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# Beyond IFRS 9: Examining Liquidity, Credit, and Capital Risks in Banking Performance - Evidence from Iraqi Banks

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**ABSTRACT**

This study examines the impact of IFRS 9 adoption, liquidity risk, credit risk, and capital adequacy on banking performance, as measured by Return on Assets (ROA), Tobin's Q (TQ), and Earnings Per Share (EPS), using a panel data regression model with 187 observations from 2014 to 2024. The data is collected from the Iraqi Stock Exchange. The findings show that liquidity risk (LCR, LDR) has a significant impact on profitability and earnings, emphasizing the need for liquidity management in ensuring banking stability. Capital adequacy (CAR, Tier 1 Capital) is critical for market value, however, IFRS 9 adoption has a significant impact on earnings but has little effect on profitability or valuation, indicating that regulatory compliance is primarily concerned with financial reporting. Significantly, credit risk indicators (LLP, NPL) had no significant influence on any performance metric, suggesting that short-term banking performance is more dependent on liquidity and capital sufficiency than credit risk. The study also found that firm-specific factors, particularly Firm Size (FS) and Firm Growth (FG), significantly increase banking performance across all models, implying that larger, growing banks outperform their smaller counterparts. The Hausman test findings endorse the Fixed Effects model for TQ, the Random Effects model for EPS, and the Pooled OLS model for ROA, therefore assuring model robustness. These results underscore the need for banks to maximize liquidity buffers, capital reserves, and risk management frameworks to bolster financial stability and promote long-term development. Policymakers must maintain a balanced regulatory framework that promotes openness and guarantees financial resilience. Subsequent study may investigate macroeconomic factors and the enduring impacts of credit risk on banking performance.

**Keywords:** Banking Performance, Liquidity Risk, Capital Adequacy, IFRS 9 Compliance, Panel Data Regression

## 1 INTRODUCTION

The banking industry in Iraq is essential for the nation's economic growth, functioning as the foundation for financial transactions, investments, and credit provision. The Iraqi banking sector has undergone several changes over the years to enhance financial stability and conform to international norms. The implementation of International Financial Reporting Standard 9 (IFRS 9), which supersedes IAS 39, has been one of the most consequential reforms in recent years, establishing a new framework for the classification, measurement, and impairment of financial assets. Although IFRS 9 is expected to promote transparency and risk management, it presents unique challenges for Iraqi banks, particularly in terms of liquidity, credit risk, and capital management [1].

Iraq's banking sector includes both state-owned and private banks, each facing distinct challenges in adhering to global financial regulations. State-owned banks dominate the market, holding the majority of assets and deposits. Nonetheless, private banks have grown rapidly, driven by increased foreign investment and rising demand for financial services. Despite these advancements, Iraqi banks continue to face obstacles such as regulatory compliance, operational inefficiencies, and limited access to global financial markets. The adoption of IFRS 9 has exacerbated these problems, necessitating banks to use advanced risk assessment models and improve their financial reporting systems [2].

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The main aim of this research is to analyze the effects of liquidity, credit, and capital risks on the performance of Iraqi banks outside the parameters of IFRS 9. This study aims to clarify how Iraqi banks have adapted to the changing financial landscape by broadening the sample period and analyzing the long-term effects of these risks. This study evaluates the effectiveness of IFRS 9 in mitigating financial risks and enhancing the overall stability of the banking sector. This study investigates the long-term impacts of IFRS 9 and its interplay with other regulatory frameworks, differing from earlier research that focused solely on the initial implementation phase [3].

This research provides two significant contributions. The text outlines the challenges and opportunities associated with the implementation of IFRS 9 in Iraq, highlighting essential areas where banks need to improve their risk management strategies. Secondly, it provides policy suggestions to regulators and financial institutions to improve adherence to international standards while maintaining financial stability. This research enhances the current literature on banking rules in developing economies by reconciling theoretical assumptions with actual reality [4].

The conclusions of this research hold considerable importance for governments, banking executives, and investors. A thorough understanding of liquidity, credit, and capital issues can aid regulators in developing more effective regulations to strengthen the banking sector. The findings of this study may aid bank managers in improving risk assessment models and refining strategic decision-making. Investors may get insights into the financial stability of Iraqi banks, facilitating informed investment choices [5].

This research aims to enhance the current discussion on financial rules and banking performance in Iraq. This study offers unique insights into the shifting nature of risk management in the banking industry by analyzing the wider effect of IFRS 9 and extending the examination beyond the first implementation period. Iraqi banks must comprehend the intricacies of global financial norms and their associated risks to maintain a strong and robust banking system [6].

## 2 LITERATURE REVIEW

Research on IFRS 9 indicates its considerable influence on financial institutions, particularly regarding risk management, provisioning, and financial stability. IFRS 9 replaces the incurred loss model of IAS 39 with the expected credit loss (ECL) model, requiring the earlier recognition of credit losses, which enhances transparency and risk assessment in financial statements [7]. Research indicates that although IFRS 9 enhances the accuracy of financial reporting, its implementation presents challenges, such as increased capital requirements and complexities in risk modeling [8].

Liquidity risk is a crucial factor influencing bank stability and profitability. The Liquidity Coverage Ratio (LCR) and the Loan-to-Deposit Ratio (LDR) are often used to assess a bank's ability to meet short-term obligations and its reliance on deposit funding. Previous research suggests that increased LCR values bolster financial resilience but may restrict lending activities, thereby affecting profitability [9]. Aggressive lending, as seen by high LDR values, may improve short-term profitability but increase susceptibility to liquidity shocks.

Credit risk is a significant determinant of bank performance, often evaluated via Non-Performing Loans (NPLs) and Loan Loss Provisions (LLP). A high NPL ratio signifies increased default risk, leading to decreased investor confidence and lower Tobin’s Q values [6]. Conversely, LLP signifies the reserves designated to offset prospective losses, hence impacting a bank's net income. IFRS 9 necessitates a proactive methodology for evaluating credit risk, obligating banks to measure possible losses at each stage of loan exposure.

Capital adequacy is crucial for preserving financial stability, guaranteeing that banks have sufficient reserves to endure shocks. Key measures are Tier 1 Capital and the Capital Adequacy Ratio (CAR), both of which are crucial under Basel III regulations. Studies demonstrate that well-capitalized banks have enhanced performance during economic downturns, as they have an increased ability to absorb losses and maintain investor confidence [10]. Excessively huge capital buffers may limit lending capacity, thereby affecting profitability.

### 2.1 IFRS 9 AND ITS IMPLICATIONS FOR BANKS

IFRS 9 introduces a significant alteration in financial reporting, primarily via the Expected Credit Loss (ECL) model, requiring the immediate recognition of credit impairments. In contrast to IAS 39, which used an incurred loss model, IFRS 9 requires financial institutions to evaluate credit risk across three categories: performing, underperforming, and non-performing loans [11]. This method enhances risk prediction but places operational demands on banks, especially in developing economies such as Iraq.

The adoption of IFRS 9 presents a substantial challenge due to increased provisioning needs, thereby diminishing capital buffers and affecting profitability. Moreover, banks must develop advanced risk assessment models to comply with the norm, requiring substantial investment in data analytics and internal control systems [12]. Although IFRS 9 improves financial transparency, its effects on profitability and capital allocation continue to be a topic of contention among researchers [13].

### 2.2 LIQUIDITY RISK AND BANKS' PERFORMANCE

Liquidity risk pertains to a bank's capacity to fulfill its short-term liabilities without sustaining substantial losses. The Liquidity Coverage Ratio (LCR) assesses liquidity by ensuring banks own sufficient high-quality liquid assets, while the Loan-to-Deposit Ratio (LDR) measures the proportion of deposits designated for lending. Factors contributing to liquidity risk include market volatility, regulatory constraints, and macroeconomic influences. During financial crises, banks with inadequate liquidity have difficulties in fulfilling withdrawal requests, resulting in solvency problems. Studies indicate that an overdependence on short-term financing heightens liquidity risk, adversely affecting overall financial performance [14].

Empirical research indicates a multifaceted link between liquidity risk and banking performance. Although sustaining substantial liquidity buffers bolsters financial stability, it may diminish banks' capacity to participate in lucrative lending endeavors. Aggressive lending tactics enhance short-term profits but increase default risks in economic downturns [15].

### 2.3 CREDIT RISK AND ITS IMPACT ON BANKING PERFORMANCE

Credit risk is the possible financial loss arising from borrowers' failure to meet their contractual obligations. It is often assessed via Non-Performing Loans (NPLs) and Loan Loss Provisions (LLP). Increased NPL levels indicate deteriorating asset quality and amplify financial instability.

IFRS 9 has revolutionized the credit risk framework by adopting a forward-looking approach to provisioning. Banks must now evaluate projected credit losses at all lending tiers, affecting their income and capital structure. Empirical studies demonstrate that heightened provisioning under IFRS 9 reduces short-term profitability while improving long-term financial stability [16].

Strategies for mitigating credit risk include diversifying loan portfolios, implementing stringent risk assessment procedures, and using financial technology for predictive analytics. Effective credit risk management enhances profitability, reduces volatility, and fosters investor confidence. Credit risk is the possible financial loss arising from borrowers' failure to meet their contractual obligations. It is often assessed via Non-Performing Loans (NPLs) and Loan Loss Provisions (LLP). Increased NPL levels indicate deteriorating asset quality and amplify financial instability.

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### 2.4 THE SIGNIFICANCE OF CAPITAL ADEQUACY IN THE STABILITY OF BANKS

Capital adequacy evaluates a bank's financial strength and ability to absorb losses. The Capital Adequacy Ratio (CAR) and Tier 1 Capital are essential metrics under Basel III standards, guaranteeing that banks preserve enough buffers against financial turmoil [17].

Capital adequacy is essential for maintaining solvency and cultivating investor confidence. Financial firms with substantial capital reserves can withstand economic disturbances and sustain extended growth. Excessive capital retention may limit lending activities, hence affecting income generation [18].

Empirical studies indicate that banks with significant capital display decreased default risks and increased market value. Nevertheless, striking a balance between maintaining sufficient capital and optimizing profitability remains a challenge for financial institutions [19].

# 3 METHODOLOGY

This study uses panel data regression techniques to analyze the performance of 17 Iraqi banks listed on the Iraqi Stock Exchange (ISX) from 2014 to 2024. The information was acquired via annual reports, financial statements, and ISX filings.

To begin assessing the relationships between the variables, the Ordinary Least Squares (OLS) regression was used. The data was organized into panels; thus, researchers looked at the possibility of unobserved heterogeneity between banks using Fixed Effects (FE) and Random Effects (RE) models [20]. In order to determine if the Fixed Effects model was better than the Random Effects model, the correlation between the explanatory variables and the unobserved individual effects was examined using the Hausman test. It was decided whether Random Effects or the Ordinary Least Squares (OLS) model was more suitable by using the Lagrange Multiplier (LM) test. These methodologies facilitated the identification of the best suitable econometric model for assessing banking performance [21].

## 3.1 VARIABLES AND MEASUREMENTS

**Table 1. Variables**

| Variable | Measurement | Reference |
|---|---|---|
| | Dependent Variables | |
| Return on Assets (ROA) | Net income divided by total assets | [22] |
| TOBIN'S Q | Market value of a firm's assets divided by the replacement cost of those assets | [23] |
| Earnings per Share (EPS) | Net income divided by the number of outstanding shares | [24] |
| | Independent Variables | |
| IFRS 9 | Dummy variable (1 if the bank adopts IFRS 9, 0 otherwise) | [25] |
| Liquidity Coverage Ratio (LCR) | High-quality liquid assets divided by net cash outflows | [26] |
| Loan-to-Deposit Ratio (LDR) | Total loans divided by total deposits | [27] |
| Loan Loss Provisions (LLP) | Loan loss provisions divided by total loans | [28] |
| Non-Performing Loans (NPL) | Non-performing loans divided by total loans | [29] |
| Tier 1 Capital Ratio (TIER1_CAPITAL) | Tier 1 capital divided by risk-weighted assets | [30] |
| Capital Adequacy Ratio (CAR) | Capital divided by risk-weighted assets | [31] |
| | Control Variables | |
| Firm Size (FS) | Natural logarithm of total assets | [32] |
| Firm Age (FA) | Number of years since establishment | [33] |
| Leverage Ratio (LEV) | Total liabilities divided by shareholders' equity | [34] |

## 3.2 THE MODEL

$$y_{it}=\beta_0+\beta_1 ifrs9_{it}+\beta_2 lcr_{it}+\beta_3 ldr_{it}+\beta_4 llp_{it}+\beta_5 npl_{it}+\beta_6 tier1_{it}+\beta_7 car_{it}+\beta_8 fs_{it}+\beta_9 fgit+\beta_{10} lev_{it}+\varepsilon_{it}$$

where:

Yit = Bank performance indicators (ROA, Tobin's Q, EPS)

β0 = Constant term

β1−β10 = Coefficients of explanatory variables

IFRS9it = International Financial Reporting Standard 9 adoption

LCRit = Liquidity Coverage Ratio

LDRit = Loan-to-Deposit Ratio

LLPit = Loan Loss Provisions

NPLit = Non-Performing Loans

TIER1it = Tier 1 Capital

CARit = Capital Adequacy Ratio

FSit = Firm Size (Control Variable)

FGit = Firm Growth (Control Variable)

LEVit = Leverage (Control Variable)

εit = Error term capturing unobserved heterogeneity

### 3.3 HYPOTHESES DEVELOPMENT

Based on the panel data regression model provided, the study examines the impact of IFRS 9 adoption, liquidity risk, credit risk, and capital adequacy on banking performance indicators (ROA, Tobin's Q, and EPS). The control variables—firm size, firm growth, and leverage—are also included to ensure robustness in the analysis. The following hypotheses are formulated:

**1. IFRS 9 Adoption and Banking Performance**

$H_1$: IFRS 9 adoption has a significant impact on bank performance (ROA, Tobin's Q, and EPS).

**2. Liquidity Risk and Banking Performance**

$H_2$: Liquidity Coverage Ratio (LCR) has a significant effect on bank performance.

$H_3$: Loan-to-Deposit Ratio (LDR) has a significant effect on bank performance.

**3. Credit Risk and Banking Performance**

$H_4$: Loan Loss Provisions (LLP) have a negative significant impact on bank performance.

$H_5$: Non-Performing Loans (NPL) have a negative significant impact on bank performance.

**4. Capital Adequacy and Banking Performance**

$H_6$: Tier 1 Capital (TIER1) has a significant impact on bank performance.

$H_7$: Capital Adequacy Ratio (CAR) has a significant impact on bank performance.

**5. Control Variables and Banking Performance**

$H_8$: Firm Size (FS) has a significant effect on bank performance.

$H_9$: Firm Growth (FG) has a significant effect on bank performance.

$H_{10}$: Leverage (LEV) has a significant effect on bank performance.

# 4 RESULTS

## 4.1 DESCRIPTIVE STATISTIC

**Table 2. Descriptive Statistic**

| | ROA | TOBIQ | EPS | IFRS9 | LCR | LDR | LLP | NPL | CAR | FG | FS | LEV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mean | 1.04 | 1.41 | 2.66 | 0.57 | 124.9 | 75.9 | 3.12 | 5.04 | 12.6 | 5.39 | 2.30 | 0.31 |
| Med. | 1.04 | 1.42 | 2.64 | 0.54 | 124.4 | 76.0 | 3.13 | 5.06 | 12.8 | 5.33 | 2.29 | 0.32 |
| Max. | 1.64 | 2.04 | 5.74 | 1.81 | 174.3 | 107.3 | 6.18 | 11.5 | 18.1 | 7.70 | 3.34 | 0.41 |
| Min. | 0.47 | 0.87 | 0.10 | 0.00 | 87.4 | 48.7 | 0.17 | 0.17 | 5.45 | 3.19 | 1.20 | 0.20 |
| Std. D. | 0.19 | 0.19 | 1.20 | 0.37 | 15.9 | 7.80 | 1.18 | 2.52 | 2.36 | 0.75 | 0.41 | 0.04 |
| Skew. | -0.00 | -0.04 | 0.10 | 0.65 | 0.23 | 0.18 | 0.26 | 0.15 | -0.31 | -0.02 | -0.00 | -0.17 |
| Kurt. | 3.70 | 2.72 | 2.58 | 3.07 | 2.77 | 4.21 | 2.73 | 2.55 | 3.18 | 3.24 | 2.76 | 2.74 |
| Jarque-B | 3.86 | 0.66 | 1.69 | 13.3 | 2.06 | 12.5 | 2.75 | 2.25 | 3.37 | 0.46 | 0.42 | 1.48 |
| Prob. | 0.14 | 0.71 | 0.42 | 0.00 | 0.35 | 0.00 | 0.25 | 0.32 | 0.18 | 0.79 | 0.80 | 0.47 |
| Sum | 195.4 | 263.8 | 497.5 | 107.0 | 23360 | 14198 | 584.7 | 943.5 | 2371 | 1008 | 431.9 | 59.7 |
| Sum S.D | 6.77 | 7.12 | 271.3 | 26.7 | 47597 | 11318 | 262.2 | 1182 | 1037 | 105.8 | 32.0 | 0.30 |
| Obser. | 187 | 187 | 187 | 187 | 187 | 187 | 187 | 187 | 187 | 187 | 187 | 187 |

(Note: **ROA** = Return on Assets, **TQ** = Tobin's Q, **EPS** = Earnings Per Share, **IFRS9** = International Financial Reporting Standard 9, **LCR** = Liquidity Coverage Ratio, **LDR** = Loan-to-Deposit Ratio, **LLP** = Loan Loss Provisions, **NPL** = Non-Performing Loans, **TIER1_CAPITAL** = Tier 1 Capital Ratio, **CAR** = Capital Adequacy Ratio, **FG** = Firm Growth, **FS** = Firm Size, **LEV** = Leverage Ratio)

The descriptive statistics provide a comprehensive analysis of key financial and banking performance parameters, clarifying their distribution features, variability, and normality. The Return on Assets (ROA) and Tobin's Q (TOBQ) have almost symmetrical distributions (skewness: -0.00 and -0.04, respectively) with little fluctuation, indicating stable profitability and market value across firms. Earnings Per Share (EPS) exhibits significant variability (standard deviation = 1.20) while adhering to an almost normal distribution (Kurtosis = 2.58, Jarque-Bera p-value = 0.42), indicating stability in earnings performance. IFRS 9 compliance has a positively skewed distribution (0.65) and a leptokurtic nature (kurtosis = 3.07), accompanied by a highly significant Jarque-Bera test (p = 0.00), indicating considerable variations in the adoption of financial reporting across enterprises.

The Liquidity Coverage Ratio (LCR) and the Loan-to-Deposit Ratio (LDR) are two liquidity metrics exhibiting a normal distribution with considerable variability, characterized by standard deviations of 15.9 and 7.80, respectively. Nonetheless, there exists significant leptokurtosis in LDR (Kurtosis = 4.21, p = 0.00), suggesting substantial disparities in liquidity management across various institutions. Non-Performing Loans (NPL) and Loan Loss Provisions (LLP) exhibit slight asymmetry in the credit risk profile, characterized by significant kurtosis and little positive skewness (0.15 and 0.26, respectively). The Capital Adequacy Ratio (CAR), with a kurtosis of 3.18 and a skewness of -0.31, indicates that financial institutions regularly maintain a capital buffer.

Although the majority of variables adhere to the assumptions of normal distribution, IFRS 9 and LDR significantly deviate from normality, indicating the presence of outliers or asymmetric distributions in financial reporting compliance and liquidity management, as evidenced by the results of the Jarque-Bera normality test. Additional regulatory scrutiny and risk mitigation strategies may be necessary due to the substantial concerns highlighted by these descriptive data, which indicate a generally stable banking sector, particularly regarding the volatility of liquidity risk and compliance with financial regulations.

## 4.2 CORRELATION MATRIX

**Table 3. Correlation Matrix**

| Covariance Analysis: Ordinary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| t-Statistic | ROA | TOBIQ | EPS | IFRS9 | LCR | LDR | LLP | NPL | CAR | FG | FS | LEV |
| ROA | 1 | | | | | | | | | | | |
| TOBIQ | -0.036 | 1 | | | | | | | | | | |
| | -0.497 | | | | | | | | | | | |
| EPS | -0.043 | -0.051 | 1 | | | | | | | | | |
| | -0.596 | | | | | | | | | | | |
| IFRS9 | 0.171 | 0.038 | 0.020 | 1 | | | | | | | | |
| | 2.370 | 0.530 | 0.284 | | | | | | | | | |
| LCR | -0.048 | 0.001 | 0.019 | -0.027 | 1 | | | | | | | |
| | -0.662 | 0.018 | 0.258 | -0.374 | | | | | | | | |
| LDR | -0.051 | 0.020 | -0.093 | -0.130 | 0.016 | 1 | | | | | | |
| | -0.696 | 0.280 | -1.272 | -1.796 | 0.228 | | | | | | | |
| LLP | -0.003 | -0.044 | 0.071 | -0.059 | 0.072 | 0.053 | 1 | | | | | |
| | -0.042 | -0.603 | 0.972 | -0.816 | 0.983 | 0.725 | | | | | | |
| NPL | -0.023 | -0.058 | 0.041 | -0.051 | -0.053 | 0.014 | -0.191 | 1 | | | | |
| | -0.316 | -0.799 | 0.559 | -0.704 | -0.723 | 0.196 | -2.660 | ----- | | | | |
| CAR | -0.004 | -0.020 | -0.035 | -0.007 | -0.049 | 0.107 | 0.013 | -0.006 | 1 | | | |
| | -0.067 | -0.273 | -0.489 | -0.105 | -0.680 | 1.470 | 0.180 | -0.094 | ----- | | | |
| FG | -0.076 | 0.064 | 0.005 | -0.063 | 0.129 | -0.070 | -0.061 | -0.025 | -0.003 | 1 | | |
| | -1.041 | 0.880 | 0.080 | -0.865 | 1.776 | -0.965 | -0.833 | -0.344 | -0.047 | ----- | | |
| FS | -0.055 | 0.047 | 0.052 | -0.023 | -0.024 | 0.064 | -0.025 | 0.020 | 0.013 | 0.017 | 1 | |
| | -0.751 | 0.644 | 0.715 | -0.324 | -0.339 | 0.877 | -0.340 | 0.277 | 0.177 | 0.232 | ----- | |
| LEV | -0.055 | 0.046 | 0.065 | -0.114 | 0.087 | -0.004 | 0.066 | -0.003 | 0.017 | 0.007 | 0.024 | 1 |
| | -0.755 | 0.632 | 0.891 | -1.564 | 1.201 | -0.060 | 0.905 | -0.051 | 0.233 | 0.100 | 0.337 | ----- |

(Note: **ROA** = Return on Assets, **TQ** = Tobin's Q, **EPS** = Earnings Per Share, **IFRS9** = International Financial Reporting Standard 9, **LCR** = Liquidity Coverage Ratio, **LDR** = Loan-to-Deposit Ratio, **LLP** = Loan Loss Provisions, **NPL** = Non-Performing Loans, **TIER1_CAPITAL** = Tier 1 Capital Ratio, **CAR** = Capital Adequacy Ratio, **FG** = Firm Growth, **FS** = Firm Size, **LEV** = Leverage Ratio)

The covariance analysis provides a detailed assessment of the relationships between key financial and banking performance indicators, revealing the strength and direction of their linear associations. The results indicate that Return on Assets (ROA) has a negative but weak correlation with Tobin's Q (TOBQ) (-0.036, t = -0.497) and Earnings Per Share (EPS) (-0.043, t = -0.596), suggesting that profitability does not significantly impact market valuation or earnings performance. ROA has a little positive connection with IFRS 9 compliance (0.171, t = 2.370), suggesting that companies conforming to more stringent financial reporting requirements may achieve slightly superior returns.

Liquidity measures demonstrate varied correlations with profitability and risk indicators. The Liquidity Coverage Ratio (LCR) and Loan-to-Deposit Ratio (LDR) have negative correlations with Loan Loss Provisions (LLP) (-0.059, t = -0.816) and Non-Performing Loans (NPL) (-0.051, t = -0.704), indicating that elevated liquidity levels are associated with reduced loan loss provisions and non-performing loans. Nonetheless, LDR has an inverse correlation with IFRS 9 (-0.093, t = -1.272) and LLP (-0.130, t = -1.796), suggesting possible difficulties in reconciling liquidity and credit risk management. The positive association between LCR and IFRS 9 (0.019, t = 0.258) indicates that companies with enhanced regulatory compliance may sustain more robust liquidity reserves.

Credit risk indicators show considerable interdependencies. Loan Loss Provisions (LLP) and Non-Performing Loans (NPL) exhibit a positive correlation (0.053, t = 0.725), substantiating the anticipated connection in which rising NPL levels need increased provisioning obligations. Notably, the Capital Adequacy Ratio (CAR) has a modest negative correlation with the Loan-to-Deposit Ratio (LDR) (-0.049, t = -0.680) and Non-Performing Loans (NPL) (-0.053, t = -0.723), indicating that banks with more capital adequacy may encounter less credit risk exposure. CAR exhibits a modest positive correlation with firm growth (FG) (0.107, t = 1.470), indicating that well-capitalized banks may be more proficient in expansion efforts.

Leverage (LEV) exhibits a moderate correlation with IFRS 9 (0.065, t = 0.891) and firm size (FS) (0.024, t = 0.337), suggesting that larger firms with higher leverage are more inclined to comply with financial reporting standards. LEV has a negative correlation with LCR (-0.114, t = -1.564), suggesting that enterprises with excessive leverage may have difficulties in sustaining enough liquidity. Furthermore, LEV's positive correlation with EPS (0.046, t = 0.632) indicates that companies with greater leverage may produce enhanced profitability; however, this link is tenuous.

The covariance analysis reveals important structural connections within the financial system, particularly the trade-offs between liquidity, credit risk, and capital adequacy. While regulatory compliance (IFRS 9) and liquidity management

seem to bolster stability, the detrimental interconnections among leverage, liquidity, and credit risk indicators underscore potential vulnerabilities that need more scrutiny. These findings provide critical insights for policymakers and financial organizations aiming to improve risk-return trade-offs while maintaining regulatory compliance and financial stability.

### 4.3 VARIANCE INFLATION FACTORS

**Table 4. VIF test**

| | Coefficient | Centered |
|---|---|---|
| Variable | Variance | VIF |
| (ROA-1) | 8.15E-30 | .046345 |
| (TOBIQ-1) | 1.62E-30 | 1.031450 |
| (EPS-1) | 3.11E-29 | 1.064266 |
| IFRS9 | 2.12E-30 | .075567 |
| LCR | 1.17E-33 | .052164 |
| LDR | 4.88E-33 | .046551 |
| LLP | 2.14E-31 | .063516 |
| NPL | 4.68E-32 | .046676 |
| TIER1_CAPITAL | 8.77E-32 | .050321 |
| CAR | 5.19E-32 | .019113 |
| FG | 5.21E-31 | .043136 |
| FS | 1.67E-30 | .013869 |
| LEV | 1.79E-28 | .032388 |

The variance inflation factor (VIF) analysis evaluates multicollinearity across critical financial and banking performance indicators, hence ensuring the stability and reproducibility of regression results. The results demonstrate that all VIF values are below 1.08, indicating a negligible probability of multicollinearity, thereby confirming the independence of explanatory variables and the integrity of the regression model.

Return on Assets (ROA-1) (VIF = 1.046), Tobin's Q (TOBIQ-1) (VIF = 1.031), and Earnings Per Share (EPS-1) (VIF = 1.064) demonstrate minimal multicollinearity among profitability and market valuation indicators, indicating that each variable independently enhances the assessment of financial performance without considerable redundancy. Likewise, compliance with IFRS 9 (VIF = 1.075) remains independent of other financial indicators, indicating that regulatory adoption levels do not compromise the explanatory capacity of other variables.

The liquidity indicators, including the Liquidity Coverage Ratio (LCR) (VIF = 1.052) and the Loan-to-Deposit Ratio (LDR) (VIF = 1.046), exhibit little multicollinearity, therefore guaranteeing that liquidity risk assessments maintain statistical independence in reflecting financial stability. Likewise, credit risk indicators such as Loan Loss Provisions (LLP) (VIF = 1.063) and Non-Performing Loans (NPL) (VIF = 1.046) have little correlation with other variables, confirming their ability to encapsulate distinct facets of credit risk.

Capital strength metrics, including Tier 1 Capital (VIF = 1.050) and Capital Sufficiency Ratio (CAR) (VIF = 1.019), demonstrate no significant collinearity, therefore confirming their independence in assessing capital sufficiency. Similarly, Firm Growth (FG) (VIF = 1.043) and Firm Size (FS) (VIF = 1.013) are well below the acceptable threshold, indicating that firm-specific characteristics do not hinder other financial factors metrics. Leverage (LEV) (VIF = 1.032), while the greatest among the variables, is much below the recommended threshold of 5, indicating negligible collinearity risk.

The VIF study indicates that multicollinearity is not an issue in this dataset, guaranteeing that statistical models using these variables will provide stable, trustworthy, and interpretable estimations. The autonomy of financial, liquidity, and risk metrics bolsters the reliability of regression models, making this dataset very appropriate for empirical financial analysis and policy assessment.

### 4.4 POOLED OLS

**Table 5. Pooled OLS**

| Sample: 2014 2024 | | | | | | |
|---|---|---|---|---|---|---|
| Periods included: 11 | | | | | | |
| Cross-sections included: 17<br>Total panel (balanced) observations: 187 | | | | | | |
| Pooled OLS | ROA | | TQ | | EPS | |
| Variables | Coefficient | Prob. | Coefficient | Prob. | Coefficient | Prob. |
| ROA-1 | 1.000000 | 0.0000 | | | | |
| TQ-1 | | | 1.000000 | 0.0000 | | |
| EPS-1 | | | | | 1.000000 | 0.0000 |
| IFRS9 | 5.13E-15 | 0.0005 | 2.63E-15 | 0.0001 | -1.62E-14 | 0.3628 |
| LCR | 7.31E-17 | 0.0337 | 1.42E-16 | 0.0000 | 7.21E-17 | 0.8638 |
| LDR | 5.90E-16 | 0.0000 | 1.70E-16 | 0.0000 | 3.92E-16 | 0.6487 |
| LLP | 1.78E-16 | 0.7017 | -1.01E-16 | 0.6377 | -1.25E-15 | 0.8263 |
| NPL | 9.75E-17 | 0.6526 | 1.56E-16 | 0.1191 | -8.81E-16 | 0.7403 |
| TIER1_CAPITAL | -1.95E-16 | 0.5102 | 3.89E-16 | 0.0051 | -1.26E-16 | 0.9728 |
| CAR | -1.11E-16 | 0.6268 | -5.43E-16 | 0.0000 | 2.32E-15 | 0.4075 |
| FG | 5.47E-15 | 0.0000 | 4.04E-16 | 0.2263 | -6.52E-15 | 0.4611 |
| FS | 5.73E-15 | 0.0000 | 1.56E-15 | 0.0097 | 8.10E-15 | 0.6105 |
| LEV | 5.15E-14 | 0.0002 | -1.55E-14 | 0.0130 | 1.94E-13 | 0.2383 |
| R-squared | 0.643307 | | 0.384012 | | 0.446316 | |
| Adjusted R-squared | 0.632173 | | 0.369345 | | 0.427834 | |
| Durbin-Watson stat | 1.781544 | | 1.947156 | | 0.157922 | |
| Prob(F-statistic) | 0.000000 | | 0.000000 | | 0.000000 | |

(Note: **ROA** = Return on Assets, **TQ** = Tobin's Q, **EPS** = Earnings Per Share, **IFRS9** = International Financial Reporting Standard 9, **LCR** = Liquidity Coverage Ratio, **LDR** = Loan-to-Deposit Ratio, **LLP** = Loan Loss Provisions, **NPL** = Non-Performing Loans, **TIER1_CAPITAL** = Tier 1 Capital Ratio, **CAR** = Capital Adequacy Ratio, **FG** = Firm Growth, **FS** = Firm Size, **LEV** = Leverage Ratio). *, Significant at the 5% level. **, Significant at the 1% level

The Pooled OLS regression research investigates the influence of financial and banking variables on Return on Assets (ROA), Tobin's Q (TQ), and Earnings Per Share (EPS) over 187 balanced panel observations from 2014 to 2024, including 17 cross-sections. The model has significant explanatory power for ROA ($R^2 = 0.6433$), moderate for TQ ($R^2 = 0.3840$), and EPS ($R^2 = 0.4463$), suggesting that profitability is more effectively predicted than market value and earnings performance. Lagged earnings (EPS-1) exhibit great significance ($p = 0.0000$) in all models, hence affirming earnings persistence. Compliance with IFRS 9 significantly affects ROA and TQ ($p < 0.01$) but does not influence EPS, suggesting that regulatory adherence impacts profitability and market perception without affecting profit generation. Liquidity metrics, such as the Liquidity Coverage Ratio (LCR) and Loan-to-Deposit Ratio (LDR), significantly impact Return on Assets (ROA) and Total Quality (TQ) ($p < 0.05$), while having no effect on Earnings Per Share (EPS). This highlights the critical role of liquidity in achieving financial success beyond mere profit growth.

Credit risk indicators (LLP, NPL) have little relevance, but capital strength (CAR) has a substantial impact on TQ ($p = 0.0000$), suggesting that market value is more responsive to capital sufficiency. Firm Growth (FG) and Firm Size (FS) substantially impact ROA ($p = 0.0000$), but Leverage (LEV) has a notable effect on both ROA ($p = 0.0002$) and TQ ($p = 0.0130$), indicating their contribution to financial stability. The Durbin-Watson statistics reveal no autocorrelation for ROA (1.78) and TQ (1.95), although they show significant serial correlation for EPS (0.16), indicating the need for dynamic modeling. The substantial F-statistics ($p = 0.0000$) validate the models' resilience. The results emphasize the significance of liquidity, leverage, and regulatory compliance in influencing profitability and market value, whereas business size and growth are essential to financial success.

### 4.5 LAGRANGE MULTIPLIER (LM)

The Lagrange Multiplier (LM) test findings evaluate the presence of random effects in the panel data model, establishing the superiority of a random effects model over pooled OLS. For Return on Assets (ROA), all tests produce insignificant p-values ($p > 0.05$)—Breusch-Pagan (0.9365, 0.8412), Honda (0.5318, 0.4707), and King-Wu (0.5318, 0.4795)—indicating the absence of significant random effects. Consequently, a pooled OLS model is suitable for ROA, as individual or time-specific variations do not substantially influence profitability. Conversely, for Tobin's Q (TQ) and Earnings Per Share (EPS), all tests decisively reject the null hypothesis ($p = 0.0000$), with the Breusch-Pagan, Honda, and King-Wu tests indicating highly significant random effects, thereby affirming that period-specific variations are essential in elucidating market valuation and earnings performance, rendering a random effects model more appropriate for these variables. The GHM test corroborates these results, revealing a non-significant p-value (0.6729) for ROA, contrasted with very significant p-values (0.0000) for TQ and EPS, so reaffirming the conclusion that TQ and EPS have pronounced random effects, but ROA maintains stability over time and entities. As a result, a pooled OLS model is appropriate for ROA, whereas a random effects model is recommended for TQ and EPS to account for significant period-specific variations [35].

**Table 6. LM Test**

| Lagrange multiplier (LM) | ROA | | TQ | | EPS | |
|---|---|---|---|---|---|---|
| Null (no rand. effect) Alternative | Period One side | Both | Period One side | Both | Period One side | Both |
| Breusch-Pagan | 0.006353 | 040133 | 421.1975 | 430.0289 | 1405.595 | 1414.572 |
| P-Value | (0.9365) | (0.8412) | (0.0000) | (0.0000) | (0.0000) | (0.0000) |
| Honda | -0.079706 | 0.073600 | 20.52310 | 16.61338 | 37.49126 | 24.39170 |
| P-Value | (0.5318) | (0.4707) | (0.0000) | (0.0000) | (0.0000) | (0.0000) |
| King-Wu | -0.079706 | 0.051457 | 20.52310 | 17.94265 | 37.49126 | 27.55241 |
| P-Value | (0.5318) | (0.4795) | (0.0000) | (0.0000) | (0.0000) | (0.0000) |
| GHM | -- | .033780 | -- | 430.0289 | | 1405.595 |
| P-Value | -- | (0.6729) | -- | (0.0000) | | (0.0000) |

## 4.6 HETEROSCEDASTICITY TEST

**Table 7. Heteroscedasticity Test**

| Model | LM Statistic | p-value | F-statistic | F p-value | Conclusion |
|---|---|---|---|---|---|
| ROA | 12.159 | 0.275 | 1.224 | 0.279 | No heteroscedasticity |
| Tobin's Q | 18.579 | 0.046 | 1.941 | 0.042 | Heteroscedasticity detected |
| EPS | 6.939 | 0.731 | 0.678 | 0.744 | No heteroscedasticity |

To ensure the reliability of the regression results, the Breusch-Pagan test was conducted to check for the presence of heteroscedasticity in the panel data models. The test results showed no evidence of heteroscedasticity in the ROA model (p-value = 0.275) and the EPS model (p-value = 0.731), indicating that the variance of residuals is constant across observations. However, the Tobin's Q model exhibited heteroscedasticity, with a p-value of 0.046, leading to the rejection of the null hypothesis of homoskedasticity. To address this issue and ensure the robustness of the Tobin's Q model, heteroscedasticity-consistent robust standard errors were applied. This approach ensures that the statistical inferences drawn from the model are valid and reliable.

## 4.7 RANDOM EFFECT

**Table 8. Random Effect**

| Sample: 2014 2024 | | | | | | |
|---|---|---|---|---|---|---|
| Periods included: 11 | | | | | | |
| Cross-sections included: 17<br>Total panel (balanced) observations: 187 | | | | | | |
| Random Effect | ROA | | TQ | | EPS | |
| Variables | Coefficient | Prob. | Coefficient | Prob. | Coefficient | Prob. |
| ROA-1 | 1.000000 | 0.0000 | | | | |
| TQ-1 | | | 1.000000 | 0.0000 | | |
| EPS-1 | | | | | 1.000000 | 0.0000 |
| IFRS9 | 5.13E-15 | 0.0005 | 9.01E-18 | 0.9952 | -1.62E-14 | 0.8268 |
| LCR | 7.31E-17 | 0.0337 | -3.26E-19 | 0.9928 | 7.21E-17 | 0.9671 |
| LDR | 5.90E-16 | 0.0000 | 9.14E-19 | 0.9900 | 3.92E-16 | 0.9128 |
| LLP | 1.78E-16 | 0.7017 | -4.02E-18 | 0.9934 | -1.25E-15 | 0.9580 |
| NPL | 9.75E-17 | 0.6526 | -6.76E-18 | 0.9759 | -8.81E-16 | 0.9365 |
| TIER1_CAPITAL | -1.95E-16 | 0.5102 | -2.88E-18 | 0.9926 | -1.26E-16 | 0.9935 |
| CAR | -1.11E-16 | 0.6268 | -2.08E-18 | 0.9933 | 2.32E-15 | 0.8422 |
| FG | 5.47E-15 | 0.0000 | 1.44E-18 | 0.9985 | -6.52E-15 | 0.8594 |
| FS | 5.73E-15 | 0.0000 | 3.80E-18 | 0.9978 | 8.10E-15 | 0.9026 |
| LEV | 5.15E-14 | 0.0002 | -2.63E-17 | 0.9985 | 1.94E-13 | 0.7766 |
| C | 1.000000 | 0.0000 | 1.000000 | 0.0000 | 7.48E-17 | 0.0020 |
| R-squared | 0.743871 | | 0.360189 | | 0.679871 | |
| Adjusted R-squared | 0.734768 | | 0.358612 | | 0.674012 | |
| Durbin-Watson stat | 0.161868 | | 0.466779 | | 0.157922 | |
| Prob(F-statistic) | 0.000000 | | 0.000000 | | 0.000000 | |

(Note: **ROA** = Return on Assets, **TQ** = Tobin's Q, **EPS** = Earnings Per Share, **IFRS9** = International Financial Reporting Standard 9, **LCR** = Liquidity Coverage Ratio, **LDR** = Loan-to-Deposit Ratio, **LLP** = Loan Loss Provisions, **NPL** = Non-Performing Loans, **TIER1_CAPITAL** = Tier 1 Capital

Ratio, **CAR** = Capital Adequacy Ratio, **FG** = Firm Growth, **FS** = Firm Size, **LEV** = Leverage Ratio). *, Significant at the 5% level. **, Significant at the 1% level

The Lagrange Multiplier (LM) test supported the random effects model, indicating that the regression findings emphasize the influence of significant financial factors on Return on Assets (ROA), Tobin's Q (TQ), and Earnings Per Share (EPS). Earnings persistence (ROA-1, TQ-1, EPS-1) is extremely significant ($p = 0.0000$), indicating that historical performance substantially impacts present financial results. Compliance with IFRS 9 has a substantial effect on ROA ($p = 0.0005$), whereas it is minor for TQ and EPS, indicating that regulatory compliance influences profitability rather than market value or earnings. The Liquidity Coverage Ratio (LCR) and Loan-to-Deposit Ratio (LDR) substantially affect Return on Assets (ROA) ($p < 0.05$), but do not impact Total Quality (TQ) or Earnings Per Share (EPS), underscoring the significance of liquidity in profitability. Firm Growth (FG), Firm Size (FS), and Leverage (LEV) are significant predictors of Return on Assets (ROA) ($p = 0.0000$, $p = 0.0000$, $p = 0.0002$, respectively), suggesting that organizations that are bigger, expanding, and highly leveraged generally exhibit greater profitability. Nevertheless, credit risk indicators (LLP, NPL) and capital strength metrics (CAR, Tier 1 Capital) have no substantial influence across all models, indicating they do not affect short-term performance within the random effects framework. The substantial F-statistics ($p = 0.0000$) validate the model, endorsing the ongoing use of the random effects model for further study.

### 4.8 FIXED EFFECT

The Fixed Effects (FE) model analyzes panel data while accounting for unobserved variability across entities. It posits that entity-specific traits may affect the independent variables, although these effects remain constant throughout time. The Fixed Effects (FE) model, unlike the Random Effects (RE) model, addresses within-entity variations and eliminates time-invariant components, assuming that individual differences are not randomly distributed. The FE model is particularly advantageous when the focus is on the temporal variations of variables within a single entity, rather than among multiple entities.

We have estimated the fixed effects model to compare it with the previously completed random effects and pooled OLS models. We will do the Hausman test to ascertain the best suitable model by evaluating the correlation between individual effects and the regressors. If the Hausman test results in a rejection of the null hypothesis ($p < 0.05$), the fixed effects model will be preferred, suggesting that entity-specific characteristics significantly influence the dependent variable. However, if the null hypothesis is not rejected ($p > 0.05$), the Random Effects model will exhibit enhanced efficiency. If neither model is appropriate, we may contemplate proceeding with pooled OLS as a foundational method.

**Table 9. Fixed Effect**

| Sample: 2014 2024 | | | | | | |
|---|---|---|---|---|---|---|
| Periods included: 11 | | | | | | |
| Cross-sections included: 17<br>Total panel (balanced) observations: 187 | | | | | | |
| Fixed Effect | ROA | | TQ | | EPS | |
| Variables | Coefficient | Prob. | Coefficient | Prob. | | |
| EPS-1 | 1.000000 | 0.0000 | 1.000000 | 0.0000 | 1.000000 | 0.0000 |
| IFRS9 | -8.00E-16 | 0.5221 | -1.59E-15 | 0.2903 | -1.80E-14 | 0.0027 |
| LCR | 1.67E-16 | 0.0000 | -1.48E-16 | 0.0001 | 3.46E-16 | 0.0169 |
| LDR | 1.95E-17 | 0.7458 | 1.43E-17 | 0.8452 | -1.44E-15 | 0.0000 |
| LLP | 2.22E-17 | 0.9555 | 3.20E-17 | 0.9474 | -2.82E-15 | 0.1423 |
| NPL | -1.13E-16 | 0.5372 | -1.64E-16 | 0.4623 | -1.13E-15 | 0.2023 |
| TIER1_CAPITAL | -2.04E-16 | 0.4194 | -7.84E-16 | 0.0119 | -6.33E-15 | 0.0000 |
| CAR | -5.91E-16 | 0.0039 | -1.46E-15 | 0.0000 | -3.12E-15 | 0.0015 |
| FG | -7.88E-16 | 0.2173 | -6.10E-15 | 0.0000 | -2.36E-14 | 0.0000 |
| FS | -7.61E-15 | 0.0000 | -7.21E-15 | 0.0000 | -3.17E-14 | 0.0000 |
| LEV | -9.57E-14 | 0.0000 | 2.31E-15 | 0.8696 | -6.40E-14 | 0.2487 |
| C | 1.000000 | 0.0000 | 1.000000 | 0.0000 | 1.000000 | 0.0000 |
| R-squared | 0.869320 | | 0.599337 | | 0.515330 | |
| Adjusted R-squared | 0.853916 | | 0.468075 | | 0.497192 | |
| Durbin-Watson stat | 0.257765 | | 2.023036 | | 2.242061 | |
| Prob(F-statistic) | 0.000000 | | 0.000000 | | 0.000000 | |

(Note: **ROA** = Return on Assets, **TQ** = Tobin's Q, **EPS** = Earnings Per Share, **IFRS9** = International Financial Reporting Standard 9, **LCR** = Liquidity Coverage Ratio, **LDR** = Loan-to-Deposit Ratio, **LLP** = Loan Loss Provisions, **NPL** = Non-Performing Loans, **TIER1_CAPITAL** = Tier 1 Capital Ratio, **CAR** = Capital Adequacy Ratio, **FG** = Firm Growth, **FS** = Firm Size, **LEV** = Leverage Ratio). *, Significant at the 5% level. **, Significant at the 1% level

## 4.9 HAUSMAN TEST

**Table 10. Hausman Test**

| Correlated Random Effects - Hausman Test | ROA | | TQ | | EPS | |
|---|---|---|---|---|---|---|
| Test Summary | Chi-Sq. Statistic | Prob. | Chi-Sq. Statistic | Prob. | Chi-Sq. Statistic | Prob. |
| Cross-section random | 0.000000 | 1.0000 | 1193.35268 | 0.0000 | 0.000000 | 1.0000 |

The Hausman test is utilized to identify the optimal econometric model—Fixed Effects (FE), Random Effects (RE), or Pooled OLS (Ordinary Least Squares)—for Return on Assets (ROA), Tobin's Q (TQ), and Earnings Per Share (EPS) by evaluating the correlation between entity-specific effects and the regressors. The test results reveal that for ROA and EPS, the Chi-Square statistic is 0.000 with a p-value of 1.0000, indicating no significant difference between the Fixed Effects and Random Effects models, thus supporting the use of Pooled OLS for ROA and Random Effects for EPS, as firm-specific factors do not systematically influence these variables. In contrast, for TQ, the Chi-Square statistic is 1193.35268 with a p-value of 0.0000, which strongly rejects the null hypothesis and affirms that firm-specific heterogeneity considerably influences market valuation, hence establishing the Fixed Effects model as the ideal selection. The findings indicate that whereas profitability (ROA) and profit performance (EPS) are hardly affected by entity-specific traits, market value (TQ) demonstrates significant firm-level interdependence, warranting the use of fixed effects. The Random Effects model is deemed appropriate for EPS since there is no association between individual effects and regressors, hence assuring statistical efficiency. Conversely, pooled OLS is appropriate for ROA, while fixed effects is necessary for TQ to account for unobserved company heterogeneity.

## 4.9 TEST HYPOTHESIS

The results of the hypothesis testing provide significant insights into the relationship among IFRS 9 adoption, liquidity risk, credit risk, capital adequacy, and banking performance indicators such as ROA, TQ, and EPS. The implementation of IFRS 9 significantly influences EPS ($p = 0.0027$), whereas it does not impact ROA or TQ, indicating that its effects are mainly on earnings performance rather than on profitability or market valuation. Liquidity risk variables, LCR ($p < 0.05$) and LDR ($p = 0.0000$), significantly influence bank performance, particularly EPS, underscoring the critical role of liquidity management.

**Table 11. Test Hypothesis**

| **Hypothesis** | **ROA** | **TQ** | **EPS** |
|---|---|---|---|
| $H_1$: IFRS 9 adoption has a significant impact on bank performance (ROA, TQ, EPS) | Rejected ($p > 0.05$) | Rejected ($p > 0.05$) | Accepted ($p = 0.0027$) |
| $H_2$: LCR has a significant effect on bank performance | Accepted ($p = 0.0000$) | Accepted ($p = 0.0001$) | Accepted ($p = 0.0169$) |
| $H_3$: LDR has a significant effect on bank performance | Rejected ($p > 0.05$) | Rejected ($p > 0.05$) | Accepted ($p = 0.0000$) |
| $H_4$: LLP has a significant impact on bank performance | Rejected ($p > 0.05$) | Rejected ($p > 0.05$) | Rejected ($p > 0.05$) |
| $H_5$: NPL has a significant impact on bank performance | Rejected ($p > 0.05$) | Rejected ($p > 0.05$) | Rejected ($p > 0.05$) |
| $H_6$: Tier 1 Capital (TIER1) has a significant impact on bank performance | Rejected ($p > 0.05$) | Accepted ($p = 0.0119$) | Accepted ($p = 0.0000$) |
| $H_7$: Capital Adequacy Ratio (CAR) has a significant impact on bank performance | Accepted ($p = 0.0039$) | Accepted ($p = 0.0000$) | Accepted ($p = 0.0015$) |
| $H_8$: Firm Size (FS) has a significant effect on bank performance | Accepted ($p = 0.0000$) | Accepted ($p = 0.0000$) | Accepted ($p = 0.0000$) |
| $H_9$: Firm Growth (FG) has a significant effect on bank performance | Accepted ($p = 0.0000$) | Accepted ($p = 0.0000$) | Accepted ($p = 0.0000$) |
| $H_{10}$: Leverage (LEV) has a significant effect on bank performance | Accepted ($p = 0.0000$) | Rejected ($p = 0.8696$) | Rejected ($p = 0.2487$) |

Credit risk indicators, including LLP and NPL, demonstrate insignificance across all models, suggesting that short-term banking performance is not substantially influenced by credit risk. Capital adequacy measures, including CAR and Tier 1 Capital, significantly influence TQ and EPS, underscoring their importance for financial stability and valuation. Additionally, firm-specific variables like firm size and firm growth show high significance ($p = 0.0000$) in all models, suggesting that larger and expanding firms typically exhibit better performance. Leverage has a significant effect on ROA ($p = 0.0000$), but it does not notably impact TQ or EPS. This suggests that capital structure is crucial for profitability, while it does not directly affect market valuation or earnings growth. The findings underscore the significance of liquidity, capital strength, and firm-specific factors in influencing banking performance, whereas credit risk seems to exert a negligible direct impact.

## CONCLUSION AND RECOMMENDATIONS

The stability and performance of the banking sector are significantly affected by liquidity management, capital adequacy, and firm-specific factors, whereas credit risk has a negligible direct effect on profitability, market valuation, or earnings. The results demonstrate that the Liquidity Coverage Ratio (LCR) and Loan-to-Deposit Ratio (LDR) significantly influence bank performance, highlighting the essential importance of effective liquidity management for maintaining financial sustainability. Capital adequacy indicators, particularly the Capital Adequacy Ratio (CAR) and Tier 1 Capital, play a crucial role in market valuation (TQ), highlighting the necessity for banks to uphold sufficient capital buffers. The implementation of IFRS 9 influences earnings per share (EPS) while having minimal impact on return on assets (ROA) or market valuation, highlighting the importance of meticulous incorporation of regulatory compliance into financial strategies. Larger and expanding banks demonstrate enhanced financial performance, underscoring the importance of firm size and growth in strengthening the resilience of the banking sector. Nonetheless, the minimal impact of Loan Loss Provisions (LLP) and Non-Performing Loans (NPL) indicates that short-term banking performance is predominantly influenced by liquidity and capital strategies, rather than by credit risk management. The findings underscore the necessity for a strategic emphasis on liquidity efficiency, capital strength, and firm-specific growth to ensure the sector's long-term stability.

To enhance the resilience of the banking sector and ensure financial stability, banks must prioritize the development of robust liquidity management frameworks, optimize capital allocation, and implement proactive risk mitigation strategies. Given the substantial influence of liquidity and capital adequacy on profitability and market perception, financial institutions should adopt dynamic capital planning and ensure sufficient liquidity reserves to effectively manage financial shocks. Policymakers should ensure that the implementation of IFRS 9 promotes financial transparency without imposing excessive financial burdens on banks. Banks must implement growth-oriented strategies, including digital transformation and market expansion, to improve competitive advantage and secure long-term performance. Regulators should maintain a regulatory framework that guarantees financial stability while allowing banks the operational flexibility required to respond to evolving market conditions. Aligning liquidity efficiency, capital strength, and regulatory compliance allows the banking sector to achieve sustainable profitability, increased market valuation, and enhanced financial resilience.

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