INTERNATIONAL FINANCIAL REPORTING STANDARD 9 AND PERFORMANCE OF COMMERCIAL BANKS IN KENYA

THOGO MBURU DANIEL

D58/CTY/PT/28907/2013

A THESIS SUBMITTED TO THE SCHOOL OF BUSINESS, ECONOMICS AND TOURISM IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF SCIENCE DEGREE IN FINANCE OF KENYATTA UNIVERSITY

SEPTEMBER, 2025

DECLARATION

I declare that this thesis is my original work and has not been presented for a degree in any other university or for any other award. No part of this thesis may be produced without prior authority of the author and/or Kenyatta University.

Signature _____ Date _____

Thogo Mburu Daniel

D58/CTY/PT/28907/2013

SUPERVISORS

We confirm that this thesis was undertaken by the student under our guidance as the university appointed supervisors.

Signature _____ Date: _____

Dr. Fredrick Warui

Department of Accounting and Finance

School of Business, Economics and Tourism

Kenyatta University

Signature: _____ Date: _____

Dr. Salome Musau

Department of Accounting and Finance

School of Business, Economics and Tourism

Kenyatta University

DEDICATION

I dedicate this work to my mother, Teresiah Njoki Thogo, whose steadfast faith in my abilities and unwavering encouragement have been a profound source of motivation. Her guidance and support have inspired me to pursue my academic aspirations and played an essential role in shaping my character and identity.

I also fondly remember my late father, George Thogo Mwai, whose values, sacrifices, and vision for education continue to inspire me. Though absent, his influence has remained a guiding light throughout this journey.

To my spouse, Pauline Mburu, and my children, Ethan Thogo and Emmy Njoki, I remain deeply grateful for your prayers, patience, and understanding during the course of this work. Your steadfast support has given me strength and inspiration to persevere through this academic endeavor.

ACKNOWLEDGMENT

I am profoundly grateful to Almighty God for granting me good health, strength, and resilience throughout the course of this research. Without His divine grace and favor, the successful completion of this study would not have been possible.

I extend my deepest appreciation to my supervisors, Dr. Fredrick Warui and Dr. Salome Musau, for their invaluable guidance, unwavering support, and consistent commitment to this work. Their expertise, constructive input, and encouragement were instrumental in shaping the direction of my research and in enhancing the quality of this thesis.

.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

OPERATIONAL DEFINITION OF TERMS

Basel Accords	International banking regulations by BCBS establishing minimum capital requirements and risk management standards for global banks.
Capital Adequacy:	A bank's financial capacity to absorb potential losses while maintaining operations and meeting regulatory requirements. It reflects the bank's ability to protect depositors and creditors against unexpected losses.
Competition:	The level of rivalry and market contestability within the banking industry in Kenya. It reflects the competitive pressure banks face in attracting customers and market share. Operationalized and measured through the Herfindahl-Hirschman Index (HHI).
Credit Risk:	The probability that borrowers or counterparties will fail to repay their loan obligations as contractually agreed, resulting in financial losses to the lending institution. Proxy by level of NPLs.
Expected Credit Loss (ECL):	A forward-looking impairment framework introduced by IFRS 9 that requires banks to estimate and recognize credit losses expected over a financial instrument's lifetime. The model incorporates historical data, current conditions, and reasonable forecasts of future economic conditions. ECL is calculated using the formula: Probability of Default (PD) × Loss Given Default (LGD) × Exposure at Default (EAD).
Financial Performance:	A bank's ability to generate profit from its assets and operations, reflecting management efficiency and operational effectiveness. It measures how successfully a bank converts its assets into earnings. Operationalized as Return on Assets (ROA).
IFRS 9:	The International Financial Reporting Standard 9 for financial instruments, issued by the International Accounting Standards Board (IASB) in July 2014. It replaced IAS 39 and established new requirements for

	classification, measurement, impairment, and hedge accounting of financial instruments, with mandatory global implementation from January 1, 2018.
Loan Loss Provisions (LLP):	Expense amounts set aside by banks to cover expected credit losses on their loan portfolios under IFRS 9. These provisions represent management's forward-looking estimate of probable losses from borrower defaults.
Large Bank:	A commercial bank with a weighted composite market index of 5% and above according to CBK's classification system. The composite index considers factors including net assets, customer deposits, loan accounts, and shareholders' funds to determine market significance.
Medium Bank:	A commercial bank with a weighted composite market index between 1% and 5% according to CBK's classification system and represent the middle tier of the Kenyan banking sector in terms of size.
Small Bank:	A commercial bank with a weighted composite market index below 1% according to CBK's classification system.

ABBREVIATION AND ACRONYMS

BCBS:	Basel Committee on Banking Supervision
CAR:	Capital Adequacy Ratio
CBK:	Central Bank of Kenya
ECL:	Expected Credit Loss
EU:	European Union
FY:	Financial Year
GCC:	Gulf Cooperation Council
IAS:	International Accounting Standard
IASB:	International Accounting Standards Board
ICL:	Incurred Credit Loss
ICPAK:	Institute of Certified Public Accountants of Kenya
IFRS:	International Financial Reporting Standard
LLP:	Loan Loss Provisions
MENA:	Middle East and North Africa
NIM:	Net Interest Margin
ROI:	Return on Investment
ROA:	Return on Asset
ROE:	Return on Equity
SA:	Standardized Approach
SCP:	Structure-Conduct-Performance

ABSTRACT

Despite the implementation of International Financial Reporting Standard 9 (IFRS 9) aimed at strengthening bank financial performance through robust credit risk management and forward-looking loan loss provisioning, conflicting evidence exists regarding its actual impact on commercial bank performance. Since IFRS 9's global implementation in 2018, studies have produced mixed results, with some indicating adverse effects on financial performance due to early recognition of expected credit loss provisions, while others suggest positive outcomes. In Kenya's context specifically, the banking sector has experienced continued consolidation and performance disparities across different bank tiers, raising questions about IFRS 9's effectiveness in achieving its intended objectives. Commercial banks serve as key intermediaries in resource allocation, facilitating fund flows from depositors to investors. Following the 2007-2008 financial crisis, the International Accounting Standards Board introduced IFRS 9 in 2014 to replace IAS 39, establishing a forward-looking expected credit loss framework designed to enhance financial stability and transparency. The purpose of this research was to analyze the influence of IFRS 9 on the financial performance of commercial banks in Kenya. The specific objectives examined the effects of loan loss provisioning, credit risk management, and capital adequacy on bank performance under the IFRS 9 framework, with bank competition tested as a moderating variable. The study was grounded in Credit Risk Theory, Asymmetric Information Theory, Agency Theory, Basel Capital Adequacy Framework, and Structure-Conduct-Performance Theory. A positivist philosophy and longitudinal research design were adopted, utilizing secondary panel data from all 39 commercial banks in Kenya over the period 2018-2022. Data was obtained from audited financial statements and Central Bank of Kenya supervision reports. Descriptive statistics and panel regression analysis were employed for data analysis, with comprehensive diagnostic tests conducted to ensure model validity. The findings revealed positive significant effects of loan loss provisioning ($\beta = 0.402$, $p < 0.001$), credit risk management ($\beta = 0.737$, $p < 0.001$), and capital adequacy ($\beta = 0.188$, $p < 0.05$) on bank performance measured by return on assets. Bank competition, measured through market share concentration, was found to significantly moderate these relationships, with the moderation model explaining 45.71% of performance variance compared to 40.32% in the direct effects model. The study recommends that bank managers enhance loan loss provisioning practices as a strategic tool rather than viewing provisions as performance constraints, maintain adequate capital buffers to support regulatory compliance and lending operations, and pursue market share growth strategies to leverage competitive advantages under IFRS 9. These findings contribute to the understanding of how international accounting standards can create competitive advantages when properly implemented in emerging market banking sectors.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Commercial banks play a central role in the economy by channeling financial resources from depositors to investors, facilitating payments and transactions, transmitting monetary policy through the provision of liquidity to the financial system, and promoting financial inclusion (Isanzu, 2017). According to Laeven and Valencia (2012), good financial performance is critical as it rewards shareholders for their investment, attracts further investment, enables banks to raise capital at lower costs, and creates employment opportunities, thereby sustaining economic growth. Conversely, Gorton (2010) cautions that poor bank performance can result in bank failures and financial crises, with adverse effects on the wider economy.

In the aftermath of the 2007–2008 global financial crisis, regulators and policymakers introduced reforms aimed at improving the stability and performance of commercial banks (Berger et al., 2010). A key reform was the introduction of International Financial Reporting Standard 9 (IFRS 9) by the International Accounting Standards Board (IASB) in 2014. IFRS 9 was designed to strengthen bank performance by embedding robust risk management practices in financial instruments, enhancing the classification and measurement of assets, ensuring timely impairment recognition, improving provisioning for credit losses, and aligning risk management with hedging strategies (Barth et al., 2013).

Driven by the need for long-term financial stability, commercial banks have increasingly adopted comprehensive risk management frameworks to sustain performance (Hirtle & Kovner, 2017). However, Naceur and Omran (2011) argue that bank performance is also shaped by external industry-wide factors such as competition, which banks must address to remain resilient. Hope et al. (2013) observe that competition can sometimes lead to excessive risk-taking behavior, manifesting in higher credit risk exposures, elevated non-performing loans (NPLs), larger provisions for loan losses, reduced profitability, and a subsequent decline in Tier 1 capital levels.

Globally, both theoretical and empirical studies have examined the relationship between bank performance and the adoption of IFRS 9. Evidence from European and Asian markets suggest that while IFRS 9 has enhanced financial performance by strengthening credit risk management, it has also led to increased provisioning for expected credit losses and declines in Tier 1 common equity levels (Kund *et al.,* 2020; Pastiranova & Witzany, 2021; Dib & Feghali, 2021). Similarly, a study by Kaimu and Muba (2021) in Tanzania found that the adoption of IFRS 9 had a notable impact on the performance of commercial banks.

In Kenya, however, empirical findings have been mixed. Some studies have shown that IFRS 9 adversely affected the financial health of banks by increasing NPLs and loan loss provisions, while others reported positive effects on bank performance (Obwacha, 2019; Ongalo & Wanjare, 2019; Nyangidi, 2020; Omukhulu, 2020).

1.1.1 International Financial Reporting Standard 9

IFRS 9 replaced the previous standard, IAS 39 (IASB, 2014). According to Casta *et al.* (2019), IFRS 9's adoption of the expected credit loss (ECL) model for impairment

recognition marked a more forward-looking approach compared to the incurred loss model under IAS 39. The authors highlight that under IFRS 9, financial assets are categorized into three measurement categories: amortized cost, fair value through other comprehensive income (FVOCI), and fair value through profit or loss (FVTPL). Classification depends on both the entity's business model and the contractual characteristics of the financial asset's cash flows.

Alexander (2010) explains that financial assets that are held solely to collect contractual cash flows and that meet the "solely payments of principal and interest" (SPPI) criterion are measured at amortized cost. Assets held both to collect cash flows and for sale, but not meeting the SPPI criterion, are classified as FVOCI. Assets that do not meet the criteria for either amortized cost or FVOCI are categorized as FVTPL.

The IASB (2014) emphasizes that the IFRS 9 hedging framework was designed to provide a more straightforward alignment between risk management strategies and financial reporting. The framework introduced a principles-based approach to hedge accounting, enabling organizations to better reflect their risk management activities in financial statements. It broadened the scope of eligible hedging instruments and hedge items, thereby allowing more comprehensive representation of risk management. As Alexander (2010) notes, these changes enhance transparency and accuracy for stakeholders by offering clearer guidelines for assessing hedge effectiveness.

According to Pinto and Morais (2022), IFRS 9 established objective criteria for the classification and measurement of financial assets, enhancing transparency and promoting a forward-looking approach to credit risk assessment. Expected losses on loans and advances measured at amortized cost must now be recognized more objectively, even

before actual losses materialize. However, the authors argue that entities with elevated credit risk face higher LLPs, which may reduce profitability and weaken capital adequacy ratios (CAR).

Rene *et al.* (2018) further observe that LLPs, set aside to cover potential loan losses, are determined under IFRS 9's forward-looking model. Higher LLPs reduce net income and, consequently, retained earnings—a critical component of a bank's core capital. Lower CAR levels, in turn, restrict lending capacity and negatively affect interest income from loans.

Kenya adopted IFRS 9 on January 1, 2018. To guide the transition, the Central Bank of Kenya (CBK, 2018) issued directives requiring commercial banks to comply with the new standard's provisions on credit risk management and loan loss provisioning. To cushion banks against immediate negative impacts on profitability, CBK recommended a phased implementation approach. This allowed banks to recognize ECL provisions through their balance sheets instead of the profit and loss account during the first year. Additionally, CBK introduced a five-year transition window (2018–2022) permitting banks to add back ECL provisions on loans that were performing as of December 31, 2017, when computing regulatory capital.

To evaluate IFRS 9's effect on bank performance, this study focused on three key dimensions of the impairment framework: forward-looking credit risk management, ECL loan loss provisions, and capital adequacy ratio. Competition was incorporated as a moderating variable to examine its influence on the relationship between IFRS 9 and the return on assets (ROA) of commercial banks in Kenya.

1.1.2 Financial Performance

Laeven and Majnoni (2003) emphasize financial performance as a critical measure of a firm's ability to achieve financial goals and sustain long-term stability. In a similar vein, Evans (2004) argues that financial performance extends beyond profitability, encompassing the effective utilization of resources and the achievement of targeted outputs. Commonly, accounting-based indicators such as return on investment (ROI), return on assets (ROA), and return on equity (ROE) are applied to evaluate financial performance (Engelmann & Nguyen, 2016).

Kassim (2011) notes that ROI measures the profitability of an investment relative to its cost, calculated as the ratio of total profit to the cost of investment. ROI is often used to assess the financial viability of specific projects or investments. Rugilo (2018) explains that ROA assesses a firm's ability to generate profit from its assets, derived by dividing total profit by total assets, while ROE measures returns generated for shareholders, calculated as the ratio of total profit to total equity.

Hirtle and Kovner (2017) contend that ROA is a more appropriate measure of bank performance because it is less affected by capital structure. They highlight the substantial influence of regulatory requirements on banks' capital composition, which limits their capacity to manipulate debt levels. While ROI is valuable for evaluating project-specific profitability within a set timeframe, banking operations are ongoing entities with indeterminate horizons. For this reason, ROA is considered a more robust and representative metric of banks' financial performance.

1.1.3 Bank Competition

Naceur and Omran (2011) explain that the competitive dynamics of an industry are shaped by its fundamental structure, economic foundation, and technical characteristics. These dynamics arise from both intrinsic and extrinsic factors, which are classified as firm-specific and industry-specific, respectively. Kiragu and Ndwiga (2013) argue that internal factors, such as strategic direction, policies, and objectives, are controlled by management and directly influence institutional performance. By contrast, external factors—including government policy, tax incentives, technological advancements, and demographic shifts—also affect performance but remain beyond managerial control.

In highly competitive environments, banks often adopt aggressive strategies to increase their customer base and market share. Nuralyza *et al.* (2022) observe that this includes intensive marketing to attract deposits, while Wong *et al*. (2008) note that competitive pressures can lead banks to offer lenient loan terms, such as lower interest rates and extended repayment periods. While such strategies may help secure market share, they also elevate credit risk by increasing the likelihood of non-performing loans (NPLs). Similarly, offering higher deposit rates alongside lower lending rates compresses interest margins and may adversely affect financial performance.

In Kenya, Musau *et al*. (2018) highlight that banks operate in a highly competitive sector where products and services are largely similar, intensifying the rivalry for customers and talent. This competition has contributed to significant movement of skilled professionals across institutions, making senior management positions among the most well-paid jobs in the sector. FSD-Kenya (2022) further reports that banks have increasingly turned to

aggressive marketing campaigns and promises of superior customer experience as part of their competitive strategies.

Regionally, Kenya stands out as having one of the largest numbers of commercial banks in East Africa, with 39 institutions compared to 25 in Uganda and 34 in Tanzania (BOU, 2022; BOT, 2022). According to FSD-Kenya (2022), this competitive landscape has pushed banks to leverage the country's advanced digital infrastructure and high mobile penetration to expand lending, particularly through short-term mobile loans to households and small businesses without collateral. While this has enhanced financial inclusion, it has also heightened exposure to credit risk. Indeed, CBK (2022) reported that mobile loans accounted for 12.7% of industry NPLs in 2022, up from 10.9% in 2021, underscoring the risks that accompany digital lending in an intensely competitive environment.

Moyo *et al*. (2014) identify three common measures of competition: the number of firms, the concentration ratio, and the Herfindahl–Hirschman Index (HHI). Musau *et al.* (2018) note that while the number of firms provides a simple count, it ignores market distribution. The concentration ratio improves on this by considering the market share of leading firms, though it often neglects the size and distribution of smaller players. The HHI, in contrast, offers a more comprehensive assessment as it incorporates the entire distribution of market shares across all firms (Hirschman, 1964). For this reason, Musau et al. (2018) argue that the HHI is the most suitable measure of competition in the banking sector. Consistent with this view, the present study adopted the HHI to evaluate the competitive dynamics of banks in Kenya.

1.1.4 Commercial Banks in Kenya

Kenya's financial ecosystem stands out for its relative sophistication within its income bracket and compared to many sub-Saharan African economies (United Nations, 2021). It comprises commercial banks, non-bank financial institutions, a variety of insurance companies, and a functioning stock exchange. Within this ecosystem, commercial banks remain dominant, accounting for 39 entities as of 2022, excluding those under regulatory intervention such as Charterhouse, Imperial, and Chase Banks (CBK, 2022).

The Central Bank of Kenya (CBK) employs a weighted composite index to classify commercial banks into three peer groups based on factors such as net assets, number of loan accounts, deposits, shareholders' funds, and capital reserves. Banks with a composite index score of 5% or more are categorized as large, those between 1% and 5% as medium, and those below 1% as small (CBK, 2022).

Table 1.1: Classification of Commercial Banks

Category	**Institutions**	**Market Share (%)**	**Assets (%)**	**Deposits KES. (Billions)**	**Capital KES. (Billions)**	**PBT KES. (Billions)**
Large	9	75.14	4,971	3,736	684	209
Medium	8	16.29	1,050	856	149	29
Small	22	8.57	569	406	84	3
Total	39	100	6,590	4,999	918	241

Source, CBK (2024)

The data in Table 1.1 highlights the high market concentration in Kenya's banking sector. Nine large banks dominate with 75.14% market share, while eight medium banks and twenty-two small banks account for 16.29% and 8.57% respectively. Profit distribution is also uneven: large banks contributed 87% of industry profits, compared to 12% and 1% from medium and small banks respectively, despite the latter two groups making up 77% of the total number of institutions.

Table 1.2: Commercial Banks's ROA from 2018-2022

ROA	2018	2019	2020	2021	2022
Large Tier (%)	3.16	3.01	1.79	2.91	3.26
Medium Tier (%)	2.13	2.09	1.64	1.98	2.41
Small Tier (%)	-0.26	-0.45	-0.01	0.18	0.61
Overall (%)	2.64	2.58	1.60	2.51	2.90

Source (CBK 2018 - 2022)

The performance analysis in Table 1.2 shows that banks experienced a general decline in ROA between 2018 and 2021, reflecting sector-wide stress. Large banks' ROA fell from 3.16% in 2018 to 2.91% in 2021, medium banks declined from 2.13% to 1.98%, and small banks improved marginally from -0.26% to 0.18% but remained subdued. The overall industry ROA fell from 2.64% in 2018 to 2.51% in 2021. A recovery was observed in 2022, with large banks' ROA rising to 3.26%, medium banks to 2.41%, and small banks to 0.61%. This improvement coincided with a rise in non-funded income from 36.1% in 2021

to 37.8% in 2022, suggesting strategic shifts to cushion against provisioning pressures under IFRS 9 (CBK, 2022).

To synthesize these trends, the data reveal distinct performance patterns across bank categories during the 2018–2022 period. Large banks consistently posted strong results, with ROA stabilizing around 3.26% by 2022. Medium banks displayed persistently moderate performance, with ROA fluctuating between 1.98% and 2.41%. Small banks, while improving from negative to positive territory, demonstrated systematically weak performance, with ROA peaking at only 0.61%. This stratification underscores the structural disparities within the sector, where size and market position significantly influence financial resilience under IFRS 9.

On capital adequacy, CBK (2022) reported that two banks failed to meet the minimum KSh.1 billion core capital requirements, while five did not comply with the 10.5% minimum core capital and 14.5% minimum total capital ratios. Despite a 22% rise in profitability to KSh.241 billion, NPLs grew by 9.4% from 2021 to 2022, underscoring ongoing challenges in asset quality despite profitability recovery

1.2 Statement of the Problem

The well-being of a nation's economy is anchored on a sound banking system that mobilizes savings, allocates credit, and supports financial stability. Assessing and improving banks' financial health through measures such as ROA and ROE is therefore critical (Engelmann & Nguyen, 2016). In Kenya, however, persistent disparities in financial performance remain evident across bank tiers. Between 2018 and 2022, large banks consistently reported strong ROA levels above 3.0 percent, medium banks recorded moderate outcomes averaging 2.1 percent, while small banks exhibited systematically

weak results averaging just 0.6 percent, at times negative. Profitability is similarly concentrated, with nine large banks generating 87 percent of sector profits in 2022 compared to 12 percent from medium banks and only 1 percent from small banks.

These disparities have contributed to ownership changes and restructuring within the sector. For example, NBK was acquired by KCB in 2019 following prolonged challenges with profitability and capital adequacy, Jamii Bora was taken over by Co-operative Bank in 2020 after sustained weak performance, and Spire Bank faced severe financial strain in 2022 that necessitated intervention. Such imbalances heighten systemic and contagion risks, erode investor confidence, and constrain equitable access to financial services.

In response to concerns over performance and stability, global reforms such as IFRS 9 were introduced, embedding forward-looking credit risk recognition and stricter loan loss provisioning. The standard was expected to strengthen resilience, but empirical evidence has been inconclusive. International studies report divergent outcomes, ranging from performance declines (Al-Nsour & Abuaddous, 2021; Blazekova, 2018) to long-term improvements once banks adjust (Ntaikou et al., 2018). Kenyan findings mirror this inconsistency: some studies (Obwacha, 2019; Omukhulu, 2020; Nyangidi, 2020) linked IFRS 9 to weaker ROA and ROE, while others (Ongalo & Wanjare, 2019) found positive effects on profitability and capital adequacy.

After five years of full implementation (2018–2022), banks' growing reliance on non-funded income—which rose from 36.1 percent to 37.8 percent in 2022—suggests a strategic adjustment to cushion the impact of provisioning rules on lending performance. Yet, the persistent underperformance of medium and small banks, which together comprise 77 percent of institutions, highlights ongoing vulnerabilities despite the resilience of larger

players. Against this backdrop of mixed empirical findings, structural disparities, and strategic responses, there is a clear need to examine how IFRS 9 has shaped the financial performance of commercial banks in Kenya. Prior studies remain constrained by methodological gaps focusing on Tier I banks only, temporal gaps arising from short implementation periods, conceptual gaps from limited application of moderation analysis, and contextual gaps due to predominantly European or GCC-based research. Addressing these limitations will help clarify IFRS 9's true impact on bank performance, stability, and resilience in the Kenyan context.

1.3 Objectives of the Study

1.3.1 General Objective

This research was aimed to establish the effect of IFRS 9 on the performance of banks in Kenya.

1.3.2 Specific Objectives

i) Assess the effect of expected credit loss loan loss provisioning on the financial performance of banks in Kenya.

ii) Ascertain the effect of forward-looking credit risk management on the financial performance of banks in Kenya.

iii) Investigate the effect of the capital adequacy ratio on the financial performance of banks in Kenya.

iv) Examine the moderating effect of competition on the relationship between IFRS 9 and the financial performance of banks in Kenya.

1.4 Hypotheses of the Study

The objectives were answered through testing the given null hypotheses:

H_{01}: Expected loan loss provisions have no statistically significant effect on the financial performance of banks in Kenya.

H_{02}: Forward-looking credit-risk management has no statistically significant effect on the financial performance of banks in Kenya.

H_{03}: Capital adequacy has no statistically significant effect on the financial performance of banks in Kenya.

H_{04}: Bank Competition has no significantly significant moderation effect on the relationship between IFRS 9 and financial performance of banks in Kenya.

1.5 Significance of the Study

The findings of this study will be beneficial to several stakeholders within the financial sector. For the Central Bank of Kenya, the results can be used to evaluate the effectiveness of existing IFRS 9 guidelines in strengthening the operations of commercial banks. The insights generated can inform prudential policy, guide the enhancement of supervisory frameworks, and support the development of new regulations or guidance to address emerging risks associated with competition and risk-taking behaviour among banks.

The Capital Markets Authority will also benefit by drawing on the findings to strengthen compliance requirements for listed banks. A more robust regulatory framework around IFRS 9 will enhance market transparency and foster greater investor confidence. At the institutional level, banks themselves will gain a deeper understanding of both the

immediate and long-term implications of IFRS 9 adoption. This knowledge will help them improve risk management practices, optimize capital adequacy, and enhance profitability by aligning strategies with areas where IFRS 9 has the greatest impact.

Beyond regulators and banks, borrowers, international lenders, and investors stand to gain from clearer insights into the influence of IFRS 9 on banks' risk profiles and financial performance. These stakeholders can use the evidence to make more informed decisions based on the risk-return trade-offs of different institutions. Finally, the study contributes to academia by examining the effects of three key dimensions of IFRS 9—forward-looking credit risk management frameworks, expected credit loss provisions, and capital adequacy—on bank performance. The data generated provides a valuable empirical base and serves as a foundation for further research into the ongoing implementation of the standard and its impact on the financial sector in Kenya.

1.6 Scope of the Study

This study focused on commercial banks in Kenya that were operational between 2018 and 2022. This period was selected because it coincided with the implementation of the Central Bank of Kenya's IFRS 9 Guidance Note, which provided banks with a one-year transition arrangement. Under this framework, banks were permitted to add back expected credit loss provisions for capital computation purposes on newly issued loans in 2018, and to track and add back loan loss provisions on loans that were already existing and performing prior to 2018. This transitional treatment was allowed up to December 2022, making the five-year window an ideal timeframe for assessing both the short-term and longer-term effects of IFRS 9 on bank performance.

The explanatory factors examined were the key components of IFRS 9, namely loan loss provisions, credit risk, and capital adequacy, with competition incorporated as a moderating variable. These factors were analyzed in relation to banks' financial performance. The study relied on secondary data drawn from CBK and audited financial statements of the sampled banks covering the period from 2018 to 2022.

1.7 Limitation of the Study

The study was subject to several limitations. First, IFRS 9 has only been in effect for a relatively short period globally, and the five-year window of analysis posed a time constraint in capturing its long-term impacts. Second, the scarcity of local empirical studies on the effects of IFRS 9 in Kenya and across Africa necessitated reliance on comparative literature from Europe and Asia, which may reflect different institutional and regulatory contexts. Third, while the study concentrated on specific components of IFRS 9 and incorporated competition as a moderating variable, it acknowledged that other external factors beyond the scope of this analysis may also influence bank performance.

1.8 Organization of the Study

Section one introduces this work by discussing its limitations, significance, objectives, problem statement, and background. The second chapter addresses the gaps in existing empirical research and proposes the relevant underpinning theories. The third chapter detailed the study's applicable methodology. Chapter four comprised of statistical analysis of the relevant data while the final chapter summarizes the findings thereof before concluding the thesis with well-considered recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section serves as an introduction to the theories and empirical literature underpinning the research. A comprehensive review on the study variables, including loan loss provisioning, credit risk, capital adequacy, and bank competition is provided. The chapter also highlights the research gaps that have been identified. Additionally, a conceptual framework is presented, illustrating the interrelationships between the variables of IFRS 9, competition, and Return on Assets.

2.2 Theoretical Literature

It encompasses various theories that contribute to understanding and conceptualization of the work. These include the Theory of Credit Risk, which explores financial risk in lending institutions, the Agency Cost Theory, which analyzes conflicts of interest within organizations, and the Basel capital adequacy framework, which assesses capital adequacy. The asymmetry theory is used to examine how banks address information asymmetry in lending decisions under IFRS 9. Additionally, the Structure-Conduct-Performance (SCP) paradigm theory investigates the influence of bank competition on credit risk-taking behavior.

2.2.1 Theory of Credit Risk

The Theory of Credit Risk, first proposed by Robert Merton in 1974, states that lending institutions face the risk of financial loss when customers fail to adhere to repayment schedules. To manage this risk, banks and investors use credit risk models to assess the

probability that loans will be repaid as planned (Hull et al., 2004). Numerous studies have explored the relationship between credit risk and financial performance, consistently finding an inverse association. For instance, Abbas et al. (2019) found that credit risk, bank liquidity, and bank capital had adverse effects on the net income and return on equity of banks in the United States. Chen et al. (2017) observed that Chinese banks with strong risk management systems and diversified loan portfolios outperformed their peers during downturns. Similarly, Garcia and Martinez (2016) reported that European banks with effective credit risk assessment processes achieved superior financial performance compared to those with weaker frameworks.

Banks face various categories of risks, some unique to each institution and others common across the industry. To mitigate these risks, they employ strategies to reduce or eliminate earnings variability caused by adverse factors (Githinji, 2016). Kolapo *et al.* (2012) noted that while banks extend loans expecting full repayment with interest, borrowers may encounter challenges in repayment, leading to loans being classified as underperforming or non-performing.

Within this context, IFRS 9's requirement for recognition of 12-month and lifetime expected credit losses introduced stricter loan classification rules and a forward-looking approach. This resulted in potentially higher loan loss provisions and operating costs, ultimately reducing profitability (Oberson, 2021). These outcomes align with the established negative correlation between credit risk and financial performance.

2.2.2 Asymmetric Information Theory

The Theory of Asymmetric Information, introduced by Akerlof in 1962 and further developed by Michael Spence in 1973 and Joseph Stiglitz in 1981, explains the existence of information disparities between borrowers and lenders in the credit market. The theory argues that because banks do not have perfect information, some borrowers may deliberately provide false or misleading details to exploit lenders' incomplete understanding of their businesses.

Ivashina (2009) argued that such asymmetry led to adverse selection and moral hazard. Borrowers had incentives to misrepresent their creditworthiness to secure loans, making it difficult for banks to accurately assess repayment capacity. Berndt and Gupta (2009) observed that moral hazard arose when borrowers misused loan proceeds for ventures perceived as more lucrative than the intended purpose, thereby increasing volatility and default risk.

Building on this theory, IFRS 9 requires banks to adopt forward-looking expected credit loss models for loan loss provisioning. According to the IASB (2014), provisions are determined by multiplying Probability of Default, Loss Given Default, and Exposure at Default. KPMG (2019) noted that this requirement obliged banks to assess risk and recognize both 12-month and lifetime expected credit losses at the point of origination, thereby increasing operating costs and potentially reducing profitability.

2.2.3 Agency Theory

Agency Theory, developed by Demsetz in 1972 and further expanded by Jensen in 1976, emphasizes the potential divergence of interests between managers and shareholders in

large corporations. The theory argues that managers, acting as agents, may not always prioritize the best interests of shareholders, thereby creating an agency problem. To mitigate this, governance structures and mechanisms of oversight are necessary to safeguard shareholder interests (Jensen, 1976).

Harmawijaya et al. (2021) explain that Agency Theory assumes managers are rational and motivated by self-interest, which may cause them to prioritize personal gains over the long-term well-being of the corporation. Consequently, shareholders must monitor managerial behavior through mechanisms such as transparent financial disclosures and accuracy in reporting. Lia et al. (2009) highlight that conflicts of interest between managers and shareholders can result in financial losses, as management decisions may favor personal incentives rather than maximizing shareholder wealth. Kiragu and Ndwiga (2013) further argue that in banking contexts, credit risk managers may override internal controls by misclassifying non-performing loans as performing, thereby understating loan loss provisions and overstating profits to protect loan portfolio performance.

The significance of Agency Theory to this study lies in the role of IFRS 9's expected credit loss framework as a safeguard against such management overrides. By mandating loan loss provisions at the point of loan origination and requiring recognition of lifetime expected credit losses in cases of significant credit risk deterioration, IFRS 9 enhances transparency and reduces the scope for earnings manipulation. In doing so, it provides assurance to shareholders, investors, and regulators that managerial actions align more closely with the goal of protecting shareholder value and ensuring sound credit risk management.

2.2.4 Basel Capital Adequacy Framework

The Basel Capital Adequacy Framework was introduced in 1988 to ensure that banks maintain sufficient capital buffers to absorb potential losses and protect the interests of depositors and lenders. The framework has undergone periodic revisions, with Basel II implemented in 2004 and Basel III in 2013 (BCBS, 2004; BCBS, 2013). Under Basel II, banks are required to maintain a minimum capital adequacy ratio of 8 percent, calculated by dividing a bank's capital by its risk-weighted assets. Risk-weighted assets are determined by assigning risk weights to each asset to reflect the level of credit risk exposure associated with it (BCBS, 2009).

Blazekova (2018) applied the Basel Capital Adequacy Framework to examine the effect of IFRS 9 on bank profitability across 15 European countries and found that IFRS 9 negatively affected regulatory capital due to the immediate rise in loan loss provisioning requirements in stages one and two. Similarly, Brei et al. (2020) studied the impact of IFRS 9 on capital adequacy and lending behavior, and concluded that banks facing stricter capital requirements often curtailed lending in order to comply with regulations, which in turn reduced their overall performance.

In the Kenyan context, Ongalo and Wanjare (2019) reported a decline in industry-wide capital adequacy ratios in 2018, attributing the drop to the increase in impairment charges following the introduction of IFRS 9. Nyangidi (2020), Obwacha (2019), and Omukhulu (2020) similarly observed that higher loan loss provisions reduced the retained earnings component of Common Equity Tier 1, thereby weakening banks' capital positions and constraining their lending ability as well as their interest margins.

The Basel Capital Adequacy Framework is therefore directly relevant to this study, as it provides the statutory minimum capital requirements under Basel II, allowing for assessment of how capital adequacy interacts with bank performance following IFRS 9 implementation. Since IFRS 9 requires banks to recognize higher loan loss provisions, its application directly affects capital buffers. Elena *et al.* (2020) emphasized that maintaining higher capital levels is positively associated with stronger financial performance, while weaker capital levels can hinder lending capacity and reduce interest income from loans and advances. Ensuring adequate capitalization remains essential for banks to sustain profitability and maintain stability in a forward-looking regulatory environment.

2.2.5 The Structure-Conduct-Performance (SCP) Paradigm Theory

The Structure-Conduct-Performance (SCP) paradigm theory, first postulated by Mason in 1939 and later expanded by Bain in 1956, states that the structure of a market influences the conduct of firms, which in turn determines their performance. According to Ayadi and Ellouze (2013), the SCP theory suggests that markets with higher concentration, characterized by fewer competitors, may reduce competition and allow incumbent banks to earn higher profits. Conversely, markets with lower concentration, and therefore greater competition, may pressure banks into riskier lending practices in order to protect market share and increase profitability.

In this study, the SCP paradigm theory was applied to examine the influence of competition on the relationship between IFRS 9 and return on assets. With the higher loan loss provision requirements under the expected credit loss model and its forward-looking assessment, banks are expected to adopt more conservative lending practices, especially in the

unsecured customer segment (CBK, 2018). This adjustment may lead to intensified competition in secured lending segments, as banks seek to mitigate the impact of IFRS 9 on high-risk loan portfolios and provisioning levels.

2.3 Empirical Review

The implementation of IFRS 9 was introduced to strengthen bank performance by addressing the limitations of the preceding standard, IAS 39, particularly in the treatment of financial assets. Unlike IAS 39, IFRS 9 was designed to recognize credit risk in a timelier manner and to improve disclosures, thereby enhancing transparency in financial statements and supporting stronger financial stability. This section therefore reviews empirical studies conducted by earlier researchers that relate to the study variables

2.3.1 IFRS 9 and Financial Performance

Saleh and Mahjoub (2017) investigated the influence of credit policies on the performance of Arab banks and revealed an inverse relationship between non-performing loans, loan loss provisions, and return on assets. The authors utilized panel regression analysis with data from 56 banks spanning the period from 2010 to 2016, when banks were still applying IAS 39. In contrast, the current study employed data from 2018 to 2022, which represents the period of global implementation of IFRS 9. In addition, this study examined the influence of IFRS 9's approach on the return on assets of Kenyan banks. Specifically, credit risk was assessed using non-performing loans, expected credit loss provisions, and capital adequacy ratios, while competition was considered as the moderating factor.

Ntaikou et al. (2018) researched the impact of IFRS 9 on banks in the Greek financial system and found that while the standard might initially affect short-term performance, it

was expected to enhance performance in the long run. The authors argued that immediate recognition of expected credit loss provisions in the profit and loss statements would negatively affect performance, and that banks with low capital levels could breach regulatory capital ratios due to the increased provisioning burden. Their study, however, was based primarily on a literature review since IFRS 9 was relatively new at the time and empirical data was not yet available. To address this limitation, the current research undertook an empirical analysis in Kenya, drawing on data from 2018 to 2022, to assess IFRS 9's effect on banks' return on assets.

Oberson et al. (2021) examined the factors influencing the financial performance of South African banks and found a strong correlation between credit risk, capital adequacy, and return on equity and return on assets. However, their study did not include loan loss provisions as a variable, despite the fact that IFRS 9 and its expected credit loss framework were already applicable during their study period from 2017 to 2019. Since IFRS 9 fundamentally redefined how banks recognize provisions for both performing and delinquent loans, the exclusion of loan loss provisions represented a significant gap. To address this contextual omission, the present study included loan loss provisions as an independent variable.

Omukhulu (2020) studied the impact of IFRS 9 on the financial well-being of banks in Kenya and established that non-performing loans and loan loss provisions adversely affected return on equity and return on assets. However, Omukhulu's study relied on data from only 13 listed banks on the Nairobi Securities Exchange. In contrast, the current research examined IFRS 9's impact on the return on assets of 39 banks operating in Kenya between 2018 and 2022. Furthermore, Omukhulu's study coincided with the one-year

transition window provided by the Central Bank of Kenya in 2018, which allowed banks to pass expected credit loss provisions through retained earnings in the balance sheet rather than the profit and loss statement. This approach mitigated the immediate impact of IFRS 9 adoption on profitability, and may have influenced the findings of that study. To address this limitation, the current study utilized a longer dataset covering the full period from 2018 to 2022 to account for any potential distortions introduced by the transition arrangement

2.3.2 Loan Loss Provisioning and Performance

Al-Nsour and Abuaddous (2021) investigated the performance of banks in 24 GCC countries after adoption of IFRS 9 and observed that NPLs and LLP had a strong correlation on ROE and ROA. However, the authors used data for 2018 to 2020 a period in which COVID-19 negatively affected various economies in the world leading to higher NPLs and LLPs. It is possible that the findings of their study could have been exacerbated by these negative economic effects. Further, the results of their research may not be relevant or appropriate in the context of Kenya as governments and regulators across the world respondent differently in supporting banks to deal with the effect of the pandemic. In Kenya, CBK gave concessions to banks to restructure customer loans who had been affected by the pandemic without necessarily reclassifying or holding additional provisions for such loans. Hence, the current research aimed to study IFRS 9 and ROA of banks within Kenyan context. It covered an extended period of five (5) years, allowing for an all-inclusive analysis of the effects over time.

Obwocha (2019)'s study established a strong link (R=0.84) between financial performance and provisioning policy in Kenyan banks. His study solely focused on loan provisioning policy while the current research examined the broader effects of other IFRS 9 dimensions

– forward looking credit assessment and CAR, on bank's ROA in Kenya. Additionally, the present study incorporated competition as a moderating factor to have a more thorough comprehension of this connection.

Kaimu (2021) evaluated the connection of LLP and ROE of banks in Tanzania three (3) years since implementation of IFRS 9. Using CAR to test moderation effect, he established that LLP negatively affected ROE upon adoption of the new forward-looking standard. However, their study may have been affected by the different approaches used by Kenya and Tanzania to transit to IFRS 9. In Kenya there was a one-year transition period in which banks were not required to pass the new ECL provisions in their profit and loss statement, but rather through their balance sheet. This could have minimized the impact on profitability in Kenya, unlike in Tanzania, which did not have such transition arrangements. In contrast to the authors' methodology, this work tested CAR as a predictor variable and bank competition as a moderating variable.

2.3.3 Credit Risk and Performance

Nyangidi (2021) sought to find out how ROE of listed banks in NSE was affected by the implementation of IFRS 9 and concluded that the ROE declined after adoption of the new standard. However, Nyangidi only focused on the listed banks which predominantly are in tier 1 and essentially excluded the unlisted ones which are banks in medium and small category.

To address this gap, the researcher focused on all banks, listed and unlisted, from 2018-2022 to assess how IFRS 9 affected their performance considering their different market

power and competitive abilities. Further, Nyangidi adopted an event study design while the current study adopted a longitudinal study design approach.

Apire (2016) discovered a significant correlation between NPLs and LLPs with ROA in commercial banks in Uganda. However, it is important to note that Apire's study was conducted based on the criteria outlined in IAS 39, which differs from the loan loss provision and credit risk assessment standards specified in IFRS 9. This established a contextual gap that the researcher sought to address by examining the effect of NPLs, LLPs, and CAR on banks in Kenya, specifically within IFRS 9 framework. Furthermore, while Apire's study utilized a case study design focused on Centenary Bank Uganda, the present thesis covered a broader scope by including 39 commercial banks in Kenya.

Kolapo *et al.* (2012) established an inverse relationship of credit risk on ROE for Nigerian commercial banks, while also observing a positive correlation between capital adequacy and ROE. Their research, however, used data from 2000-2010 and predates the global adoption of IFRS 9, raising doubts about its applicability to Kenya's financial landscape, which implemented IFRS 9 in 2018. Additionally, their study lacked a moderating variable. To address these contextual gaps, the current study investigated the link between IFRS 9 and ROA of commercial banks in Kenya, incorporating competition as a moderating factor.

Ongalo and Wanjare (2019) study concluded that IFRS 9 forward looking credit risk management had an insignificant relationship on ROA and ROE. Nevertheless, the findings of their study are contrary to the theory of credit risk that postulates a negative correlation. Further, the authors conducted their research when banks in Kenya were in the IFRS 9 transition window in which banks were not required to pass the ECL LLPs from the significant increase in credit risk through their profit and loss statement. To address this

gap, the researcher utilized data from 2018 to 2022 to account for possible effects the IFRS 9 transition window could have had on their study.

2.3.4 Capital Adequacy and Performance

Kumaraswamy's (2016) study suggested a positive correlation between capital and ROE in manufacturing and transport firms within the Gulf Cooperation Council (GCC). However, capital structure of manufacturing and transport firms is fundamentally different from that of banks to a larger extent as banks' capital structure is heavily regulated and influenced by the mandatory statutory minimum requirements set by regulatory authorities. Additionally, IFRs 9, was initially set to be rolled and adopted by banks from 2018, a requirement that was not expressly issued for adoption by manufacturing firms.

Blazekova (2018) observed that IFRS 9 resulted to detrimental impact on the regulatory capital of banks in 15 European countries due to increase in LLPs. However, Blazekova's study was conducted in Europe only one year after implementation of IFRS 9, under which the long-term effect could not have been conclusive from the findings of his study. IFRS 9 was expected to enhance performance of financial institutions in the long-term due to the forward-looking approach in credit risk management and loan loss provisioning. To address the contextual gap, in Blazekova's study the researcher analyzed data from Kenya from 2018 to 2022.

In contrast to the anticipated negative impact on profitability following the implementation of IFRS 9, Ongalo and Wanjare (2019) observed an increase in both ROA and ROE for banks. However, the author's used an event study design despite IFRS 9 being a standard whose implementation had no stop date. IFRS 9 replaced IAS 39 on a permanent basis and

as such it was imperative to investigate its influence on performance over an extended length of time. To investigate the effect of IFRS 9 on ROA, the study utilized a longitudinal research design spanning a five-year period. In addition, the study incorporated competition as a moderating variable in order to assess its influence on the relationship being examined.

2.3.5 IFRS 9, Bank Competition and Performance

Albaity *et al.* (2019) researched on competition and bank performance around MENA area, revealing a nuanced relationship influenced by regulatory factors, market concentration, and bank-specific characteristics. However, the applicability of their findings to Kenya is limited due to the prevalence of conventional banking in Kenya compared to the Shariah-compliant focus of the MENA region. Moreover, the use of pre-2018 data in their study may not fully capture the effects of IFRS 9, a recent accounting standard for banks. To bridge this gap, the study tested the moderation effect of competition on IFRS 9 and profitability ratios specifically for banks in Kenya.

Beck *et al.* (2004) discovered a positive correlation between a more competitive banking industry and higher profitability, along with reduced risk. The authors argued that competition incentivizes banks to improve efficiency and minimize credit risk exposure. The study examined a sample of 25 countries in Europe and Asia from 1990 to 2001 and noted that the link between competition and financial health varied across countries and time periods. The link was particularly stronger in countries with more established financial markets. However, the conceptual gap in Beck *et al.'s* research as it was conducted exclusively in developed countries, and remained unclear whether the findings would hold true in developing countries such as Kenya. Additionally, their study predated the adoption

of IFRS 9 in 2018, creating contextual difference in understanding current dynamics. This thesis sought to fill these knowledge gaps by investigating how competition influences the connection between the adoption of IFRS 9 and bank operations.

Naceur and Omran (2011) examined competition on bank profitability in emerging markets. Their findings suggested that in 12 MENA countries, a competitive banking sector was associated with reduced profitability for banks. The researchers argued that increased competition compelled banks to engage in price-cutting strategies and assume greater risk. Moreover, the intense competition made it challenging for banks to differentiate their products and services.

However, their study had a methodological gap as they relied solely on the number of banks as a measure of competition in the MENA region, without considering the distribution of firms. To address this gap, the study employed the HHI as competition's measurement metric. The HHI is considered a more comprehensive measure of competition as it accounts for both the size and distribution of market share, providing a more robust assessment of competition beyond the number of firms alone.

Mala *et al*. (2014) observed that intense rivalry in the banking industry has both beneficial and detrimental impacts on its financial health. The authors argued that a low level of competition led to higher short-term profits for banks, while a high level of competition resulted in excessive risk-taking and potential financial instability in the long run. However, Mala *et al.'s* study was specifically conducted in Indonesia in 2014, prior to the global adoption of IFRS 9. The researcher attempted to assess the moderating influence of competition on accounting standard and profitability of Kenyan banks from 2018 to 2022 so as to fill in the contextual and conceptual gaps left by Mala *et al*.'s study.

2.4 Summary of Reviewed Literature

Table 2.1: Overview of Empirical Studies and Research Gaps

Author	Study Focus	Methodology	Major Findings	Research Gap	Focus of the current study
Albaity, et al (2019).	The correlation between competition and bank solidity in the MENA region.	Descriptive analysis and multiple regression analysis.	Competition is multifaceted and depends on various factors. The effect could be positive, negative or no relationship.	Contextual gaps. Conceptual gaps.	The researcher tested moderation effect of competition on IFRS 9 and performance of banks in Kenya.
Al Nsour & Abuadduos (2021).	Effect of IFRS 9 banks in the GCC countries.	Descriptive analysis and Panel data regression analysis.	NPLs and LLP had a strong correlation on ROE and ROA on adoption of IFRS 9.	Methodological-al gaps. Contextual Gaps.	Current thesis was based in Kenya and gathered data between 2018 and 2022 the period of implementation of IFRS 9.
Beck *et al.* (2004).	Relationship between competition and Performance of banks in Europe and Asia.	Descriptive analysis and multiple regression analysis.	High levels of competition were associated with higher profitability and reduced risk.	Conceptual gaps Contextual gaps	Competition was operationalized as a moderator variable on IFRS 9 and ROA in Kenya from 2018 to 2022.
Ntaikou et al. (2018)	Expected effects of IFRS 9 on Greek banks	Theoretical study.	IFRS 9 expected to lead to poor performance due immediate recognition of ECL provisions.	Methodological, contextual, and conceptual gaps.	Study focused on Kenya and utilized data related to IFRS 9, covering a period of 5 years from 2018 to 2022.
Omukhulu (2020)	Effect of IFRS 9 on ROE and ROA in Kenyan	Descriptive analysis and Multiple regression analysis.	IFRS 9, NPLs and LLPs was found to negatively affect ROE and ROA of	Methodological and conceptual gaps.	Researcher analyzed data from both listed and unlisted banks, using an

Author	Study Focus	Methodology	Major Findings	Research Gap	Focus of the current study
	banking sector		banks in Kenya.		extended scope of 5 years.
Obwacha (2019)	Impact of changes in loan loss provisioning policy on Kenyan banks' performance	Descriptive analysis and regression analysis.	There exists a strong correlation between LLP and bank ROE.	Methodological and conceptual gaps.	Current study considered NPLs, CAR and ECL LLPs with dependent variable of ROA. The scope was extended to 5 years and competition was used as a moderating variable.
Nyangidi (2020)	IFRS 9 adoption on ROA and ROE of Kenyan banking sector	Event study design using descriptive analysis and regression analysis	IFRS 9 has an adverse effect on ROE.	Methodological, contextual, and conceptual gaps.	Using a longitudinal study design the researcher concentrated on both listed and unlisted commercial banks in operation from 2018 to December 2022. Further, a moderating variable was incorporated, and the independent variable used was ROA.
Ongalo and Wanjare (2019).	IFRS 9 on ROE, ROA and ROI in Kenyan banking sector	Event study design using descriptive analysis and multiple regression analysis.	No significant effect between LLP and NPLs and ROA, ROE on adoption of IFRS 9. Positive connection between capital adequacy and ROA, ROE.	Methodological, contextual, and conceptual gaps.	Present study used a longitudinal study design, scoping a 5-year period, and used competition as a moderating variable.

Author	Study Focus	Methodology	Major Findings	Research Gap	Focus of the current study
Naceur and Omran (2011).	Relationship between bank competition and performance in MENA nations.	Descriptive analysis and multiple regression analysis.	Higher competition led to increased NPLS resulting in lower ROA.	Methodological, contextual, and conceptual gaps.	Current study used HHI as competition's measurement metric to assess its moderating effect on IFRS 9 and ROA of banks in Kenya from 2018 to 2022.
Petra Blazekova (2018)	IFRS 9 and regulatory capital of European banks.	Descriptive analysis and regression analysis	Immediate recognition of IFRS 9 ECL provisions led to a decline in capital adequacy.	Methodological, contextual, and conceptual gaps.	Present study evaluated IFRS 9 effect on ROA of banking sector in Kenya using data over a 5-year period

Source: Researcher (2024)

2.5 Conceptual Framework.

The conceptual framework provides a structured and coherent approach to identifying and explaining the factors that influence a particular phenomenon or outcome (Leshem, 2007). In this study, the framework is designed to illustrate how IFRS 9 and its components interact with financial performance, while considering competition as a moderating factor.

Figure 2.1 presents the conceptual framework, showing the interrelationships among financial performance, IFRS 9, and bank competition in Kenya. The diagram outlines the study variables, highlights the expected relationships between them, and offers a visual guide for understanding the research model.

.

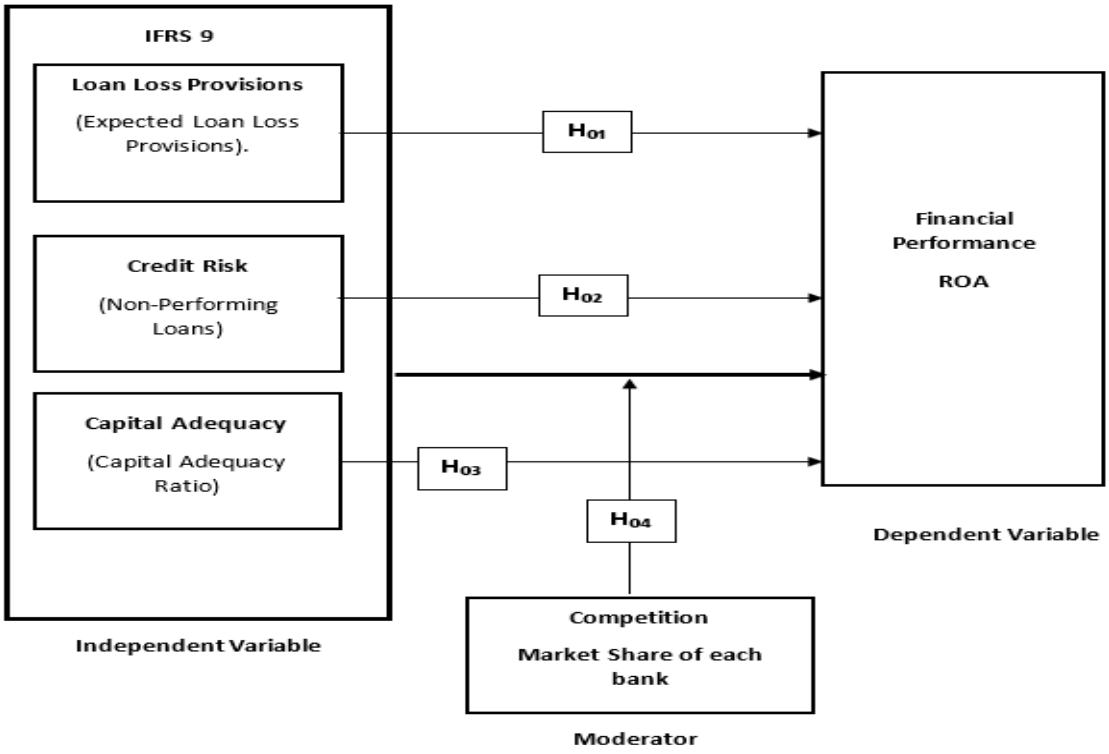

Figure 2.1Conceptual Framework

Source: Researcher (2024)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology adopted for the study and outlines the approaches used to address the research objectives. It describes the research design, the target population, sampling techniques, and the procedures employed in collecting and analyzing data. In doing so, the chapter provides a clear roadmap of how the study was conducted, ensuring that the findings are reliable, valid, and replicable.

3.2 Research Philosophy

Holden and Lynch (2004) posit that research philosophy encapsulates the core ideas and assumptions that guide a researcher's approach to knowledge and their perception of reality. These views and assumptions influence the researcher's choice of methodologies and procedures for analyzing data. In academic research, common philosophies include interpretivism, constructivism, critical realism, and pragmatism, each offering a distinct lens for understanding reality.

Chia (2002) defines positivism as a research philosophy that emphasizes the objective study of phenomena in order to establish generalizable laws or theories, based on the assumption of a singular, objectively measurable reality. Positivist researchers often utilize quantitative methods such as surveys or experiments and employ statistical analysis to interpret data. Accordingly, this research utilized positivism in its research approach.

3.3 Research Design

A research design is a plan that serves as a blueprint or strategy outlining the methods and procedures to be employed in a study. It provides guidance on how data will be collected, analyzed, and interpreted in order to address the research objectives (Berman et al., 2000). This study employed a longitudinal research design to identify trends and patterns in the study variables. As suggested by Mugenda and Mugenda (2003), a descriptive survey design was also utilized to capture the characteristics of the population and to test the hypotheses.

According to Noor (2008), descriptive research design can be classified into either longitudinal or cross-sectional survey designs. A longitudinal study involves observing the same variables repeatedly over an extended period, whereas a cross-sectional study entails gathering data from the population at a particular point in time. In this study, the researcher adopted a longitudinal descriptive design to collect IFRS 9-related data for commercial banks from 2018 to 2022, thereby allowing for analysis of temporal variation.

3.3 Empirical Model

According to Musau *et al.* (2018), the collected data was continual, so the researcher opted for a panel multiple regression model. The empirical model employed was adapted based on the work of Ongalo and Wanjale (2019) and Al-Nsour and Abuaddous (2021), as represented by Equation 3.1: -

$$\mathbf{Y_{it}=\beta_0+\beta}\, X'_{\mathbf{it}}\mathbf{+u_{it}} \quad \text{…….3.1}$$

Where:

$\mathbf{Y_{it}}$ represents the dependent variable, which measures the financial performance of bank i at time t, specifically represented by ROA. The **index i** represented the observation (bank) and ranged from 1 to 39, while the **index t** represented the time-period and ranged from 2018 to 2022. The vector $\mathbf{X_{it}}$ represented the independent variables, specifically related to IFRS 9. The parameters **β** were determined, $\mathbf{\beta_0}$ represented the intercept term, and $\mathbf{u_{it}}$ denoted the residual term.

Equation 3.1 was expanded to derive equation 3.2, and utilized for estimation purposes. The expanded equation was as follows:

$$\mathbf{ROA_{it}=\beta_0+B_1LLP_{it}+\beta_2NPLS_{it}+\beta_3CAR_{it}+\varepsilon}.....\mathbf{3.2}$$

In this equation:

ROA_{it} = ROA for bank i at time t.

LLP_{it} = the expected credit loan loss provision level for bank *i* at time *t*.

$NPLS_{it}$ = the level of non-performing loans for bank *i* at time *t*.

CAR_{it} = the level of regulatory capital adequacy ratio for bank *i* at time *t.*

B0 = the constant term.

β1, β2, and **β3** = the coefficients associated with the explanatory variables.

u = the error term.

3.3.1 Testing of Moderation of Banks Competition

This study employed a two-step procedure following the approach outlined by Baron and Kenny (1986) to ascertain the moderating impact of bank competition on the association between IFRS 9 dimensions and ROA of banks in Kenya. First, the study conducted a regression analysis, regressing performance on both IFRS 9 and bank competition.

Secondly, the study enhanced the regression model by including the interaction term of IFRS 9 and bank competition. The presence of a moderation effect was determined by assessing the statistical significance of the coefficient associated with the interaction term (IFRS 9 * Bank competition). To measure bank competition, the study utilized the Herfindahl-Hirschman Index (HHI), which was developed by Hirschman (1964).

Two moderation effect equations were formulated to assess the moderation effect of bank competition on the link between IFRS 9 (specifically LLP, NPLs, and CAR), HHI and bank performance. These equations are presented below as Equation 3.3 and Equation 3.4.

Equation 3.3 served as the direct effect model, and aimed to examine the influence of bank competition as an explanatory variable and ROA of bank i at time t.

$$\mathbf{ROA_{it}=\beta_0+\beta_1 IFRS9_{it}+ \beta_4 HHI_{it}+ u_{it}} \quad \mathbf{.....3.3}$$

Equation 3.4 incorporated the interaction term to evaluate the moderating effect of bank competition and IFRS 9 and ROA of Kenyan commercial banks.

$$\boldsymbol{ROA_{it}= Bo+ \beta_1.IFRS9_{it} + \beta_2.HHI_{it}+ \beta_3.IFRS9_{it}*.HHI_{it}+ u_{it}} \quad \boldsymbol{\ldots\ldots\ldots\ldots\ldots\ldots 3.4}$$

Where:

ROAit = the proxy for financial performance for bank i at time t.

IFRS9it = the composite index of all the components of IFRS9 (LLP, NPLs, and CAR).

HHIit = the Herfindahl-Hirschman Index, indicating the bank competitiveness of bank i at time t.

$IFRS9_{it}*.HHI_{it}$ = the interaction term of bank competition with IFRS9 for bank i at time t.

B0 = the constant term.

β1, β2, and β3 = the coefficients associated with the explanatory variables and interaction terms.

u = the error term.

3.4 Operationalization of Variables

The study variables consisted of financial performance, measured by Return on Assets (ROA), and the IFRS 9 dimensions, namely Loan Loss Provisions (LLP), Non-Performing Loans (NPLs), and Capital Adequacy Ratio (CAR). These variables were adapted from the works of Ongalo and Wanjare (2019), Omukhulu (2020), and Nyangidi (2020). In addition, bank competition was included as the moderating variable, and its measurement was adapted from Musau *et al*. (2018).

Table 3.1: Operationalization and Measurement of study variables

Variable	Operationalization	Indicator	Measurement	Scale of Measurement
ROA (Dependent Variable)	The profitability and efficiency of commercial banks in generating earnings from their assets.	Return on Asset Ratio	ROA = PBT / Total Assets * 100	Ratio

Source: Researcher (2024)

3.5 Target Population

Credit Risk (Independent Variable)	Likelihood of borrowers or counterparties defaulting on their obligations.	Non-performing Loans Ratio (NPL)	NPL = $\frac{\text{NPL}}{\text{Total loans}} * 100$	Ratio
Loan Loss Provisions. (Independent Variable)	Anticipated credit losses throughout the projected lifespan of a financial asset.	Loan Loss Provision Ratio (LLP)	LLP Ratio= $\frac{\text{LLP}}{\text{Total loans}} * 100$	Ratio
Capital Adequacy (Independent Variable)	Adequate capital buffer is maintained to fulfill regulatory obligations and provide support for lending activities.	CAR	CAR = $\frac{\text{Core Capital}}{\text{Total Risk Weighted Assets (TRWA).}} * 100$	Ratio
Bank Competition (Moderating Variable)	This metric assesses the market competitiveness of individual banks.	Market Share	$HHI=\sum s_i^2$, where s_i= market share of bank *i*.	Ratio

The target population is the total collection of cases, objects, or individuals that possess a specific set of characteristics, and from which a researcher can gather data (Omukhulu, 2020). For this study, the target population comprised all 39 Kenyan commercial banks operating during the period 2018 to 2022, as outlined in Appendix I. Commercial banks in Kenya are categorized into tiers based on their size, namely large, medium, and small banks.

The study employed a census approach, meaning that all 39 commercial banks were included in the analysis rather than selecting a sample. The benefit of using a census is that it eliminates sampling error, enhances the accuracy of findings, and allows for more comprehensive generalization across the entire banking sector. This was particularly

important for the current study since IFRS 9 implementation affected all banks in Kenya, making full population coverage both feasible and methodologically sound.

Table 3.2: Breakdown of the Banks

Category	Target Population	Percentage (%)
Large	9	23
Medium	8	21
Small	22	56
Total	39	100

Source: CBK (2024)

3.6 Data Collection Instruments

This study predominantly relied on quantitative secondary data of a panel nature, obtained from the Central Bank of Kenya's Bank Supervision Reports and the published annual financial statements of commercial banks. The data covered the five-year period from 2018 to 2022. To ensure a systematic and consistent process, a document review guide, provided in Appendix II, was utilized. The guide served as a structured reference tool for extracting relevant information from the identified sources, thereby enhancing reliability and ensuring that all required variables were captured over the study period.

Secondary data was selected because it is audited, standardized across banks, and publicly verified, thereby ensuring credibility and comparability of the information used in the analysis.

3.6.1 Data Collection Procedure

The researcher applied for a research permit from the National Commission for Science, Technology and Innovation (NACOSTI), as well as an authorization letter from the Graduate School, to facilitate the data collection process. Data was then obtained from the Central Bank of Kenya's annual supervision reports and from the published financial statements of commercial banks. These sources provided the audited and standardized information required for the study variables.

3.7 Data Analysis Method

Descriptive statistics were employed to provide an overview and summary of financial performance (ROA) and the predictor variables, namely Credit Risk, Loan Loss Provisions, Capital Adequacy, and Competition. To test the hypotheses, panel multiple regression analysis was conducted to examine the relationship between NPLs, LLPs, CAR, the moderating variable competition, and ROA of banks. In addition, Pearson correlation analysis was performed to assess the strength and direction of associations among the study variables.

Panel regression was chosen because it integrates both cross-sectional and time-series dimensions, making it more robust than simple OLS or cross-sectional models. It allowed the study to capture both temporal variations over the five-year period (2018–2022) and differences across banks, thereby improving the validity and reliability of the findings

3.7.1 Diagnostic Test

To maintain the integrity of the Classical Linear Regression Model (CLRM) assumptions, the researcher performed a series of diagnostic tests to verify the appropriateness and specification of the model. These included tests for autocorrelation, multicollinearity,

heteroscedasticity, correlation, normality, stationarity, and the Hausman test for model specification. Conducting these diagnostics ensured that the regression results were unbiased, efficient, and consistent, thereby strengthening the reliability and validity of the study's findings.

3.7.1.1 Autocorrelation

Autocorrelation refers to the similarity of values in a time series across consecutive time intervals. If present, it can lead to biased parameter estimates and inflated standard errors in statistical analysis. In this study, serial correlation was assessed using the Durbin–Watson test. The null hypothesis assumed no serial correlation, while the alternative hypothesis indicated the presence of autocorrelation. The results of this test are presented in Table 4.6.

3.7.1.2 Multicollinearity

Multicollinearity occurs when predictor variables in a regression model are highly correlated with each other. This condition can lead to instability and imprecise estimation of regression coefficients, thereby weakening the reliability and interpretation of model findings. To detect multicollinearity, the researcher used the STATA statistical program to compute the Variance Inflation Factor (VIF). The VIF is a diagnostic measure that quantifies the degree of multicollinearity, with values greater than 10 indicating the presence of substantial multicollinearity.

3.7.1.3 Heteroscedasticity

Heteroscedasticity refers to the presence of non-constant variance in the error terms or residuals of a regression model. This condition can undermine the precision of coefficient

estimates and weaken the reliability of statistical inferences. To test for heteroscedasticity, the researcher employed the Breusch–Pagan test. The test is based on the principle that when heteroscedasticity exists, the variance of residuals changes systematically with the predictor variables. Specifically, the test evaluates whether there is a statistically significant correlation between the squared residuals and the independent variables. Using STATA, the calculated test statistic was compared against the critical value at a 5% level of significance. A p-value below 0.05 indicated statistical significance, thereby confirming the presence of heteroscedasticity.

3.7.1.4 Normality

The purpose of the normality test is to assess whether the data follows a Gaussian distribution, which is a key assumption in many statistical analyses (Levine, 2005). Ensuring normality is important for the validity of inferential tests and reliable estimation of model parameters. In this study, the Jarque–Bera test was employed to examine whether the residuals were normally distributed. According to Taherdoost (2016), the null hypothesis of normality is rejected if the Jarque–Bera statistic is statistically significant. When normality is confirmed, statistical inferences such as significance levels and confidence intervals can be interpreted with greater reliability. In this study, a stricter p-value threshold of 0.01, as opposed to 0.05, was applied to ensure robustness in determining normality.

3.7.1.5 Correlation Analysis

The Pearson correlation coefficient was employed to test the direction and strength of the linear association between two variables, as proposed by Holden (2004). According to

Hirtle (2017), a value of 0 indicates the absence of a linear relationship, while a positive value signifies a direct positive correlation and a negative value denotes a direct negative correlation. The magnitude of the correlation coefficient reflects the strength of the association, with values closer to +1 or –1 indicating stronger linear relationships.

3.7.1.6 Panel Unit Root

Since this study employed panel data, it was necessary to evaluate stationarity. A stationary time series is one in which statistical properties such as the mean and variance remain constant over time. Non-stationary data can lead to spurious regression results, making stationarity tests essential. A widely applied method for testing stationarity is the Augmented Dickey–Fuller (ADF) test (Hope et al., 2013). In this test, the null hypothesis assumes the presence of a unit root, while the alternative hypothesis indicates stationarity. A statistically significant p-value ($p < 0.05$) leads to rejection of the null hypothesis, confirming that the data is stationary.

3.8 Ethical Considerations

Ethical considerations are fundamental principles that guide researchers during the planning and execution of their studies. They are critical in safeguarding the rights of participants and in ensuring the credibility and validity of research findings. According to Kassim (2011), these principles include, among others, confidentiality, anonymity, voluntary participation, and the protection of collected data.

In this study, ethical standards were upheld by ensuring that the data collected was used solely for academic purposes and kept private and confidential. Furthermore, before commencing data collection, the researcher obtained the necessary authorization from the

relevant authorities to avoid any ethical breaches and to ensure compliance with institutional and regulatory requirements.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents the findings from the analysis of panel secondary data collected for the study. It provides the results together with their interpretation and discussion in relation to the study objectives. The chapter summarizes the outcomes of descriptive statistics, diagnostic tests, and inferential analyses, thereby offering a comprehensive understanding

of the effects of IFRS 9 and bank competition on the financial performance of commercial banks in Kenya.

4.2 Descriptive Statistical Analysis

Descriptive statistics were employed to provide an initial understanding of the behavior and distribution of the study variables over the research period. Measures of central tendency and dispersion, specifically the mean, standard deviation, minimum, and maximum values, were used to summarize the characteristics of financial performance (ROA), Credit Risk (NPLs), Loan Loss Provisions (LLP), Capital Adequacy (CAR), and Bank Competition (HHI). These descriptive measures offer insights into the general trends, variability, and range of the data, thereby forming the foundation for subsequent diagnostic and inferential analysis.

Table 4.12: Descriptive Analysis Table

Variable	Obs	Mean	Std.Dev	Min	Max
Loan loss provision	195	.45823	.551310	.0000	.4660
Non-performing loans	195	.51000	.0030072	.450	.525
Capital adequacy ratio	195	.241430	.1482142	.00000	1.1020
Market share	195	.24232	.233923	11.006	.0730
Financial performance	195	.224804	.00570096	.0525	.5549

Source: Study data (2024)

The findings in Table 4.1 show that Loan Loss Provisions had a mean of 0.4582 and a standard deviation of 0.5513. This indicates that banks set aside a relatively high proportion

of provisions, with notable differences observed across institutions during the study period. These results are consistent with Al-Nsour and Abuaddous (2021), who found a relationship between NPLs, LLPs, and bank performance following IFRS 9 adoption in GCC countries.

Non-Performing Loans recorded a mean of 0.5100 with a low standard deviation of 0.0030. This suggests that banks consistently experienced high levels of loan defaults, with little variation across the sector. The trend may be linked to the rapid growth of unsecured mobile and digital lending in Kenya during the study period.

The Capital Adequacy Ratio had a mean of 0.2414 and a standard deviation of 0.1482. This implies that although most banks generally maintained capital above the regulatory minimum, variations existed across institutions, possibly due to the effect of LLPs on retained earnings, which form a key component of bank capital.

Market share, measured using the Herfindahl–Hirschman Index, had a mean of 0.2423 and a standard deviation of 0.2339. This shows that competition levels among commercial banks did not vary widely, reflecting Kenya's tiered banking structure where a few large banks dominate the market.

Financial performance, measured by ROA, had a mean of 0.2248. This indicates that banks were generally profitable during the study period. However, the standard deviation of 0.2339 shows that profitability varied across institutions, with some banks achieving much lower returns than others.

4.3 Correlation Analysis

Correlation analysis was carried out to test the statistical associations among the study variables. Correlation values range from –1 to +1, where a value close to +1 indicates a strong positive relationship, a value close to –1 indicates a strong negative relationship, and values near zero suggest weak or no correlation. In this study, the Pearson correlation coefficient was used to assess the association between banks' financial performance and IFRS 9 variables. The results are presented in Table 4.2.

Table 4. 13: Correlation Analysis Results

		LLP	CR	CAR	FP
LLP	Correlation Coefficient	1.000			
	Sig. (2-tailed)	.			
CR	Correlation Coefficient	.769**	1.000		
	Sig. (2-tailed)	.000	.		
CAR	Correlation Coefficient	.374**	.487**	1.000	
	Sig. (2-tailed)	.001	.000	.	
FP	Correlation Coefficient	.498**	.525**	.561**	1.000
	Sig. (2-tailed)	.000	.000	.000	.

From Table 4.2, loan loss provisions and financial performance (ROA) showed a moderate, positive, and statistically significant correlation ($r = 0.498$, $p = 0.000$). This suggests that

as provisioning increases, bank performance also tends to improve. Credit risk and ROA were also found to have a moderate, positive, and significant correlation ($r = 0.525$, $p = 0.000$), implying that stronger credit risk management practices are associated with improved financial performance. Similarly, capital adequacy ratio and ROA exhibited a moderate, positive, and statistically significant correlation ($r = 0.561$, $p = 0.000$). This indicates that higher capital adequacy levels are linked with better profitability and overall performance.

4.4 Diagnostic Tests

Several diagnostic tests were conducted to assess the fitness of the data for regression analysis. These tests were important for validating the assumptions underlying the regression model and for identifying potential issues that could compromise the reliability of the results. The outcomes of these diagnostic tests provided assurance that the model was appropriate and that the findings could be interpreted with validity.

4.4.1 Multicollinearity Test

Table 4. 14: Multi-collinearity Test

Variable	VIF	1/VIF	Remark
Loan loss provisions	1.47	0.9662	Absence of severe Multicollinearity
Credit risk	1.36	0.8084	Absence of severe Multicollinearity
Capital adequacy	1.32	0.7514	Absence of severe Multicollinearity

Market share	1.54	0.9304	Absence of severe Multicollinearity
Financial performance	1.45	0.1231	Absence of severe Multicollinearity
Mean VIF	1.43		

Source: Research Data (2024)

Table 4.3 shows the Variance Inflation Factor (VIF) results for the study variables, where loan loss provisions had a VIF of 1.47, credit risk 1.36, capital adequacy 1.32, market share 1.54, and financial performance 1.45. Since all the VIF values are well below the threshold of 10, this indicates the absence of multicollinearity among the predictor variables. This conclusion is consistent with Song (2016), who noted that VIF values below 10 confirm the independence of explanatory variables in regression analysis.

4.4.2 Normality Test

Table 4.15: Normality Test results

Variable	Obs	Statistic	Df	P-value
Financial performance	195	0.96992	195	0.252

Source: Research data, 2024

The results in Table 4.4 show that the p-value for financial performance was 0.252, which is greater than the conventional 0.05 significance level. This means that the null hypothesis of normality was not rejected, and therefore the data used in this study can be considered to follow a normal distribution. Establishing normality is important because it supports the assumption underlying regression modelling, and it allows the statistical tests used in the

study to generate valid and reliable inferences about the relationship between IFRS 9, competition, and bank performance.

4.4.3 Heteroscedasticity Test

To assess the presence of heteroscedasticity in the dataset, the Breusch–Pagan test was conducted. This test evaluates whether the variance of the error terms is constant across observations, which is an important assumption of regression analysis. In the Breusch–Pagan framework, a p-value greater than the critical threshold of 0.05 suggests that the error term is consistent, thereby confirming homoscedasticity within the data.

Table 4.16: Breusch-Pagan

	Chi^2	Prob> Chi^2
Panel model 1 (Financial performance)	49.97	0.8541

Source: Research Data, 2024

The results in Table 4.5 show that the *p*-value obtained was 0.8541, which is well above the 0.05 significance level. This outcome indicates that heteroscedasticity was not present in the model, and therefore the assumption of homoscedasticity holds. Meeting this assumption is important because it ensures that the regression coefficients remain efficient and that subsequent inferential tests produce valid results.

4.4.4 Autocorrelation Test

To test for the presence of serial correlation in the data, the Durbin–Watson test was applied. The test statistic ranges from 0 to 4, with values between 1.5 and 2.5 generally indicating the absence of autocorrelation in the residuals. Ensuring that serial correlation

is not present is important, as it can bias coefficient estimates and affect the validity of statistical inferences.

Table 4. 17: Autocorrelation Test

Model	Durbin Watson
1	1.513

Source: Research data, 2024

As shown in Table 4.6, the Durbin–Watson statistic for the model was 1.513, which falls within the acceptable range of 1.5 to 2.5. This result indicates that there was no evidence of serial correlation in the residuals, confirming that the model satisfied the autocorrelation assumption required for regression analysis.

4.4.5 Stationarity Test

To examine the stationarity of the data, the study employed the Augmented Dickey–Fuller (ADF) test. Stationarity refers to the condition where a variable's statistical properties, such as mean and variance, remain constant over time. Testing for stationarity was important in this study to ensure that the regression results would not be affected by spurious correlations, which often arise when non-stationary variables are included in the model.

Table 4.18: Stationarity Tests Results

		Statistic	p-value
Loan loss provisions	Unadjusted t	0.0166	0.0066

	Adjusted t*	0.0145	0.0058
Credit risk	Unadjusted t	1.1751	0.0100
	Adjusted t*	1.1185	0.0183
Capital adequacy	Unadjusted t	-0.5067	0.0062
	Adjusted t*	-0.4848	0.0139
Financial performance	Unadjusted t	-2.3214	0.0101
	Adjusted t*	-2.2140	0.0134

Source: Research Data, 2024

The results in Table 4.7 indicate that the p-values for all variables were below the 0.05 significance level. This led to the rejection of the null hypothesis of a unit root and the conclusion that the data was stationary.

4.4.6 Hausman Test

The Hausman test was conducted to determine the most appropriate model for regression analysis of the panel data. Specifically, the test helps decide whether to adopt a fixed effects or random effects model. According to Greene (2012), a fixed effects model is preferred if the p-value is less than the critical value (0.05), while a random effects model is appropriate when the p-value is greater than 0.05.

Table 4. 19: The Hausman Test for Model Effects Estimation

Financial performance measures	Variables	Prob>chi^2	Model

Financial performance	Loan loss provisions, Credit risk, Capital adequacy.	0.2541	RE
Financial performance	IFRS9, Market share HHI index, HHH index* IFRS9	0.1441	RE

Key: FE = Fixed effect; **RE =** Random Effect

Source: Research Data (2024)

As shown in Table 4.8, the p-values were 0.2541 for the direct effect model and 0.1441 for the moderation effect model. Since both values exceeded the 0.05 threshold, the random effects model was selected as the most suitable for the analysis. Consequently, all subsequent sections of the study relied on the results from the random effects model. The Hausman specification test outcome is consistent with Porta (2014), who emphasized the importance of meeting model assumptions when applying classical linear regression techniques.

4.5 Regression Analysis

Panel regression analysis was employed to establish the relationship between the study variables. The coefficients obtained from the model show how variations in one variable are associated with changes in another. A variable was considered statistically significant if its p-value was less than 0.05, based on a 95% confidence interval. This significance level provided the basis for interpreting the influence of the independent variables and the moderating effect on financial performance.

4.5.1 IFRS 9 and financial performance

The direct effect model tested the association between IFRS 9 (loan loss provisions, credit risk, and capital adequacy) and financial performance. The results are presented in Table 4.9.

Table 4.9: IFRS 9 on financial performance

Financial performance	Coefficient	Std. Error	Z	P>|z|	Model
Loan loss provisions	0.402	0.066	6.04	0.000	RE
Credit risk	0.737	0.227	3.24	0.001	
Capital adequacy	0.188	0.095	1.99	0.047	
-Cons	.244	.070	3.51	0.000	
Statistics	Model 1a				
Wald chi2(4)	10.30				
Prob> chi2	0.0357				
R-Squared	0.4032				

Study Data, 2024

The findings are substituted in equation i as modeled in chapter three.

$$\mathbf{Y_{it} = 0.244 + 0.402X_{1it} + 0.737X_{2it} + 0.188X_{3it} + \varepsilon}$$

The results show that 40.32% of the variation in financial performance was explained by IFRS 9 variables. These findings disagree with Nyangidi (2021), who studied listed banks in the NSE and found that ROE declined after the adoption of IFRS 9. However, they are in line with Ongalo and Wanjare (2019), who reported improvements in ROA and ROE following the implementation of the new standard.

Loan loss provisions were found to have a positive and statistically significant effect on financial performance ($\beta = 0.402$; $p = 0.000 < 0.05$). This led to the rejection of the null hypothesis (H01) that expected loan loss provisions have no significant effect on the financial performance of banks in Kenya. The results imply that an increase in loan loss provisions is associated with a 0.402 improvement in performance. These findings are consistent with Al-Nsour and Abuaddous (2021), who found strong correlations between NPLs, LLPs, and performance in GCC banks, and with Obwacha (2019), who established a strong link ($R = 0.84$) between financial performance and provisioning policy in Kenyan banks. However, they differ from Kaimu (2021), who showed that LLPs negatively affected ROE in Tanzanian banks three years after IFRS 9 adoption, with CAR used as a moderating variable.

Credit risk also had a positive and statistically significant effect on financial performance ($\beta = 0.737$; $p = 0.001 < 0.05$). This led to the rejection of the null hypothesis (H02) that forward-looking credit risk management has no significant effect on performance. The results suggest that a unit increase in credit risk corresponded with a 0.737 increase in financial performance. These results agree with Apire (2016), who found a significant relationship between NPLs, LLPs, and ROA in Ugandan banks. However, they contrast with Kolapo et al. (2012), who observed an inverse relationship between credit risk and ROE in Nigerian banks, and with Ongalo and Wanjare (2019), who reported no association between credit risk management and performance.

Capital adequacy was also found to have a positive and statistically significant effect on financial performance ($\beta = 0.188$; $p = 0.047 < 0.05$). This led to the rejection of the null hypothesis (H03) that capital adequacy has no significant effect on performance. The

results imply that an increase in capital adequacy is associated with a 0.188 improvement in financial performance. These findings are consistent with Kumaraswamy (2016), who reported a positive link between capital adequacy and ROE in GCC firms. However, they differ from Blazekova (2018), who observed that IFRS 9 had a negative effect on regulatory capital in European banks due to increased provisioning requirements.

4.5.2 IFRS 9, Bank Competition and Financial performance

Models two and three were used to test the moderating effect of market share on the relationship between IFRS 9 and financial performance. The analysis followed the framework outlined by Baron and Kenny (1986). In model two, market competition was included as an explanatory variable alongside IFRS 9 to assess its direct relationship with financial performance. The results are presented in Table 4.10.

Table 4.10 IFRS 9, Bank Competition and Financial Performance

	Coefficient	Std. Error	Z	P>|z|	Model
International financial reporting 9	0.402	0.066	6.04	0.000	RE
Market share	.4458	.1491	2.99	0.003	
-Cons	.244	.070	3.51	0.000	
Statistics	Model				
Wald chi2(4)	10.30				
P-value	0.0357				
R-Squared	0.4032				

$ROA_{it} = 0.244 + 0.402\ IFRS9_{it} + 0.4458HHI_{it} + \varepsilon$.....3.3

The results in Table 4.10 show that both IFRS 9 and market share had positive and significant effects on financial performance. The Wald chi-square was significant ($p = 0.0357 < 0.05$), confirming the overall fitness of the model.

Model three introduced the interaction term between IFRS 9 and market share in order to test the moderating effect of competition. The results are presented in Table 4.11.

Table 4.11 IFRS 9, Bank Competition Interaction terms and Financial Performance

	Coefficient	Std. Error	t	P>|z|	Model
International financial reporting 9	0.737	0.227	3.24	0.001	RE
Market share	0.904	0.236	3.83	0.000	
Market share*International financial reporting Standard 9	0.188	0.095	1.99	0.047	
_cons	0.336	0.026	12.69	0.000	
Statistics					
F(3,540)	2.81				
P-value	0.0390				
Wald chi2(3)	22.65				

P-value	0.0001
R-Squared	0.4571

Source: Study Data (2024)

$$ROA_{it} = 0.336 + 0.737IFRS9_{it} + 0.904HHI_{it} + 0.188(IFRS9_{it} \times HHI_{it}) + \varepsilon$$

The results in Table 4.11 show that the interaction term between IFRS 9 and market share was positive and statistically significant ($\beta = 0.188$; $p = 0.047 < 0.05$). This implies that market competition significantly moderated the relationship between IFRS 9 and financial performance. The change in R-squared from 0.4032 in model two to 0.4571 in model three (an increase of 0.0539) further confirmed the contribution of the interaction term. Based on these results, the study rejected the null hypothesis (H04) that bank competition has no significant moderation effect on the relationship between IFRS 9 and financial performance of banks in Kenya, and confirmed that market competition had a statistically significant moderating effect.

These findings also provide evidence of partial moderation. Partial moderation occurs when the interaction term is significant, but the main effects of the independent variables (IFRS 9 and market share) also remain statistically significant in the model. As shown in Table 4.11, both IFRS 9 ($\beta = 0.737$, $p = 0.001$) and market share ($\beta = 0.904$, $p = 0.000$) retained their significance after the interaction was introduced. This means that competition complements but does not fully explain the effect of IFRS 9 on financial performance, hence confirming the presence of partial moderation.

The results therefore indicate that IFRS 9 and market share jointly play a significant role in enhancing the financial performance of commercial banks in Kenya. While earlier

studies such as Ongalo and Wanjare (2019) and Al-Nsour and Abuaddous (2021) established that IFRS 9 variables like NPLs, LLPs, and capital adequacy are significantly associated with bank performance, their analyses treated competition only as a contextual factor or direct influence rather than as a moderator. By incorporating competition as a moderating variable, the current study extends this literature and shows that the effect of IFRS 9 on financial performance is strengthened in more competitive banking environments. Conversely, the findings differ from Nyangidi (2021), who reported a decline in ROE for listed Kenyan banks following IFRS 9 adoption, and from other studies that observed an inverse relationship between competition and bank performance.

.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the study's summary, conclusions, and recommendations based on the analysis of IFRS 9's impact on the performance of commercial banks in Kenya. The discussion draws together the findings from the panel regression analysis of loan loss provisions, credit risk, and capital adequacy, alongside the moderating role of competition.

5.2 Summary

The study examined the relationship between IFRS 9 adoption and the performance of commercial banks in Kenya, covering all 39 licensed institutions from 2018 to 2022. A longitudinal descriptive survey design was applied, using audited financial statements and Central Bank of Kenya (CBK) supervision reports. This approach addressed earlier methodological limitations in studies that relied on shorter time spans or restricted samples.

The descriptive analysis revealed distinct patterns during the IFRS 9 implementation period. Loan loss provisions recorded a mean of 45.82% with wide variation (SD = 55.13%), reflecting substantial provisioning requirements under IFRS 9 and differences in provisioning approaches across banks. Credit risk showed a mean of 51.00% with minimal variation (SD = 0.30%), suggesting consistent default risk levels. Capital adequacy had a mean of 24.14% with moderate variation (SD = 14.82%), pointing to diversity in capital strength. Financial performance, measured through ROA, showed a mean of 22.48% with limited variation (SD = 5.70%), indicating relatively stable sector performance over the period.

Correlation analysis showed statistically significant positive associations between IFRS 9 components and financial performance: loan loss provisions ($r = 0.498$, $p < 0.01$), credit risk ($r = 0.525$, $p < 0.01$), and capital adequacy ($r = 0.561$, $p < 0.01$). These relationships suggested that effective application of IFRS 9 strengthened bank performance.

Regression analysis using random effects models confirmed these results. The base model explained 40.32% of variation in performance ($R^2 = 0.4032$). Loan loss provisions had a significant positive effect ($\beta = 0.402$, $p < 0.001$), credit risk showed the strongest positive effect ($\beta = 0.737$, $p < 0.001$), and capital adequacy also had a significant positive effect ($\beta = 0.188$, $p < 0.05$). All null hypotheses were rejected.

Moderation analysis showed that competition influenced IFRS 9's effectiveness. The interaction model explained 45.71% of variation ($R^2 = 0.4571$), an increase of 5.39 percentage points compared to the direct effects model. The interaction term was significant ($\beta = 0.188$, $p < 0.05$), indicating that market competition partially moderated the relationship between IFRS 9 and performance

5.3 Conclusion

The study reached several important conclusions regarding the effect of IFRS 9 on the performance of commercial banks in Kenya. First, the positive relationship between loan loss provisions and performance ($\beta = 0.402$, $p < 0.001$) challenges the conventional view that provisions represent pure costs to banks. Under IFRS 9's forward-looking expected credit loss framework, higher provisioning is better understood as evidence of enhanced risk assessment capabilities rather than portfolio deterioration. This finding lends support to Agency Theory by showing that transparent provisioning practices limit earnings

manipulation, strengthen oversight, and provide signals to stakeholders about the robustness of bank risk management.

Secondly, the analysis established that credit risk management has a significant positive effect on financial performance ($\beta = 0.737$, $p < 0.001$). This departs from the assumptions of traditional Credit Risk Theory, which treats risk as a constraint to performance. Instead, IFRS 9's predictive framework transforms risk identification into a performance-enhancing activity. Banks that are able to anticipate risks earlier and more accurately benefit from improved portfolio management and operational efficiencies. This shift demonstrates how predictive risk management under IFRS 9 creates value through more informed decision-making and superior differentiation in a competitive market.

Thirdly, the study confirmed a positive association between capital adequacy and performance ($\beta = 0.188$, $p < 0.05$), a result that aligns with the Basel Capital Adequacy Framework. Banks that maintain stronger capital positions are better placed to absorb shocks arising from IFRS 9 provisioning requirements, while sustaining lending operations and pursuing growth strategies. In this way, capital adequacy operates not only as a regulatory buffer but also as a source of competitive strength, reducing funding costs and enabling prudent expansion in the face of increased provisioning demands.

Finally, the moderation analysis demonstrated that competition significantly shapes the effectiveness of IFRS 9 ($\beta = 0.188$, $p < 0.05$). Banks with stronger competitive positions appeared to derive greater benefits from compliance, reflecting their superior capacity to implement complex requirements. This finding extends the Structure–Conduct–Performance paradigm into the regulatory context by showing that market structure influences regulatory outcomes. In Kenya's highly competitive banking environment,

regulatory effectiveness is therefore conditioned by competition, producing outcomes that vary depending on the strength and positioning of individual institutions.

5.4 Policy Recommendations

The findings of this study have several implications for policy and practice. For commercial bank management, IFRS 9 should be treated not simply as a compliance burden but as an opportunity to enhance performance. Investments in advanced ECL modeling and predictive risk assessment systems would improve early identification of credit problems and enable portfolio optimization, while maintaining capital ratios above the regulatory minimum would help banks to maximize the benefits of IFRS 9 and sustain lending growth.

For the Central Bank of Kenya, supervisory approaches should reflect the differences in institutional capacity across the sector. Smaller banks may require targeted capacity-building to strengthen compliance, while larger banks should be monitored to ensure that their competitive advantages are used responsibly and without creating distortions in the industry.

For the Kenya Bankers Association, sector-wide initiatives should focus on training in ECL modeling, the development of best practice guidelines, and the promotion of shared technology platforms that smaller institutions could use to access sophisticated risk management systems. Such collective efforts would help narrow the capacity gap between large and small banks.

For the Capital Markets Authority, disclosure requirements should be enhanced to allow investors and analysts to interpret provisioning under IFRS 9 more effectively. In

particular, guidance should emphasize that higher provisions may reflect stronger risk management rather than portfolio weakness. Governance standards should also require board-level oversight of IFRS 9 effectiveness, ensuring that implementation remains a priority at the highest level of decision-making.

5.5 Contributions to Knowledge

This study makes several contributions to knowledge. Theoretically, it reframes traditional credit risk perspectives by showing that IFRS 9 enhances, rather than constrains, financial performance. The positive association between loan loss provisions and performance supports Agency Theory's prediction that transparency reduces earnings manipulation and builds stakeholder confidence. The findings also extend the Structure–Conduct–Performance paradigm by demonstrating that the effectiveness of regulation depends on market structure, with stronger banks gaining more from compliance. Furthermore, the results reinforce Basel principles by showing that strong capital buffers can drive both flexibility and competitiveness under IFRS 9.

Empirically, the study is the first to examine IFRS 9 across the entire Kenyan banking sector over the full implementation period from 2018 to 2022. By covering all 39 licensed banks and spanning five years, the research eliminates sampling bias and resolves prior contradictions in the literature, confirming that IFRS 9 improves performance when effectively applied. These findings contribute clear evidence from an emerging market context where regulatory outcomes had remained uncertain.

Methodologically, the research demonstrates the application of robust panel regression techniques with full diagnostic testing to regulatory impact analysis. The use of the Baron–

Kenny moderation framework to test competition as a moderating variable introduces a novel dimension to the study of IFRS 9 and provides a replicable model for future regulatory research.

5.6 Suggestions for Further Research

The study's scope suggests several areas for future investigation. Comparative studies should be undertaken in other African markets such as Nigeria, South Africa, and Ghana to determine whether the Kenyan experience reflects broader regional trends or is context-specific. Longitudinal studies extending to a ten-year horizon would help to establish whether the positive effects of IFRS 9 are sustained across full economic cycles and during downturns.

Further research should also explore the mechanisms through which IFRS 9 influences performance. Mixed-method studies that combine qualitative assessments of implementation strategies and organizational practices with quantitative analysis could provide richer insights into causal pathways. Sector-specific studies across mortgage, SME, consumer, and corporate lending would also offer more detailed perspectives on how IFRS 9 affects different business lines.

In addition, future studies should examine the role of technology, analytics, and human capital in shaping IFRS 9 effectiveness, including the returns on IT investment and staff development initiatives. Finally, the competition moderation framework tested in this study could be applied to other regulatory regimes such as Basel III, IFRS 17, and fintech oversight. This would help establish whether competition systematically shapes regulatory outcomes across different frameworks and regulatory domains

REFERENCES

Al-Nsour, R., & Abuaddous, M. (2021). *A Comparison Study between IFRS 9 and IAS 39 in GCC Countries.* European Journal of Business and Management Research, 7(6), 7-13.

Ayadi, I., & Ellouze, A. (2013). *Market structure and performance of Tunisian banks*. International Journal of Economics and Financial Issues, 3(2), 345-354.

Barth, J. R., Caprio Jr, G., & Levine, R. (2013). *Bank regulation and supervision in 180 countries from 1999 to 2011*. Journal of Financial Economic Policy, 5(2), 111-219.

Berger, A. N., Hasan, I., & Zhou, M. (2010). *The effects of focus versus diversification on bank performance: Evidence from Chinese banks.* Journal of Banking & Finance, 34(7), 1417-1435.

Berndt, A., & Gupta, A. (2009). *Moral hazard and adverse selection in the originate-to-distribute model of bank credit*. Journal of Monetary Economics, *56*(5), 725-743.

Blazekova, P. (2018). *The impact of IFRS 9 (increase in credit risk provisioning) on banks' regulatory capital.* Comenius Management Review, *11*(2), 27-42.

Brei, M., Jacolin, L., & Noah, A. (2020). *Credit risk and bank competition in Sub-Saharan Africa.* Emerging Markets Review, 44, 100716.

Casta, J. F., Lejard, C., & Paget-Blanc, E. (2019, August). *The implementation of the IFRS 9 in banking industry.* In EUFIN 2019: The 15th Workshop on European Financial Reporting.

Central Bank of Kenya. (2018). Bank Supervision Annual Report. Nairobi, Kenya: Central Bank of Kenya.

Central Bank of Kenya. (2019). Bank Supervision Annual Report. Nairobi, Kenya: Central Bank of Kenya.

Central Bank of Kenya. (2020). Bank Supervision Annual Report. Nairobi, Kenya: Central Bank of Kenya.

Central Bank of Kenya. (2021). Bank Supervision Annual Report. Nairobi, Kenya: Central Bank of Kenya.

Central Bank of Kenya. (2022). Bank Supervision Annual Report. Nairobi, Kenya: Central

Dib, D., & Feghali, K. (2021). *Preliminary impact of IFRS 9 implementation on the Lebanese banking sector*. Accounting and Management Information Systems, 20(3), 369-401.

Elena, Luminita, Madalin, & Codrut, (2020). *IFRS 9 and the interaction with Basel III regulation pillars.* Annals of the University of Oradea, Economic Science Series, 29(2).

Engelmann, B., & Lam Nguyen, T. T. (2016). Global assessment of the COVID-19 impact on IFRS 9 loan loss provisions. Asian Review of Accounting, 31(1), 26-41.

Evans, J. R. (2004). *An exploratory study of performance measurement systems and relationships with performance results*. Journal of operations Management, 22(3), 219-232.

Gorton, G., & Rosen, R. (1995). *Corporate control, portfolio choice, and the decline of banking*. The Journal of Finance, 50(5), 1377-1420.

Hirtle, B., & Kovner, A. (2017*). Assessing financial stability: The capital and loss assessment under stress scenarios (CLASS) model.* Economic Policy Review, 23(2), 41-65.

Holden, M. T., & Lynch, P. (2004). *Choosing the appropriate methodology: Understanding research philosophy.* The marketing review, 4(4), 397-409.

Hope, C. J., Gwatidzo, T., & Ntuli, M. (2013). *Investigating the effect of bank competition on financial stability in ten African countries.* International Business & Economics Research Journal (IBER), 12(7), 755-768.

Hull, J., Nelken, I., & White, A. (2004). *Merton's model, credit risk, and volatility skews*. Journal of Credit Risk Volume, 1(1), 05.

International Accounting Standards Board. (2014). *Financial Instruments*. International Accounting Standards Committee Foundation (IASCF).

International Accounting Standards Board (IASB). (2014). *IFRS 9: Financial Instruments*. London, UK: IASB.

Isanzu, J. S. (2017). *The impact of credit risk on financial performance of Chinese banks.* Journal of International Business Research and Marketing, 2(3).

Ivashina, V. (2009). *Asymmetric information effects on loan spreads*. Journal of financial Economics, 92(2), 300-319.

Kaimu, A., & Muba, S. (2021). *The relationship between credit risk and financial performance: Evidence from commercial banks in Tanzania*. East African Journal of Business and Economics, 4(1), 22-33.

Kassim, N. M. (2011*). Effects of asset management efficiency on commercial banks' financial performance in Kenya*. International Journal of Economics and Finance, 3(4), 206-214.

Kiragu, D., & Ndwiga, J. M. (2013). *Relationship between agency banking & financial performance of commercial banks in Kenya.* University of Nairobi Press.

Kolapo, T. F., Ayeni, R. K., & Oke, M. O. (2012). *Credit Risk and Commercial Banks Performance in Nigeria: A Panel Model Approach*. Australian journal of business and management research, 2(2), 31.

Kumaraswamy, S. (2016). Impact of working capital on financial performance of gulf cooperation council firms. International Journal of Economics and Financial Issues, 6(3), 1136-1143.

Kund, B., Goyal, V., & Chawla, G. (2020). *Impact of IFRS 9 on financial performance and risk management of banks.* IIM Kozhikode Society & Management Review, 9(1), 67-76.

Laeven, L., & Majnoni, G. (2003). *Loan loss provisioning and economic slowdowns: too much, too late?* Journal of financial intermediation, 12(2), 178-197.

Laeven, M. L., & Valencia, M. F. (2012). *Systemic banking crises database: An update*. International Monetary Fund.

Leshem, S., & Trafford, V. (2007). *Overlooking the conceptual framework.* Innovations in education and Teaching International, 44(1), 93-105.

Levine, R. (2005). *Finance and growth: theory and evidence*. Handbook of economic growth, 1, 865-934.

Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative & qualitative apporaches* (Vol. 2, No. 2). Nairobi: Acts press.

Musau, S., Muathe, S., & Mwangi, L. (2018). Financial inclusion, bank competitiveness and credit risk of commercial banks in Kenya. International Journal of Financial Research, 9(1), 203-218.

Naceur, S. B., & Omran, M. (2011). *The effects of bank regulations, competition, and financial reforms on banks' performance*. Emerging markets review, 12(1), 1-20.

Noor, K. B. M. (2008). Case study: A strategic research methodology. American journal of applied sciences, 5(11), 1602-1604.

Nuralyza, O., Narsa, N. P. D. R. H., & Sriani, D. (2022). *Bank Competition, Credit Risk, and Foreign Bank Penetration*: *Empirical Evidence from Indonesia.* JBMP (Jurnal Bisnis, Manajemen dan Perbankan), 8(1), 7-24. Airlangga University, Indonesia.

Nyangidi, D. (2020). *The Effects of International Financial Reporting Standard Number 9 on the Performance of Kenyan Commercial Banks Listed at the Nairobi Securities Exchange.* University of Nairobi.

Ntaikou, I., Vousinas, G., & Kenourgios, D. (2021). *The Expected Impact of IFRS 9 on the Greek Banking System's Financial Performance: Theoretical Considerations and Insights*. Dr. Despoina and Vousinas, Georgios and Kenourgios, Dimitris, The Expected Impact of IFRS, 9. National Conference of the Financial Engineering and Banking Society, 21-22 December 2018, Athens, Greece.

Oberson, R. (2021). *The credit-risk relevance of loan impairments under IFRS 9 for CDS pricing: early evidence*. European Accounting Review, 30(5), 959-987.

Obwocha, D. N. (2019). *Effect of change in loan loss provisioning policy on the financial performance of commercial banks in Kenya*. University of Nairobi.

Omukhulu, B. A. (2020). *Impact of International Financial Reporting Standard 9 (Ifrs 9) Implementation on Financial Performance of Commercial Banks in Kenya.* KCA University.

Ongalo, S., & Wanjare, J. (2019). *International Financial Reporting Standard (IFRS) 9 and the Financial Performance of Commercial Banks in Kenya*. European Journal of Business and Management Research, 7(6), 221-226.

Pinto, I., & Morais, A. I. (2022). *Classification of Equity Instruments under IFRS 9: Determinants and Consequences*. Australian Accounting Review.

Rene, E., Harianto, F., & Masri, R. (2018). *Impact of IFRS 9 adoption on bank performance: Evidence from Indonesian banks.* International Journal of Economics, Commerce and Management, 6(1), 1-12.

Rugilo, K. (2018). *The impact of IFRS 9 on banks' provisioning:* Evidence from Europe. Lund University, Sweden.

Taherdoost, H. (2016). *Sampling methods in research methodology; how to choose a sampling technique for research. Oxford* University Press.

Wong, J., & Choi, F. (2008). *Determinants of the performance of banks in Hong Kong* (pp. 50-65). Palgrave Macmillan UK.

APPENDICES

Appendix I: List of Commercial Banks in Kenya

1. Absa Bank Kenya PLC
2. Access Bank (Kenya) PLC
3. African Banking Corporation Ltd
4. Bank of Africa Ltd
5. Bank of Baroda (Kenya) Limited
6. Bank of India
7. Citibank N.A. Kenya
8. Consolidated Bank of Kenya Limited
9. Co-operative Bank of Kenya Ltd
10. Credit Bank Ltd
11. Development Bank of Kenya Ltd
12. Diamond Trust Bank Kenya Limited
13. DIB Bank Kenya Ltd
14. Ecobank Kenya Ltd
15. Equity Bank Kenya Ltd
16. Family Bank Ltd.
17. First Community Bank Ltd
18. Guaranty Trust Bank
19. Guardian Bank Limited
20. Gulf African Bank
21. Habib Bank AG Zurich

22. HFC Ltd
23. I & M Bank Limited
24. KCB Bank Kenya Limited
25. Kingdom Bank Limited
26. Mayfair CIB Bank Limited
27. Middle East Bank (K) Ltd
28. M-Oriental Commercial Bank
29. National Bank of Kenya Ltd
30. NCBA Bank Kenya PLC
31. Paramount Bank Ltd
32. Prime Bank Ltd
33. SBM Bank Kenya Ltd
34. Sidian Bank Ltd
35. Spire Bank Limited
36. Stanbic Bank Kenya Ltd
37. Standard Chartered Bank (K) Ltd
38. UBA Kenya Bank Ltd
39. Victoria Commercial Bank Limited

Source: Central Bank of Kenya, 2024

Appendix II: Data Collection Tool

No.	Bank	Years	Financial Performance (ROA)	Loan Loss Provisioning	NPLs	Capital Adequacy	Bank Competition (Total Assets)
1	Bank 1	2018					
		2019					
		2020					
		2021					
		2022					
2	2	2018					
		2019					
		2020					
		2021					
		2022					
…..	…..	…….	…….	…….	…….	…….	…….
39	39	2018					
		2019					
		2020					
		2021					
		2022					

Source: Resource (2024)

Appendix III: Budget

ACTIVITY	QUANTITY	UNIT COST	TOTAL COST
Proposal Writing	6 copies of 50 pgs.	100=@page	30,000
Spiral Binding	6 copies	500=@copy	3,000
Transport Cost to Library	3 days Per Week (12weeks)	1500/=@day	54,000
Data Collection Instruments	39 copies of 7pgs.	100/=@page	27,300
Researcher Expenses	15 days	600/=@day	9,000
Data Entry and Analysis	20 days	10 assistants @1000	200,000
Project Typing	1 copy of 120 pgs.	100/=@page	12,000
Photocopying of final project	6 copies of 120 pgs.	10/=@page	7,200
Binding of final project	6 copies	400/=@copy	2,400
Total			**344,900**

Source: Researcher (2024)

Appendix IV: Time Schedule

ACTIVITIES	TIME
Proposal Writing	July – November 2023.
Defending proposal and Corrections	December 2023 – January 2024.
Data Collection and Preparation and Analysis	February to March 2024.
Data Analysis and Reporting Writing	April 2024.
Report Submission	May 2024.