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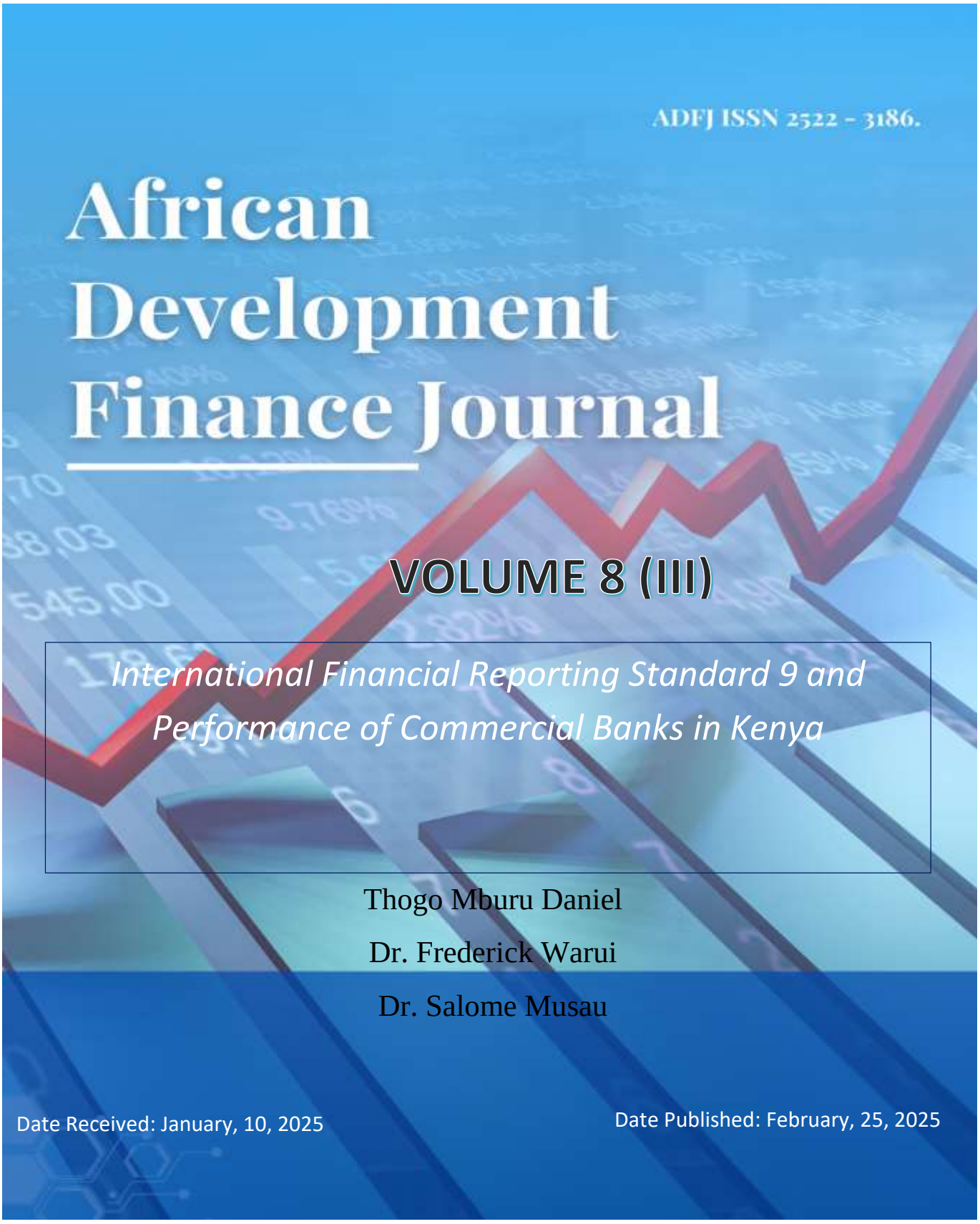

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International Financial Reporting Standard 9 and Performance of Commercial Banks in Kenya

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Abstract

Commercial banks play a critical role in resource allocation and financial intermediation, channeling funds from depositors to investors. In response to the 2007–2008 global financial crisis, regulators introduced measures to enhance financial stability, including the International Financial Reporting Standard 9 (IFRS 9), issued by the International Accounting Standards Board in 2014. IFRS 9 replaced IAS 39, aiming to strengthen bank financial performance through a forward-looking credit risk management framework and expected credit loss (ECL) provisioning. However, studies have suggested that the early recognition of credit losses and stricter risk management practices under IFRS 9 may negatively impact bank profitability. This study examines the impact of IFRS 9 on the financial performance of commercial banks in Kenya, focusing on loan loss provisioning, credit risk, and capital adequacy. Additionally, bank competition was analyzed as a moderating factor. The research is grounded in Credit Risk Theory, Asymmetric Information Theory, Agency Cost Theory, the Basel Capital Adequacy Framework, and the Structure-Conduct-Paradigm Theory. A positivist research philosophy and a longitudinal design were employed, utilizing secondary data from 39 banks over the period 2018–2022, sourced from audited financial statements and Central Bank of Kenya supervision reports. Descriptive statistics and panel regression analysis were conducted, alongside diagnostic tests to ensure data reliability. The findings indicate that loan loss provisioning, credit risk management, and capital adequacy have a significant positive impact on bank performance. Additionally, market share was found to moderate this relationship. The study recommends that bank managers enhance loan loss provisioning, maintain adequate capital buffers to meet regulatory requirements, and strategically expand market share to improve financial performance.

Keywords: *IFRS 9, Performance, Commercial Banks*

1. Introduction

Commercial banks play a critical role in economic growth by channeling financial resources from depositors to investors, facilitating transactions, implementing monetary policy, and promoting financial inclusion (Isanzu, 2017). Strong financial performance in the banking sector is essential, as it incentivizes investment, lowers capital costs, and fosters job creation, thereby driving economic stability and development (Laeven & Valencia, 2012). Conversely, weak bank

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performance can lead to financial crises, adversely impacting economic stability (Gorton, 2010). In response to the 2007–2008 global financial crisis, regulators introduced measures to enhance banking stability, including the adoption of International Financial Reporting Standard 9 (IFRS 9) by the International Accounting Standards Board (IASB) in 2014 (Berger et al., 2010). IFRS 9 aimed to improve financial performance by enhancing risk management, asset classification, credit loss provisioning, and hedging strategies (Barth et al., 2013).

Despite the intended benefits of IFRS 9, the relationship between its adoption and bank performance remains subject to debate. Research from Europe and Asia indicates that IFRS 9 has led to improved credit risk management but also increased expected credit loss provisions and reduced Tier 1 capital levels (Kund et al., 2020; Pastiranova & Witzany, 2021; Dib & Feghali, 2021). Similarly, studies in Tanzania confirm a significant impact of IFRS 9 on bank performance (Kaimu & Muba, 2021). However, empirical findings in Kenya have been mixed, with some studies suggesting increased non-performing loans (NPLs) and loan loss provisions, while others indicate a positive effect on financial health (Obwacha, 2019; Ongalo & Wanjare, 2019; Nyangidi, 2020; Omukhulu, 2020).

The implementation of IFRS 9 in Kenya commenced in January 2018, with the Central Bank of Kenya (CBK) providing transitional guidance to minimize adverse effects on profitability and capital adequacy. The transition approach allowed banks to gradually recognize expected credit loss (ECL) provisions, ensuring financial stability during the adjustment period (CBK, 2018). To assess the impact of IFRS 9 on financial performance, this study examines three key dimensions: forward-looking credit risk management, ECL-based loan loss provisions, and capital adequacy ratios (CAR). Additionally, it considers bank competition as a moderating factor in the IFRS 9-financial performance relationship.

Financial performance, often measured through return on assets (ROA), return on equity (ROE), and return on investment (ROI), is a key indicator of a firm's ability to achieve financial goals and maintain stability (Laeven & Majnoni, 2003; Evans, 2004). ROA is particularly relevant for banks, as it remains unaffected by capital structure regulations and provides a more stable measure of profitability (Hirtle & Kovner, 2017). Meanwhile, bank competition influences financial

performance by affecting risk-taking behaviors, interest rate spreads, and overall market dynamics (Naceur & Omran, 2011). In Kenya, the banking sector is highly competitive, with 39 commercial banks leveraging digital infrastructure to attract deposits and extend short-term credit (FSD-Kenya, 2022; CBK, 2022). However, intense competition can increase credit risk, particularly in the mobile lending segment.

This study seeks to contribute to the ongoing debate on IFRS 9's effects on financial performance by providing empirical insights from Kenya's banking sector. The research aims to examine whether IFRS 9 enhances financial stability or imposes additional financial burdens on banks, with a particular focus on its interaction with competition dynamics. Understanding these effects is crucial for policymakers, regulators, and financial institutions striving to balance regulatory compliance with sustainable banking performance.

1.2 Research Problem

The banking sector plays a crucial role in economic stability by intermediating between savers and borrowers. Assessing the financial health of banks through key indicators like Return on Assets (ROA) and Return on Equity (ROE) is essential for understanding their stability and performance (Engelmann & Nguyen, 2016). Following the 2007-2008 financial crisis, regulatory frameworks such as IFRS 9, revised risk management guidelines, and Basel Accords were introduced to enhance bank stability (Ntaikou et al., 2018).

IFRS 9 aimed to strengthen bank performance by introducing a forward-looking credit risk model and robust loan loss provisioning. However, its impact remains debated. Some studies (e.g., Al-Nsour & Abuaddous, 2021) report a decline in ROA and ROE, particularly in the short term due to higher Expected Credit Loss (ECL) provisions, while others (e.g., Ongaro & Wanjare, 2019) suggest positive long-term effects on bank profitability and capital adequacy.

In Kenya, five years post-implementation (2018–2022), evidence suggests that commercial banks have struggled to realize the anticipated benefits of IFRS 9. Several institutions have reported poor financial performance, leading to mergers and acquisitions (CBK, 2019; 2021; 2022). The sector is highly polarized, with large banks generating 87% of total profits, while medium and small

banks—representing 77% of institutions—continue to struggle, raising systemic risk concerns (CBK, 2022).

A notable trend is banks' increasing reliance on non-funded income, growing from 36.1% to 37.8% between 2021 and 2022, suggesting a strategic shift to mitigate the impact of IFRS 9 on ROA. Despite these adaptations, the persistent underperformance of smaller banks raises concerns about industry-wide stability.

Given the mixed findings on IFRS 9's effects, the continued struggles of smaller banks, and strategic shifts towards alternative revenue sources, further research is needed to assess the long-term implications of IFRS 9 on bank performance and stability in Kenya.

1.3 Research Objectives

This research was aimed to establish the effect of IFRS 9 on the performance of banks in Kenya. Specifically, the study sought to:

(a) Assess the effect of expected credit loss loan loss provisioning on the financial performance of banks in Kenya.
(b) Ascertain the effect of forward-looking credit risk management on the financial performance of banks in Kenya.
(c) Investigate the effect of the capital adequacy ratio on the financial performance of banks in Kenya.
(d) Examine the moderating effect of competition on the relationship between IFRS 9 and the financial performance of banks in Kenya.

2. Literature Review

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.

2.1 Theoretical Literature Review

The theoretical review encompasses various theories that contribute to understanding the relationship between credit risk, financial performance, and regulatory frameworks in banking. These theories provide a foundation for examining the effects of IFRS 9 and how banks manage credit risk, capital adequacy, and competition dynamics.

The Theory of Credit Risk, proposed by Robert Merton in 1974, highlights the financial risk faced by lending institutions when borrowers default on loan repayments. Studies have consistently found a negative relationship between credit risk and financial performance, with banks implementing risk management strategies to mitigate loan defaults. The introduction of IFRS 9, which mandates Expected Credit Loss (ECL) provisioning, has reinforced the need for stricter risk assessment, influencing profitability through increased loan loss provisions (LLPs) and operating costs.

The Asymmetric Information Theory, developed by Akerlof (1962), Spence (1973), and Stiglitz (1981), explains how borrowers may withhold or misrepresent information, leading to adverse selection and moral hazard in lending. This theory underscores the significance of IFRS 9's ECL model, which requires banks to account for potential defaults using Probability of Default (PD), Loss Given Default (LGD), and Exposure at Default (EAD). The requirement for forward-looking credit assessment increases operational costs but enhances transparency in financial reporting.

The Agency Theory, introduced by Demsetz (1972) and expanded by Jensen (1976), focuses on conflicts of interest between shareholders and management. In the context of credit risk, managers may manipulate loan classifications to enhance reported profitability. IFRS 9's ECL framework acts as a safeguard against such managerial overrides by enforcing stringent credit risk management and provisioning requirements, ensuring accurate financial disclosures and protecting shareholder interests.

The Basel Capital Adequacy Framework, introduced in 1988 and revised in Basel II (2004) and Basel III (2013), sets capital requirements to ensure banks can absorb losses and maintain financial stability. Studies indicate that IFRS 9's increased loan provisions negatively impact capital

adequacy ratios (CAR), reducing lending capacity and profitability. In Kenya, research has shown that higher impairment charges under IFRS 9 have lowered CAR ratios, affecting banks' ability to extend credit.

Lastly, the Structure-Conduct-Performance (SCP) Paradigm Theory, proposed by Mason (1939) and Bain (1956), examines how market structure influences bank behavior and performance. The application of IFRS 9, with its forward-looking credit assessment and higher LLPs, has led to conservative lending practices, especially for unsecured loans. This has intensified competition among banks for secured lending segments, as they seek to mitigate the impact of stricter provisioning requirements on profitability.

2.2 Empirical Literature Review

The implementation of IFRS 9 was aimed at enhancing bank performance by addressing the shortcomings of IAS 39, particularly in financial asset recognition and risk management. This section examines prior empirical studies on IFRS 9 and its impact on financial performance, loan loss provisioning, credit risk, capital adequacy, and competition.

Regarding financial performance, Saleh and Mahjoub (2017) analyzed credit policies in Arab banks under IAS 39, revealing an inverse relationship between non-performing loans (NPLs), loan loss provisions (LLPs), and return on assets (ROA). Ntaikou et al. (2018) found that IFRS 9 initially impacted Greek banks' performance negatively due to immediate recognition of expected credit loss (ECL) provisions, though long-term benefits were anticipated. Oberson et al. (2021) studied South African banks but omitted LLPs as a variable, despite its significant role under IFRS 9. Omukhulu (2020) focused on Kenyan banks but only covered listed banks and a limited time frame, overlooking the broader implications of IFRS 9.

On loan loss provisioning, Al-Nsour and Abuaddous (2021) observed a strong correlation between NPLs, LLPs, and bank performance in GCC countries, though their study was influenced by the economic disruptions of COVID-19. Obwocha (2019) focused on provisioning policies in Kenyan banks but did not incorporate other IFRS 9 dimensions like forward-looking credit assessment.

Kaimu (2021) examined Tanzanian banks but did not consider differences in IFRS 9 adoption strategies between Kenya and Tanzania, which influenced banks' profitability differently.

Credit risk studies, including Nyangidi (2021), highlighted the negative impact of IFRS 9 on ROE for listed Kenyan banks but excluded unlisted institutions, limiting its generalizability. Apire (2016) found a strong correlation between credit risk and financial performance in Ugandan banks but based the study on IAS 39, which differs from IFRS 9 provisions. Kolapo et al. (2012) examined Nigerian banks under a pre-IFRS 9 framework, limiting its relevance to current financial environments. Ongalo and Wanjare (2019) found an insignificant relationship between IFRS 9's forward-looking risk management and performance, though their study coincided with Kenya's transition window, which may have affected results.

In terms of capital adequacy, Kumaraswamy (2016) linked capital to ROE in GCC firms, though the findings may not be applicable to banks due to differences in capital structures. Blazekova (2018) observed a negative impact of IFRS 9 on European banks' regulatory capital but conducted the study only a year after IFRS 9 implementation, limiting long-term insights. Ongalo and Wanjare (2019) reported improved bank profitability under IFRS 9, but their event study design was not well-suited for assessing the standard's ongoing effects.

Finally, Albaity et al. (2019) studied bank competition and performance in MENA countries but relied on pre-2018 data and focused on Shariah-compliant banks, making their findings less applicable to Kenya's predominantly conventional banking sector. To address these gaps, the current study investigates IFRS 9's impact on Kenyan banks from 2018 to 2022, incorporating competition as a moderating variable and using a longitudinal research design to assess long-term trends.

2.3 Conceptual Framework

Included is a diagram comprehending the context of the study. Its purpose is to offer a structured and coherent approach to identifying the factors that impact a particular phenomenon or outcome (Leshem, 2007). Figure 1 illustrates the interrelationships among financial performance, IFRS 9, and bank competition in Kenya.

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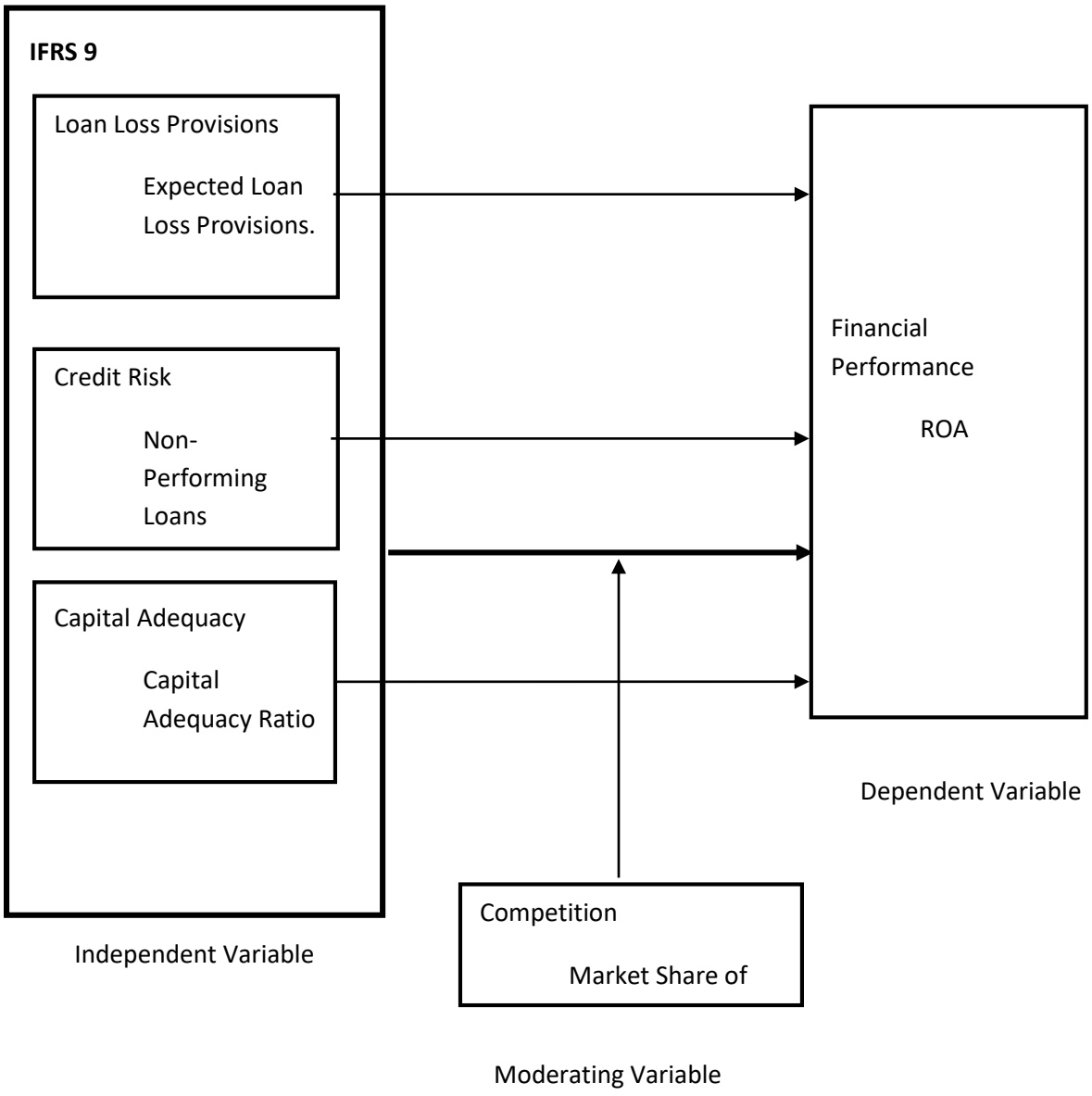

Figure 1: Conceptual Framework

3. Research Methodology

Holden and Lynch (2004) assert that research philosophy encompasses the fundamental ideas and assumptions that shape a researcher's approach to knowledge and perception of reality. These perspectives influence the choice of research methodologies and data analysis techniques. Chia (2002) defines positivism as a research philosophy that emphasizes the objective study of phenomena to establish generalizable laws or theories, based on the assumption of a singular, objectively measurable reality. Positivist researchers typically employ quantitative methods such as surveys and experiments, relying on statistical analysis for interpretation. In line with this approach, this study adopted a positivist research philosophy.

A research design serves as a strategic framework that outlines the methods and procedures to be employed in a study, guiding the collection, analysis, and interpretation of data to address research objectives (Berman et al., 2000). This study utilized a longitudinal research design to identify trends and patterns in the study variables. Mugenda and Mugenda (2003) suggest that a descriptive survey research design is suitable for capturing the characteristics of a population and testing hypotheses. Noor (2008) classifies descriptive research designs into longitudinal and cross-sectional approaches, with the former involving repeated observations of the same variables over an extended period, while the latter captures data at a single point in time. This study employed a longitudinal descriptive design to collect IFRS 9-related data from commercial banks between 2018 and 2022, enabling the analysis of temporal variations.

Given the continuous nature of the data, this study employed a panel multiple regression model, following the approach of Musau et al. (2018). The empirical model was adapted from the works of Ongalo and Wanjale (2019) and Al-Nsour and Abuaddous (2021) to assess the financial performance of banks, represented by return on assets (ROA). The model is specified as follows:

$$\mathbf{Y_{it}=\beta_0+\beta}\, X'_{it}+\mathbf{u_{it}} \quad \text{……..…….1}$$

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 $\boldsymbol{\beta}$ were determined, $\boldsymbol{\beta_0}$ represented the intercept term, and $\mathbf{u_{it}}$ denoted the residual term.

Expanding this model, the study formulated a more detailed equation incorporating specific IFRS 9-related variables:

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

To assess the moderating effect of bank competition on the relationship between IFRS 9 dimensions and bank performance, the study applied the two-step procedure outlined by Baron and Kenny (1986). Initially, a regression analysis was conducted to examine the direct effects of IFRS 9 and bank competition on performance. Subsequently, an interaction term between IFRS 9 and bank competition was introduced to evaluate the moderation effect. The statistical significance of the interaction coefficient determined the presence of moderation. Bank competition was measured using the Herfindahl-Hirschman Index (HHI), developed by Hirschman (1964). The direct effect model is represented by:

$ROA_{it}=\beta_0+\beta_1IFRS9_{it}+\beta_4HHI_{it}+u_{it}$.....3

Equation 4 incorporated the interaction term to evaluate the moderating effect of bank competition and IFRS 9 and ROA of Kenyan commercial banks.

$$\boldsymbol{ROA_{it}= Bo+ \beta_1.IFRS9_{it} + \beta_2.HHI_{it}+ \beta_3.IFRS9_{it}*.HHI_{it}+ u_{it}} \quad \boldsymbol{\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 4}$$

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.

4 Research Findings and Discussions

This chapter presents the analysis of panel secondary data, including the findings, interpretations, and discussions derived from the data analysis. It provides a comprehensive summary of the descriptive, diagnostic, and inferential results. Descriptive statistics play a crucial role in understanding the characteristics and distribution of the analyzed data. In this study, key statistical measures such as the mean, standard deviation, minimum, and maximum values were utilized to illustrate the behavior of the variables over the research period, offering insights into trends and variations within the dataset.

Table 4.1: 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

The findings in Table 4.1 shows a mean of loan loss provision was 0.45823 and a standard deviation of 0.551310 which implied a fairly high loan loss provisions among the commercial banks. The standard deviation was high indicating that loan loss provision significantly varied across the stipulated period. The finding is in line with 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.

Credit risk had a mean of 0.51000 and a standard deviation of 0.0030072 indicating that a relatively high amount of unpaid loans in the banks was experienced. This is in line with the rapid growth of the unsecured mobile and digital loan portfolios amongst banks in the country. The standard deviation was low an indication that credit risk varied lowly during the entire period of study.

For capital adequacy ratio the mean was .241430 and a standard deviation of 0.1482142 meaning there was a great variation in capital during the study period. This is probably due to the effect of the LLPs impact on the retained earnings which forms a key component of the bank's core capital. The overall mean of market share was 0. 24232, the standard deviation of .233923 was fairly low implying that market share among the commercial banks under study did not significantly vary across the stipulated period.

Financial performance as measured by the ROA, mean was 0.224804 indicating that financial performance maintained a high momentum during the 5 years of study. The standard deviation was 0.233923, showing a less significant vary among commercial banks within the 5-year period.

4.1 Correlation Analysis

Testing the possible statistical associations among variables is often done using correlation analyses, where the correlation can be perfectly positive (+1) or perfectly negative (-1) on the extreme ends of the correlation spectrum. The variables had significant negative and strong positive correlations, respectively, when the value was around -1 or +1. Weak correlation exists between variables when the correlation value is around zero (0). Here, the tests were on the statistical association between the bank's financial performance and IFRS9 using Pearson Correlation shown in Table 4.2.

From Table 4.2 it is evident that loan loss provisions and financial performance (Return on assets) had a moderate positive significant relationship (r= 0.498, p=0.000). Which means that as the provisioning is increased, performance also improves. The results also indicate that credit risk and return on assets were equally found to be moderately, positively and significantly correlated (r= 0.525, p=0.000). Implying when the credit policy strategies are strengthened, the performance is enhanced. Capital adequacy ratio and return on assets had a similar effect shown by a moderate

positive and significant effect of (r= 0.561, p=0.000). These findings indicate that an increase in capital adequacy ratio result to improvement in profitability and hence performance.

Table 4. 2: 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	.

4.5 Regression Analysis

Regression analysis panel in nature facilitated the determination of the link between the variables. Variations among the variables are related to one another in terms of units, as shown by the coefficients. A specific variable is considered significant in defining any adjustments by below 5% P values at respective confidence intervals of 95%.

4.5.1 International financial reporting standard 9 and financial performance

The direct effect model tested the association between IFRS9 (loan loss provisioning, credit risk and capital adequacy) and performance. The output was displayed in table number 4.9 given below.

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 also indication that 40.32% of the financial performance are explained by international financial reporting standard 9. The findings disagree with Nyangidi (2021) studied how the 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. The results however are in harmony with Ongalo and

Wanjare (2019) who observed an increase in both ROA and ROE for bank with the implementation of IFRS 9.

Table 4.9: International financial reporting standard 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				

The results indicate that loan loss provisions had a positive and statistically significant effect on the financial performance ($\beta = 0.402$; $P = 0.000 < 0.005$). This led to the rejection of the null hypothesis that H_{01}: Expected loan loss provisions have no statistically significant effect on the financial performance of banks in Kenya.

This means that an increase in loan loss provisions would lead to a 0.402 increase in financial performance. This agrees with the research by Al-Nsour and Abuaddous (2021) who 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. The findings also agree with Obwocha (2019) who established a strong link (R=0.84) between financial performance and provisioning policy in Kenyan banks. The findings however disagree with Kaimu (2021) who evaluated the connection of LLP and ROE of banks in Tanzania three (3) years since implementation of IFRS 9. Using CAR as a moderating variable, the study revealed that LLP negatively affected the ROE upon adoption of the new forward-looking standard.

Credit risk showed a positive and statistically significant effect on the financial performance ($\beta = 0.737$; $P = 0.001 < 0.005$). This led to failure to accept the null hypothesis that **H_{02}: Forward-**

looking credit-risk management has no statistically significant effect on the financial performance of banks in Kenya. This means that an increase in credit risk would lead to a 0.737 increase in financial performance. The revelation agrees with Apire (2016) who discovered a significant correlation between NPLs and LLPs with ROA in commercial banks in Uganda. The findings however disagree with Kolapo *et al.* (2012) whose research established an inverse link between credit risk and ROE for Nigerian commercial banks, while also observing a positive correlation between capital adequacy and ROE. Further, the findings also disagree with Ongalo and Wanjare (2019) study who concluded that credit risk management had no association with ROA and ROE.

Capital adequacy additionally exhibited a positive and statistically significant effect on the financial performance ($\beta = 0.188$; $P = 0.047 < 0.005$). This led to non-acceptance of the hypothesis that **H_{03}: Capital adequacy has no statistically significant effect on the financial performance of banks in Kenya**. This mean that when banks increased capital adequacy it would lead to a 0.188 improvement in financial performance. The results are consistent with Kumaraswamy's (2016) who suggested a positive correlation between capital adequacy and ROE in manufacturing and transport firms within the Gulf Cooperation Council (GCC). 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

4.5.2 International financial reporting standard 9, Bank Competition and Financial performance

Model two and three tested the moderating effect of market share on the relationship between international financial reporting standard 9 and financial performance. To test for the moderation effect, regression analysis was conducted by using two models as described by (Baron & Kenny, 1986). Model two, tested the relationship of international financial reporting standard 9, market competition and financial performance. Where market competition was treated as an explanatory variable. The results are shown in Table 4.10.

Table 4.10 International financial reporting standard 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				

$ROA_{it}=\beta_0+0.402\ IFRS9_{it}+ 0.4458HHI_{it}+ u_{it}$.....3.3

Model with moderation effect

Model three tested market competition as a moderator variable by introducing the interaction term (U) in the equation.

Table 4.11International financial reporting 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

Y = 0.336 + 0.737IFRS9+ 0.904HHI+ 0.188IFRS9+ ε

Y= Financial Performance

IFRS9= an index for (loan loss provisions, credit risk and capital adequacy)

HHI=Market share

U=interactions term of international financial reporting 9 & Market share

The results in Table 4.10 shows that Wald Chi square is significant with ($p = 0.000 < 0.05$), implying that international financial reporting 9, market share and the interactions of international financial reporting 9 with market share determined financial performance.

The interaction effect of coefficient international financial reporting 9 and market share at $\beta = 0.188$, $P = 0.047$ which is less than 0.05, indicates that international financial reporting 9 and market share significantly and statistically have a positive effect on the financial performance in terms of return on assets. Additionally, the beta coefficient of 0.188 implies that an increase in adoption of international financial reporting 9 and market share results to 0.188 increase in return on assets hence financial performance. According to Baron and Kenny (1986) there are three most common methods of determining for moderation under this model. (1) determining whether or not the increment in R-square is greater significantly than zero, (2) determining whether or not the coefficient B_3 differs from 0, and (3) determining whether or not the partial correlation between the product of Market share and international financial reporting 9 different and not 0.

This study interpreted the results by observing the behavior and changes exhibited by R-square in the regression outputs. Observation from the two models in tables 4.10 and 4.11 displayed an increase in R- square from 0.4032 in model 2 to 0.4571 in model 3 resulting to a 0.0539 increase. This change in R-square was occasioned by the interaction term U. The study therefore rejected

the null hypothesis that **H_{04}: Bank Competition has no significant moderation effect on the relationship between IFRS 9 and financial performance of banks in Kenya,** and confirmed that market bank competition had a statistically significant moderating effect on the relationship between international financial reporting 9 and financial performance of commercial bank in Kenya. These findings indicate that international financial reporting 9 and market share play a significant role in enhancing financial performance of commercial banks in Kenya.

The findings concur with Ongalo and Wanjare (2019) observed an increase in both ROA and ROE for banks. In addition, the study incorporated competition as a moderating variable in order to assess its influence on the relationship being examined. The findings of the study were that competition had a significant moderating effect on the relationship between International financial reporting standard 9 and ROA for banks.

Ongalo and Wanjare (2019) study has been echoed by 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. Conversely, other authors have demonstrated inverse relationship between market share and financial performance. Nyangidi (2021) studied how the ROE of listed banks in NSE was affected by the implementation of IFRS 9 concluded that the ROE declined after adoption of the new standard.

5. Summary, Conclusions and Recommendations

The study established a significant positive relationship between ECL loan loss provisioning and bank performance. Regression results indicated that an increase in loan loss provisions corresponded with improved financial stability, leading to the rejection of the null hypothesis. Similarly, credit risk management exhibited a moderate positive and significant correlation with financial performance, confirming that enhanced risk management practices contribute to better bank profitability.

Capital adequacy was found to be positively associated with financial performance, highlighting the importance of maintaining strong capital buffers. Regression results reinforced this finding, leading to the rejection of the null hypothesis. Additionally, market share played a moderating role

in the IFRS 9-financial performance relationship, with interaction terms in the regression model confirming its significance.

5.1 Conclusion

The study concludes that IFRS 9 adoption, particularly in ECL loan loss provisioning, credit risk management, and capital adequacy, significantly enhances bank performance in Kenya. Strengthening loan loss provisions improves return on assets, while sound credit risk management reduces non-performing loans. Compliance with capital adequacy requirements remains crucial for financial stability. Furthermore, market share amplifies the benefits of IFRS 9 compliance, reinforcing the need for competitive positioning in the banking sector.

5.2 Policy Implications

Policymakers, including the Central Bank of Kenya (CBK) and the Kenya Bankers Association (KBA), should reinforce compliance with IFRS 9, particularly in loan loss provisioning and credit risk management. Bank managers should enhance credit analysis procedures to mitigate default risks and optimize loan loss provisioning strategies. Regulators should introduce stricter measures to ensure capital adequacy compliance, encouraging banks to maintain sufficient capital buffers. Additionally, banks should explore market expansion strategies to strengthen their market share, which further supports IFRS 9 compliance and financial performance improvements.

5.3 Contributions to Knowledge

This study contributes to the body of knowledge on IFRS 9 by demonstrating its direct impact on bank profitability and financial stability. It highlights the moderating effect of market share, offering insights for both practitioners and policymakers on optimizing compliance strategies for improved financial outcomes.

5.4 Future Research

Further research should explore additional factors influencing bank performance beyond IFRS 9, such as macroeconomic conditions and regulatory frameworks. A comparative study analyzing pre- and post-IFRS 9 adoption periods, particularly in the context of financial crises such as the

COVID-19 pandemic, would provide deeper insights into the long-term impact of regulatory changes on banking performance.

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.