FINANCIAL RISKS AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS LISTED IN NAIROBI SECURITIES EXCHANGE, KENYA

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A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF BUSINESS, ECONOMICS AND TOURISM IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE IN MASTERS OF BUSINESS ADMINISTRATION (FINANCE OPTION) OF KENYATTA UNIVERSITY

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DECLARATION

This project is my authentic invention and has not been submitted for an award at any other academic institution.

Sign: ……. **Date …….**

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I hereby affirm that the candidate completed this project work under my supervision.

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DEDICATION

This endeavour is dedicated to my husband, Hillary Agisa.

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I'm grateful to my supervisor, Dr. Charity Njoka, for her faith in me. Her advice is valuable. My fellow colleagues at Kenyatta University inspired me to work hard on this paper. Finally, my loved ones, especially my spouse, supported me financially while I pursued my MBA.

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OPERATIONAL DEFINITION OF TERMS

Credit Risk: Refers to the potential loss that a listed commercial bank may incur if customers default on their loan repayments or other credit obligations. This risk is measured using the Non-Performing Loan Ratio (NPLR).

Financial Performance: This refers to the evaluation of a bank's financial health and its ability to generate profits while managing its financial resources. In this study, Return on Equity (ROE) will be used to measure financial performance.

Financial Risk: Represents the potential adverse effects that uncertain financial outcomes, such as market fluctuations or poor financial management, could have on a listed bank’s operations and profitability. These risks will be assessed by examining relevant ratios such as NPLR, Loan-to-Deposit Ratio, and Cost-to-Income Ratio..

Liquidity Risk: This is the risk that a listed commercial bank may not be able to meet its short-term financial obligations due to insufficient liquid assets. Liquidity risk will be measured using the Loan-to-Deposit Ratio (LDR).

Operation risk: Refers to the risk of financial loss or disruption in a bank’s operations due to inadequate or failed internal processes, systems, human errors,

	or external events. In this study, Cost-to-Income Ratio (CIR) will be used to measure operational risk.
Foreign Exchange Rate Risk:	Refers to the risk that a bank may experience financial losses due to fluctuations in exchange rates between currencies. The risk will be measured through the bank's foreign exchange exposure and related financial statements.
Cost to income ratio	This is an efficiency ratio that compares the operating costs of a bank to its income. It is used to assess operational risk,with a higher ratio indicating that the bank is spending more to generate its income, which could signal inefficiency and operational risk.
Nairobi Securities Exchange:	An exchange based in Kenya where securities, options, and futures contracts may be traded by members for their own accounts and for the accounts of their customers
Listed commercial banks:	Commercial banks listed with the Nairobi Securities Exchange.

ABBREVIATIONS AND ACRONYMNS

APAC	Asia-Pacific
CAMELS:	Capital Adequacy, Assets Management Capability, Earnings, Liquid Sensitivity
CAPM:	Capital asset Pricing Model
CAR:	Capital Adequacy Ratio
CBK:	Central bank of Kenya.
CIR:	Cost-Income Ratio
CRB:	Credits Reference Bureau
FRM:	Financial Risk Management
FSNWG:	Food Security and Nutrition Working Group
GDP:	Gross Domestic product
H1:	First half of the year
KCB:	Kenya Commercial banks
KD:	Kuwaiti Dinar
LR:	Leverage Ratio
LTDR:	Loan to Deposit Ratio
MFIs:	Microfinance Institutes
MSME:	Micro, Small and Medium sized Enterprise
NACOSTI	National Commission for Science, Technology and Innovation
NIM:	Net Interest Margin
NLPR:	Non-Performing Loans Ratio

NPAs: Non-Performing Asset

NSE: Nairobi securities Exchange :

NPLR: Non-performing loans Ratio

NSFR: Net Stable Funding Ratio

PMI: Project Management Institute

NIST: National Institute of Science and Technology

ROA: Return on Asset

ROE: Return on Equity

SACCOs: Saving and Credits Cooperative Societies

ABSTRACT

Commercial banks serve an essential part in any economy by allocating resources from depositors to investors. In performance of this role the banking sector has experienced major transition because of the volatile environment it operates in leading to collapse of many banks. The performance of banks is influenced by several variables, including the diverse kinds of risks they are exposed to. Despite the implementation of comprehensive risk management systems by commercial banks, the banking sector nevertheless incurs financial losses. Commercial banks listed on the NSE are experiencing declining financial performance. The main objective of the study is to ascertain the effect of financial risk on the financial performance of commercial banks

listed on the Nairobi Securities Exchange in Kenya and will be measured by return on equity. Further the study seeks to examine the effects of credit, operational and liquidity risks on the financial performance of commercial banks listed on the NSE, Kenya. This study is based on Merton's Default Risk Model, Agency Theory, Shiftability Liquidity Model, and Risk Management Theory. Explanatory research design was used for study. A census was done on the 11 listed commercial banks with focus being from the year 2018 to 2023. The data collecting sheet was employed to amass the secondary data. The variables were analysed using IBM SPSS Version 25. Tests for multicollinearity, heteroscedasticity, normality, correlation, regression as well as the Hausman test were established. Data was diplayed in tables. From the findings, the study concluded that credit risk has a significant negative influence on financial performance of listed commercial banks. Operational risk has a significant positive influence while liquidity risk has significant positive influence on financial performance of listed commercial banks. To mitigate credit risk,continuous monitoring and evaluation of credit portfolios is recommended. This ensures timely identification and mitigation of potential risks. Banks should engage in scenario planning to anticipate and prepare for potential operational disruptions. This involves simulating various scenarios to test the resilience of operational systems and implementing measures to address identified weaknesses. Listed banks should diversify their funding sources to reduce reliance on short-term funding and promote the development of longer-term funding instruments in the financial markets. All ethical considerations were observed during the study.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Commercial banks offer a variety of fiscal products and facilities to the general public and even foreign countries, making them essential to the expansion and prosperity of any economy. When restrictions on borrowing are loosened, more people and businesses have a chance to succeed. There is a financial risk linked with these tasks for any financial organisation. These factors are essential to a bank's profitability, but they may also have extensive implications by negatively affecting the performance of commercial banks Adeusi et al., (2017). As stated by Verma (2022), economic risk emerges whenever returns move in a way that is hard to forecast. Financial risks include those related to credit, assets, liquidity, markets, currencies, and stock markets. The financial health of a corporation may suffer as a result of these risks that they are exposed to. One common reason for failure and underperformance in the financial industry is improper management of financial risk. If financial risks aren't mitigated, it might affect business profits, the economy, and people's standard of living. Profits and losses can be improved by risk management Verma (2022).

There is a lot of unpredictability and volatility in the financial market. Therefore, the economic outlook remains dismal. The banking sector is threatened by a variety of macro and micro factors. The banking industry faces serious risks to its survival and financial success due to the exposure of risks. Having to declare insolvency is a red flag for imminent money problems and any company constantly risk losing money as a result of complicated issues because of the

strong and ever-changing competition may find itself declaring insolvency. Organisational weakness and incompetence are mostly caused by a lack of speed and an inability to foresee financial risk, according to Mondongo, Muathe, and Mwangi (2020).

Based on the research by Ginoglou, Agorastos, and Hatzigagios (2020), financial risk develops as a result of the accumulation and amplification of financial activity. A company's finances might potentially come to an end as a result of this. The concept of financial risk regulates the dangers that businesses face, and its cyclical form is determined by a rule that is subject to management's whims. Financial risks must be identified in order to keep a firm competitive. According to Drimitropolous, Asteriou and Koumanakos (2017), the risks associated with funding, rates of interest, and international currency exchange rates are likely causes of fluctuating revenue of financial institutions.

Risk associated with credit is the probability that an individual will not pay back a loan, resulting in the lender suffering a loss. Lenders face the potential risk of experiencing disruptions in their cash flow, incurring losses in both principle and interest, and incurring additional expenses in the form of collection charges if they are need to initiate collection proceedings. According to Cecchetti and Schoenholtz (2017), "interest rate risk" is the possibility that a company's financial assets and liabilities may shift in the future. Also describes the degree of uncertainty around the returns on a convertible asset. Interest rate risk refers to the possibility that an investment's value may fall because of fluctuations in interest rates. This risk is especially prevalent in fixed-rate bonds (Mwende 2019).

Globally, financial risks have become an increasing concern in the wake of volatile markets, shifting interest rates, and global economic uncertainties. According to Verma (2022), financial

risks such as credit risk, market risk, and liquidity risk are prevalent across all markets. These risks stem from factors such as changes in interest rates, currency fluctuations, and economic instability, which are often difficult to predict. For instance, the 2008 global financial crisis highlighted the catastrophic consequences of mismanaged financial risk, where insufficient risk management led to widespread insolvencies and bankruptcies across the banking sector (Ginoglou, Agorastos, & Hatzigagios, 2020). The aftermath of the crisis reinforced the idea that financial institutions need robust risk management systems to remain competitive and resilient to market shocks (Drimitropolous, Asteriou, & Koumanakos, 2017). In addition, interest rate risks have been a significant global concern, with fluctuations in interest rates influencing both the value of financial assets and liabilities, as well as the overall economic health of countries (Cecchetti & Schoenholtz, 2017).

From a regional perspective, financial risks are also pronounced in emerging economies, particularly in sub-Saharan Africa, where financial markets are often more volatile due to limited financial infrastructure and higher susceptibility to external shocks. The East African region, including Kenya, is no exception. In recent years, countries in this region have faced economic instability due to both global and domestic factors, including fluctuations in global commodity prices, political uncertainties, and changes in international exchange rates. For example, studies have shown that exchange rate volatility in Kenya has been a significant source of financial risk for commercial banks, as currency fluctuations impact the value of foreign-denominated assets and liabilities (Mwende, 2019). This exposure to exchange rate risk is particularly concerning for banks that have significant international transactions, as the depreciation of the local currency could lead to major financial losses.

At the local level, Kenyan commercial banks are no stranger to the challenges posed by financial risks. With a rapidly growing economy and an expanding banking sector, the Kenyan financial system has seen its fair share of volatility, especially in recent years. The liberalization of the banking sector and increased access to credit have led to rising levels of non-performing loans (NPLs), which in turn heighten credit risk (Njeru, 2021). Credit risk, in particular, is a pressing concern for Kenyan banks, as the default rate on loans has been increasing, largely due to economic factors such as inflation, unemployment, and sluggish economic growth (Mwangi, 2020). Moreover, the regulatory environment in Kenya has been evolving to address these concerns. The Central Bank of Kenya (CBK) has implemented measures such as the banking sector's interest rate cap in 2016, aimed at controlling lending rates and ensuring that loans are more accessible to consumers, but these interventions have had mixed outcomes (Munyiri, 2021). On the other hand, liquidity risk remains a concern for banks operating in Kenya, especially in light of the high competition for deposits and the growing need for more liquid assets to meet withdrawal demands (Murathe, 2022).

The link between financial risks and the financial performance of banks is undeniably strong. Financial risks such as credit, liquidity, and operational risks can significantly affect a bank's profitability, solvency, and overall financial health. The poor management of these risks can lead to a decline in the bank's return on equity (ROE), a key indicator of financial performance (Adeusi et al., 2017). A bank’s ability to maintain a positive ROE is often directly tied to its ability to mitigate these risks effectively. For instance, high levels of non-performing loans (NPLs) can erode the bank’s capital base, reducing its profitability and diminishing investor confidence (Verma, 2022). Additionally, liquidity challenges can lead to cash flow problems,

forcing banks to borrow at higher rates or, in extreme cases, face insolvency, further damaging their financial performance (Mwende, 2019). Operational risks, such as technological failures or human errors, also play a role in weakening a bank's financial position by increasing operational costs or triggering reputational damage (Mondongo, Muathe, & Mwangi, 2020).

Therefore, the need for effective risk management strategies in the banking sector cannot be overstated. The ability of commercial banks in Kenya to navigate these risks and protect their financial performance is critical not only for their survival but also for the broader economy. Given the increasing complexity of financial markets and the multitude of risk factors, banks must adopt comprehensive risk management frameworks that incorporate both global best practices and local market dynamics to ensure long-term sustainability and profitability.

1.1.1 Financial Risk and Its Impact on Commercial Bank Performance

Financial risk in banks refers to the potential loss arising from uncertainties in financial markets, economic fluctuations, and operational inefficiencies. These risks include credit risk, liquidity risk, interest rate risk, and foreign exchange risk, among others. Banks operate in an uncertain environment, making them vulnerable to different forms of financial risks that can directly affect their profitability, liquidity, and stability (Juma & Atheru, 2018).

The importance of financial risk management cannot be overstated, as effective strategies enhance financial stability, protect shareholders' wealth, and ensure a bank's long-term sustainability. Achou and Tenguh (2008) found a strong correlation between risk management and bank performance, showing that improved risk mitigation enhances financial health.

To assess a bank's financial performance, common indicators such as Return on Assets (ROA) and Return on Equity (ROE) are used. These metrics provide insights into the bank's efficiency in utilizing assets and generating returns for shareholders (Kutlu, Mamatzakis & Tsionas, 2022). Therefore, risk management plays a crucial role in determining financial outcomes.

1.1.1.1 Selected Independent Variables and Justification

This study focuses on three key financial risks: interest rate risk, credit risk, and foreign exchange risk. These risks significantly influence the profitability and stability of commercial banks. Interest rate risk directly affects the net interest margin, influencing profitability (Drechsler et al., 2021). Fluctuations in interest rates can erode asset values, making it a critical variable. Non-performing loans (NPLs) contribute to credit risk, affecting overall earnings and capital adequacy (Isanzu, 2017). Banks with higher NPLs tend to experience declining performance.When it comes to foreign exchange risk, variations in currency values impact financial stability and cross-border transactions (Mabati & Onserio, 2020). This risk is crucial in economies with significant foreign trade exposure.

1.1.1.2 Interest Rate Risk

Interest rate risk arises from fluctuations in interest rates, impacting a bank's interest income, borrowing costs, and overall financial stability. According to Drechsler et al. (2021), this risk is measured using the Net Interest Margin (NIM), which captures the difference between interest income earned and interest expenses incurred. The key constructs are the Net Interest Margin (NIM) and Asset-Liability Mismatch. A higher NIM indicates profitability, while a declining

margin signals exposure to interest rate fluctuations. Changes in interest rates can lead to misalignment in asset and liability maturities, increasing risk exposure. Globally, interest rate volatility has increased due to economic uncertainties. In Kenya, commercial banks have witnessed fluctuating NIMs due to regulatory changes and shifts in monetary policies.

1.1.1.3 Credit Risk

Credit risk refers to the likelihood of borrowers failing to meet debt obligations, leading to financial losses for banks. This risk is primarily measured using the Non-Performing Loan Ratio (NPLR) and Loan Loss Provision Ratio (LLPR) (Isanzu, 2017). Higher NPLs indicate weak credit quality, reducing profitability. The Non-Performing Loan Ratio (NPLR) measures the percentage of defaulted loans against total loans. Loan Loss Provisions are funds set aside to cover potential loan defaults. The Kenyan banking sector has seen rising NPL ratios, increasing from 9.4% in 2016 to over 12.6% in 2019 (Kenya Bankers Association, 2020). This trend underscores the importance of strong credit risk management.

1.1.1.4 Foreign Exchange Risk

Foreign exchange risk arises from fluctuations in currency values, affecting a bank's earnings and capital base. It is quantified by Translation Exposure, which measures the impact of exchange rate changes on financial statements (Mabati & Onserio, 2020). Kenyan banks, particularly those operating regionally, have experienced increased exposure due to volatile exchange rates. Effective hedging strategies are necessary to cushion against these uncertainties.

Financial risks significantly influence the performance of commercial banks. Interest rate risk affects interest income and profitability, credit risk influences asset quality and earnings, and foreign exchange risk impacts financial stability. By analyzing these variables, banks can implement robust risk mitigation strategies to enhance financial performance and sustainability.

1.1.2 Financial Performance

Financial performance is a crucial indicator of a bank's overall health, revealing how effectively it generates profits and manages its resources. It refers to a bank's ability to generate earnings relative to its revenue, assets, equity, and other financial metrics over a specific period. Financial performance helps stakeholders, including shareholders, regulators, and management, assess the bank's profitability, risk management, operational efficiency, and sustainability. According to Petrus (2020), financial performance is one of the most important determinants of a company’s long-term viability and growth. It reflects not only the outcomes of business activities but also the effectiveness of risk management strategies, especially in the face of financial risks such as credit, liquidity, and operational risk.

The banking industry plays a critical role in fostering economic development by facilitating the transfer of resources across sectors and regions. According to Ongore and Ausa (2017), commercial banks function as intermediaries between surplus units (depositors) and deficit units (borrowers), channeling funds to where they are needed most. The performance of these financial intermediaries, therefore, directly impacts the economy's efficiency in capital allocation and wealth generation. However, financial performance cannot be fully isolated from

the risks that banks face. As Doermans (2018) points out, there is an inherent balance between profitability and risk; while risk-taking can lead to higher returns, it also exposes banks to the possibility of losses, making financial management a delicate balancing act.

Financial performance is paramount in evaluating a bank's stability and success, particularly in relation to its ability to mitigate financial risks and maintain profitability. The importance of robust financial performance can be seen in its influence on investor confidence, stock prices, and overall market position. For investors, a bank's financial performance provides insight into its capacity to generate returns and the sustainability of its dividends, which can enhance shareholder wealth (Barry et al., 2021). Additionally, regulators use financial performance indicators to assess the soundness of financial institutions and ensure they meet the required capital adequacy standards (Mwende, 2019).

As noted by Simamora and Oswari (2019), financial performance also determines the efficiency with which a bank utilizes its resources to generate profits. Efficient management of assets, liabilities, and capital is critical in ensuring that a bank remains solvent and can meet its obligations. In this light, performance metrics such as Return on Assets (ROA), Return on Equity (ROE), and Return on Net Worth (RONW) are commonly used to gauge the effectiveness of a bank’s financial operations.

The most widely used measures of financial performance in the banking sector include Return on Assets (ROA), Return on Equity (ROE), Return on Net Worth (RONW), and Non-Performing Loan (NPL) ratios.

In this study, ROE has been selected as the key measure of financial performance. ROE is widely regarded as one of the most comprehensive indicators of a bank’s profitability, as it

reflects the ability of the bank to generate returns for its shareholders. According to Barry et al. (2021), ROE is an effective gauge of a bank's financial health, as it accounts for both its asset utilization and the capital invested by shareholders. Furthermore, as financial institutions are highly capital-intensive, the management of equity capital is crucial for sustaining profitability and meeting regulatory capital requirements (Shilling & Celner, 2021).

The trends in financial performance among listed banks, both globally and locally, offer valuable insights into the challenges faced by financial institutions. Globally, the COVID-19 pandemic severely disrupted financial markets, leading to reduced profits and lower ROE for banks worldwide. In the United States, provisions for loan losses increased significantly as banks braced for potential defaults, with the top hundred U.S. banks setting aside $318 billion to cover potential net loan losses (Shilling & Celner, 2021). Similarly, in Europe and Asia-Pacific, banks also experienced a decline in ROE, with average ROE falling to 6.8% by 2020 (Shilling & Celner, 2021).

Regionally, South Africa's banking sector, despite its relative sophistication, has faced challenges in recent years due to rising non-performing loans, capital adequacy issues, and fluctuating economic conditions. According to Babatunde et al. (2019), the performance of small banks in South Africa is more sensitive to these factors compared to larger banks, which have greater resilience due to their diversified portfolios and stronger capital bases. In Kenya, the banking sector has also struggled with the increasing burden of non-performing loans (NPLs), which has significantly affected financial performance. The percentage of NPLs in Kenyan banks rose from 9.4% in 2016 to 12.6% in 2019, a trend that has continued into the 2020s (Kenya Bankers Association, 2020). This increase in NPLs has contributed to a decline in

profitability, with many banks experiencing a drop in ROE, as they grapple with high loan defaults and reduced asset quality.

In Kenya, financial performance is directly linked to the effective management of credit risk, which is increasingly a challenge due to the rising levels of non-performing loans. As noted by the Kenya Bankers Association (2020), the steady increase in NPLs has slowed the pace of asset growth in the sector, reducing the overall profitability of banks. The rising levels of bad loans reflect broader economic conditions, including inflation, political uncertainty, and changing interest rates, which have made it more difficult for borrowers to meet their financial obligations. This trend has resulted in a decline in ROE for many commercial banks in Kenya, further highlighting the importance of efficient risk management to maintain financial performance.

In conclusion, financial performance is a critical indicator of a bank's stability and long-term viability. However, the growing risks faced by banks—such as credit, liquidity, and operational risks—pose significant challenges to their profitability. In Kenya, as well as globally, the ability to manage these risks effectively is essential for sustaining financial health and maximizing shareholder wealth. As the banking sector continues to evolve in response to changing economic conditions and market dynamics, ongoing improvements in risk management practices will be key to enhancing the financial performance of listed banks. Table 1.1 shows how bank profits have decreased over time.

Table 1. 1: Trend of ROE on Listed Commercial Banks

Year	2015	2016	2017	2018	2019

Profitability (ROE)	25.2 %	24.5%	21.7%	19.5%	17.5%

Source: Cytonn (2020)

Return on equity for banks was 25% in 2015 and 25% in 2016, respectively. In 2019, banks saw a return on investment of 21.7%; in 2020, 19.5%; and in 2021, 17.5% (Cytonn,2020).

1.1.3 Listed Commercial Banks in Kenya

As of 2018, forty-one commercial banks were regulated by the Central Bank of Kenya (CBK). However, not all of these banks were publicly listed. The listed commercial banks in Kenya are also subject to oversight by the Capital Markets Authority (CMA) in addition to the CBK. All listed commercial banks must comply with the Banking Act (Cap. 488), the Central Bank of Kenya Act (Cap. 491), and regulations set by the CMA. These banks are required to submit annual audited reports detailing their financial performance, risk management strategies, and compliance with prudential guidelines. The regulatory framework aims to safeguard against liquidity stress and financial instability, which could impact economic growth.

By the end of 2019, the total net assets of all banks in Kenya amounted to Ksh. 4.8 trillion. Among the listed banks on the Nairobi Securities Exchange (NSE) are NCBA, Equity, National Bank of Kenya (NBK), Standard Chartered Bank, and Diamond Trust Bank (DTB) (CMA, 2019). The listing of banks on the NSE demonstrates investor confidence and adherence to regulatory requirements that ensure stability and transparency in the sector. Kenya's banking sector has faced challenges over the years, including the collapse of Chase Bank in 2015 and Dubai Bank in 2020 (Mwangi & Jagongo, 2021). Such events prompted the CBK to enhance oversight measures to protect investors and depositors.

Despite these challenges, the sector has shown resilience and growth. According to a 2023 KPMG report, the asset base of listed commercial banks increased by 15.21 percent, primarily driven by loan and advance growth, as well as mergers and acquisitions involving regional banks such as Equity Group and KCB Group. This growth in total assets contributed to a 25.04 percent rise in profit before tax. Digital transformation has also played a significant role in improving efficiency, as evidenced by a 5.63 percent drop in the cost-to-income ratio compared to the previous year. Overall, the improved profitability and operational efficiency of listed commercial banks reflect a stable and well-regulated financial environment that continues to attract investors and support economic development.

1.2 Statement of the Problem

The financial performance of commercial banks is a crucial determinant of economic stability and growth. Listed commercial banks in Kenya play a vital role in mobilizing savings, providing credit, and facilitating financial transactions. Their ability to generate sustainable returns for shareholders, manage risks effectively, and maintain strong asset quality is essential for both investors and the broader financial system. However, recent trends indicate that the financial performance of these banks has been deteriorating, raising concerns about their long-term stability and efficiency.

According to the Central Bank of Kenya (CBK) 2023 report, the profitability of listed commercial banks has declined significantly. The pre-tax annual profit of commercial banks fell by 6.4%, from KSh 218.1 billion in June 2022 to KSh 205.0 billion in June 2023. This decline was largely driven by a KSh 13.8 billion increase in expenses and worsening asset quality, as

reflected by the rise in gross non-performing loans (NPLs) from KSh 514.4 billion to KSh 576.1 billion within the same period. A rise in NPLs indicates growing challenges in loan repayment, which could stem from macroeconomic difficulties such as inflation, high-interest rates, and economic slowdowns. Despite regulatory efforts and technological advancements in the banking sector, financial risks continue to erode bank performance, suggesting gaps in risk management strategies.

Several studies have explored the relationship between financial risks and the performance of banks, yet significant gaps remain. One notable gap is the limited focus on listed commercial banks in Kenya. Studies such as those by Mutua (2014) and Wanjira (2010) have primarily examined credit risk management in the broader commercial banking sector, including non-listed banks. Similarly, research on financial risks in other jurisdictions, such as Pratheepkanth and Nimalathasan (2019) in Nigeria, provides insights into risk management practices but lacks direct applicability to Kenya's listed banks, which operate under different economic conditions and regulatory frameworks. The absence of specific studies on how financial risks impact NSE-listed commercial banks in Kenya creates a gap in understanding the unique challenges faced by these institutions.

Additionally, previous research has largely analyzed financial risks in isolation rather than considering their combined effects. Studies such as Lassoued and Mnif (2019) have focused on credit risk, while others, including Ogol (2018), Akhtar et al. (2019), and Said and Tumin (2019), have explored liquidity risk. However, financial risks are often interconnected, and their combined influence on bank performance remains underexplored. A comprehensive approach

that examines how multiple risk factors—such as credit risk, liquidity risk, and operational risk—interact to affect the financial health of listed banks in Kenya is needed to fill this gap.

Another critical gap is the mismatch between expected and actual bank performance. Despite the digital transformation, mergers, and acquisitions that were expected to enhance the financial strength of listed banks, as highlighted in the KPMG (2023) report, these banks still experienced declining profitability and rising NPLs. This contradiction raises concerns about whether current risk management strategies are effective in addressing emerging challenges in Kenya's banking sector. Understanding why these banks continue to face financial distress despite efforts to modernize and expand will provide valuable insights for policymakers, investors, and financial institutions.

Given the declining profitability, increasing financial risks, and gaps in existing literature, this study aims to examine the extent to which financial risks impact the financial performance of NSE-listed commercial banks in Kenya. By focusing on the combined effects of different financial risks, this research will contribute to a deeper understanding of risk management challenges in the banking sector. The findings will help develop more effective risk mitigation strategies, ensuring financial stability, improving investor confidence, and fostering long-term economic growth.

1.3 Objective of the Study

1.3.1 General Objective

The overall objective of the research was to ascertain effect of financial risks on financial performance of commercial banks listed on the NSE, Kenya.

1.3.2 Specific objectives

i. To determine the effect of credit risk on financial performance of commercial banks listed on the NSE, Kenya.

ii. To determine the effect of operation risk on financial performance of commercial banks listed on the Nairobi Securities Exchange in Kenya.

iii. To establish the effect of liquidity Risk on financial performance of commercial banks listed on the NSE, Kenya.

1.4 Research Hypotheses

H_{01}: Credit Risk has no significant influence on financial performance of commercial banks listed on the NSE, Kenya.

H_{02}: Operation Risk has no significant influence on financial performance of commercial banks listed on the NSE, Kenya.

H_{03}: Liquidity risk has no significant influence on financial performance of commercial banks listed on the NSE, Kenya.

1.5 Significance of the Study

This study will be valuable to commercial bank executives, investors, policymakers, regulators, the government, and researchers. For bank executives, the findings will provide insights into effective risk management strategies, helping them mitigate credit, liquidity, and operational risks to enhance profitability and sustainability. Investors and shareholders will benefit by gaining a clearer understanding of how financial risks impact returns, enabling them to make more informed investment decisions in NSE-listed banks. Additionally, regulatory bodies such as the CBK and CMA will use the findings to evaluate the effectiveness of existing banking regulations and identify areas requiring stronger oversight to prevent financial instability.

Furthermore, this research will contribute to the academic and research community by expanding the literature on financial risk management and commercial bank performance. It will serve as an empirical reference for future studies and highlight areas requiring further exploration, such as the role of digital transformation in mitigating banking risks. By providing insights into how multiple financial risks collectively influence bank performance, this study will aid in strengthening risk management frameworks, improving regulatory policies, and fostering economic resilience.

1.6 Scope of the Study

This research examined financial risks and financial performance of commercial banks listed on the NSE, Kenya. This research focused NSE- listed commercial banks at period of 2018-2023, Credit, liquidity, and operational risks impact financial performance. The researcher accessed 2018–2023 financial statements on the bank and NSE websites. During this period the banking industry in Kenya encompassed various economic, regulatory, and technological dynamics that could influence the financial risks and financial success of commercial banks

listed on the NSE, Kenya. The Kenyan Bankers Association (KBA) State of the Banking Industry (SBI) report outlines the market development in 2018, grounding its analysis on the historical evolution of performance for a period of about one and half decades. Instructively, the past three years ending December 2018 have shaped the banking industry in at least three respects. First, the market was fully settled from the volatility of 2015 – 2016 arising from the collapse of three banks. The prevailing stability is, on the one hand, a vindication of the CBK supervisory framework that obviated the market challenges from becoming systematic. With a substantial resolution of one of the banks under receivership during 2018 (CBK Communiqué, April 2018) and the positive strides in the resolution of the other bank under receivership (CBK Communiqué, April 2018) the market is on a path to full normalcy. By focusing on the period from 2018 to 2023, the researcher accessed six years of financial data, allowing for a thorough analysis of trends, patterns, and changes over time. By including the years 2020 and 2021 in the study period, the researcher analyses how the covid 19 pandemic affected credit quality, liquidity positions, and operational resilience of banks in Kenya. This allowed for an examination of the effectiveness of banks' risk management strategies in response to the pandemic-induced economic downturn.

1.7 Limitations of the Study

The One key limitation of this study is the reliance on secondary data, which may present challenges related to data authenticity, accuracy, and potential biases. While financial reports from institutions such as the Central Bank of Kenya (CBK), the Capital Markets Authority (CMA), and the Nairobi Securities Exchange (NSE) are considered reliable, they may still contain reporting inconsistencies or be influenced by regulatory changes. To mitigate this

limitation, the study will ensure that only the most recent, audited, and verifiable financial reports are used, and multiple sources will be cross-referenced to enhance accuracy.

Another limitation is the focus on listed commercial banks only, which means the findings may not fully apply to non-listed banks, microfinance institutions, or SACCOs that operate under different regulatory environments. To address this, the study will acknowledge that its conclusions are specific to NSE-listed banks and will suggest areas for future research to examine the impact of financial risks on the broader financial sector. Additionally, the study may face constraints in accessing detailed financial data due to confidentiality issues, but this will be mitigated by relying on publicly available financial statements, regulatory reports, and market performance data from authoritative sources.

1.8 Organization of the Study

This study is structured into five chapters. Chapter One introduces the research by outlining the background, problem statement, objectives, significance, scope, and limitations. Chapter Two reviews relevant literature, discussing key theories such as Risk Management Theory and Agency Theory while identifying research gaps. Chapter Three details the research methodology, including the study design, sampling techniques, data collection, and analysis methods. Chapter Four presents the research findings, including statistical analyses and interpretations. Finally, Chapter Five summarizes the key findings, draws conclusions, and provides recommendations for policy and future research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers the framework of concepts, theoretic and empiric literature reviews, and research gaps.

2.2 Theoretical literature Review

Theories are logical frameworks that make links between observable variables in an effort to explain phenomena. According to Collins and Stockton (2018), the theoretical framework that a researcher uses to see the world has a significant impact on their capacity to make sense of it. This study is supported by the ideas of risk management, agency, Merton's default risk model, and the shiftability of liquidity.

2.2.1 Risk Management Theory

The Risk Management Theory, developed by Vaughan in 2017, provides a structured framework for understanding and managing risks in organizations. The theory assumes that all organizations

face inherent risks that must be systematically identified, assessed, and mitigated to ensure stability and improved decision-making. Risk consists of three key components: individuals or groups exposed to risk, assets or sources of income vulnerable to loss, and the risk itself. The theory advocates for a proactive risk management approach that involves continuous monitoring and response strategies to prevent financial distress. One of its strengths lies in its systematic process of identifying, assessing, and mitigating risks, which enhances an organization's ability to achieve positive outcomes. However, a limitation of the theory is its generalizability, as risk management strategies may need to be tailored to specific industries or organizational contexts.

Recent studies support the application of this theory in financial institutions. Koulafetis (2017) emphasized the role of a robust risk management system in improving decision-making by identifying and mitigating potential threats. Krause & Tse (2018) found that effective risk management leads to better resource utilization, reduced fraud, and increased productivity in financial institutions. Similarly, Hsueh et al. (2019) demonstrated that commercial banks implementing proactive risk management strategies, such as comprehensive credit risk assessments and prudent liquidity management, experience better financial stability and success. The theory directly relates to the study's research variables—credit risk, liquidity risk, and operational risk—by providing a framework for commercial banks to systematically assess and manage these risks. Through effective risk management, banks can minimize loan defaults, ensure sufficient cash reserves, and reduce operational inefficiencies, ultimately improving financial stability and profitability.

2.2.2 Agency Theory

The Agency Theory was proposed by Jensen & Meckling in 1976 to explain the principal-agent relationship within organizations. The theory assumes that when principals (owners/shareholders) delegate decision-making authority to agents (managers), conflicts of interest may arise due to differing goals and risk preferences. Since agents may prioritize their own interests over those of the principals, agency costs—such as monitoring expenses, bonding costs, and residual loss—are incurred to align interests and prevent opportunistic behavior. The theory suggests that incentive mechanisms, corporate governance structures, and contractual agreements play a crucial role in minimizing agency costs and ensuring that agents act in the best interest of shareholders. However, a key challenge of the theory is that monitoring and incentive structures may not fully eliminate managerial self-interest, making agency costs a persistent issue in corporate management.

Empirical studies have explored the practical application of Agency Theory in financial management. Mustapha and Che Ahmad (2019) emphasized that effective communication between shareholders and managers enhances accountability and transparency in decision-making. Lan & Heracleous (2017) found that performance-based compensation and monitoring mechanisms help mitigate conflicts of interest, ensuring that managers act in the best interest of shareholders. Karkrah & Ameyaw (2018) highlighted the role of agency costs, such as audit and oversight expenses, in ensuring that managers remain accountable to shareholders. In the context of commercial banks, Agency Theory explains how conflicts between shareholders (principals) and bank managers (agents) can impact financial performance and risk management. Managers may engage in excessive risk-taking or prioritize short-term gains, leading to increased credit risk, liquidity risk, and operational inefficiencies. By implementing strong governance structures,

incentive-based compensation, and effective oversight mechanisms, commercial banks can align managerial actions with shareholder interests, minimize agency costs, and optimize financial performance.

2.2.3. Merton’s Default Risk Model

Merton’s Default Risk Model, introduced by Robert C. Merton in 1974 and later expanded by Black and Scholes, provides a quantitative framework for evaluating a firm's credit risk. The model assumes that a company’s probability of default can be assessed by comparing its asset value to its financial obligations. If a firm’s obligations exceed its assets at any point, it is considered at risk of default. The model utilizes option pricing theory to estimate default probability, enabling financial institutions to measure and manage credit risk effectively. A key strength of the model is its structured approach to quantifying default risk, making it a valuable tool for banks and investors. However, its effectiveness can vary based on economic conditions, market volatility, and the complexity of a firm's capital structure, which may limit its predictive accuracy.

Recent studies have demonstrated the application of Merton’s model in financial risk assessment. Bharath and Shumway (2019) found that the model performs well in predicting corporate defaults across different industries but noted that its accuracy depends on firm-specific characteristics and economic stability. Collin-Dufresne, Goldstein, and Martin (2001) investigated the model’s ability to price corporate debt using credit default swap (CDS) market data and found that its predictive accuracy varied depending on financial market conditions. Zhang (2018) suggested that lenders can mitigate default risk through preventive measures such as risk-based pricing, loan portfolio diversification, and credit insurance. In the context of this

study, Merton’s model is directly linked to the credit risk variable, as it provides a framework for assessing the likelihood of loan defaults in commercial banks. By applying this model, banks can quantify their credit risk exposure, implement stricter loan approval criteria, and adopt proactive risk mitigation strategies to safeguard their financial stability.

2.2.4 Shiftability Theory of Liquidity

The Shiftability Theory of Liquidity was proposed by Harold in 1915 to explain how financial institutions manage liquidity risk. The theory assumes that a bank's liquidity is determined by its ability to shift assets quickly into cash or other highly liquid instruments without incurring significant losses. It posits that banks should hold a portfolio of marketable securities, such as treasury bills and government bonds, which can be easily sold or transferred to the central bank during times of liquidity stress. The theory suggests that liquidity risk can be minimized if banks maintain a sufficient level of shiftable assets that can be quickly converted into cash when needed. However, a limitation of the theory is that during periods of financial crises, when multiple banks experience liquidity shortages simultaneously, the ability to shift assets may be constrained.

Empirical studies have highlighted the relevance of the Shiftability Theory in financial risk management. Ngwu (2018) found that banks with a higher proportion of shiftable assets were better equipped to manage liquidity crises and meet short-term obligations. Colin (2021) emphasized that during economic downturns, banks struggle to raise funds due to declining investor confidence, making the ability to shift assets a critical factor in ensuring financial

stability. The theory is directly applicable to this study's liquidity risk variable, as it explains how commercial banks can manage liquidity shortages by maintaining a portfolio of highly liquid assets. By holding readily marketable securities, banks can enhance their financial resilience, minimize liquidity crises, and sustain operational efficiency, ultimately improving their overall financial health.

2.3 Empirical Literature Review

2.3.1 Credit Risk and Financial performance

Luo et al. (2019) argue that credit risk is a critical factor in the financial performance of banks, as lending is an essential service provided by commercial banks to investors, stimulating economic growth. However, this practice introduces uncertainty, and while banks may have more information available, they are still vulnerable to the adverse effects of credit risk. Luo et al. (2019) discuss how banks may experience losses exceeding their regular income due to credit defaults. This study primarily examined banks worldwide, but it did not focus on specific regions or countries. The current study addresses this gap by focusing on Kenyan banks listed on the Nairobi Securities Exchange (NSE), with particular emphasis on how credit risk impacts financial outcomes.

Credit risk arises when a borrower defaults on a loan, potentially causing significant financial losses for the lender. This is particularly concerning for banks, as more than 85% of their liabilities come from depositor funds. The banking system, therefore, faces considerable risk if credit losses are not effectively managed (Pracoyo & Imani, 2018). Kargi (2019) emphasizes that a growing propensity for risk, coupled with poor lending standards, may contribute to the financial distress of banks. He notes that the banking sector's troubles are exacerbated by a

delayed response to economic and external challenges. Basel II guidelines stress the importance of effective credit risk management as nonperforming loans (NPLs) become more prevalent (Anaman et al., 2017). Saeed and Zahid (2019) examined the relationship between credit risk and profitability using data from five of the largest UK commercial banks, highlighting a positive relationship between financial performance and credit risk management during the Great Recession (2007-2015). However, their study did not explore mitigation measures against credit risk, which is an area of focus for the current research.

In the context of Swedish commercial banks, Ara et al. (2019) explored the relationship between credit risk management and profitability, finding that better credit risk control positively impacted the financial performance of the banks. However, the study was limited by its focus on just four banks, whereas the present research extends the scope to include a larger sample of Kenyan banks to offer more generalizable insights. Ebrahim et al. (2019) conducted a study in Yemen, showing that NPLs negatively affected bank performance, but they did not examine other types of financial risks. This is addressed by the current study, which considers various risks, including operational and liquidity risks, that affect bank profitability. Oduro et al. (2019) analyzed Ghanaian banks' performance and found a negative relationship between credit risk and bank profitability. This aligns with the findings of Luo et al. (2019), but the current study distinguishes itself by focusing specifically on Kenyan banks.

Kayogire and Shukla (2019) studied the relationship between credit risk management and financial performance at Equity Bank (Rwanda), finding a positive link between effective loan assessment and the bank’s profitability. However, this study is region-specific, whereas the current research provides a broader analysis of the Kenyan banking sector. Muriithi (2019)

examined the exposure of Kenyan banks to financial risks and found a significant negative relationship between credit risk and bank performance. The study provides useful insights but is limited by its focus on general banking risks, not distinguishing between different types of risk, which is a key focus of the present research.

2.3.2 Operational risk and the Financial Performance

Operational risk, defined by Mburu (2017) as the risk of incurring expenses due to ineffective processes, human errors, or unforeseen events, plays a significant role in a bank's financial stability. Operational risk has been shown to contribute to the instability of financial systems, particularly when banks fail to implement adequate risk management strategies (Gadzo et al., 2019). Muriithi and Waweru (2017) noted that insufficient management of operational risks could have long-term negative effects on bank profitability, particularly in the aftermath of crises like the 2008 financial downturn. However, their study was limited to the 2008 period, and the present research explores a broader timeframe, offering more comprehensive insights into how operational risks affect financial performance.

Accenture (2019) highlights that efficient operational risk management can result in lower capital expenditures, increased customer satisfaction, and improved decision-making. Despite these benefits, operational risk management remains underexplored in many banking studies. Habib et al. (2018) argue that monitoring operational risks can help reduce losses and improve long-term sustainability. This study emphasizes the importance of operational risk management even when staff may not be specifically trained in this area. Barbu et al. (2018) suggest that banks can improve their resilience to systemic risks through proactive management strategies. However, the study by Bagherzadeh and Jöehrs (2018), which examined Sweden's internal

control systems, was narrowly focused on only four banks and did not consider external factors impacting operational risk management. The current research expands on this by analyzing the broader scope of operational risks in Kenyan banks.

The study by Owolabi et al, (2017) found that operational risk management could enhance the profitability of insurance companies. However, it lacked clarity on the financial institutions involved and their specific characteristics. Similarly, Oye (2020) found that Nigerian commercial banks benefitted from operational risk management, which improved profitability. The study's limitation lies in its regional focus, whereas the current research takes a more inclusive approach to examining Kenyan banks, focusing specifically on commercial institutions.

2.3.3 Liquidity Risk and Financial performance

As Liquidity risk, the risk of a bank being unable to meet its financial obligations when due, is another key area affecting financial performance. Santomero (2017) argues that liquidity risk is closely tied to a bank's ability to maintain sufficient liquid assets. Goodhart (2018) identifies two main types of liquidity risk: one associated with a bank's liquidity and the other with potential imbalances between assets and liabilities. Md Reaz, Syed, and Saurav (2019) emphasize the growing importance of liquidity risk as banks increasingly rely on financial institutions. The concept of liquidity risk has also been explored in the context of Jordanian banks by Al-Ardaha and Al-Okdeh (2021), who found that higher liquidity ratios positively correlated with improved profitability. However, this research was confined to the Amman Stock Exchange, which operates in a different market environment compared to Kenyan banks.

Hacini et al. (2021) studied the impact of liquidity risk management on the financial performance of Saudi banks, showing a significant relationship between liquidity risk and profitability.

However, this study focused on a specific geographic region, which limits its applicability to Kenyan banks. In contrast, the present research specifically addresses how liquidity risk affects Kenyan banks, offering more localized insights. Muriithi and Waweru (2017) analyzed liquidity risk in Kenyan commercial banks, finding that a liquidity mismatch adversely impacted financial performance. This research is highly relevant to the current study, which builds upon their work by considering multiple types of financial risks and their cumulative effects on performance.

In conclusion, while numerous studies have investigated the relationship between credit risk, operational risk, and liquidity risk on the financial performance of banks, significant gaps remain, particularly in the context of Kenyan commercial banks. The current study aims to bridge these gaps by examining a broader set of risks and focusing on Kenyan banks listed on the Nairobi Securities Exchange. Through this, it hopes to provide more comprehensive insights into how these risks affect bank profitability and the measures that can be taken to mitigate them.

2.4 Summary of Literature Review and Research Gap

Like any other business, banks need to take measures to keep their assets safe. Some of the horrific losses from the banking crisis may have been prevented if more financial risks had been taken. There's no denying that banks may boost their bottom lines by adopting more stringent risk management practices and procedures. The literature review reveals blind spots in terms of knowledge, context, and location. The literature reviewed above identified many research gaps. The gaps included a wide spectrum of theoretical, relative, and knowledge gaps. Several studies have been undertaken on the financial risks and performance of commercial banks in industrialized and other nations.

Table 2.1 shows the literature reviews that have been done by various individuals and the gaps therein and the solutions or focus of this study dwells upon to cover the gaps that have been there.

Table 2. 1: Summary of Literature Review and Research Gaps

Author	Title of the Study	Key Findings	Research Gaps	Focus of Current Study
Ara et al. (2019)	Risk & profit management in Swedish commercial banking	The results demonstrated that the management of credit risk had a significant influence on the profitability of all four institutions.	The research centered on four commercial banks in Sweden suggesting there is a contextual gap.	This research looked at how the financial risks faced by commercial banks trading on the NSE, Kenya affect their bottom lines.
Oduro et al. (2019)	Information from Ghana's publicly listed banks on the link between credit risk and firm financial success	More severe effects of bank credit risk on corporate financial success are compatible with the Basel accord.	Although other factors affecting financial performance were considered, credit risk was the primary focus of the research.	There was an emphasis on the effects of liquidity risk and operational risk on the profitability of Kenya's publicly traded commercial banks.
Kayogire & Shukla (2019)	The financial impact of credit management at Equity Bank Rwanda Ltd	The bank's efficiency, ability to recoup loan payments, and review processes for consumer lending were all shown to be	Equity Bank (Rwanda) conducted a case study by polling 57 of their credit officers.	The research covered all listed commercial bank in Kenya, and used secondary data.

		related to one another in the study's findings.		
Bagherzadeh and Jöehrs (2018).	Changes to the internal auditing framework for operational risk management.	The study found that external card theft and unfavorable publicity caused by IT system failures are two of the most significant challenges banks face when attempting to mitigate operational risks.	The study's results cannot be extrapolated to other commercial banks since they are based on the experiences of only one Swedish bank.	The research focused at Kenyan listed commercial banks, taking into account the financial risks that impact the financial success of Kenyan commercial banks listed on the NSE.
Owolabi et al. (2017)	Improving Risk Management Practices: A Win-Win for Nigeria's Insurance Companies	The findings demonstrated that banks' financial outcomes improved thanks to improved operational risk management.	This research was conducted with Nigerian insurance agencies.	This study concentrated on commercial banks listed in NSE, Kenya.
Siminyu et al. (2017)	Management of Financial Risk at Supermarkets in Nairobi County, Kenya	Return on investment was shown to be adversely impacted by operational	Extreme value theory, financial distress theory, and firm value maximisation theory all	This study was guided by the Risk Management Theory, Agency Theory, Merton's Default Risk

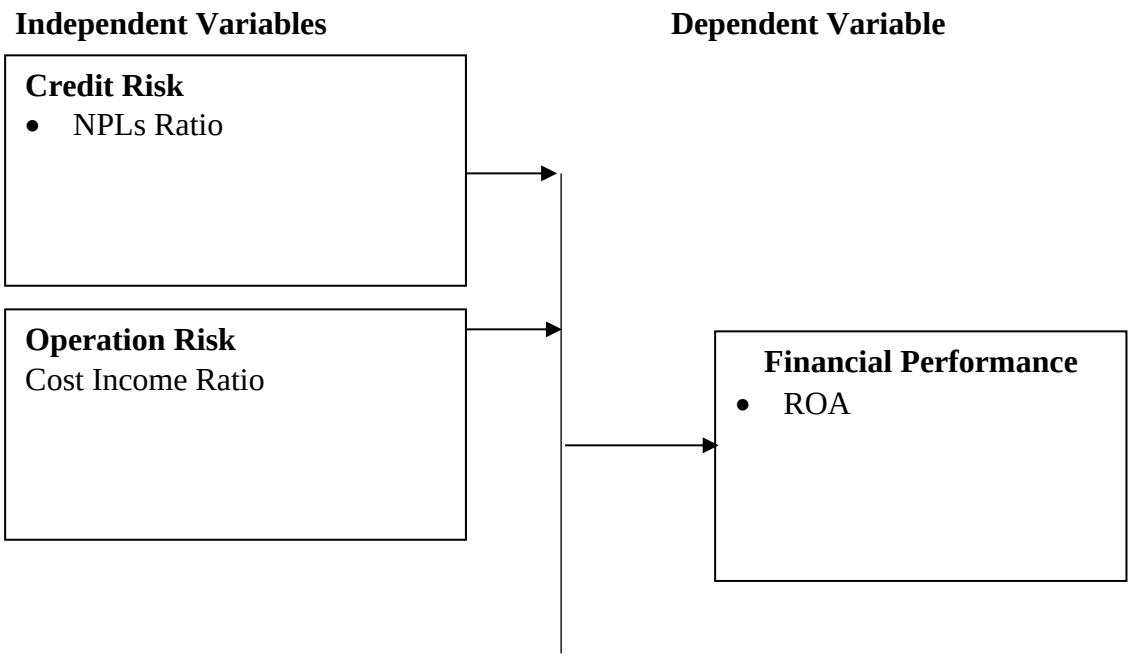
		risk.	supported the results.	Model and Shiftability Theory of Liquidity
Wangalwa and Muturi (2018)	How operational risk affects the bottom lines of deposit-Taking SACCOs in Kakamega County	A direct correlation was seen between the quality of financial systems and the financial health of SACCOs in Kakamega County.	The research focused on the cooperatives in Kakamega County	The study considered all commercial banks in Kenya listed at NSE.
Hacini et al. (2021)	Improving Liquidity Risk Management: A Win-Win Situation for Saudi Arabia's Financial Institutions.	According to the data, liquidity risk considerably reduces the predicted fiscal performance of Saudi Arabian institutions.	The study only focused on how liquidity risk affects Saudi Arabian banks' bottom lines.	The study also examined effect of operational Risk and credit risk on viability of listed commercial banks in Kenya.
Muriithi and Waweru (2017)	Kenyan commercial banks' financial health and liquidity	Liquidity risk hurts company performance, the study found...	The research was done in 43 commercial banks.	This research was done in 10 banks in Kenya listed at NSE
Otieno et al. (2019)	The relationship between microfinance institutions in Kenya's success financially and their handling of liquidity risk.	It has been shown that microfinance banks may greatly benefit from careful control of their liquidity risk.	The study was done at MFBs In Kenya.	The research was conducted listed banks in listed in Kenya.

Source: Researcher (2023)

2.5 Conceptual framework

In their definition of a conceptual framework, Miles and Huberman (2018) state that it "explains, either graphically or narratively, the principal themes to be explored, the important elements, constructs, or variables, and the claimed links among them." A conceptual framework may be defined as "a description of the relationship between the study variables in the model under study. In this study, we employ credit risk, operational risk, and liquidity risk as independent variables to assess how they affect financial performance.

Figure 2.1 provides a visual representation of the variables considered in this study.



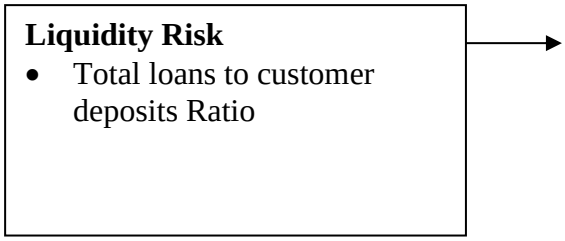


Figure 2. 1:Conceptual Framework

Source :(Reseacher,2024)

CHAPTER THREE:

RESEARCH METHODOLOGY

3.1 Introduction

The chapter, looks at research participants, sample plan, data collection techniques, validity, and reliability.

3.2 Research Design

In the words of Sekaran and Bougie (2017), "research design" refers to the method through which data collection and analysis are organized and carried out. This study adopted explanatory research design. Explanatory research is undertaken to determine the nature and breadth of cause-and-effect relationships. Explanatory study can be undertaken to examine the influence of certain changes on present norms, procedures, and so on. Explanatory studies analyse a setting or a specific topic in order to explain patterns of correlations between variables (Zikmund *et al.*,2022).

3.3 Target Population

The target population for this study consisted of the eleven commercial banks listed on the Nairobi Securities Exchange (NSE) as of the period between 2018 and 2023. These banks were selected because they represent a significant portion of Kenya’s formal banking sector and are subject to the regulatory and financial reporting requirements of the NSE. By focusing on these institutions, the study ensures consistency in financial data availability and comparability across the selected banks. The listed banks also serve a broad customer base, making them a suitable representation of the overall banking sector's financial risks and performance.

3.4 Sampling Design

The target population for this study consisted of the eleven commercial banks listed on the Nairobi Securities Exchange (NSE) between 2018 and 2023. Various sampling techniques, such as random sampling and stratified sampling, are often employed in financial research to ensure representation and manage large datasets. Random sampling allows for unbiased selection, while stratified sampling ensures that different categories within a population are adequately represented. However, given the relatively small number of listed commercial banks and the need for comprehensive financial data, this study adopted a census approach. A census method involves examining the entire target population rather than selecting a sample, ensuring that all listed banks are analyzed for a more accurate and holistic assessment of financial risks and performance. This approach enhances the reliability of findings by eliminating sampling bias and providing a complete picture of the trends within Kenya's banking sector.

3.5 Data Collection Instruments.

Research use secondary sources of information. The researcher got data for the years 2018 through 2023 in the supervisory reports and annual reports posted on the CBK and listed commercial banks' websites. A data collecting tool was utilized to gather information (Appendix II).

3.6 Reliability and Validity

Validating the secondary data analysis is crucial to ensure that the data sources, methods, and results are appropriate, accurate, and relevant for the research question or decision at hand. By validating the analysis, researchers can enhance the credibility and reliability of their findings. (Liu,2021).

To ensure reliability the researcher first assessed the source of the information. All the information was from reliable sources from NSE listed Annual banks reports and each bank annual financial statement. The researcher also assessed the timeliness and relevance. The researcher assessed listed banks annual reports from 2018-2023.These were the current reports. Lastly the researcher also used cross-referencing and corroboration. The data from listed Banks NSE annual reports was compared to data from CBK annual bank supervision reports and each bank's annual financial statement.

3.7 Data collection Procedure

A letter of authorization was acquired from the Department of Business Administration of Kenyatta University. The letter of authorization was used to apply for a research license from NACOSTI. The researcher accessed of annual financial statements from 2018 to 2023 from the bank's website and NSE website. The researcher extracted the banks published reports using the desk search techniques. To guarantee the precision of the findings, the researcher diligently verified the data gathering and calculating procedures. Data reliability was ensured in the secondary data by making sure that the data is obtained from the correct published books of accounts. Furthermore, data collection included informing the sources about the aim of collecting data, ensuring that the data was obtained within the specified research time, inquiring about the data collection methods, and ensuring that the data acquired would be both comprehensive and correct.

No research assistants were engaged in this procedure to ensure the researcher collected valid and accurate data. The use of Panel data was chosen due to its ability to analyze the performance of individual banks over a period of time and across different locations (Gujarati, 2017). Polit

and Beck (2018) suggest that doing secondary analysis of existing data is a cost-effective and time-efficient approach, since data acquisition is often the most laborious and costly aspect of a research endeavor. The process of collecting data spanned over a duration of one month.

3.8 Data Analysis and Presentation.

Statistical analysis requires organizing data before drawing conclusions (Polit and Hungler, 2017). For this analysis, the researcher used the Multiple Regression Model in SPSS. So, commercial banks' bottom lines were dependent on their exposure to credit, liquidity, and operational risks. The regression model was as follows.;

$Yit=\alpha+\beta1X1it+\beta2X2it+\beta3X3it+\epsilon it$:

Y = is the dependent variable, financial performance;

α = is the intercept

Yit = represents the dependent variable for bank i at time t.

X_1it, X_2it, X_3it = are the independent variables for bank i at time t.

$\beta1$, $\beta2$, $\beta3$ are the coefficients measuring the relationship between the independent variables and the dependent variable.

ϵ is the error term capturing unexplained variations.

The mean and standard deviation was analysed secondary data. IBM's SPSS, Version 25 was used to analyse the data. The researcher analysed variable correlations using inference statistics

3.9 Operationalization and Measurement of Variables

Table 3.1 offers an overview of the operationalization and measurement of variables used in this study to assess the impact of credit risk, operational risk, and liquidity risk on the financial performance of commercial banks. Credit risk, operational risk, and liquidity risk are considered independent variables, while financial success serves as the dependent variable. Each variable is defined and operationalized to facilitate data collection and analysis.

Table 3.1: Operationalization of the variables.

Variable	Type	Operationalization	Measurement
Credit risk	Independent variable	The possibility of a borrower failing to make a loan payment	NPLR = NPLs*100% / Total Outstanding Loans
Operation risk	Independent variable	In the course of their daily operations, commercial banks are susceptible to a wide range of threats.	CIR= Operation Cost *100% / Net interest income
Liquidity risk	Independent variable	It is the possible negative consequence that occurs when a bank that is publicly listed cannot afford to fulfill its immediate financial responsibilities	LTDR =Total loans*100% / Total Deposits
Financial Performance	Dependent variable	how well a bank is able to generate income from its many assets.	ROA = Profit after tax *100% / Total Assets

Source: Researcher (2023)

3.10 Diagnostic Tests

The following diagnostic tools are planned for usage with this model:

3.10.1 Multicollinearity

Multicollinearity occurs when two or more independent variables in a regression model are highly correlated, leading to unstable coefficient estimates and reduced reliability of statistical inferences (YanHorne, 2018). High multicollinearity inflates standard errors and makes it difficult to determine the individual effect of each predictor variable. Various methods exist to detect multicollinearity, including correlation matrices and the Variance Inflation Factor (VIF). This study will employ the VIF test, where values above 10 indicate severe multicollinearity (Kreft & de Leeuw, 2018). If detected, corrective measures such as variable transformation, removal of redundant predictors, or principal component analysis will be applied.

3.10.2 Normality Test

Regression analysis assumes that the residuals of the model are normally distributed, as deviations can lead to biased estimations and incorrect inferences (Osborne & Waters, 2012). To test for normality, methods such as histograms, Q-Q plots, and statistical tests like the Shapiro-Wilk and Kolmogorov-Smirnov tests can be used. This study will use the Shapiro-Wilk test due to its effectiveness for small to medium sample sizes (Hoekstra, Kiers, & Johnson, 2018). If normality is violated, remedies such as log transformation, removal of extreme outliers, or non-parametric methods will be considered.

3.10.3 Heteroscedasticity Test

Heteroscedasticity arises when the variance of residuals is not constant across observations, leading to inefficient parameter estimates and unreliable hypothesis testing (Darlington, 2018). It can be detected using visual inspection of residual plots, the Breusch-Pagan test, or the White test. This study will apply the Breusch-Pagan test, where a significant p-value (below 0.05) indicates the presence of heteroscedasticity. If detected, robust standard errors or generalized least squares (GLS) estimation will be employed to correct the issue.

3.10.4 Hausman's specification test

In panel data analysis, choosing between a fixed effects model and a random effects model is critical for ensuring appropriate estimation (Baltagi, 2005). The Hausman test is used to determine whether individual-specific effects are correlated with the explanatory variables. A significant p-value (below 0.05) suggests that the fixed effects model is preferable, whereas a higher p-value supports the use of the random effects model. If the fixed effects model is chosen, the study will proceed with within-group estimations; otherwise, the random effects model will be used.

3.10.5 Regression Analysis

Allan (1933) defines regression analysis as a statistical technique used to examine the connections between variables. Typically, it aims to determine the causal relationship between one variable and another, such as the impact of credit risk on bank performance or the influence of changes in the money supply on the inflation rate. In order to examine these matters, the researcher gathers data on the fundamental factors of interest and utilizes regression analysis to

estimate the numerical impact of the causative factors on the variable they affect. The investigator also often evaluates the "statistical significance" of the estimated associations, which implies the level of confidence that the genuine relationship is similar to the calculated relationship.

3.11 Ethical issues

The study was carried out in accordance with all rules and regulations regulating research in Kenya, after given the approvals by the Graduate School and NACOSTI. Since this is secondary data, the researcher took extra precautions to ensure its appropriate citation. According to Tripathy (2017), material found in public places like books, libraries, and internet is trustworthy for scientific research. Other authors work was acknowledged.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This section provides a detailed descriptive analysis of the study variables, presenting them in cross-tabulation to illustrate trends within the variables under investigation. Additionally, the chapter includes the outcomes of various diagnostic tests conducted to assess key statistical assumptions. These tests encompass evaluations for normality, linearity, homoscedasticity, multicollinearity, and heteroscedasticity. Finally, the chapter presents the results derived from multiple regression analysis, elucidating the strength and direction of relationships existing between the independent variables and the dependent variables. Once data was collected, the average was calculated to arrive at a single figure, so as to get a representative sample.

4.2 Descriptive Analysis

The summary of the descriptive statistics of financial performance, credit risk, operational risk and Liquidity risk are shown in Table 4.1

Table 4. 1:Descriptive Statistics

	Obs	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Financial Performance(ROA)	54	.008	.072	.02739	.011158	1.201	.325	3.877	.639
Credit Risk(NPLR)	54	.039	.380	.11062	.048678	3.346	.325	17.246	.639
Operation Risk(CIR)	54	.027	.386	.09623	.050489	3.643	.325	20.162	.639
Liquidity Risk(LDTR)	54	.000	.984	.72847	.172253	-1.589	.325	4.700	.639
Valid N (listwise)	54								

Source: Study Data (2023)

The findings on credit risk indicated that the mean Non-Performing Loans (NPL) Ratio is 11.062%, representing the average proportion of NPLs relative to total loans. Positive skewness (3.346) indicates a potential concentration of institutions with higher NPL ratios, reflecting variations in credit risk. The high kurtosis value of 17.246 suggests a distribution with heavy tails, implying potential extreme values in credit risk. This finding highlights the diverse risk profiles of institutions, with some potentially facing challenges in specific sectors or exhibiting different risk tolerance levels.Listed banks, with their economies of scale and operational efficiency, may exhibit lower operational costs as a percentage of income. The positive skewness indicates potential outliers, suggesting that while most listed banks maintain efficient operations,

some may incur higher costs, possibly due to strategic investments or expansion efforts. The high kurtosis highlights the potential for extreme values in operational risk. The results align with the findings of Omondi (2019), which revealed that a significant proportion of these commercial banks have substantial levels of NPLs in their asset portfolio.

The results on operation risk showed that mean cost to income ratio is 9.623%, reflecting the percentage of income spent on operational costs. Positive skewness (3.643) indicated at potential outliers with higher cost to income ratios, indicating variations in operational efficiency. The kurtosis of 20.162 suggests a distribution with heavy tails, pointing to potential extreme values in operational risk. This observation suggests that while the average operational efficiency is relatively low, there are institutions with higher operational costs, possibly due to strategic investments or expansion efforts.

In addition, the findings on liquidity risk showed that mean loan to Deposit Ratio is 72.847%, offering insights into lending practices and liquidity management. Negative skewness (-1.589) implies a potential concentration of institutions with lower loan to deposit ratios, suggesting a more conservative approach to lending or liquidity management. The kurtosis of 4.700 indicates a distribution with heavy tails, suggesting potential extreme values in liquidity risk. This finding suggests varying lending strategies among institutions, with some prioritizing higher liquidity or adopting a conservative approach to lending. The results imply that listed banks typically have a strong liquidity position due to their size and established customer trust. The negative skewness might suggest a concentration of listed banks with a conservative approach to lending or a preference for maintaining higher liquidity ratios. The kurtosis implies potential extreme values,

indicating that while most listed banks manage liquidity prudently, there may be outliers with more aggressive lending strategies.

Finally, the results on financial performance showed mean the Return on Assets (ROA) for the sampled financial institutions is 2.739%, indicating that, on average, they generate returns equivalent to approximately 2.74% of their total assets. The positive skewness (1.201) suggests potential variations, with some institutions achieving higher ROA values. The kurtosis of 3.877 implies a relatively peaked distribution, hinting at potential outliers on the higher end. This finding underscores the diversity in financial performance among the institutions, with some potentially employing innovative strategies or demonstrating exceptional profitability. Listed banks, being large and established, may exhibit relatively stable and efficient financial performance due to their strong market position, diverse revenue streams, and effective management strategies. The positive skewness could be attributed to some listed banks outperforming others, possibly through innovative products or superior asset management.

4.3 Diagnostic Test Findings

This section presents the results of the diagnostic tests;

4.3.1 Multicollinearity Test Result

Multicollinearity occurs when two or more independent variables in a regression model are highly correlated, which can distort the estimation of regression coefficients (Gujarati & Porter, 2009). A multicollinearity test was performed to examine correlations among the independent variables and detect potential collinearity issues. The variance inflation factor (VIF), as

suggested by Montgomery, Peck, and Vining (2012), was used as a diagnostic measure. Table 4.2 presents the VIF results.

Table 4. 2: Multicollinearity Test

Collinearity Statistics		
	Tolerance	**VIF**
Credit Risk	0.957	1.045
Operation Risk	0.974	1.027
Liquidity Risk	0.970	1.031

Source: Study Data (2023)

The results in Table 4.2 indicate that the tolerance values are all close to 1, with the highest being 0.974. The corresponding VIF values are also close to 1, with the highest at 1.045. According to O'Brien (2007), VIF values below 10 indicate no serious multicollinearity issues. Therefore, the study confirms that the independent variables (Credit Risk, Operation Risk, and Liquidity Risk) do not suffer from significant multicollinearity, ensuring that they contribute distinct information to the regression model.

Normality testing is critical in regression analysis, as violations of normality can affect hypothesis testing and confidence intervals (Osborne & Waters, 2002). This study used the Kolmogorov-Smirnov test, as recommended by Razali and Wah (2011), to assess whether the dataset follows a normal distribution. The results are presented in Table 4.3.

Table 4. 3:One-Sample Kolmogorov-Smirnov Test

		Financial Performance	Credit Risk	Operation Risk	Liquidity Risk
N		54	54	54	54
Normal Parameters[a,b]	Mean	.02739	.11062	.09623	.72847
	Std. Deviation	.011158	.048678	.050489	.172253
Most Extreme Differences	Absolute	.105	.165	.168	.150
	Positive	.105	.165	.168	.076
	Negative	-.082	-.161	-.125	-.150
Test Statistic		.105	.165	.168	.150
Asymp. Sig. (2-tailed)		.200[c,d]	.161[c,d]	.148[c,d]	.200[c,d]
Source: Study Data (2023)					

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

According to Field (2013), if the Asymp. Sig. value is greater than 0.05, the data is considered normally distributed. Since all variables have p-values above 0.05, the study fails to reject the null hypothesis, confirming that the data is normally distributed. This result suggests that the regression model can proceed with parametric statistical techniques.

4.3.3 Heteroscedasticity

Heteroscedasticity occurs when the variance of residuals is not constant across all levels of an independent variable, potentially leading to inefficient estimations (Breusch & Pagan, 1979). The Breusch-Pagan test was used to check for heteroscedasticity, as shown in Table 4.4.

Table 4. 4: Breusch-Pagan Test

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	3	.000	.113	.952[b]
	Residual	.000	50	.000		
	Total	.000	53			

Source: Study Data (2023)

a. Dependent Variable: Res_Squared

b. Predictors: (Constant), Liquidity Risk, Credit Risk, Operation Risk

Since the p-value (0.952) is significantly greater than 0.05, the null hypothesis of homoscedasticity is not rejected. According to White (1980), a non-significant result in the Breusch-Pagan test suggests that heteroscedasticity is not a concern, confirming that the residuals maintain equal

4.3.4 Hausman Specification Test

The Hausman specification test, (Hausman, 1978) was performed to assess the consistency and efficiency of the random effects model in comparison to the fixed effects model. The study

utilized the test to determine which model, fixed or random effects, is more appropriate. The results are exhibited in Table 4.5.

Table 4. 5:Hausman Specification Test

	Fixed (b)	**Random B**	**Difference (b-B)**
Credit Risk	0.227	0.167	0.060
Operational Risk	0.041	0.062	-0.021
Liquidity Risk	-0.020	-0.031	0.011
chi2(3)	7.815		
Prob>chi2	0.056		

Source: Study Data (2023)

According to Hausman (1978), if the p-value is below 0.05, the fixed effects model is preferred, whereas a p-value above 0.05 supports the random effects model. In this study, the p-value of 0.056 suggests that there is insufficient evidence to reject the null hypothesis, indicating that the random effects model may be appropriate. However, as suggested by Baltagi (2005), additional diagnostics and economic rationale should be considered before making a final model selection.

By incorporating these diagnostic tests, the study ensures the robustness and validity of the regression model, minimizing potential biases in estimation and inference.

4.4 Correlation Analysis

This section provides the results of the correlation analysis. Correlation analysis is a statistical method employed to assess the magnitude and direction of the association between two or more variables. The process entails computing correlation coefficients, such as the Pearson correlation coefficient, to measure the extent to which variations in one variable align with variations in another. The coefficient varies between -1 and 1, where -1 signifies a complete negative correlation, 1 signifies a complete positive correlation, and 0 characterizes no connection. This study offers valuable insights into the linear correlation between variables, aiding researchers and analysts in comprehending the patterns and possible interdependencies within the data. Table 4.6 indicates the results.

Table 4. 6: Correlation Analysis

Correlations

		Credit Risk	Operation Risk	Liquidity Risk	Financial Performance
Credit Risk	Pearson Correlation	1	-.002	-.324*	-.324*

	Sig. (2-tailed)		.999	.0168	.0168
	N	54	54	54	54
Operation Risk	Pearson Correlation	.002*	1	-0.002. *	.758*
	Sig. (2-tailed)	.991		.888	.000
	N	54	54	54	54
Liquidity Risk	Pearson Correlation	-.020*	-.162*	1	.652*
	Sig. (2-tailed)	.888	.242		.00001
	N	54	54	54	54
Financial Performance	Pearson Correlation	-.324*	.758*	.652*	1
	Sig. (2-tailed)	.017	.000	0 .00001	
	N	54	54	54	54

* Correlation is significant at the 0.05 level (2-tailed).
Source: Study Data (2023)

The research examined a correlation analysis between credit risk on the financial performance of listed in Banks in Kenya. The findings suggest that r= -0.324 and p=0.0168. The correlation coefficient of -0.324 suggests a moderate negative correlation between credit risk and financial success. As credit risk increases, there is a tendency for financial performance to decrease.

Additionally, the study also conducted a correlation analysis between operation risk on the financial health of listed in Banks in Kenya. The results indicated that r=0.758 and p=0.0168. The strong positive correlation of 0.758 indicates a significant connection between operational risk and financial success. Institutions with higher operational risk tend to have better financial performance. This relationship is statistically significant at the 0.01 level.

The research aimed to ascertain the correlation between liquidity risk and the financial health of banks listed in Kenya. The findings revealed a correlation coefficient of 0.652 and a p-value of 0.003. The correlation value of 0.0652 indicates a little positive link between liquidity risk and

financial success. The statistical analysis reveals that there is a significant link between liquidity risk and financial performance at a significance level of 0.05. This suggests a slight relationship between the two variables.

4.5 Regression Model Summary

The researcher sought to find out the strength of the connection between study variables. The findings are shown in Tables 4.6, 4.7 and 4.8.

Regression Model Summary

The research utilized regression analysis to determine the magnitude of the correlation between the study variables, as shown in Table 4.7.

Table 4.7: Regression Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.519[a]	.270	.210	.00025

Source: Study Data (2023)

a. Predictors: (Constant), Liquidity Risk, Credit Risk, Financial Performance, Operation Risk

The results in Table 4.7 indicate that the independent variables included in the model—Liquidity Risk, Credit Risk, Financial Performance, and Operational Risk—explain 27% of the variation in the dependent variable, as reflected by the R Square value of 0.270. The Adjusted R Square value of 0.210 accounts for the number of predictors in the model and provides a more accurate representation of its explanatory power. This suggests that while the selected variables have a

moderate influence on financial performance, 73% of the variance is attributed to other factors not included in the study. The standard error of the estimate (0.00025) indicates the average deviation of observed values from the predicted values, signifying a relatively precise model fit.

ANOVA

Table 4.8 exhibits the results of the Analysis of Variance (ANOVA) for the regression model

Table 4. 8: ANOVA of the Regression Model

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	4	.000	4.525	.003[b]
	Residual	.000	49	.000		
	Total	.000	53			

a. Dependent Variable: Financial Performance
b. Predictors: (Constant), Liquidity Risk, Credit Risk, Financial Performance, Operation Risk

Source: Study Data (2023)

In the ANOVA table 4.8, F-Statistic is 4.525, and the associated p-value is 0.003 which is a p-value less than 0.05.This infers that at least one of the predictor variables in the model is significantly related to Financial Performance. The overall regression model, including Liquidity Risk, Credit Risk, Financial Performance, and Operation Risk as predictors, is statistically significant in explaining the variance in Financial Performance. Therefore, the predictors collectively contribute to explaining the variability in Financial Performance.

Regression Coefficients

Table 4.9 exhibits the regression coefficients for the variables included in the regression model, providing detailed information about the strength and direction of the relationships between the study variable.

Table 4. 9: Regression Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	.028	0.009		3.204	.002
	Credit Risk	-.016	0.032	-.071	-.515	.011
	Operation Risk	-.033	0.031	-.147	-1.048	.006
	Liquidity Risk	.006	0.009	.097	.694	.009

Source: Study Data (2023)

a. Dependent Variable: Financial Performance

Generally, the indicated results in Table 4.9 were in tandem with the following regression model.

$Y = \beta 0 + \beta 1tX1 + \beta 2tX2 + \beta 3tX3 + \varepsilon$

The results indicated the suitability of the regression model which was interpreted as follows;

Y = 0.028- 0.016X1- 10.33+ 0.X3+0.009

The The results suggest that a one-unit increase in Credit Risk is associated with an estimated decrease of 0.016 units in Financial Performance, as indicated by the negative Beta value. This finding aligns with previous studies, such as Catherine (2020), who found that credit risk negatively affects bank performance. Similarly, Arifaj and Baruti (2020) reported that in Balkan countries, higher credit risk exposure in the banking sector negatively impacts financial

performance. Deng, Rono, and Sang (2020) also observed that credit risk management practices had adverse effects on the financial performance of financial institutions in South Sudan.

Regarding Operational Risk, the findings indicate that a one-unit increase in Operational Risk corresponds to an estimated decrease of 0.033 units in Financial Performance. This negative Beta value is consistent with the research of Simamora and Owari (2019), which demonstrated that operational risk has a significant negative effect on the financial health of banks. Their study suggested that minimizing operational risk may enhance a bank's ability to generate profits.

Conversely, the results show that a one-unit increase in Liquidity Risk is associated with an estimated increase of 0.006 units in Financial Performance, as reflected by the positive Beta value. This observation aligns with findings by Owomugisha (2022), who reported a significant relationship between liquidity risk management and the financial health of commercial banks. However, the results differ from the study by Amira, Alala, and Musieghe (2023), which found a statistically insignificant negative correlation between liquidity risk management and financial performance indicators such as return on equity and return on assets ($F=0.583912$, $p<0.05$; $F=2.770410$, $p<0.05$).

4.6 Hypotheses Testing

H_{01}: Credit risk has no significant influence on performance of listed commercial banks in Kenya

The research sought to test the hypothesis that: H_{01}: Credit Risk has no significant influence on performance of listed commercial banks in Kenya. From the findings in Table 4.8 the p-value was 0.011 which was less the 0.05 significant level. Thus, according to the principle of significance, the study rejects the null hypothesis (H_{01}) and resolved that credit Risk has significant influence on performance of listed commercial banks in Kenya.

The outcomes are in line with finding by Onsongo, Muathe and Mwangi, (2020) that showed that credit risk had a positive insignificant effect on ROE. The results were also consistent findings by Paul and Musiega (2020) that revealed that credit risk grading practices had significant influence on financial success of MFBs in Kenya.

H_{02}: Operation risk has no significant influence on performance of listed commercial banks in Kenya

The research sought to test the hypothesis that: H_{02}: Operation Risk has no significant influence on success of listed commercial banks in Kenya.The results in Table 4.8 showed that the p-value was 0.006 which was less the 0.05 significant levels. Thus, according to the principle of significance, the study rejects the null hypothesis (H_{02}) and resolved that operation risk has significant influence on performance of listed commercial banks in Kenya. The findings imply that operational risk management is crucial for the performance of listed commercial banks in Kenya. Operational risks include various factors such as internal processes, systems, human error, and external events that can impact a bank's operations and ultimately its financial performance. Banks need to effectively identify, assess, and mitigate these risks to maintain stable operations and financial health. There could be several reasons why operational risk influences bank performance in Kenya. These may include inadequate internal controls, technological deficiencies, regulatory compliance issues, fraud, or disruptions in the business environment. Banks that effectively manage operational risks are better equipped to protect their assets, maintain customer trust, and sustain profitability over the long term.

The findings agree with the findings by Ngaari(2021) that eatablished that the relation analysis revealed a high degree association between the operational risk management and bank profits.

The findings are aligned with studies by Harelimana (2019), Isanzu (2019) and Almekhlafi et al. (2020).

H_{03}: Liquidity risk has no significant influence on performance of listed commercial bank in Kenya.

Finally, the study sought to test the hypothesis that: H_{03}: Liquidity risk has no significant influence on performance of listed commercial bank in Kenya from the findings the p-value was 0.022 which was less the 0.05 significant levels. Thus, according to the principle of significance, the study rejects the null hypothesis (H_{03}) and resolved that liquidity risk has significant influence on performance of listed commercial bank in Kenya. This suggests that factors related to liquidity, such as the capacity to fulfill immediate financial requirements and manage cash flow effectively, play a crucial role in determining the overall performance and stability of these banks in the Kenyan market.

The outcomes coincide with the observations of Wani and Ahmad (2023), which demonstrated that liquidity risk had a substantial impact on both ROA and ROE. Additionally, the research is conducted by Amira, Alala, and Musiega in the year 2023.

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter offers summary, conclusions, recommendations, contribution of the study to knowledge and suggestions for further studies. The summary is based on the objectives while the

conclusions and recommendations were based on the research findings. The chapter ultimately delineates the manner in which the study enhances existing knowledge and provides further recommendations for future research.

5.2 Summary of Findings

5.2.1 Effect of credit risk on performance of listed commercial banks in Kenya

The first study objective was to ascertain the effect of credit risk on performance of listed commercial banks in Kenya. The variable was measured by NPL Ratio. The findings on credit risk suggested that the mean NPL Ratio is 11.062%, representing the average proportion of NPLs relative to total loans. The correlation analysis findings showed that r= -0.324 and p=0.00168 which suggested a moderate negative correlation between credit risk and financial performance. As credit risk increases, there is a tendency for financial success to decrease.

5.2.2 Effect of operation risk on performance of listed commercial banks in Kenya.

The second objective was to examine the effect of operation risk on performance of listed commercial banks in Kenya. The variable was measured by Cost to Income Ratio. The findings suggested that the mean cost to income ratio is 9.623%, reflecting the percentage of income spent on operational costs. The correlation analysis results demonstrated that r=0.758 and p=0.0168 which suggests a robust and substantial positive correlation between financial success and operational risk. Institutions with higher operational risk tend to have better financial performance

5.2.3 Effect of liquidity risk on performance of listed commercial banks in Kenya.

The third objective was to assess the effect of liquidity Risk on performance of listed commercial banks in Kenya. The variable was measured by loan to deposit ratio The findings on liquidity risk showed that the mean of loan to deposit Ratio is 72.847%. The correlation analysis findings indicated that r=0.0652 and p=0.003. The correlation indicates a mild positive connection and a minor statistically significant association between liquidity risk and financial success.

5.3 Conclusion

This section outlines the study findings based on the objectives. The first study objective was to determine the effect of credit risk on performance of listed commercial banks in Kenya. The study's findings concluded that credit risk has a substantial impact on the profitability of commercial banks listed in Kenya.

The second objective of the study was to ascertain the effect of operation risk on performance of listed commercial banks in Kenya. From the findings the study concluded that that operation risk has significant influence on performance of listed commercial banks in Kenya.

The third objective was to assess to establish the effect of liquidity Risk on performance of listed commercial banks in Kenya. From the findings the study concluded that liquidity risk has significant influence on performance of listed commercial banks in Kenya.

5.4 Policy Implications and Recommendations of the Study

The study's first objective aimed to assess the effect of credit risk on the performance of listed commercial banks in Kenya. The findings revealed a significant influence of credit risk on bank performance. The recognition of the impact of credit risk could lead to enhanced risk

management practices, fostering a more resilient banking environment. This may involve the implementation of robust risk mitigation strategies and prudent lending practices, ultimately contributing to the overall stability of the financial system. Equally, negative implications include the potential for economic downturn if banks adopt overly cautious lending practices, impacting businesses and individuals seeking credit for investments. Additionally, increased regulatory scrutiny may pose challenges for banks in terms of compliance and operational adjustments. Given the significant influence of credit risk, continuous monitoring and evaluation of credit portfolios is recommended. This ensures timely identification and mitigation of potential risks. Banks should invest in capacity building, both in terms of human resources and technological infrastructure, to enhance risk management capabilities. This includes training staff on the latest risk assessment techniques and adopting advanced analytics for better risk prediction. The banks should also collaborate with regulators. This can help banks stay informed about evolving regulatory requirements and industry best practices. This proactive approach can assist in navigating potential challenges posed by increased regulatory scrutiny. In addition to mitigate the impact of credit risk, banks should consider diversifying their loan portfolios. This involves spreading lending across different sectors and industries, reducing the concentration risk associated with a specific sector.

The findings also indicted that operational risk has a significant influence on the performance of listed commercial banks in Kenya. This could instigate policy initiatives aimed at strengthening operational resilience within the banking sector by developing comprehensive guidelines and frameworks to ensure the establishment and maintenance of robust operational processes and systems. The recognition of its influence may lead to increased regulatory scrutiny, imposing a

greater compliance burden on banks. While the intention behind such scrutiny is to strengthen operational frameworks, the resulting challenges in terms of resource allocation and adaptation to new regulatory requirements could pose difficulties for banks. Striking a balance between ensuring compliance and avoiding excessive burdens is crucial to fostering a regulatory environment that promotes operational resilience without unduly hampering the operational efficiency of the banking institutions. Therefore, it is recommended that Banks conduct comprehensive risk assessments regularly. This involves identifying and evaluating potential operational vulnerabilities, enabling banks to implement effective risk mitigation strategies. To enhance operational resilience, banks should consider substantial investments in technology. This includes upgrading and maintaining robust information technology systems, cybersecurity measures, and data protection protocols to mitigate the risks associated with technological failures and cyber threats. Banks are should engage in scenario planning to anticipate and prepare for potential operational disruptions. This involves simulating various scenarios to test the resilience of operational systems and implementing measures to address identified weaknesses.

Lastly, liquidity risk has significant influence on performance of listed commercial bank in Kenya. Enhancing regulatory oversight for listed commercial banks in Kenya involves reinforcing frameworks to effectively monitor and manage liquidity risk. This includes the regular assessment and updating of liquidity requirements to align with the dynamic nature of the banking industry. Transparent reporting is a key aspect, requiring banks to provide accurate disclosures regarding their liquidity positions. Standardized reporting formats are encouraged to promote comparability across banks, fostering a clearer understanding of the sector's overall

liquidity landscape. The implementation of macroprudential policies is essential to mitigate systemic liquidity risk. This necessitates collaboration with central banks to develop tools for industry-level liquidity management. Stress testing is another critical measure, with banks mandated to conduct regular assessments to evaluate their resilience in adverse liquidity conditions. The results of stress tests should inform regulatory decisions and interventions, enabling a proactive approach to maintaining financial stability within the banking sector. From the findings it is recommended that Listed banks should diversify their funding sources to reduce reliance on short-term funding and promote the development of longer-term funding instruments in the financial markets. There should be robust liquidity risk management practices within banks through the use advanced risk modelling techniques to identify and address potential liquidity issues. The Listed commercial banks should engage with international regulatory bodies to adopt best practices in liquidity risk management. The banks should invest in training programs to enhance the capacity of regulatory bodies and bank management in managing liquidity risk. They should also establish emergency liquidity facilities or arrangements to provide support during periods of severe liquidity stress and clearly communicate the availability and conditions of such facilities to banks.

5.5 Limitations of the Study

During the study the researcher faced numerous challenges. First the study's effectiveness may be constrained by the availability and quality of historical financial data for commercial banks. Inaccuracies or gaps in the data could impact the precision of risk assessments and performance evaluation. To mitigate this the researcher ensured meticulous data collection and verification processes by cross-checking data from multiple reliable sources, and collaborating with regulatory bodies or industry experts to enhance data accuracy. The Secondary data had a fixed

time range, limiting the ability to capture real-time dynamics. The researcher acknowledged the temporal constraints and clearly specify the time frame covered by the data. Financial risks are dynamic, and their nature can evolve over time. The study's snapshot approach could not capture all the ongoing changes in risk profiles, especially in the face of emerging risks such as technological advancements or unforeseen global events. Finally, the study may not fully incorporate the perspectives of various stakeholders, such as bank management, regulatory authorities, or customers. A more comprehensive understanding of risk and performance could be gained through a more diverse range of perspectives.

5.6 Suggestion for Further Research

The researcher suggested that a study should be undertaken on the explore the macroeconomic factors influencing credit, operational, and liquidity risks in the banking sector, providing a broader understanding of how external economic conditions affect the performance of listed commercial banks. A similar study can also be done by looking at similar data in different countries or other proxies like sales growth for firm size. Further studies should be undertaken to examine the correlation between customer behavior, particularly in response to economic uncertainties, and the credit and liquidity risks faced by commercial banks. This could provide insights into customer-driven risk dynamics.

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APPENDICES

Appendix I: Listed Commercial banks in Kenya

1. Absa Bank Kenya PLC
2. Stanbic Holdings Plc.
3. I&M Holdings Ltd
4. Diamond Trust Bank Kenya Ltd
5. KCB Group Ltd
6. NCBA Group PLC
7. Standard Chartered Bank Ltd
8. Equity Group Holdings
9. The Co-operative Bank of Kenya Ltd
10. HF Group Ltd
11. National bank of Kenya Ltd

Source: NSE(2022)

Appendix II: Data Collection Guide

Bank Name	Year	Total Assets	Profits after Tax	Total Customer deposits	Total Outstanding Loans	Operating Expenses	Non-performing loans
	2018						
	2019						
	2020						
	2021						
	2022						
	2023						