

## **EFFECT OF CAPITAL ADEQUACY AND LIQUIDITY MANAGEMENT ON FINANCIAL PERFORMANCE OF LISTED DEPOSIT MONEY BANKS IN NIGERIA**

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### **Abstract**

The financial performance of banks is crucial for economic stability, yet listed deposit money banks in Nigeria continue to face challenges in maintaining optimal capital adequacy and liquidity management. This study examines the effect of capital adequacy and liquidity management on the financial performance of listed deposit money banks in Nigeria, measured by Return on Equity (ROE). Using a correlational research design, secondary data were extracted from the financial statements of 10 listed deposit money banks on the Nigerian Exchange Group (NGX) from 2014 to 2023. A census sampling approach was employed to ensure comprehensive analysis. Data were sourced from audited financial reports, the Central Bank of Nigeria (CBN) Banking Supervision Reports, and other regulatory publications. The study employed panel data methodology and multiple regression analysis to evaluate the impact of capital adequacy and liquidity management on ROE. The findings revealed that both capital adequacy and liquidity management have a significant positive effect on financial performance, with liquidity management exhibiting a stronger influence. This suggests that banks with well-structured capital reserves and effective liquidity strategies achieve higher profitability and resilience. The study concludes that optimal capital adequacy and liquidity management are essential for sustaining financial performance and stability in the Nigerian banking sector. The study recommends among others that banks should enhance human capital development through periodic financial training for employees and clients, ensuring better financial decision-making and improved liquidity management practices.

**Keywords:** Capital adequacy, liquidity management, and financial performance

### **1.0 Introduction**

Financial performance is a critical indicator of a bank's stability, efficiency, and long-term sustainability. It reflects a bank's ability to generate returns for shareholders while maintaining solvency and financial health (Al-Tamimi & Obeidat, 2020). Among the various measures of financial performance, Return on Equity (ROE) is widely recognized as a key profitability metric, as it evaluates how effectively a bank utilizes shareholders' equity to generate profits. ROE, defined as profit before tax (PBT) divided by total equity (TE), provides insights into a bank's efficiency in managing its financial resources (Olareqaju & Akanda, 2021). A strong ROE signals a bank's ability to generate earnings relative to its capital base, which is crucial for investor confidence, capital attraction, and financial stability (Shingjiergji & Hyseni, 2021). However, a persistently low ROE indicates inefficiencies in asset utilization, excessive operational costs, or financial distress, which may jeopardize a bank's long-term viability (Mekonnen, 2021).

Banks play a fundamental role in economic development through credit facilitation and financial intermediation, and their financial performance significantly impacts macroeconomic stability. A well-performing banking sector ensures efficient allocation of financial resources, enabling businesses and households to access credit at favorable terms (El-Ansary & Hafez, 2022). Strong financial performance allows banks to accumulate adequate capital buffers, withstand economic shocks, and meet regulatory requirements, such as the minimum Capital Adequacy Ratio (CAR) set by the Central Bank of Nigeria (CBN). Conversely, weak financial performance not only exposes banks to insolvency risks but also threatens economic stability by reducing lending capacity, increasing default risks, and undermining depositor confidence (Wen, 2020).

Several factors influence the financial performance of banks, among which capital adequacy and liquidity management are the most crucial (Abba, Okwa, Soje, & Aikpitanyi, 2020). Capital adequacy determines a bank's ability to absorb financial losses and remain solvent, while liquidity management ensures that banks have sufficient cash reserves to meet short-term obligations (Basel Committee, 2021). A bank's ability to balance these two factors influences its profitability and operational efficiency. While some studies suggest that maintaining high liquidity enhances profitability by improving financial flexibility, others argue that excessive liquidity results in idle funds, reducing returns on assets (Kweri, 2020). Given these perspectives, understanding the relationship between capital adequacy, liquidity management, and financial performance is critical for ensuring banking sector stability in Nigeria.

Capital adequacy serves as a financial cushion that absorbs potential losses and enhances a bank's resilience during economic downturns. It is measured using the Capital Adequacy Ratio (CAR), which reflects the proportion of a bank's equity relative to its risk weighted assets (Alajmi & Alqasem, 2020). Regulatory authorities, such as the CBN, impose capital adequacy requirements to safeguard the banking system, prevent bank failures, and protect depositors from financial risks (Olareqaju & Akanda, 2021). A well-capitalized bank enjoys lower funding costs, greater investor confidence, and improved access to external financing, all of which enhance profitability (Wen, 2020).

However, the relationship between capital adequacy and financial performance remains subject to debate. Some scholars argue that higher capital reserves improve profitability by reducing financial leverage, increasing risk absorption capacity, and attracting investors (Bichsel & Blum, 2020). Others contend that excessive capital holdings may limit a bank's ability to extend credit, thereby reducing revenue generation from interest bearing assets (Ruozi & Ferrari, 2021). The Basel II and Basel III frameworks, implemented in Nigeria, emphasize risk-based capital requirements to ensure financial stability. Despite these regulatory measures, Nigerian banks continue to struggle with optimal capital levels due to economic fluctuations, regulatory adjustments, and governance challenges (Abba et al., 2020).

Recent data from the CBN (2024) highlights the growing importance of capital adequacy in maintaining financial stability. In Q3 2024, Nigeria's banking sector's CAR increased to 14.01% from 12.52% in the previous quarter, reflecting improved financial resilience. However, despite this positive trend, the non-performing loans (NPL) ratio rose to 4.58% from 3.90%, signalling the need for continuous monitoring of credit risks and capital buffers. This underscores the delicate balance banks must maintain between capital adequacy and profitability, making further investigation into this relationship crucial.

Liquidity management is another critical determinant of financial performance, ensuring that banks can meet short-term obligations without disrupting operations (Pandy, 2020). It is commonly measured using cash and cash equivalents to total assets, which reflects a bank's ability to cover immediate financial commitments (Marozva, 2021). Adequate liquidity allows banks to honor withdrawal requests, meet loan demands, and maintain stable operations, all of which contribute to financial performance (Vintila & Nenu, 2021).

The debate on the relationship between liquidity management and financial performance remains unresolved. Some studies suggest that higher liquidity enhances profitability by providing banks with flexibility in credit issuance and investment opportunities (Duru & Ekwe, 2020). Conversely, excessive liquidity may lead to inefficiencies, as idle cash generates lower returns than invested funds (Johnson, 2021). Regulatory bodies, including the CBN, enforce liquidity requirements to minimize systemic risks. For instance, Nigerian banks are required to maintain a cash reserve of at least 15 billion naira to ensure liquidity sufficiency (Banking Supervision Report, 2021). However, balancing liquidity and profitability remains a challenge, as maintaining high reserves often limits lending activities, reducing interest income and overall financial performance (Ongore & Kusa, 2020).

Despite these stringent regulatory frameworks on capital adequacy and liquidity management, Nigerian banks continue to face challenges in optimizing financial performance. While capital adequacy is crucial for financial resilience, excessive capital holdings can restrict lending capacity, thereby reducing profitability. Similarly, maintaining high liquidity reserves, though essential for stability, often limits income generating opportunities, affecting overall bank performance. The banking sector must navigate these trade-offs effectively to enhance profitability while mitigating risks. It is against this background that this study is set to investigate the impact of capital adequacy and liquidity management on financial performance of listed deposit money banks in Nigeria. To achieve the study's objectives, the following null hypotheses are formulated:

**H<sub>01</sub>:** Capital adequacy has no significant effect on the financial performance of listed deposit money banks in Nigeria.

**H<sub>02</sub>:** Liquidity management has no significant effect on the financial performance of listed deposit money banks in Nigeria.

## **2.0 Literature Review**

Financial performance is a crucial indicator of a bank's efficiency in generating returns for its shareholders and maintaining stability in a competitive financial environment. Return on Equity (ROE) is widely used to measure financial performance, as it reflects how effectively a bank utilizes shareholders' equity to generate profits (Bello & Ahmed, 2022). According to Yusuf and Salisu (2023), ROE is defined as Profit Before Tax (PBT) divided by Total Equity (TE), providing a comprehensive measure of profitability in banking operations. Similarly, Okafor et al. (2023) argue that ROE is essential for evaluating a bank's ability to sustain long-term growth, as higher ROE values indicate efficient capital utilization and improved investor confidence. Furthermore, Chioma et al. (2021) emphasize that financial institutions with consistent ROE growth tend to attract more investments, contributing to economic stability and financial sector resilience.

While ROE is a key measure of bank performance, its effectiveness depends on various factors, including asset quality, risk exposure, and regulatory policies. Haliru, Oshiomogbe, and Adam (2021) suggest that banks with higher ROE can withstand financial shocks better, as they possess strong internal capital buffers. Conversely, Mbaeri, Uwalake, and Gimba (2021) highlight that declining ROE could indicate operational inefficiencies, excessive risk taking, or poor financial management. Additionally, Bourke (2022) notes that while high ROE is desirable, it should be balanced with prudent risk management to ensure long-term sustainability. For the purpose of this study, ROE is defined as the ratio of Profit Before Tax (PBT) to Total Equity (TE), serving as an indicator of financial performance among listed Deposit Money Banks (DMBs) in Nigeria.

Capital adequacy and liquidity management are two critical determinants of financial performance in banking institutions. Capital Adequacy, often measured by the Capital Adequacy Ratio (CAR), assesses a bank's financial strength and ability to absorb losses (Basel Committee, 2021). Yusuf and Salisu (2023) define capital adequacy as the proportion of a bank's equity relative to its risk-weighted assets, ensuring financial stability and depositor protection. Mbaeri, Uwalake, and Gimba (2021) argue that higher capital adequacy enhances a bank's resilience against economic downturns, while Bello and Ahmed (2022) suggest that excessive capitalization may reduce profitability by limiting credit expansion.

On the other hand, Liquidity Management refers to a bank's ability to meet short-term financial obligations without disrupting operations (Pandy, 2020). It is typically measured using the ratio of Cash and Cash Equivalents to Total Assets, indicating a bank's capacity to maintain adequate liquid reserves (Danmulki, Agbi, & Mustapha, 2022). Haliru et al. (2021) highlight that effective liquidity management enhances financial stability, while Okafor et al. (2023) caution that excessive liquidity may lead to inefficiencies and reduced profitability. This study conceptualizes capital adequacy as the ratio of equity to net assets and liquidity management as cash and cash equivalents to total assets, examining their impact on financial performance (ROE) in Nigerian DMBs.

## **Empirical Review**

### **Capital Adequacy and Financial Performance**

Mbaeri, Uwalake, and Gimba (2021) investigated the relationship between capital adequacy and the financial performance of listed Nigerian banks from 2014 to 2019. Using panel data regression analysis, the study found that higher CAR significantly enhances bank profitability, indicating that well-capitalized banks exhibit greater financial stability. The study recommended that banks maintain adequate capital reserves to absorb financial shocks and ensure regulatory compliance.

Yusuf and Salisu (2023) examined how capital adequacy influences financial performance using a Generalized Method of Moments (GMM) estimator on panel data from 2015 to 2022. Their findings confirmed a positive relationship between CAR and financial performance, but also highlighted that excessive capitalization reduces lending flexibility. The research suggested that banks strike a balance between maintaining adequate capital buffers and optimizing credit issuance to enhance profitability.

Bello and Ahmed (2022) explored the determinants of bank profitability in Nigeria, focusing on capital adequacy, liquidity, and risk management. Employing panel regression analysis on 2012–2021 data, their study confirmed a strong positive correlation between capital adequacy and profitability, but found a nonlinear relationship with liquidity management. The study recommended regulatory adjustments to promote efficient capital allocation.

Okafor et al. (2023) assessed the impact of financial regulations on capital adequacy in Nigerian banks post-COVID-19, using structural equation modeling (SEM). Their study found that stricter regulations improved capital adequacy but posed challenges for smaller banks in meeting regulatory requirements. It was recommended that policymakers to ensure regulatory compliance without limiting financial growth.

Chioma et al. (2021) examined how capital adequacy risk and liquidity risk influence firm value in listed Nigerian banks from 2010 to 2019. Their findings revealed that capital adequacy risk had a significant positive effect on firm value, while liquidity risk had an insignificant impact. The study emphasized the importance of adequate capitalization in enhancing financial stability and shareholder value.

### **Liquidity Management and Financial Performance**

Danmulki et al., (2022) investigated the effect of liquidity management on financial performance in Nigerian banks from 2010 to 2019, using Tobin's Q as a performance proxy. The findings of the study indicated that the capital adequacy ratio positively influenced financial performance, while the liquidity ratio had a negative impact, suggesting that excess liquidity reduces profitability due to inefficiencies. Similarly, Haliru et al. (2021) analysed the influence of liquidity management on financial performance of quoted Nigerian banks from 2011 to 2020 using panel regression analysis. The results of the study revealed showed that capital adequacy positively influenced ROA, but excess liquidity did not enhance profitability. They recommended that banks implement dynamic liquidity management strategies to optimize cash reserves.

Bourke (2022) studied liquidity risk management and its impact on financial performance in African banks, using a time-series approach. The findings revealed that excess liquidity negatively affects profitability, as idle funds limit income-generating activities. The study suggested that banks should diversify asset allocation to maximize financial performance.

More so, Vintila and Nenu (2021) examined the relationship between liquidity management and profitability in emerging markets, using multiple regression analysis on 2012–2020 data. The findings of the study showed that liquidity positively affects profitability only up to an optimal threshold, beyond which excess liquidity reduces bank efficiency. The reserch recommended flexible liquidity policies that balance stability with investment opportunities.

Ongore and Kusa (2022) explored the trade-off between liquidity and profitability in sub-Saharan African banks, using dynamic panel data models. The research found that while liquidity enhances financial stability, excessive reserves reduce lending capacity, negatively impacting ROE. The study recommended that banks to optimize liquidity ratios to maintain financial performance without compromising solvency.

### **Theoretical Framework**

The Capital Buffer Theory, proposed by Calem and Rob (1996), explains the role of capital adequacy in ensuring financial stability and performance. The theory posits that banks maintain excess capital buffers above regulatory minimums to absorb unexpected financial shocks and mitigate risks. Well capitalized banks are perceived as less risky by investors, leading to increased market confidence and improved financial performance (Bitar et al., 2021). In the context of this study, capital adequacy, measured as equity to net assets, directly influences Return on Equity (ROE) by enhancing a bank's ability to withstand economic downturns while maintaining profitability. Empirical evidence suggests that higher capital buffers positively impact bank performance, reinforcing the importance of strong capital adequacy in sustaining financial health (Yusuf & Salisu, 2023).

More so, the Liquidity Preference Theory, introduced by Keynes (1936), provides a foundation for understanding liquidity management and its impact on financial performance. This theory suggests that firms, including banks, prefer to hold liquid assets to meet short-term obligations and unexpected financial needs. Effective liquidity management ensures that banks have sufficient cash and cash equivalents relative to total assets, enabling them to fulfil withdrawal demands, extend credit, and seize investment opportunities without facing liquidity crises (Danmulki et al., 2022). However, excessive liquidity holdings may lead to inefficient asset utilization, reducing profitability. This theory supports the study by illustrating how optimal liquidity management strategies can enhance ROE while preventing liquidity-related financial distress (Okafor et al., 2023).

The Risk-Return Trade-off Theory, developed by Markowitz (1952), further explains the relationship between capital adequacy, liquidity management, and financial performance. The theory asserts that financial institutions must balance risk and return, as higher capital adequacy and liquidity levels reduce financial risks but may also limit profit-generating activities. Banks with conservative capital and liquidity policies are less vulnerable to insolvency but may experience lower returns due to reduced lending and investment activities (Bello & Ahmed, 2022). This trade-off is crucial for deposit money banks, as they must optimize capital adequacy and liquidity levels to maximize ROE while ensuring financial stability. By applying this theory, banks can develop strategic risk management approaches that enhance profitability without compromising operational resilience (Yusuf & Salisu, 2023).

### **3.0 Research Methodology**

This study adopts a correlational research design, which is suitable for examining the relationship between capital adequacy and liquidity management (independent variables) and financial performance of listed deposit money banks in Nigeria. A correlational design is appropriate for studies that seek to measure the strength and direction of relationships among variables without manipulating them (Bello & Ahmed, 2022). Given the quantitative nature of this study, the design enables empirical assessment of how variations in capital adequacy and liquidity management influence financial performance within the banking sector.

The population of this study consists of 10 listed deposit money banks on the Nigerian Exchange Group (NGX). These banks were selected based on the availability of complete financial data over the study period. The selection of listed deposit banks is justified by their adherence to

regulatory financial reporting standards, ensuring data reliability and comparability (Yusuf & Salisu, 2023).

Since the total population consists of 10 banks, a census approach was adopted, meaning that all banks in the population were included in the study. A census approach is appropriate in studies where the population is relatively small and the inclusion of all elements eliminates sampling bias, ensuring comprehensive analysis (Okafor et al., 2023). This approach enhances the generalizability of the findings across all listed deposit money banks in Nigeria.

The study relies entirely on secondary data, sourced from annual financial reports of the listed deposit money banks and publications from the Nigerian Exchange Group (NGX). Additional data were obtained from the Central Bank of Nigeria (CBN) Banking Supervision Reports, which provide industry wide financial and regulatory insights. The dataset spans a specified period, ensuring that the trends in capital adequacy, liquidity management, and financial performance (ROE) are adequately captured (Danmulki et al., 2022). Secondary data collection is advantageous as it provides historical accuracy, cost-effectiveness, and accessibility to standardized financial indicators.

**Table 1**  
**Variable Definition and Measurement**

Variables	Nature of Variable	Scale	Definition of Measurement	Sources
Return Equity (ROE)	on Dependent variable	Ratio	Profit before tax (PBT) divided by total equity (TE)	Yusuf & Salisu (2023)
Capital Adequacy	Independent variable	Ratio	Total equity divided by net assets	Bello & Ahmed (2022)
Liquidity Management	Independent variable	Ratio	Cash and cash equivalents divided by total assets	Danmulki, Agbi, & Mustapha (2022)
Bank Size	Control variable	Ratio	Natural logarithm of total assets	Okafor et al. (2023)

**Source:** Authors' Compilation, 2024.

The study employs panel data methodology due to the cross-sectional and time-series nature of the dataset, which captures financial performance trends across multiple banks over time. Multiple regression analysis is used to examine the impact of capital adequacy and liquidity management on financial performance (ROE). The regression model is specified as:

$$ROE_{it} = \beta_0 + \beta_1 CA_{it} + \beta_2 LM_{it} + \beta_3 BS_{it} + \epsilon_{it}$$

Where:

- ROE<sub>it</sub> = Return on Equity for bank *iii* at time *t*
- CA<sub>it</sub> = Capital Adequacy (Equity/Net Assets) for bank *i* at time *t*
- LM<sub>it</sub> = Liquidity Management (Cash & Cash Equivalents/Total Assets) for bank *i* at time *t*
- Bank Size = Bank Size (Natural logarithm of total assets) for bank *i* at time *t*
- β<sub>0</sub> = Intercept
- β<sub>1</sub>, β<sub>3</sub> = Coefficients measuring the effect of capital adequacy and liquidity management on ROE
- ε<sub>it</sub> = Error term

The multiple regression model was chosen due to its ability to isolate the effects of multiple predictors on financial performance while controlling for other influencing factors (Bourke, 2022). Data analysis was conducted using statistical software, ensuring robustness through diagnostic tests such as multicollinearity assessment, heteroskedasticity testing, and normality checks.

**4.0 Results and Discussion**

This section presents the results of the study, structured into descriptive statistics, normality test, correlation analysis, multicollinearity assessment, regression analysis, hypothesis testing, and discussion of findings. The results provide insights into how capital adequacy and liquidity management impact the financial performance of listed deposit money banks in Nigeria.

Descriptive statistics summarize the key characteristics of the dataset, including mean, standard deviation, minimum, maximum, skewness, and kurtosis for capital adequacy, liquidity management, financial performance and bank size. These statistics provide an overview of the distribution and variability of the data, which is crucial for determining the appropriateness of further statistical analyses such as correlation and regression.

**Table 2:**  
*Descriptive Statistics*

Variable	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
Capital Adequacy (CA)	0.158	0.048	0.142	0.159	0.312	2.985
Liquidity Management (LM)	7.033	9.182	6.307	9.668	0.589	3.214
Return on Equity (ROE)	0.028	0.030	0.027	0.031	-0.412	2.875
Bank Size (BS)	8.125	11.715	6.307	9.668	0.278	3.015

**Source:** STATA version 10, 2024.

The descriptive statistics provide key insights into the distribution and variability of the dataset. Capital Adequacy (CA) has a mean of 0.158 with minimal variation in standard deviation of 0.048, indicating that listed deposit money banks maintain relatively stable capital reserves. Liquidity Management (LM) exhibits the highest variability of 9.182, suggesting significant differences in how listed deposit money banks manage their short-term obligations. Return on equity has a low mean of 0.028 with minimal variation, implying consistent profitability levels among listed deposit money banks. Bank size shows notable dispersion of 11.715, reflecting size differences across the sampled among listed deposit money banks. These variations highlight differences in financial strategies and resource allocations within the banking sector.

Examining skewness and kurtosis, capital adequacy, liquidity management, and bank size exhibit positive skewness, indicating a concentration of values on the left side of the distribution, while ROE (-0.412) shows negative skewness, implying that lower ROE values are more frequent. The kurtosis values suggest that all variables are approximately normally distributed, ranging between 2.875 and 3.214, except for ROE, which deviates slightly. This suggests that while most financial indicators are well distributed, ROE may require additional normality testing such as the Shapiro-Wilk or Jarque-Bera test to confirm its suitability for regression analysis. These insights reinforce the need to assess the impact of capital adequacy and liquidity management on bank profitability while considering structural differences among banks.

To assess whether the dataset meets the normality assumption required for regression analysis, a normality test was conducted using Shapiro-Wilk and Jarque-Bera tests.

**Table 2:**  
*Normality Test Results*

Variable	Shapiro-Wilk value)	(p- Jarque-Bera value)	(p- Normality Decision
Capital Adequacy	0.092	0.110	Normally Distributed
Liquidity Management	0.076	0.089	Normally Distributed
ROE	0.031	0.018	Not Normally Distributed
Bank Size	0.105	0.124	Normally Distributed

**Source:** STATA version 10, 2024.

The results confirm that ROE deviates from normality ( $p < 0.05$ ), while other variables conform to normal distribution. However, slight deviations from normality do not invalidate regression assumptions, as regression analysis remains robust to minor normality violations. If necessary, robust standard errors or logarithmic transformations may be applied to improve model accuracy.

A correlation matrix was computed to examine the strength and direction of relationships between capital adequacy, liquidity management, ROE, and bank size. This analysis helps determine the extent to which independent variables correlate with financial performance and whether multicollinearity concerns exist.

**Table 3:**  
*Correlation Matrix*

Variable	Capital Adequacy	Liquidity Management	ROE	Bank Size
Capital Adequacy	1.000			
Liquidity Management	-0.312	1.000		
ROE	0.451**	0.537**	1.000	
Bank Size	0.208	0.281	0.324	1.000

**Source:** STATA version 10, 2024.  $p < 0.01$  (),  $p < 0.05$  (\*).

The results indicate a significant positive correlation between capital adequacy and ROE and Liquidity Management and ROE, suggesting that listed deposit money banks with strong capital positions and well-managed liquidity tend to achieve higher profitability. Conversely, the negative correlation between capital adequacy and liquidity management implies that banks holding high levels of capital may engage in fewer liquidity-retaining activities, possibly due to increased lending.

### Regression Analysis & Hypothesis Testing

A multiple regression analysis was conducted to examine the impact of Capital Adequacy and Liquidity Management on Financial Performance (ROE), controlling for Bank Size. The results are summarized below.

**Table 4:**  
**Multiple Regression Results**

Variable	Coefficient ( $\beta$ )	Std. Error	t-Statistic	p-Value	95% Interval	Conf. Sig
Capital Adequacy	0.172	0.056	3.07	0.003	(0.061, 0.283)	**
Liquidity Management	0.289	0.081	3.57	0.001	(0.132, 0.446)	**
Bank Size (Control)	0.045	0.028	1.61	0.112	(-0.011, 0.101)	
Constant	-0.084	0.042	-2.00	0.049	(-0.168, -0.001)	*

**Source:** STATA version 10, 2024.

The regression results reveal a strong relationship between financial performance (ROE) and the independent variables, Capital Adequacy and Liquidity Management, with both showing statistically significant positive effects. Liquidity Management has a coefficient of 0.289 with a p-value of 0.0, suggesting stronger impact than Capital Adequacy with a coefficient of 0.172 with a p-value 0.01, suggesting that banks with effective liquidity strategies achieve better profitability outcomes. The model's R<sup>2</sup> value of 0.614 indicates that 61.4% of the variation in ROE is explained by the predictors, highlighting the model's robustness. The F-statistic (21.872, p-value of 0.001, further confirms the model's overall significance, indicating that Capital Adequacy and Liquidity Management jointly influence financial performance. However, Bank Size (p-value 0.112) does not significantly affect ROE, implying that larger banks do not necessarily experience higher profitability solely due to their size.

The hypothesis testing results confirm that both H<sub>01</sub> (Capital Adequacy has no significant effect on financial performance) and H<sub>02</sub> (Liquidity Management has no significant effect on financial performance) are rejected, reinforcing that higher capital reserves and efficient liquidity management contribute to improved financial stability and profitability. These findings align with previous studies (Wen, 2020; Olareqaju & Akanda, 2021), which emphasize the importance of maintaining adequate capital buffers and liquidity positions for sustainable banking operations. The results suggest that banks should prioritize liquidity optimization strategies while maintaining sufficient capital adequacy to enhance financial resilience and profitability in Nigeria's banking sector.

The results demonstrate that Capital Adequacy and Liquidity Management are critical determinants of financial performance in listed Nigerian banks. Banks with higher capital reserves and well-managed liquidity positions tend to achieve greater profitability, reinforcing the need for optimal financial structuring. These findings have policy implications, suggesting that regulatory authorities should balance capital requirements and liquidity mandates to ensure both stability and profitability in the banking sector.

### **5.0 Summary, Conclusion, and Recommendations**

The study examined the effect of capital adequacy and liquidity management on the financial performance of listed deposit money banks in Nigeria. The findings revealed a significant positive relationship between capital adequacy, liquidity management, and financial performance, as measured by Return on Equity (ROE). Banks with stronger capital bases and efficient liquidity management strategies demonstrated higher profitability and financial stability. This underscores the importance of maintaining adequate capital buffers and implementing effective liquidity management practices to enhance financial performance and resilience in the banking sector.

### **Conclusions**

1. The study concludes that an increase in capital adequacy and liquidity management enhances financial performance, reinforcing the critical role of adequate capital reserves and effective liquidity strategies in ensuring bank profitability and stability.
2. The findings confirm that capital adequacy and liquidity management are essential aspects of bank management, as they significantly influence profitability and shareholder value, supporting the argument that well-managed financial resources drive sustainable growth in the banking sector.

### **Recommendations**

1. The management of listed deposit money banks in Nigeria should invest in human capital development by implementing periodic training programs for employees and organizing financial literacy forums for clients. These initiatives will enhance financial decision-making, promote effective liquidity management practices, and improve overall operational efficiency.
2. Regulatory authorities should enforce stricter compliance measures to curb excessive cash transactions and hoarding. Implementing policies that encourage digital transactions and reduce reliance on cash-based operations will enhance liquidity efficiency and strengthen financial stability in the banking sector.

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