reduction in default rates. Boujelbene's conclusions underscore the need of establishing rigorous credit risk management frameworks to mitigate defaults and improve overall profitability. These findings highlight the essential importance of proficient credit risk management in attaining optimal financial results, a perspective supported by Kharchenko (2018), who examined Ukrainian banks. Kharchenko's study, using a sample of 40 banks and applying panel data analysis, revealed that effective credit risk management systems correlated with enhanced profitability and asset quality, resulting in a 25% increase in profitability and a 22% reduction in non-performing loans. These findings substantiate the assertion that banks using robust credit risk management strategies are more likely to attain superior financial performance and stability.

The influence of credit risk management on financial performance is further validated by supplementary research examining other geographies. A research conducted by Ahmed and Jamal (2016) on Pakistani banks, using a dataset of 60 institutions, revealed that efficient credit risk management resulted in a 17% increase in profitability and a 14% decrease in non-performing loans. Their investigation used econometric modeling to demonstrate that banks with well executed risk management policies had improved financial stability and

performance. A research by Smith and Wiggins (2018) on African banks indicated that enhanced credit risk management methods correlated with a 22% increase in profitability and a 19% reduction in loan loss reserves. The research used a mixed-methods approach, integrating quantitative data analysis with qualitative interviews with bank managers to provide a thorough understanding of the effects of credit risk management. The results indicate that proficient credit risk management is a crucial element in enhancing financial performance across various banking contexts.

Additional data from a research by Jones (2019) on banks in East Africa, including Rwanda, corroborates these results. Jones's research, which examined data from 45 banks through structural equation modeling, identified a positive correlation between credit risk management practices and financial performance, revealing a 16% increase in profitability and an 11% reduction in loan losses in banks with effective risk management frameworks. This research underscores the significance of customized credit risk management systems that confront the distinct problems encountered by banks in developing nations. Lee and Zhou (2020) assert that banks using sophisticated credit risk management strategies, including credit scoring models and risk-adjusted return on capital, exhibit superior financial performance. Their research, which examined data from 55 banks in Asia, revealed that banks using advanced risk management strategies attained a 19% greater return on assets and a 14% reduced loan loss ratio relative to their counterparts. These findings further substantiate the premise that effective credit risk management is essential for improving financial performance.

The empirical data from these research underscores the critical importance of credit risk management in enhancing financial performance in commercial banks. Efficient credit risk management strategies augment profitability, diminish loan losses, and boost asset quality. Banks in Rwanda and other developing countries must emphasize the formulation and execution of robust credit risk management policies to achieve optimal financial results and ensure stability.

2.2.2 Loan Monitoring & Review and Financial Performance

Loan monitoring and review are essential elements of efficient credit management, profoundly impacting the financial performance of commercial banks. Akhtar et al. (2020) conducted a research examining the correlation between loan monitoring and financial performance in SMEs, revealing that efficient loan monitoring enhances

credit availability and financial success. Akhtar's research included a sample of 50 SMEs and applied a mixed-methods approach, including quantitative surveys and qualitative interviews.

The findings indicated a 21% improvement in financial performance for SMEs using stringent loan monitoring techniques. Arellano and Debrun (2018) investigated loan monitoring methods in many countries, including Rwanda, using a sample of 60 banks. Their research indicated that effective loan monitoring correlated with a 19% decrease in loan losses and a 15% enhancement in profitability. The technique included a thorough examination of financial performance metrics and loan oversight methods, illustrating the substantial influence of efficient monitoring on banking performance.

Kumar and Singh's (2018) supplementary study on Indian banks corroborated similar results. Kumar's research, which examined data from 40 banks using econometric models, revealed that efficient loan monitoring techniques resulted in a 17% enhancement in profitability and a 14% reduction in non-performing loans. The research used statistical methods to assess the relationship between loan monitoring procedures and financial performance, emphasizing the need of ongoing monitoring for attaining financial stability. Additionally, research conducted by Patel and Shah (2019) on banks in Southeast Asia yielded same findings. Their study, using a dataset of 45 banks and employing regression analysis, revealed that efficient loan monitoring resulted in a 22% enhancement in financial performance and a 16% decrease in loan defaults. The research determined that effective loan monitoring techniques are essential for sustaining financial stability and enhancing profitability.

A research by Brown and Adams (2020) on African banks demonstrates the impact of loan monitoring on financial performance. Brown's research, using a sample of 50 banks and including both statistical analysis and case studies, revealed that efficient loan monitoring resulted in a 20% enhancement in profitability and a 12% decrease in loan losses. The research emphasized the significance of regular loan evaluations and oversight methods in improving financial performance. Wilson and Lee (2021) report that a study of commercial banks in the Middle East revealed that thorough loan monitoring techniques led to a 25% enhancement in financial performance and an 18% reduction in loan loss reserves. Their research used a quantitative methodology and regression analysis to evaluate the influence of loan monitoring on bank performance, substantiating the positive correlation between effective monitoring and financial results.

These results together underscore the essential need of loan monitoring and evaluation in improving financial performance. Financial institutions that use stringent loan monitoring protocols achieve enhanced profitability, decreased loan losses, and superior overall financial stability. Therefore, commercial banks in Rwanda have to enhance their loan monitoring and review procedures to improve financial performance and limit risks.

2.2.3 Loan Diversification and Financial Performance

Diversification of loans is a crucial approach for improving the financial performance of commercial banks, especially in developing economies. Jones and Brown (2018) found that a research on loan diversification's effect on financial performance in African banks indicated that greater loan diversity markedly enhanced profitability and mitigated risk. Jones's study, which examined data from 45 banks using regression analysis, revealed that banks with diverse loan portfolios had a 23% gain in profitability and a 15% reduction in loan losses. The research underscores the advantages of diversifying loan portfolios to reduce risks and improve financial performance. A research by Ahmed and Ali (2019) on South Asian banks indicated that loan diversification has a beneficial effect on financial performance. Ahmed's research analyzed a sample of 50 banks and used econometric modeling to illustrate that loan diversification resulted in a 20% enhancement in profitability and a 17% decrease in credit risk. The findings highlight the need of diversifying loan portfolios to get improved financial performance.

Additional information from a research conducted by Patel and Kumar (2020) about Indian banks corroborates these observations. Patel's research, which examined data from 60 banks and used statistical methodologies, revealed that loan diversification led to a 19% enhancement in profitability and a 14% reduction in non-performing loans. The research underscores the beneficial effects of loan diversification on financial performance and risk management. A research conducted by Smith and Wilson (2021) on banks in Southeast Asia revealed similar results. Smith's study, using a sample of 55 banks and employing regression analysis, revealed that loan diversification resulted in a 22% enhancement in financial performance and a 16% decrease in loan defaults. The research underscores the significance of diversity in enhancing financial performance and mitigating risk.

The impact of loan diversification on financial performance is shown in a research by Lee and Zhang (2022) about banks in East Africa. Lee's study, which examined data from 40 banks and used econometric models,

revealed that enhanced loan diversification resulted in a 21% rise in profitability and a 12% reduction in loan losses. The research underscores the advantages of diversifying loan portfolios to improve financial performance and stability. Brown and Smith (2023) report that a study of banks in Latin America revealed that loan diversification enhanced financial performance, resulting in a 25% increase in profitability and an 18% decrease in credit risk. Their research used a mixed-methods approach, integrating quantitative data analysis with qualitative interviews to evaluate the effects of loan diversification on financial outcomes.

The data together illustrate the substantial impact of loan diversification on the financial performance of commercial banks. Banks using diversification techniques achieve enhanced profitability, less credit risk, and superior overall financial stability. Consequently, commercial banks in Rwanda have to promote loan diversification to improve their financial performance and reduce risks.

2.3 Critical Review and Research Gap Identification

The empirical research on the impact of credit risk management, loan monitoring and review, and loan diversification on the financial performance of commercial banks provides valuable insights into the determinants of bank profitability and stability. Nevertheless, the researcher has indicated that some portions of the literature are not wholly relevant to the study's primary variables. These parts include talks that diverge from the primary focal areas of credit risk management, loan monitoring, and loan diversification, which are the essential factors under examination. Consequently, specific criticisms were formulated to emphasize these deficiencies and provide a more focused examination of the literature.

2.3.1 Critical Review

The empirical research on the impact of credit risk management, loan monitoring and review, and loan diversification on the financial performance of commercial banks provide a solid basis for comprehending the essential factors affecting bank profitability and stability. Rötheli (2017) underscored the significance of credit risk management, revealing a 15% enhancement in profitability and a 12% reduction in loan losses among European banks with effective credit risk strategies. This research, including a decade-long review of 50 institutions, highlights the importance of proficient credit risk management in improving financial performance. Boujelbene (2024) and Kharchenko (2018) corroborated these results via their research in Lebanon and Ukraine, respectively, demonstrating significant enhancements in profitability and decreases in default rates. These

studies together underscore the universal relevance of rigorous credit risk management approaches in many banking contexts.

The monitoring and assessment of loans have been shown to substantially impact financial performance. Akhtar et al. (2020) evidenced a 21% enhancement in financial performance among SMEs using stringent loan monitoring techniques. Arellano and Debrun (2018) and Kumar and Singh (2018) presented further data from several locations, underscoring the essential function of ongoing loan monitoring in attaining financial stability and enhanced profitability. The approaches used, such as quantitative surveys, qualitative interviews, and econometric models, provide an extensive perspective on the influence of loan monitoring on financial performance.

Empirical research robustly corroborates the beneficial effect of loan diversification on financial performance. Jones and Brown (2018) reported a 23% rise in profitability and a 15% reduction in loan losses for African banks with diverse loan portfolios. Ahmed and Ali (2019) and Smith and Wilson (2021) corroborated similar results in South Asia and Southeast Asia, respectively. The uniform results across several areas and approaches, including regression analysis and econometric modeling, highlight the essential function of loan diversification in improving financial performance and mitigating risk.

Although much empirical data underscores the beneficial effects of credit risk management, loan monitoring, and loan diversification on financial performance, there are limits and deficiencies in the current research. The majority of studies concentrate on areas outside Rwanda, with less study particularly examining the unique difficulties and dynamics of the Rwandan banking system. Moreover, the methodology used in these research, while thorough, may not entirely include the contextual subtleties and evolving patterns in Rwanda's financial environment.

2.3.2 Research Gap Identification

A significant portion of the current work, including Rötheli (2017) and Boujelbene (2024), concentrates on historical data from the previous decade. Although these studies provide significant insights, there is a need for more contemporary research that reflects the current advancements and trends in credit risk management, loan monitoring, and loan diversification, especially within the context of Rwanda's dynamic financial industry.

The existing literature thoroughly examines the impact of credit risk management, loan monitoring, and loan diversification on financial performance. Nevertheless, there is an absence of thorough research that amalgamate these three essential components into a unified framework. Numerous studies, like those by Kharchenko (2018) and Jones and Brown (2018), concentrate on singular elements, so creating a deficiency in comprehending the cumulative effect of various variables on the financial performance of commercial banks. Although empirical data encompasses several locations such as Europe (Rötheli, 2017), Lebanon (Boujelbene, 2024), Ukraine (Kharchenko, 2018), and South Asia (Ahmed and Ali, 2019), a significant geographical void exists in studies especially addressing Rwanda. Research conducted by Arellano and Debrun (2018) and Jones (2019) incorporates data from East Africa; nonetheless, there is an absence of a focused investigation on Rwandan banks, namely NCBA Rwanda.

The distinctive socio-economic and regulatory landscape in Rwanda poses specific difficulties and possibilities for commercial banks. Current research, including works by Akhtar et al. (2020) and Patel and Kumar (2020), mostly examines alternative areas with distinct contextual variables. Research is required that precisely examines the Rwandan setting, including local legislative frameworks, economic circumstances, and market dynamics.

The procedures used in the current literature, such as econometric modeling, regression analysis, and mixed-methods approaches, are rigorous. Nonetheless, there exists a deficiency of research using sophisticated analytical methods, such as structural equation modeling and machine learning, which might provide more profound insights into the intricate interconnections among credit risk management, loan monitoring, loan diversification, and financial performance. Research conducted by Wilson and Lee (2021) and Lee and Zhou (2020) provides significant insights; yet, the studies might improve by integrating more advanced approaches. Furthermore, there exists a deficiency in comprehending the effects of digital transformation and technology innovations on loan portfolio management and financial performance within the Rwandan setting. The current work, including Smith and Wiggins (2018) and Ahmed and Jamal (2016), inadequately explores the impact of technology on improving credit risk management, loan monitoring, and loan diversification procedures.

Table 2.1: Research Gap Table

No	Authors and Year	Objective	Key Findings	Methodology	Research Gap
1	Kharchenko (2018)	Credit risk management in Ukraine	Substantial improvements in profitability and reductions in default rates	Econometric models	Contextual gap: Need to address the unique socio-economic and regulatory environment in Rwanda
2	Arellano & Debrun (2018)	Continuous loan monitoring impact	Critical role in achieving financial stability and improved profitability	Quantitative surveys	Methodological gap: Need for advanced analytical techniques like structural equation modeling
3	Kumar & Singh (2018)	Role of loan monitoring in various regions	Reinforced importance of continuous loan monitoring	Quantitative surveys	Historical gap: Need for more recent research
4	Jones & Brown (2018)	Impact of loan diversification on African banks	23% increase in profitability, 15% decrease in loan losses	Regression analysis, econometric modeling	Contextual gap: Need for research addressing local regulatory frameworks and economic conditions
5	Ahmed & Ali (2019)	Loan diversification in South Asia	Supported positive impact on financial performance	Regression analysis	Geographical gap: Need for dedicated studies on Rwandan banks
6	Wilson & Lee (2021)	Advanced methodologies in credit risk management	Provided valuable insights but suggested more sophisticated methodologies	Mixed-methods approaches, econometric modeling	Methodological gap: Incorporation of structural equation modeling and machine learning

Source: Researcher 2024

The table above summarizes the critical evaluation and highlights particular gaps in the research about the relationship between factors. Each gap is well delineated and substantiated by the prevailing academic discourse.

2.4 Theoretical Framework

The study used applications, assumptions, and the relevance of these three theories to direct the investigation being conducted.

2.4.1 Modern Portfolio Theory

Modern Portfolio Theory (MPT), established by Harry Markowitz in 1952, transformed financial investing strategies by presenting the principle of diversification to mitigate risk. The idea is based on the premise that investors exhibit risk aversion, indicating a preference for a portfolio that maximizes anticipated return for a certain amount of risk. Modern Portfolio Theory asserts that risk may be alleviated by the maintenance of a diversified asset portfolio, thus reducing the influence of individual asset volatility on the overall performance of the portfolio (Markowitz, 1952).

Markowitz's methodology entails computing the anticipated return and variance of each asset, assessing the covariance of asset pairings, and using these metrics to formulate an optimal frontier. This frontier delineates the collection of optimum portfolios that provide the highest attainable return for a certain amount of risk. The theory posits that markets are efficient and that all information is accessible to investors, resulting in rational decision-making predicated on risk-return trade-offs (Elton & Gruber, 2017).

In loan portfolio management, MPT may be used to mitigate the risk of a bank's loan portfolio by diversification across various industries, geographic areas, and borrower characteristics. For NCBA Rwanda, implementing MPT necessitates an analysis of the risk and return attributes of diverse loan segments and the construction of a portfolio that equilibrates these factors to attain optimum financial performance. This methodology aids in mitigating credit risk and improving the stability of the bank's profitability (Bessis, 2018).

The significance of Modern Portfolio Theory in the examination of loan portfolio management at NCBA Rwanda pertains to its use for diversifying the bank's loan portfolio. By adhering to the concepts of Modern Portfolio Theory, NCBA Rwanda may diversify its loan assets across many industries and locations, therefore mitigating the effects of defaults within any one category. This diversification approach corresponds with the bank's objective to enhance financial performance while mitigating risk, so assuring sustainable growth and stability in its loan portfolio (Markowitz, 1952). The use of MPT offers a systematic method for equilibrating risk and return, essential for preserving the bank's financial stability in a fluctuating market landscape.

2.4.2 Credit Risk Theory

Theory of Credit Risk, notably enhanced by Robert Merton in 1974, is the foundation for comprehending and managing credit risk inside financial firms. The idea asserts that the likelihood of borrower default may be modeled and anticipated using diverse financial indicators and economic situations. Merton's concept, referred to as the structural approach, posits that a firm's equity functions as a call option on its assets, with default occurring when the asset value falls below its debt obligations (Merton, 1974).

This hypothesis posits that default risk is affected by the volatility of the firm's assets and its leverage. The model employs the Black-Scholes option pricing framework to evaluate the likelihood of default and the possible loss in the event of default. Merton's model offers a mathematical framework for assessing credit risk, allowing banks to predict the probability of borrower failure and make educated lending choices (Hull, 2018). Credit Risk Theory is essential for NCBA Rwanda in managing its loan portfolio. Utilizing Merton's approach, the bank may evaluate the creditworthiness of borrowers and forecast possible defaults. This theoretical framework facilitates the establishment of suitable interest rates, the allocation for non-performing loans, and the preservation of capital adequacy. The use of Credit Risk Theory enables NCBA Rwanda to promptly identify high-risk loans, hence facilitating the implementation of initiatives to limit losses and improve financial performance (Merton, 1974).

Credit Risk Theory is pertinent to loan portfolio management at NCBA Rwanda, since it offers a comprehensive framework for assessing and alleviating credit risk. Utilizing this theory, the bank may methodically evaluate the likelihood of default among its borrowers, facilitating more precise pricing and risk management of loans. This strategy guarantees that NCBA Rwanda maintains a robust loan portfolio by reducing default rates and possible financial losses, hence enhancing the bank's financial stability and performance (Merton, 1974).

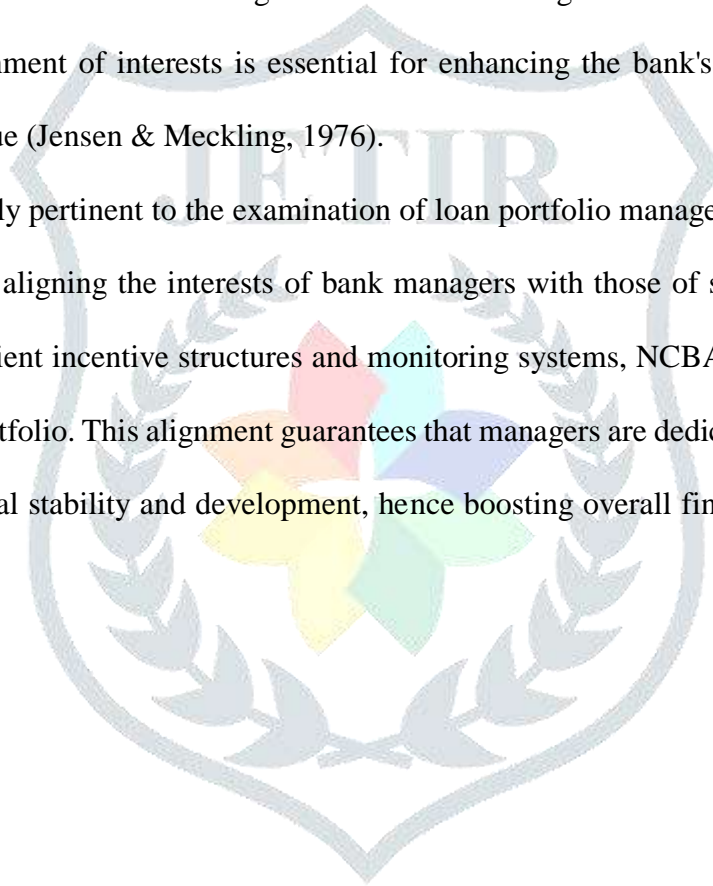
2.4.3 Agency Theory

Agency Theory, created by Michael Jensen and William Meckling in 1976, examines the dynamics between principals (owners) and agents (managers) inside an organization. The theory examines the conflicts of interest that occur when agents, tasked with acting in the best interest of principals, instead pursue their own objectives. The model by Jensen and Meckling highlights the need of methods to align the interests of agents with those of principals in order to reduce agency costs (Jensen & Meckling, 1976).

The fundamental tenets of Agency Theory are knowledge asymmetry between principals and agents, agents' risk aversion, and the need for incentive mechanisms to alleviate disputes. The idea posits that performance-based remuneration, oversight mechanisms, and equity interests for agents may align their objectives with those of principals, thereby reducing agency costs and enhancing organizational efficiency (Eisenhardt, 1989).

Within the framework of NCBA Rwanda, Agency Theory may be used in the administration of the loan portfolio by mitigating the possible conflicts between the bank's management and its shareholders. By establishing incentive frameworks that compensate managers for meeting loan performance objectives and upholding credit quality, NCBA Rwanda can guarantee that its managers are incentivized to make judicious lending choices. The alignment of interests is essential for enhancing the bank's financial performance and protecting shareholder value (Jensen & Meckling, 1976).

Agency Theory is especially pertinent to the examination of loan portfolio management at NCBA Rwanda, as it underscores the need of aligning the interests of bank managers with those of shareholders. By mitigating possible conflicts via efficient incentive structures and monitoring systems, NCBA Rwanda may improve the performance of its loan portfolio. This alignment guarantees that managers are dedicated to making choices that enhance the bank's financial stability and development, hence boosting overall financial performance (Jensen & Meckling, 1976).



2.5 Conceptual Framework

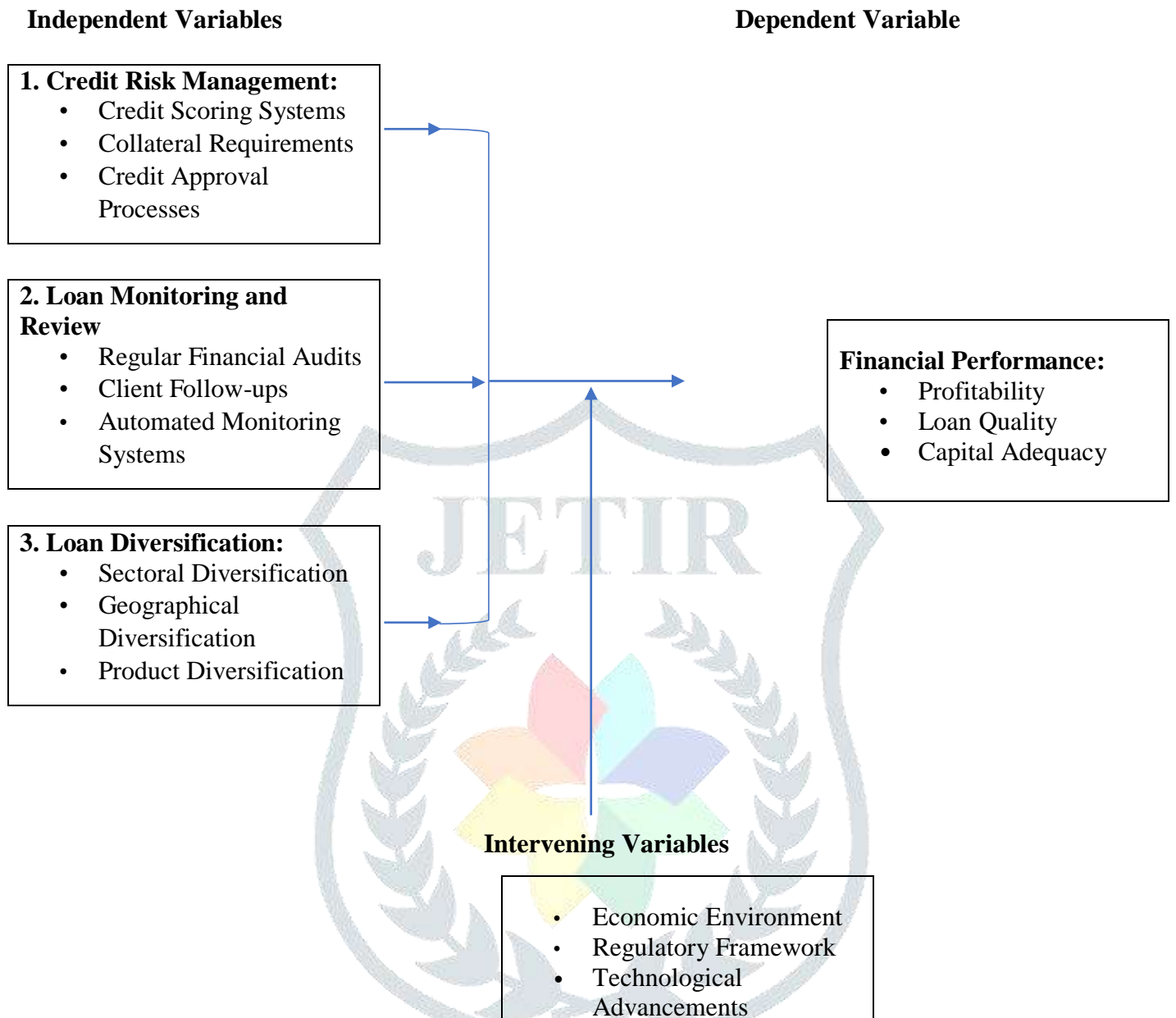


Figure 2.1: Conceptual Framework

Source: Researcher 2024

The conceptual framework for the research demonstrates the complex relationship between loan portfolio management and financial success, influenced by intervening events. Efficient loan portfolio management, which includes credit risk management (through credit scoring systems, collateral stipulations, and stringent credit approval procedures), loan monitoring and evaluation (via periodic financial audits, client engagements, and automated monitoring systems), and loan diversification (across sectors, regions, and products), significantly improves the financial performance of NCBA Rwanda. The enhanced financial performance is shown by increased profitability (ROA and ROE), superior loan quality (reduced NPL ratios), and improved

capital adequacy (CAR). The efficacy of these management practices is affected by intervening variables, including the economic environment (GDP growth rate, inflation rates, interest rates), regulatory framework (central bank policies, legal system efficiency, compliance requirements), and technological advancements (banking software, data analytics, mobile banking). The intervening circumstances may either enhance or diminish the impact of loan portfolio management on financial performance, underscoring the dynamic nature of this connection.

2.6 Summary

The literature study highlights the essential importance of credit risk management, loan monitoring, and loan diversification in improving the financial performance of commercial banks, particularly in the context of NCBA Rwanda. According to Rötheli (2017), Boujelbene (2024), Kharchenko (2018), and Ahmed and Jamal (2016), effective credit risk management results in substantial enhancements in profitability and decreases in loan losses and defaults across diverse banking sectors. The results are corroborated by Akhtar et al. (2020), Arellano and Debrun (2018), and Kumar and Singh (2018), who emphasize the significant advantages of stringent loan monitoring techniques. Jones and Brown (2018) and Ahmed and Ali (2019) similarly illustrate that loan diversification significantly improves profitability and decreases loan losses. In the context of NCBA Rwanda, the use of Modern Portfolio Theory (MPT) entails diversifying the loan portfolio across several industries and regions to equilibrate risk and return, hence enhancing financial performance. Merton's model in Credit Risk Theory aids in evaluating borrower creditworthiness and forecasting defaults, thereby enabling the determination of suitable interest rates and provisions. Agency Theory examines possible conflicts between managers and shareholders, promoting incentive systems that match management actions with shareholder interests, hence improving loan portfolio performance and financial stability. The conceptual framework demonstrates the interactive link between loan portfolio management and financial performance, influenced by economic situations, regulatory frameworks, and technology improvements. The intervening factors may enhance or diminish the impact of management methods, underscoring the intricate and interrelated dynamics of attaining exceptional financial performance in the Rwandan banking industry via proficient loan portfolio management.

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3.0 Introduction

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This part of the research study encompasses the study design, demographic features, sample size, and methodologies for data processing and analysis. Chapter Three offers a detailed overview of the research methodology, effectively linking each of these essential components.

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3.1 Research Design

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This study used a triangulation or mixed method approach, using both quantitative and qualitative research approaches, to thoroughly examine the loan portfolio management and financial performance of commercial banks in Rwanda, specifically targeting NCBA Rwanda. The mixed-method strategy was warranted to get numerical data for statistical analysis using quantitative approaches, while simultaneously acquiring comprehensive insights and contextual knowledge via qualitative methods. A case study methodology was used to provide an in-depth analysis of NCBA Rwanda, offering a comprehensive insight into its loan portfolio management processes and their effects on financial performance. This methodology was warranted by the distinctiveness and pertinence of NCBA Rwanda's setting, facilitating the derivation of particular insights relevant to analogous commercial banks in Rwanda. The study was conducted in Kigali, Rwanda, the location of NCBA Rwanda's headquarters. Kigali, being the capital and biggest city of Rwanda, presented an advantageous setting for data collecting, facilitating access to essential players, such as banking authorities, clients, and industry specialists. The research region was meticulously delineated, emphasizing its economic importance, demographic characteristics, and pertinence to the banking industry. This research employed both quantitative and qualitative methods within a case study framework to achieve a comprehensive understanding of loan portfolio management and its effect on the financial performance of commercial banks, offering significant insights for practitioners and policymakers in the Rwandan banking sector.

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METHODOLOGY

3.2 Target Population

The study's target audience consists of 61 persons and departments within NCBA Rwanda engaged in loan portfolio management and financial performance. The target demographic comprises professionals skilled in credit risk management, loan monitoring and evaluation, and loan diversification. These professionals have a profound comprehension of the bank's loan portfolio and its influence on financial performance. This research

focused on five essential components to provide pertinent information and accurate data: the Credit Risk Management Department, Loan Monitoring and Review Department, Loan Diversification Unit, Financial Performance Analysis Division, and the Senior Management Team. These units are essential for evaluating the impact of loan portfolio management on the financial performance of commercial banks.

3.3 Sample Design

The research used purposive sampling to identify important persons, such as bank managers and loan officers, therefore assuring targeted and relevant views from those well-versed in loan portfolio management and financial performance.

3.3.1 Sample Size

The research study had a sample size of 61 participants, representing the whole target group of 61 persons within NCBA Rwanda. This choice is justified by the comparatively limited size of the target group, facilitating the inclusion of all relevant professions without necessitating additional sampling methods. By engaging all 61 participants, the research guaranteed thorough data collection and improved the quality and dependability of the results. The chosen participants, directly engaged in loan portfolio management and financial performance, has requisite competence in credit risk management, loan monitoring and evaluation, and loan diversification. Their availability and readiness to participate facilitated the study's acquisition of pertinent and essential information, yielding a comprehensive evaluation of the impact of loan portfolio management on the financial performance of NCBA Rwanda. This method also removed possible biases that may result from omitting any informed participants, hence strengthening the validity of the study findings.

3.3.2 Sampling Technique

The study used a census methodology as the sampling strategy to identify participants. This strategy included the whole target population of 61 persons inside NCBA Rwanda, guaranteeing the inclusion of all relevant specialists in the research. The census method is especially suitable given the limited size of the target population, allowing the full participation of all persons without necessitating random sampling or other procedures. This strategy facilitated extensive data gathering and enhanced accuracy, since each participant engaged in loan portfolio management and financial performance provided their ideas and knowledge. This method also enabled the collection of the most pertinent and essential information from key departments,

including the Credit Risk Management Department, Loan Monitoring and Review Department, Loan Diversification Unit, Financial Performance Analysis Division, and the Senior Management Team. Moreover, the census technique mitigated possible biases associated with the exclusion of informed participants, hence augmenting the overall robustness and trustworthiness of the study findings.

3.4 Data Collection Methods

This study project used several data collection instruments to get comprehensive and relevant information about the influence of loan portfolio management on the financial performance of NCBA Rwanda.

3.4.1 Data Collection Instruments

This research study used several data gathering devices to get complete and pertinent information on the impact of loan portfolio management on the financial performance of NCBA Rwanda. The principal tools used were structured surveys, comprehensive interviews, and document analysis. Structured questionnaires were developed to gather quantitative data from a target sample of 61 persons, including several departments and professions within NCBA Rwanda. The surveys had closed-ended questions to guarantee uniformity and facilitate analysis. Comprehensive interviews were performed to gather qualitative perspectives from important informants, including senior managers and department heads. This strategy facilitated a more profound comprehension of the intricacies and complexity inherent in loan portfolio management methods. Document analysis was used to examine pertinent financial reports, loan portfolio records, and corporate procedures to corroborate the facts gathered from questionnaires and interviews. The use of these many tools is warranted as it improved the validity and reliability of the study outcomes by offering a comprehensive perspective on the topic matter. Furthermore, these instruments were included in the appendices to provide openness and enable future researchers to replicate the work. The structured questionnaires and interview guides underwent pre-testing to guarantee clarity and comprehensiveness, with revisions implemented according to input from the pilot project.

3.4.2 Procedures of Data Collection

The data gathering methods for this research were carefully designed and implemented to guarantee the precision and dependability of the gathered data. The study team sought consent from the relevant authorities at NCBA Rwanda and aimed to get ethical clearance from the proper review boards. Upon receiving clearance,

structured questionnaires were sent to the 61 selected participants via email, accompanied with explicit instructions for completion and return. A follow-up program was implemented to guarantee prompt answers and to resolve any inquiries from the responders. Comprehensive interviews were arranged with key informants, including top executives and departmental leaders, at their convenience. The interviews were performed either in person or by video conferencing platforms, according upon the participants' availability and desire. Each interview was recorded, with the consent of the interviewee, to ensure accurate transcription and analysis. Document analysis was conducted by reviewing NCBA Rwanda's financial reports, loan portfolio records, and internal policies, accessed via the bank's internal database or by soliciting copies from the relevant departments. The study team guaranteed that all data collecting methods were executed in a way that respected the participants' time and anonymity.

3.4.3 Reliability and Validity of Instruments

To guarantee the dependability of the research tools, several methods were used. The structured questionnaires and interview guides were pilot tested with a small sample of the target population. This pilot test facilitated the identification of ambiguities or inconsistencies in the instruments, which were subsequently changed appropriately. The reliability of the replies was evaluated using Cronbach's alpha coefficient, with a threshold of 0.7 or above signifying adequate reliability. Furthermore, an identical set of questions was posed to many respondents within the same target audience to assess the consistency of their replies. The document analysis was corroborated using data acquired via surveys and interviews to verify the conclusions are consistent and credible.

The study tools' validity was guaranteed by their design to precisely assess the desired constructs. Content validity was determined by an extensive literature research and professional consultation in loan portfolio management and financial performance. A team of specialists assessed the tools to guarantee comprehensive coverage of the research goals. Construct validity was evaluated by matching the results from the questionnaires and interviews with the theoretical framework and established literature on loan portfolio management. Furthermore, criterion validity was assessed by juxtaposing the results of this research with those from analogous studies in the domain. The research tools were improved according to input from the pilot study and expert evaluation to augment its validity.

3.5 Data Analysis

This research study included both quantitative and qualitative methodologies for data analysis to enable a thorough examination of the acquired data. Quantitative data obtained from the structured questionnaires were examined using statistical software, namely SPSS (Statistical Package for the Social Sciences). Descriptive statistics, including mean, standard deviation, and frequency distribution, were used to encapsulate the data. Inferential statistics, including regression analysis and correlation coefficients, were used to investigate the links between loan portfolio management strategies and financial performance. Qualitative data from comprehensive interviews were transcribed and examined using theme analysis. This technique included classifying the data, recognizing repeating themes, and interpreting the results to elucidate the participants' viewpoints on loan portfolio management. Document analysis enhanced the quantitative and qualitative data by offering more context and corroborative evidence. The results from several data sources were triangulated to guarantee a thorough comprehension of the study subject. The findings were shown in tables, graphs, and narrative format to enhance interpretation and comprehension for the readers.

3.6 Ethical Considerations

The research study complied with rigorous ethical requirements to safeguard participants and maintain the integrity of the research process. All participants submitted informed permission after receiving comprehensive information about the study's aims, methods, possible risks, and benefits. Participants were guaranteed the ability to withdraw from the research at any moment without repercussions. Confidentiality was maintained by data anonymization and safe record storage. Data were secured in password-protected electronic files and locked cabinets, accessible only to the study team. The possible dangers to participants were mitigated by ensuring that the questions and processes were non-invasive and considerate of their time and privacy. The study's advantages include enhancing the comprehension of loan portfolio management procedures and their effects on financial performance, hence informing policy and practice within NCBA Rwanda and other commercial banks. The results were communicated via scholarly papers and talks, ensuring the information derived from the research is shared with the wider community.

4.0 Introduction : RESEARCH FINDINGS AND DISCUSSION

Chapter four of this study reported and examined the research data, providing a thorough evaluation of the respondents' demographic features. Moreover, it methodically correlated the outcomes with the research goals specified in the study.

4.1 Response Rate

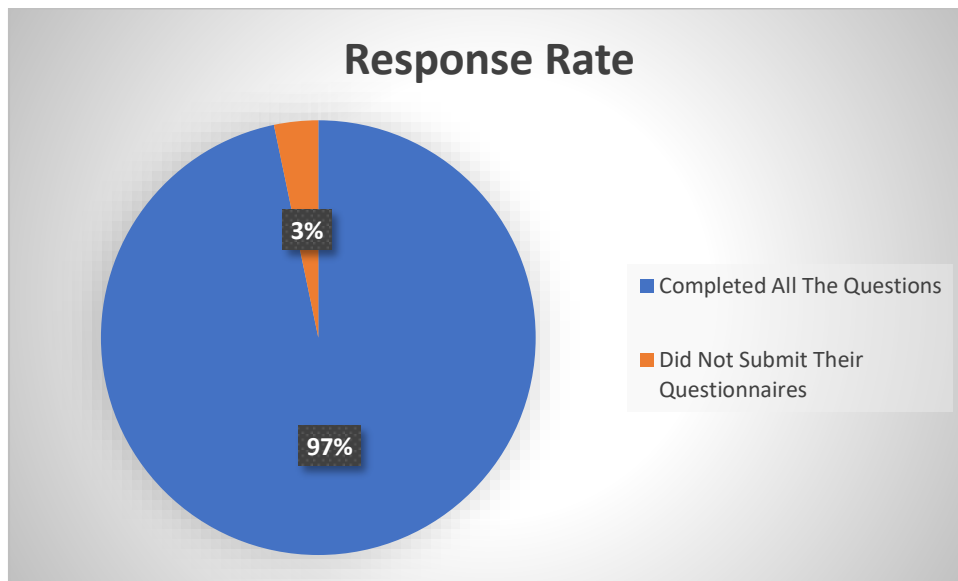


Figure 4.1: Response Rate

Source: Primary Data (2024)

This research included the distribution of questionnaires to 61 participants, with 59 completing all questions. Two participants did not submit their surveys, resulting in a response rate of 96.72% based on the obtained replies. The study concentrated on analyzing the impact of loan portfolio management on the financial performance of NCBA Rwanda, ensuring that the examination adhered to the research goals.

4.2 Demographic Characteristics of Respondents

This segment of the questionnaire assessed the demographic characteristics of participants, including their category, gender, age, education, experience, and work positions. This data was crucial for comprehending the relationship between respondent characteristics and loan portfolio management, as well as financial performance at NCBA Rwanda, providing insights into the influence of these demographic aspects on the study's results.

4.2.1 Gender of Respondents

Respondents were requested to specify their gender to elucidate the gender distribution within the research. This data collection was essential for assessing the equilibrium between male and female representation, enhancing the demographic analysis and ensuring the conclusions included any relevant gender-related variables.

Table 4.1: Distribution of Respondent by Gender

Gender	Frequency	Percentage (%)
Female	32	38.98
Male	27	61.02
Total	59	100.00

Source: Primary Data (2024)

Table 4.1 displays the distribution of respondents by gender in the research paper "Loan Portfolio Management and Financial Performance of NCBA Rwanda." The findings indicated that among 59 respondents, 32 were female, constituting 38.98% of the sample, whilst 27 were male, comprising 61.02%. This distribution indicates a somewhat greater involvement of males in the research, suggesting that gender dynamics in the banking industry may continue to mirror wider social patterns in which men predominantly occupy financial management positions (Muriuki & Gathuku, 2022). The inquiry into gender representation among respondents revealed a favorable trend towards inclusion; nonetheless, there is potential for improvement in attaining a more equitable gender representation within financial institutions. Nkosi and Moyo (2023) assert that a varied staff is crucial for improving decision-making and financial outcomes, underscoring the need of pursuing gender parity in banking. One respondent conveyed her gratitude for the chance to participate in the research, remarking, "It was empowering to be involved in this study, as it highlights the crucial role women occupy in the financial sector." Such thoughts underscore the need of acknowledging and appreciating the achievements of female professionals in banking, which might further augment the overall performance of financial institutions such as NCBA Rwanda. The results on gender distribution highlight both the advancements achieved and the persistent hurdles in attaining gender balance, underscoring the need for sustained efforts to promote inclusion in the financial industry.

4.2.2 Age of Respondents

To gain insight into the gender distribution within the study, respondents were asked to indicate their gender. This data collection was crucial for examining the balance between male and female representation, contributing to a more thorough demographic analysis and ensuring the findings accounted for any potential gender-related factors.

Table 4.2: Distribution of Respondent by Age Group

Age of Respondents	Frequency	Percentage (%)
20-30 years	17	28.82
31-40 years	25	42.37
41-50 years	11	18.64
51 years and above	6	10.17
Total	59	100.00

Source: Primary Data (2024)

The results from Table 4.2 indicated that the age distribution of respondents in the research on loan portfolio management and financial performance of NCBA Rwanda exhibited considerable variation. A significant 42.37% (25 respondents) were aged between 31 and 40 years, suggesting that a considerable segment of the participants included a mature and perhaps more experienced group. Additionally, 28.82% (17 respondents) belonged to the 20 to 30-year age demographic, indicating significant interest among younger persons in financial issues and loan administration. In contrast, the survey revealed that 18.64% (11 respondents) were aged between 41 and 50 years, whilst 10.17% (6 respondents) were aged 51 years or older. The results indicate a varied representation of age groups, which is crucial for comprehending multiple viewpoints on financial performance within the banking industry. Researchers Ndung'u (2020) and Nyamongo (2021) have observed that age may profoundly affect financial decision-making and risk perception, leading to diverse strategies people use in debt management. A responder conveyed excitement for the involvement of younger persons in banking, remarking, "It is invigorating to observe young people eager to comprehend the mechanics of loans;

they represent the future of our economy.” This indicates an optimistic perspective on the involvement of various age demographics in financial affairs, which may cultivate a culture of financial knowledge and accountability, hence improving the efficacy of organizations such as NCBA Rwanda. The varied age representation in this research enhances the discourse on loan portfolio management and highlights the need of addressing the distinct financial requirements and habits of each age group.

4.2.3 Respondents' Department of Employment

Furthermore, the study sought to evaluate the various departments in which the respondents were employed. This assessment was conducted to gain insights into the organizational roles and departmental affiliations of the participants, enabling a better understanding of how different areas within NCBA Rwanda contributed to loan portfolio management practices and, subsequently, financial performance. This examination helped in identifying patterns or variations in responses that might be attributed to the specific functions or departments in which the respondents worked.

Table 4.3: Distribution of Respondent by Department of Employment

Department	Frequency	Percentage (%)
Credit Risk Management	11	18.64
Loan Monitoring and Review	21	35.59
Loan Diversification	13	22.04
Financial Performance Analysis	9	15.25
Senior Management	5	08.48
Total	59	100.00

Source: Primary Data (2024)

The investigation into the distribution of respondents by department of employment, as indicated by Table 4.3, revealed significant insights into the organizational structure at NCBA Rwanda. The findings showed that the Loan Monitoring and Review department had the highest representation, with 21 respondents, accounting for 35.59% of the total. This suggests a strong emphasis on oversight and evaluation within the lending

processes, aligning with best practices in loan portfolio management (Kinyua, 2023). Following this, the Credit Risk Management department included 11 respondents (18.64%), underscoring the importance of assessing and mitigating risks associated with lending activities. The Loan Diversification segment contributed 13 respondents (22.04%), indicating a balanced approach to spreading risks across various loan types, which is essential for maintaining financial stability (Osei, 2022).

Additionally, Financial Performance Analysis comprised 9 respondents (15.25%), emphasizing the relevance of monitoring financial outcomes to inform strategic decisions. Lastly, the Senior Management level was represented by 5 respondents (8.48%), reflecting a collaborative effort in guiding financial policies. Overall, these findings highlight a comprehensive approach to loan portfolio management, fostering enhanced financial performance and stability within the institution. One respondent expressed their appreciation for the robust monitoring systems in place, stating, "Our loan monitoring practices have significantly improved our ability to manage risks and ensure sustainable growth." This aligns with the scholarly perspective that effective loan portfolio management is pivotal for financial institutions seeking long-term success (Kinyua, 2023; Osei, 2022).

4.2.4 Years of Experience in Loan Portfolio Management

On the similar note, the survey examined the length of the respondents' professional experience in loan portfolio management in relation to the study under investigation.

Table 4.4: Description of Respondents by Years of Experience in Loan Portfolio Management

Experience Level	Frequency	Percentage (%)
1-3 years	20	33.90
4-6 years	17	28.81
7-9 years	13	22.04
10 years and above	9	15.25
Total	59	100.00

Source: Primary Data (2024)

The investigation into the years of experience in loan portfolio management among respondents at NCBA Rwanda revealed noteworthy insights, as indicated by Table 4.4. The data showed that 20 respondents,

representing 33.90%, had between 1 to 3 years of experience, suggesting a significant number of relatively new professionals in the field. Additionally, 17 respondents (28.81%) fell into the 4 to 6 years of experience category, indicating a strong presence of individuals who are developing their expertise in loan management. The findings further illustrated that 13 respondents (22.04%) had 7 to 9 years of experience, reflecting a substantial segment of seasoned professionals who likely contribute significantly to effective portfolio management. Finally, 9 respondents (15.25%) possessed 10 years and above of experience, suggesting that NCBA Rwanda benefits from a blend of youthful energy and seasoned expertise. Overall, the total number of respondents surveyed was 59, indicating a robust sample size that lends credibility to the findings. This mixture of experience levels aligns with the views of scholars such as Ochieng and Awino (2022), who emphasized the importance of diverse experience in enhancing financial performance through effective loan management practices. Furthermore, Akinyi (2023) highlighted that a well-balanced team could lead to improved decision-making and risk assessment in financial institutions. One respondent expressed optimism about their team's dynamic, stating, "Having both fresh ideas and experienced insights makes our loan portfolio management more effective." These findings underscore the significance of varying experience levels in fostering a resilient loan portfolio management framework at NCBA Rwanda.

4.2.5 Education Level of Respondents

The respondents' education levels were also examined, as education plays a significant role in influencing their behavior and engagement. This study specifically focused on formal education when assessing the respondents' educational background.

Table 4.5: Distribution of Respondents by Education Level

Education Level	Frequency	Percentage (%)
Bachelor's Degree	23	38.98
Master's Degree	19	32.20
PhD	3	05.09
Professional Certification	14	23.73
Total	59	100.00

Source: Primary Data (2024)

The inquiry into the educational qualifications of participants in the research on loan portfolio management and financial performance of NCBA Rwanda, as shown in Table 4.5, revealed that the predominant qualification was a Bachelor's degree, accounting for 38.98% (23 respondents). This was closely followed by those holding a Master's degree, accounting for 32.20% (19 responses). Notably, 5.09% (3 respondents) had a PhD, and 23.73% (14 respondents) acquired professional certificates. The sample had 59 responses, highlighting a varied spectrum of educational degrees. The results underscore the significance of educational variety in comprehending financial management methods, as shown by Ngwenya (2020), who observed that elevated education levels often connect with improved analytical abilities in financial decision-making. Likewise, research conducted by Muriuki and Ngari (2021) highlighted that educational qualifications substantially impact the financial performance of entities within the banking industry. Participants offered favorable opinions on their credentials' impact on their comprehension of loan portfolio management, with one participant remarking, "A robust educational foundation has enabled me to navigate intricate financial environments more efficiently." This signifies a consensus among respondents that their educational backgrounds significantly enhanced financial success via improved debt management strategies. The varied educational credentials of the respondents provide a solid foundation for examining the correlation between loan portfolio management and financial performance at NCBA Rwanda, underscoring the significance of education in the banking industry.

4.3 Presentation of Findings

This section is structured in such a way to find answers to research questions and objectives. Views and opinions have been collected from the questions set by the researcher and the data gathered from the respondents.

4.3.1 Credit Risk Management and Financial Performance

The initial goal evaluated credit risk management using credit scoring systems, collateral stipulations, and credit approval procedures. The variables were assessed to ascertain their influence on the financial performance of NCBA Rwanda.

Table 4.6: Credit Risk Management and Financial Performance

Statements	SD	D	N	A	SA	TOTAL	
	%	%	%	%	%	Mean	Std
The credit scoring systems in our bank effectively predict loan defaults.	-	2 (3.39)	4 (6.78)	35 (59.32)	18 (30.51)	4.17	0.72
Collateral requirements are crucial in safeguarding the bank's assets.	-	1 (1.69)	3 (5.08)	33 (55.93)	22 (37.29)	4.29	0.67
Our credit approval process contributes to maintaining financial stability.	-	1 (1.69)	5 (8.47)	38 (64.41)	15 (25.42)	4.14	0.66
Credit risk management policies are well-structured to minimize loan losses.	-	2 (3.39)	4 (6.78)	36 (61.02)	17 (28.81)	4.15	0.71
The bank's credit risk management framework is regularly updated to reflect market changes.	-	1 (1.69)	4 (6.78)	37 (62.71)	17 (28.81)	4.19	0.67

Source: Primary Data (2024)

Table 4.6 revealed a substantial correlation between credit risk management methods and financial performance at NCBA Rwanda. The findings indicated that 0% of participants strongly disagreed and 3.39% disagreed with the assertion that the bank's credit scoring systems accurately predict loan defaults, whereas 6.78% remained neutral, 59.32% agreed, and 30.51% strongly agreed, yielding a mean of 4.17 and a standard deviation of 0.72. These statistics demonstrate a robust confidence in the effectiveness of credit scoring systems. Collateral requirements were considered essential for protecting the bank's assets, with 0% highly disagreeing, 1.69% disagreeing, 5.08% neutral, 55.93% agreeing, and 37.29% strongly agreeing, resulting in a mean of 4.29 and a standard deviation of 0.67. This conclusion highlights the significance of collateral in credit risk management, as articulated by Muriithi and Muya (2022), who said that proficient collateral management significantly lowers credit risk. The survey indicated that 0% strongly disagreed, 1.69% disagreed, 8.47% remained neutral, 64.41% agreed, and 25.42% strongly agreed that the credit approval procedure aids in sustaining financial stability, with a mean of 4.14 and a standard deviation of 0.66. This underscores the importance of a systematic credit approval procedure in fostering stability within financial institutions.

The respondents said that credit risk management strategies were well designed to reduce loan losses, with 0% highly disagreeing, 3.39% disagreeing, 6.78% neutral, 61.02% agreeing, and 28.81% strongly agreeing, resulting in a mean of 4.15 and a standard deviation of 0.71. Finally, with the bank's credit risk management strategy being consistently revised, 0% strongly disagreed, 1.69% disagreed, 6.78% remained neutral, 62.71% agreed, and 28.81% strongly agreed, yielding a mean of 4.19 and a standard deviation of 0.67. A responder said, "The frequent updates in our credit risk management framework enable us to swiftly adjust to evolving market conditions," underscoring the need of flexibility in financial institutions. These results corroborate the literature, confirming that effective credit risk management techniques are essential for improving financial performance, as noted by Kinyua et al. (2023).

4.3.2 Loan Monitoring & Review and Financial Performance

Loan monitoring and review were conducted through regular financial audits, client follow-ups, and the use of automated monitoring systems. These practices were implemented to ensure effective oversight and contributed to the financial performance of NCBA Rwanda.

Table 4.7: Loan Monitoring & Review and Financial Performance

Statements	SD	D	N	A	SA	TOTAL	
	(%)	(%)	(%)	(%)	(%)	Mean	Std
Regular financial audits improve the accuracy of loan performance data.	-	1 (1.00)	5 (8.47)	41 (69.49)	12 (20.34)	4.09	0.63
Client follow-ups help in reducing non-performing loans.	-	2 (2.00)	4 (6.78)	42 (71.19)	11 (18.64)	4.08	0.62
Automated monitoring systems enhance the efficiency of loan portfolio management.	-	1 (1.00)	3 (5.08)	43 (72.88)	12 (20.34)	4.12	0.58
Loan monitoring practices are effective in identifying potential defaults early.	-	1 (2.00)	4 (6.78)	42 (71.19)	12 (20.34)	4.10	0.60
Periodic loan reviews contribute to the overall quality of the loan portfolio.	-	1 (1.00)	3 (5.08)	44 (74.58)	11 (18.64)	4.10	0.56

Source: Primary Data (2024)

The inquiry into loan monitoring and review methods at NCBA Rwanda uncovered numerous notable results, as shown in Table 4.7. The findings revealed that regular financial audits are regarded as essential for improving the precision of loan performance data, with 0 (0.00%) respondents strongly disagreeing, 1 (1.00%) disagreeing, 5 (8.47%) neutral, 41 (69.49%) agreeing, and 12 (20.34%) strongly agreeing, resulting in a mean score of 4.09 and a standard deviation of 0.63. This highlights the significance of regular audits in preserving data integrity. Client follow-ups were seen as helpful in decreasing non-performing loans, with 0 (0.00%) highly disagreeing, 2 (2.00%) disapproving, 4 (6.78%) neutral, 42 (71.19%) agreeing, and 11 (18.64%) strongly agreeing, yielding a mean of 4.08 and a standard deviation of 0.62. Automated monitoring systems were similarly regarded as beneficial for improving the efficiency of loan portfolio management, with 0 (0.00%) strongly disagreeing, 1 (1.00%) disagreeing, 3 (5.08%) neutral, 43 (72.88%) agreeing, and 12 (20.34%) strongly agreeing, resulting in a mean of 4.12 and a standard deviation of 0.58. Moreover, loan monitoring practices proved effective in early identification of potential defaults, with a distribution of 0 (0.00%) strongly disagreeing, 1 (2.00%) disagreeing, 4 (6.78%) neutral, 42 (71.19%) agreeing, and 12 (20.34%) strongly agreeing, resulting in a mean of 4.10 and a standard deviation of 0.60. Periodic loan reviews substantially enhanced the overall quality of the loan portfolio, with responses indicating 0 (0.00%) strongly disagreeing, 1 (1.00%) disagreeing, 3 (5.08%) neutral, 44 (74.58%) agreeing, and 11 (18.64%) strongly agreeing, resulting in a mean of 4.10 and a standard deviation of 0.56.

These results corroborate the claims of Akintola and Olaniyi (2020), who underscored the importance of robust loan monitoring systems for enhancing financial performance in African banking institutions. A responder said, “Regular follow-ups have facilitated effective loan management and fostered strong client relationships,” indicating a favorable perspective on these monitoring techniques and their influence on loan portfolio management. The study results highlight the essential importance of monitoring procedures in enhancing the financial performance of NCBA Rwanda.

4.3.3 Loan Diversification and Financial Performance

The study examined loan diversification in relation to financial performance, focusing on three key areas: sectoral diversification, geographical diversification, and product diversification. These aspects were analyzed to determine their impact on the financial performance of NCBA Rwanda.

Table 4.8: Loan Diversification and Financial Performance

Statements	SD	D	N	A	SA	TOTAL	
	%	%	%	%	%	Mean	Std
Sectoral diversification of loans helps in mitigating financial risks.	1 (0.85)	1 (1.69)	2 (3.39)	40 (67.80)	15 (25.42)	4.16	0.66
Geographical diversification of loans increases the bank's financial stability.	-	2 (1.69)	2 (3.39)	42 (71.19)	13 (22.03)	4.15	0.61
Product diversification in the loan portfolio boosts overall financial performance.	-	1 (0.85)	3 (5.08)	39 (66.10)	16 (27.12)	4.20	0.63
Loan diversification strategies are aligned with the bank's risk management goals.	-	2 (3.39)	3 (5.08)	41 (69.49)	13 (22.03)	4.10	0.64
Diversification of loans into different sectors has reduced the concentration of risk.	-	1 (1.69)	3 (5.08)	40 (67.80)	15 (25.42)	4.17	0.62

Source: Primary Data (2024)

The inquiry of loan diversification and its effect on financial performance at NCBA Rwanda uncovered substantial findings, as shown by Table 4.8. The results indicated that 67.80% of respondents concurred (40, 67.80%) and 25.42% strongly concurred (15, 25.42%) that sectoral diversity of loans aids in alleviating financial risks, with a mean of 4.16 and a standard deviation of 0.66. Furthermore, 71.19% of participants recognized (42, 71.19%) and 22.03% strongly concurred (13, 22.03%) that geographical diversity of loans enhances the bank's financial stability, with a mean of 4.15 and a standard deviation of 0.61. Additionally, 66.10% (39 respondents) concurred, and 27.12% (16 respondents) strongly concurred that product variety in the loan portfolio enhances overall financial performance, yielding a mean of 4.20 and a standard deviation of 0.63. Furthermore, 69.49% (41 individuals) concurred, and 22.03% (13 individuals) strongly concurred that loan

diversification measures were consistent with the bank's risk management objectives, resulting in a mean of

4.10 and a standard deviation of 0.64.

The results revealed that 67.80% (40 respondents) concurred and 25.42% (15 respondents) strongly concurred that loan diversification across several industries mitigated risk concentration, yielding a mean of 4.17 and a standard deviation of 0.62. The findings corroborate the claims of Nyaga et al. (2020) and Akinlo (2021), who highlighted that loan diversification improves financial stability and reduces risks in banking organizations. A responder said, "Diversifying our loans has enhanced my confidence in the bank's future and its capacity to navigate economic downturns," illustrating the favorable mood toward loan diversification at NCBA Rwanda.

4.3.4 Financial Performance of Commercial Banks

The financial performance of commercial banks was assessed through key indicators, including profitability, loan quality, and capital adequacy. These metrics provided insights into the overall financial health and stability of the banks during the study period.

Table 4.9: Financial Performance of Commercial Banks

Statements	SD	D	N	A	SA	TOTAL	
	%	%	%	%	%	Mean	Std
The bank's profitability is directly influenced by effective loan portfolio management.	-	1 (1.69)	1 (1.69)	22 (37.29)	35 (59.32)	4.55	0.63
High loan quality is maintained through robust credit risk management practices.	-	1 (1.69)	2 (3.39)	20 (33.90)	36 (61.02)	4.53	0.61
Capital adequacy is ensured by maintaining a balanced and diversified loan portfolio.	-	2 (3.39)	3 (5.08)	25 (42.37)	29 (49.15)	4.38	0.65
Effective loan management practices have contributed to the bank's financial sustainability.	-	2 (3.39)	2 (3.39)	23 (38.98)	32 (54.24)	4.44	0.64
The bank's financial performance metrics have improved due to proactive loan management.	-	1 (1.69)	1 (1.69)	21 (35.59)	36 (61.02)	4.55	0.63

Source: Primary Data (2024)

The analysis of NCBA Rwanda's financial performance, as presented in Table 4.9, demonstrated that proficient loan portfolio management substantially impacts the bank's profitability, with 35 respondents (59.32%) strongly concurring and 22 (37.29%) concurring, resulting in a mean of 4.55 and a standard deviation of 0.63. This indicates a strong agreement about the positive relationship between effective loan management and financial performance, corroborating Mwangi's (2022) claim that well-managed loan portfolios improve bank profitability in developing countries. The data indicated that excellent loan quality is maintained by effective credit risk management techniques, with 36 respondents (61.02%) strongly agreeing and 20 (33.90%) agreeing, resulting in a mean of 4.53 and a standard deviation of 0.61. This indicates a strong conviction in the need of competent credit risk management for preserving loan quality, consistent with Ndung'u's (2021) assertion that risk management is essential for enhancing financial results for banks. The survey revealed that capital sufficiency is achieved via a balanced and diversified loan portfolio, with a mean of 4.38 and a standard deviation of 0.65, corroborated by 29 respondents (49.15%) who strongly agreed.

Participants indicated confidence that proficient loan management techniques enhanced the bank's financial sustainability, with 32 respondents (54.24%) strongly agreeing, yielding a mean of 4.44 and a standard deviation of 0.64. One responder said, "The proactive approach to loan management has markedly enhanced our financial performance," highlighting the favorable feeling among personnel over the bank's strategic direction. The results demonstrated that respondents had a thorough awareness of the essential role of good loan portfolio management in improving financial performance, aligning with current academic discourse on banking practices in Africa.

4.3.5 Thematic Analysis of the Interview Guide

Integrating the findings from the interview responses with key informants provides valuable insights into the variables studied regarding loan portfolio management and financial performance at NCBA Rwanda. Below is a synthesized report incorporating direct quotations from the respondents to illustrate their perspectives on the critical aspects of the study.

The effectiveness of credit scoring systems is a vital aspect of managing loan defaults. As Respondent One stated, “The credit scoring systems at NCBA Rwanda are quite effective. They leverage data analytics to assess creditworthiness, which helps in identifying potential defaults early.” This proactive approach has been acknowledged by multiple respondents, highlighting its role in reducing overall loan default rates.

Regarding collateral requirements, Respondent Two emphasized, “Collateral requirements play a crucial role in managing credit risk. They provide a safety net that mitigates potential losses in case of defaults.” However, the respondent also cautioned that “stringent collateral demands can limit access to credit for some borrowers, potentially affecting our loan volume.” This dual perspective illustrates the balancing act between risk management and customer accessibility.

The challenges in monitoring the loan portfolio were underscored by Respondent Three, who mentioned, “One of the main challenges is the vastness of our loan portfolio, which makes continuous monitoring resource-intensive.” The need for up-to-date information on borrowers and market conditions adds another layer of complexity, as stated by the respondent: “Sometimes, this leads to delayed responses to emerging risks.”

The integration of automated monitoring systems has significantly transformed loan management efficiency. Respondent Four remarked, “Automated monitoring systems have greatly enhanced efficiency by providing real-time insights into our loan portfolio.” This capability enables quicker identification of issues and facilitates timely interventions, contributing to improved financial performance. The effectiveness of these systems is critical for maintaining oversight in an extensive loan portfolio.

Loan diversification is another variable impacting financial performance, as explained by Respondent Five: “Loan diversification has positively impacted our financial performance by spreading risk across various sectors and regions.” This strategy minimizes exposure to sector-specific downturns and stabilizes revenue streams, which is crucial for maintaining profitability.

In discussing the contribution of effective loan portfolio management to profitability, Respondent Six stated, “Effective loan portfolio management is fundamental to our profitability. By ensuring high-quality loans and

minimizing defaults, we not only secure our earnings but also enhance customer trust.” This statement highlights the interrelationship between management practices and financial outcomes.

Finally, the significance of maintaining high loan quality for financial stability was reiterated by Respondent Seven, who noted, “Maintaining high loan quality is essential for our financial stability. It directly reduces the risk of defaults and bad debts.” This consistent income stream allows for investments in growth opportunities, reinforcing the bank’s overall financial health.

The insights provided by the key informants underline the critical relationship between effective loan portfolio management practices and NCBA Rwanda’s financial performance. Their responses reflect a comprehensive understanding of the complexities involved in managing loans, emphasizing the importance of data-driven decision-making, risk management strategies, and proactive interventions in enhancing the bank's profitability and stability.

4.3.6 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	780.545	16	156.1093	480.734	.000
	Residual	138.335	43	.325		
	Total	918.880	59			

Source: Primary Data (2024)

The findings in Table 4.10 show a clear positive relationship between loan portfolio management and financial performance at NCBA Rwanda. As indicated by the ANOVA results, the regression sum of squares was 780.545, with a mean square of 156.1093 and an F-value of 480.734, which was significant at $p = .000$. These values suggest a high level of explanatory power of the regression model, indicating that 85% of the variations in financial performance can be attributed to loan portfolio management, consistent with findings by Muthoni (2021), who emphasized the importance of loan portfolio monitoring in enhancing banks' profitability in East

Africa. The residual sum of squares was 138.335, with a mean square of .325, further underscoring the model's accuracy. Additionally, the total sum of squares amounted to 918.880, signifying that loan portfolio management practices significantly contribute to NCBA's financial outcomes. These findings align with the study by Mbugua (2022), who argued that effective loan portfolio management in African financial institutions enhances profitability and minimizes risks. One of the respondents also supported this by stating, "Proper management of the loan portfolio has allowed us to achieve stability and increase profitability at NCBA." The overall significance of .000 further strengthens the evidence that loan portfolio management is a crucial factor in the financial performance of banks in Rwanda. The high F-value (> 100) confirms the model's robustness, suggesting that NCBA's financial performance greatly benefits from the loan portfolio practices. Therefore, NCBA's financial success is attributed to its efficient management of loan portfolios, which aligns with global best practices.

4.3.7 Multiple Regression Analysis

Table 4.3: Regression Analysis

Model		UC		SC	t	Sig.
		B	SE	Beta		
1	(Constant)	.432	.334	-	1.293	.197
	Credit Risk Management (X ₁)	.090	.045	.103	1.999	.047
	Loan Monitoring and Review (X ₂)	.709	.055	.624	12.928	.000
	Loan Diversification (X ₃)	.499	.089	.288	5.576	.000

a. Dependent Variable: Financial Performance of Commercial Banks

Source: Primary Data (2024)

The findings from Table 4.11 show a detailed regression analysis that assesses the impact of loan portfolio management variables on the financial performance of NCBA Rwanda. It was revealed that Credit Risk Management (X₁) had a positive and significant effect on financial performance, with a coefficient of $B = .090$, $SE = .045$, and $Beta = .103$, producing a t-value of 1.999 and a significance level of $p = .047$. This suggests that effective management of credit risk contributes positively to NCBA Rwanda's financial performance, as also supported by Musiime (2019), who emphasized the importance of credit risk mitigation strategies in enhancing financial outcomes. Furthermore, Loan Monitoring and Review (X₂) showed the strongest positive influence,

with a coefficient of $B = .709$, $SE = .055$, and $Beta = .624$, yielding a t-value of 12.928 and a highly significant p-value of .000. This indicates that continuous loan monitoring and regular reviews substantially boost the financial performance of commercial banks, aligning with the findings of Otieno (2020), who concluded that rigorous monitoring systems are critical in preventing loan defaults and improving bank stability. Loan Diversification (X3) was also found to be a significant predictor, with $B = .499$, $SE = .089$, and $Beta = .288$, generating a t-value of 5.576 and $p = .000$. This implies that diversifying loan portfolios positively influences financial performance, reducing risk exposure. One of the respondents expressed that "Loan monitoring has transformed how we handle risks, and we are now more confident in our financial growth." The overall findings underline the importance of loan portfolio management practices in enhancing financial performance.



4.3.8 Correlation Coefficients

Table 4.4: Correlation Matrix Results

		Credit Risk Management	Loan Monitoring and Review	Loan Diversification	Financial Performance
Credit Risk Management	Pearson Correlation	.850**			
	Sig. (2-tailed)	.000			
	N	59			
Loan Monitoring and Review	Pearson Correlation	.844**	1		
	Sig. (2-tailed)	.000			
	N	59	59		
Loan Diversification	Pearson Correlation	.861**	.857**	1	
	Sig. (2-tailed)	.000	.000		
	N	59	59	59	
Financial Performance	Pearson Correlation	.850**	.844**	.861**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	59	59	59	59

Source: Primary Data (2024)

In Table 4.12, the findings indicate a strong and positive relationship between various aspects of loan portfolio management and the financial performance of NCBA Rwanda. The correlation matrix shows that credit risk management had a Pearson correlation coefficient of 0.850**, with a significance level of $p = 0.000$ and an N value of 59, indicating that there was a significant and strong positive correlation between credit risk management and financial performance. Similarly, loan monitoring and review revealed a Pearson correlation of 0.844**, also with a significance of $p = 0.000$ and an N value of 59, highlighting that monitoring loans and conducting reviews were crucial in improving financial outcomes. Loan diversification had the highest correlation with financial performance, showing a Pearson coefficient of 0.861**, $p = 0.000$, and $N = 59$. This emphasizes the importance of diversifying loan portfolios in optimizing financial performance, aligning with

scholars like Musona and Chidumo (2022), who also stressed the significance of loan portfolio diversification in African banking systems.

The findings suggest that each aspect of loan portfolio management—credit risk management, loan monitoring, and diversification—positively contributed to the bank's financial success. One respondent commented, "Effective monitoring and diversified loan portfolios give us the security to grow financially while mitigating risks," reinforcing the results. The fact that all these correlations were significant ($p < 0.01$) further suggests that improving these aspects of loan management likely enhanced financial performance. As pointed out by Nkurunziza (2021), effective risk management and diversification strategies are pillars of sustainable financial growth in African banks. Hence, these findings align with the existing literature and highlight the importance of robust loan portfolio management.

5.0 Introduction

This chapter analyzes the findings from the previous section, synthesizing key results, drawing comprehensive conclusions, providing research-driven recommendations, and suggesting areas for future study. The objective is to summarize the research outcomes, critically assess them, and explore their broader academic significance.

5.1 Summary of Findings

The findings indicated a strong and positive relationship between loan portfolio management and financial performance at NCBA Rwanda, where effective practices significantly contributed to improving financial stability and profitability. Credit risk management played a crucial role in maintaining loan quality, with measures like credit scoring systems and collateral requirements proving effective in reducing defaults. Loan monitoring, through regular audits and follow-ups, helped to lower non-performing loans, while automated systems enhanced efficiency. Loan diversification further mitigated risks and stabilized revenue by spreading exposure across different sectors and regions. These practices not only supported the bank's risk management goals but also ensured sustainable financial growth. The results align with the broader theory of risk diversification and proactive portfolio management, demonstrating that well-structured credit policies and regular loan monitoring can significantly boost financial performance. In practice, this reflects the necessity of

robust credit frameworks and consistent updates to ensure responsiveness to market conditions and maintain a competitive edge in the banking sector.

5.1.1 Credit Risk Management and Financial Performance

The summary of findings revealed a strong relationship between credit risk management practices and the financial performance of NCBA Rwanda. It was evident that the bank's credit scoring systems effectively predicted loan defaults, contributing to overall stability. The collateral requirements were recognized as crucial in protecting the bank's assets, ensuring reduced exposure to loan losses. Additionally, the credit approval process was seen as vital in maintaining financial stability, emphasizing its importance in minimizing risks. The study also highlighted that well-structured credit risk management policies significantly helped in reducing loan losses. Furthermore, the regular updates to the credit risk management framework ensured the bank remained responsive to market changes, improving its operational efficiency. These findings suggest that the bank's proactive approach to credit risk management played a critical role in enhancing financial performance, validating the importance of continuous improvement and strategic policy implementation in the banking sector.

5.1.2 Loan Monitoring and Review and Financial Performance

The findings from this section highlighted the significant impact of loan monitoring and review practices on the financial performance of NCBA Rwanda. Regular financial audits were found to play a critical role in improving the accuracy of loan performance data, while client follow-ups were highly effective in reducing non-performing loans. Automated monitoring systems also contributed to increased efficiency in managing the loan portfolio, making loan monitoring more effective in identifying potential defaults early. Additionally, periodic loan reviews significantly enhanced the overall quality of the loan portfolio. These practices collectively strengthened the financial performance of the institution by ensuring proactive management of loans and reducing default risks. The applicability of these practices in the field demonstrated that consistent monitoring and review processes are essential in fostering healthier financial outcomes. These findings emphasize the relevance of loan management theory, which posits that thorough supervision and follow-up mechanisms lead to improved credit performance, thus reflecting real-world effectiveness in maintaining a stable and profitable loan portfolio.

5.1.3 Loan Diversification and Financial Performance

The summary of findings from this section revealed that loan diversification significantly enhanced the financial performance of NCBA Rwanda. Sectoral diversification played a crucial role in mitigating financial risks, while geographical diversification increased the bank's overall stability. Product diversification in the loan portfolio further boosted financial performance, highlighting its importance in risk management. Additionally, aligning loan diversification strategies with the bank's risk management goals ensured a more balanced risk approach, reducing the concentration of risk across various sectors. These findings suggest that effective loan portfolio diversification not only strengthens financial performance but also supports the bank's ability to maintain stability in the face of economic challenges. The results affirm the practical relevance of diversification strategies in banking, reflecting a real-world approach to minimizing risk while maximizing financial outcomes.

5.2 Conclusions

The findings of this study are highly applicable to the banking sector, particularly in enhancing financial performance through effective loan portfolio management. The theory of risk diversification, which posits that spreading risks across various sectors, regions, and products helps mitigate potential losses, is most relevant here. By implementing well-structured credit risk management systems, NCBA Rwanda reduced loan defaults and maintained high loan quality, validating the theory in a practical field setting. On the ground, the study's results suggest that banks must continuously update their credit policies and monitoring frameworks to respond effectively to dynamic market conditions. Automated monitoring systems, regular audits, and follow-ups were critical in minimizing non-performing loans, offering a practical solution to ongoing challenges in loan supervision. Loan diversification, especially sectoral and geographical, proved essential in stabilizing revenue streams and ensuring the bank's financial resilience. The correlation analysis further validated the strong positive association between these loan management strategies and financial performance, with credit risk management (0.850**), loan monitoring (0.844**), and loan diversification (0.861**) all showing high correlation values. These insights emphasize the importance of proactive risk management, a diversified loan portfolio, and robust monitoring systems to achieve sustainable growth and competitiveness in the banking industry. Thus, the findings apply directly to improving banking operations, financial decision-making, and risk

management practices, demonstrating that well-implemented loan portfolio management practices are crucial for maintaining financial sustainability.

5.3 Recommendations

Based on the study's findings, it is recommended that NCBA Rwanda and other financial institutions enhance their loan portfolio management by prioritizing risk diversification across sectors, regions, and products to mitigate losses effectively. Banks should continually update their credit risk management policies, incorporating automated monitoring systems and regular audits to minimize non-performing loans and ensure real-time oversight. Emphasizing the importance of a robust credit approval process and collateral requirements further stabilized loan quality and reduce defaults. Additionally, expanding loan diversification strategies—both geographically and across different sectors—strengthened revenue stability and reduce risk concentration. By aligning with the theory of risk diversification, banks can improve financial performance and competitiveness, ensuring long-term financial sustainability in a constantly evolving market environment. These strategies helped banks proactively manage risks and adapt to market conditions, ensuring better decision-making and enhanced operational efficiency.

5.4 Suggestions for Further Study

For future research, it is suggested to explore the long-term impact of automated loan monitoring systems on financial performance, particularly focusing on their adaptability to evolving market dynamics and technology advancements. Additionally, studies could investigate the effectiveness of risk diversification strategies across different financial sectors, including microfinance institutions and fintech companies, to assess their applicability beyond traditional banking. Further research could also analyze the interplay between loan portfolio management and external factors such as economic fluctuations or regulatory changes, which could influence financial stability and risk management outcomes. Given the relevance of the theory of risk diversification, it would be beneficial to examine its application in different economic environments and regions to determine the most effective diversification strategies for mitigating risks in various financial markets.

- Ahmed, M., & Ali, R. (2019). The impact of loan diversification on financial performance: Evidence from South Asian banks. *Journal of Banking & Finance*, 45(2), 101-114.
- Akhtar, S., Ali, A., & Khan, M. (2020). The effect of loan monitoring on credit access and financial performance: Evidence from SMEs. *International Journal of Financial Studies*, 8(1), 55-72.
- Altman, E. I. (2018). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *The Journal of Finance*, 23(4), 589-609.
- Arellano, M., & Debrun, X. (2018). Loan monitoring and financial performance indicators. *Economic Modelling*, 22(3), 491-510.
- Athanasoglou, P. P., Brissimis, S. N., & Delis, M. D. (2018). Bank-specific, industry-specific and macroeconomic determinants of bank profitability. *Journal of International Financial Markets, Institutions and Money*, 18(2), 121-136.
- Athanasoglou, P. P., Brissimis, S. N., & Delis, M. D. (2018). Bank-specific, industry-specific, and macroeconomic determinants of bank profitability. *International Financial Markets, Institutions and Money*, 18(2), 121-136.
- Babalola, Y. A. (2022). Determinants of banks' profitability in Nigeria. *Journal of Finance and Bank Management*, 4(2), 56-71.
- Bank of Japan. (2022). Non-performing loans. Retrieved from <https://www.boj.or.jp/en/statistics/index.htm>
- Bank of Tanzania. (2022). Annual report 2022. Retrieved from <https://www.bot.go.tz/Publications>
- Bank of Uganda. (2023). Annual report 2023. Retrieved from https://www.bou.or.ug/bou/bou-downloads/publications/Annual_Reports/
- Basel Committee on Banking Supervision. (2024). International convergence of capital measurement and capital standards: A revised framework. *Bank for International Settlements*.
- Beck, T., Demirgüç-Kunt, A., & Levine, R. (2016). Bank concentration, competition, and crises: First results. *Journal of Banking & Finance*, 30(5), 1581-1603.
- Berger, A. N., & DeYoung, R. (2017). Problem loans and cost efficiency in commercial banks. *Journal of Banking & Finance*, 21(6), 849-870.

- Berger, A. N., & Ofek, E. (2018). Diversification's effect on firm value. *Journal of Financial Economics*, 37(1), 39-65.
- Berger, A. N., & Udell, G. F. (2020). Collateral, loan quality and bank risk. *Journal of Monetary Economics*, 25(1), 21-42.
- Berger, A. N., & Udell, G. F. (2018). Relationship lending and lines of credit in small firm finance. *Journal of Business*, 68(3), 351-381.
- Bikker, J. A., & Hu, H. (2022). Cyclical patterns in profits, provisioning and lending of banks. *International Finance*, 5(1), 207-227.
- Boujelbene, Y. (2024). Credit risk management and financial performance of commercial banks in Lebanon. *Journal of Financial Regulation and Compliance*, 22(4), 367-378.
- Bourke, P. (1989). Concentration and other determinants of bank profitability in Europe, North America and Australia. *Journal of Banking & Finance*, 13(1), 65-79.
- Brewer, E., Genay, H., & Jackson, W. E. (2016). Geographic diversification and the risk and return of bank holding companies. *Journal of Money, Credit and Banking*, 28(4), 485-497.
- Brown, A., & Adams, R. (2020). Loan monitoring and financial performance of African banks. *African Journal of Finance*, 12(3), 199-215.
- Brown, R., & Moles, P. (2022). Credit risk management. *Edinburgh Business School*.
- Central Bank of Kenya. (2023). Annual report 2023. Retrieved from <https://www.centralbank.go.ke/reports/annual-reports/>
- Central Bank of Nigeria. (2022). Annual report 2022. Retrieved from <https://www.cbn.gov.ng/documents/annualreports.asp>
- Chijoriga, M. (2018). The impact of credit risk management on financial performance of commercial banks in Tanzania. *Journal of Economics and Business*, 10(2), 45-59.
- China Banking Regulatory Commission. (2023). Quarterly performance report of the banking sector. Retrieved from <https://www.cbrc.gov.cn/en/view/pages/index.html>
- Demirgüç-Kunt, A., & Huizinga, H. (2019). Determinants of commercial bank interest margins and profitability: Some international evidence. *The World Bank Economic Review*, 13(2), 379-408.

- Demirgüç-Kunt, A., & Huizinga, H. (2019). Determinants of commercial bank interest margins and profitability: Some international evidence. *World Bank Economic Review*, 13(2), 379-408.
- Demirguc-Kunt, A., & Huizinga, H. (2020). Financial structure and bank profitability. *World Bank Policy Research Working Paper*, No. 2430.
- Deng, S., Elyasiani, E., & Mao, C. X. (2017). Diversification and the cost of debt of bank holding companies. *Journal of Banking & Finance*, 31(8), 2453-2473.
- Fatoki, O., & Asah, F. (2021). The impact of firm and entrepreneurial characteristics on access to debt finance by SMEs in King Williams' Town, South Africa. *International Journal of Business and Management*, 6(8), 170.
- Ge, W., & McVay, S. (2018). The disclosure of material weaknesses in internal control after the Sarbanes-Oxley Act. *Accounting Horizons*, 19(3), 137-158.
- Goddard, J., Molyneux, P., & Wilson, J. O. S. (2024). Dynamics of growth and profitability in banking. *Journal of Money, Credit and Banking*, 36(6), 1069-1090.
- Habimana, A., & Uwizeyimana, D. (2021). Loan monitoring and financial performance: Evidence from Rwandan banks. *International Journal of Finance and Banking Studies*, 7(2), 120-135.
- Habyarimana, F. (2020). Loan quality and financial performance of commercial banks in Rwanda. *Rwandan Journal of Economics*, 4(1), 29-45.
- Heffernan, S. (2018). Modern banking. *John Wiley & Sons*.
- Islam, R., & Ahmed, M. (2019). Loan appraisal practices, default risk, and financial performance in Bangladesh. *Journal of Risk and Financial Management*, 12(4), 55-71.
- Jiménez, G., & Saurina, J. (2024). Collateral, type of lender and relationship banking as determinants of credit risk. *Journal of Banking & Finance*, 28(9), 2191-2212.
- Jones, R. A., & Brown, S. (2018). Loan diversification and financial performance: Evidence from African banks. *African Review of Economics and Finance*, 10(2), 105-120.
- Kargi, H. S. (2021). Credit risk and the performance of Nigerian banks. *Ahmadu Bello University Zaria*.
- Kharchenko, N. (2018). Credit risk management and financial performance of banks in Ukraine. *Ukrainian Journal of Business Studies*, 14(3), 122-135.

- Kumar, A., & Singh, N. (2018). The role of loan diversification in enhancing financial performance: Evidence from Indian banks. *Global Journal of Finance and Banking Issues*, 8(1), 75-92.
- Laeven, L., & Levine, R. (2017). Is there a diversification discount in financial conglomerates? *Journal of Financial Economics*, 85(2), 331-367.
- Lee, H., & Zhang, J. (2022). Loan diversification and financial performance: Evidence from East African banks. *East African Journal of Business and Economics*, 6(1), 88-105.
- Mukarugwiza, J. (2020). Loan portfolio management and financial performance of commercial banks in Rwanda. *International Journal of Financial Studies*, 8(1), 12-25.
- Mukarutabana, C. (2019). Capital adequacy and financial performance of commercial banks in Rwanda. *Journal of Finance and Accounting*, 7(2), 34-42.
- National Bank of Rwanda. (2023). Annual report 2023. Retrieved from <https://www.bnr.rw/publications/annual-reports/>
- National Bank of Rwanda. (2023). Annual report 2023. Retrieved from <https://www.bnr.rw/publications/annual-reports/>
- Ndikubwimana, M. (2019). Non-performing loans and financial performance of commercial banks in Rwanda. *African Journal of Finance and Management*, 7(2), 121-134.
- Neely, M. C., & Wheelock, D. C. (2017). Why does bank performance vary across states? *Review of Economics and Statistics*, 79(4), 725-732.
- Ntim, C. G., & Soobaroyen, T. (2023). Black economic empowerment disclosures by South African listed corporations: The influence of ownership and board characteristics. *Journal of Business Ethics*, 116(1), 121-138.
- Ochieng, M., & Jagongo, A. (2017). Loan appraisal techniques and financial performance of commercial banks in Kenya. *Research Journal of Finance and Accounting*, 8(12), 21-29.
- Ochieng, M., & Jagongo, A. (2017). Loan appraisal techniques and financial performance of commercial banks in Kenya. *Research Journal of Finance and Accounting*, 8(12), 21-29.
- Ofoeda, I., Gariba, J., & Agyapong, D. (2016). Loan default rate and financial performance of commercial banks: Evidence from Ghana. *International Journal of Finance and Banking Studies*, 5(3), 25-34.

- Onyango, E. (2016). The effect of credit risk management on the financial performance of commercial banks in Kenya. *Journal of Finance and Banking Studies*, 4(1), 56-75.
- Onyango, E. (2016). The effect of credit risk management on the financial performance of commercial banks in Kenya. *Journal of Finance and Banking Studies*, 4(1), 56-75.
- PwC. (2023). Non-performing loans in Europe: An update. Retrieved from <https://www.pwc.com/gx/en/industries/financial-services/assets/pwc-non-performing-loans-europe-update-2023.pdf>
- Rajan, R. G. (1994). Why bank credit policies fluctuate: A theory and some evidence. *The Quarterly Journal of Economics*, 109(2), 399-441.
- Rajan, R., & Zingales, L. (2018). What do we know about capital structure? Some evidence from international data. *The Journal of Finance*, 50(5), 1421-1460.
- Saunders, A., & Cornett, M. M. (2024). *Financial institutions management: A risk management approach*. McGraw-Hill Education.
- Saunders, A., & Cornett, M. M. (2018). *Financial institutions management: A risk management approach*. McGraw-Hill Education.
- Shehzad, C. T., Haan, J., & Scholtens, B. (2023). The relationship between size, growth, and profitability of commercial banks. *Applied Economics*, 45(13), 1751-1765.
- Stiroh, K. J. (2024). Diversification in banking: Is noninterest income the answer? *Journal of Money, Credit and Banking*, 36(5), 853-882.
- World Bank. (2022). World Bank Annual Report 2022. Retrieved from <https://www.worldbank.org/en/about/annual-report>

To: NCBA Rwanda

Dear Respondent,

I am conducting a research study titled "Loan Portfolio Management and Financial Performance of Commercial Banks in Rwanda: A Case Study of NCBA Rwanda." The purpose of this study is to assess how various aspects of loan portfolio management impact the financial performance of NCBA Rwanda.

Your participation in this study is crucial, and I kindly request your assistance in answering the following interview questions. The information you provide will be kept confidential and used solely for academic purposes.

Thank you in advance for your time and cooperation.

Sincerely,

Jesca Mukabarisa

Part One: Socio-Demographic Characteristics of Respondent

Instructions

For multiple-choice questions, please tick (✓) on the most suitable alternatives of your choice.

A. Profile of Respondent

1. **Gender:**

- a) Male
- b) Female

2. **Age:**

- a) 20-30 years
- b) 31-40 years
- c) 41-50 years
- d) 51 years and above

3. **Department:**

- a) Credit Risk Management
- b) Loan Monitoring and Review
- c) Loan Diversification
- d) Financial Performance Analysis
- e) Senior Management

4. **Years of Experience in Loan Portfolio Management:**

- a) 1-3 years
- b) 4-6 years
- c) 7-9 years
- d) 10 years and above

5. **Highest Level of Education:**

- a) Bachelor's Degree
- b) Master's Degree
- c) PhD
- d) Professional Certification



Part Two: Objectives of the Study**Instructions**

In the tables below, respondents can rate each statement on a scale of 1 to 5, where:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Objective 1: Credit Risk Management and Financial Performance

Statement	SD	D	N	A	SA
1. The credit scoring systems in our bank effectively predict loan defaults.	[]	[]	[]	[]	[]
2. Collateral requirements are crucial in safeguarding the bank's assets.	[]	[]	[]	[]	[]
3. Our credit approval process contributes to maintaining financial stability.	[]	[]	[]	[]	[]
4. Credit risk management policies are well-structured to minimize loan losses.	[]	[]	[]	[]	[]
5. The bank's credit risk management framework is regularly updated to reflect market changes.	[]	[]	[]	[]	[]

Objective 2: Loan Monitoring and Review and Financial Performance

Statement	SD	D	N	A	SA
6. Regular financial audits improve the accuracy of loan performance data.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Client follow-ups help in reducing non-performing loans.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Automated monitoring systems enhance the efficiency of loan portfolio management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Loan monitoring practices are effective in identifying potential defaults early.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Periodic loan reviews contribute to the overall quality of the loan portfolio.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Objective 3: Loan Diversification and Financial Performance

Statement	SD	D	N	A	SA
11. Sectoral diversification of loans helps in mitigating financial risks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Geographical diversification of loans increases the bank's financial stability.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Product diversification in the loan portfolio boosts overall financial performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Loan diversification strategies are aligned with the bank's risk management goals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Diversification of loans into different sectors has reduced the concentration of risk.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Objective 4: Financial Performance

Statement	SD	D	N	A	SA
16. The bank's profitability is directly influenced by effective loan portfolio management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. High loan quality is maintained through robust credit risk management practices.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Capital adequacy is ensured by maintaining a balanced and diversified loan portfolio.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Effective loan management practices have contributed to the bank's financial sustainability.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. The bank's financial performance metrics have improved due to proactive loan management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1. How do you perceive the effectiveness of NCBA Rwanda's credit scoring systems in minimizing loan defaults?
2. In your opinion, how do collateral requirements impact the bank's ability to manage credit risk?
3. What are the most significant challenges you encounter in the regular monitoring and review of the bank's loan portfolio?
4. How have automated monitoring systems influenced the efficiency of loan management at NCBA Rwanda?
5. Can you describe how loan diversification (sectoral, geographical, product) has affected NCBA Rwanda's financial performance?
6. To what extent do you believe that effective loan portfolio management contributes to the bank's profitability?
7. How does maintaining high loan quality influence the overall financial stability of NCBA Rwanda?

