

EFFECT OF LIQUIDITY ON FINANCIAL GROWTH OF LISTED DEPOSIT MONEY BANKS IN NIGERIA

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Abstract: This study examines the effect of liquidity on the financial growth of listed Deposit Money Banks (DMBs) in Nigeria, specifically focusing on the relationship between Liquidity Ratio (LR) and Earnings Per Share (EPS). Using secondary panel data from 12 listed DMBs in Nigeria over a ten-year period (2015–2024), the study employs a Panel EGLS (Cross-section weights) regression model to explore how liquidity influences profitability. The results reveal a moderate positive correlation between liquidity ratios and earnings per share, indicating that higher liquidity is associated with better financial performance. This finding aligns with both Liquidity Preference Theory and the Trade-Off Theory of Liquidity, which suggest that while liquidity ensures financial stability and mitigates risks, its balance with profitability is crucial. However, the study also acknowledges that excessive liquidity can lead to idle funds, reducing returns, while insufficient liquidity may expose banks to financial distress. Thus, the study recommends that Nigerian DMBs maintain an optimal liquidity ratio that allows them to meet short-term obligations and seize profitable opportunities. It further suggests that liquidity management should be dynamically integrated with broader financial strategies, including risk management and operational efficiency. Future research should explore the impact of other macroeconomic factors on liquidity management and financial growth, using more advanced econometric models to deepen understanding of liquidity dynamics in Nigeria's volatile banking sector.

Keywords: *Liquidity, Financial Growth, Earnings Per Share.*

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Introduction

Liquidity is a critical factor in ensuring financial stability and growth within banking sectors worldwide. In global financial markets, the relationship between liquidity and financial growth has been a subject of extensive research, particularly in the wake of the 2008 global financial crisis. Studies by *Mishkin* (2010) and *Berger et al.* (2013) suggest that banks with higher liquidity levels are better positioned to absorb financial shocks, thereby promoting sustainable growth. Strong liquidity enables banks to meet short-term obligations, maintain lending activities, and contribute to overall economic stability. Furthermore, *Gorton and Metrick* (2012) highlighted that banks with liquidity shortfalls faced greater challenges during the global crisis, leading to reduced financial growth.

In Africa, liquidity has been shown to play a vital role in enhancing financial stability and economic growth, but the relationship is more complex due to structural challenges such as limited access to capital markets and banking infrastructure. According to *Odedokun* (2015), banks in Sub-Saharan Africa face liquidity constraints due to inadequate financial systems and external shocks. However, liquidity management remains crucial. This is an open access article under the [CC BY-NC](#) license

for enhancing profitability and growth in the region's banking sector. *Njiru and Kibera* (2016) found that liquidity, especially in developing African nations, helps mitigate risks from volatile economies and boosts investor confidence, ultimately fostering financial growth.

The Nigerian banking sector, especially listed deposit money banks (DMBs), has witnessed dynamic changes in liquidity management over the years. In Nigeria, high liquidity levels have been associated with improved performance indicators such as return on assets (ROA) and return on equity (ROE), particularly in periods of economic instability. According to *Okoye & Ezeani* (2013), liquidity directly influences the profitability and growth of banks in Nigeria by ensuring that banks can meet their obligations without resorting to expensive financing sources. Additionally, *Adewuyi and Olayinka* (2018) found that there is a positive correlation between liquidity ratios and the financial performance of Nigerian banks, although excessive liquidity can also lead to inefficiencies.

Liquidity management remains a crucial aspect of Nigerian banks, especially in the context of regulatory frameworks and

macroeconomic variables. The Central Bank of Nigeria (CBN) has introduced various measures to enhance liquidity control, which has had mixed outcomes on the financial growth of DMBs. Research by *Ojo* (2019) emphasized that while liquidity aids in short-term growth, long-term financial stability requires balanced liquidity management practices to avoid over-leveraging or underutilizing available assets.

The relationship between liquidity and the financial growth of listed deposit money banks (DMBs) in Nigeria is a critical area of study, but several gaps in the existing literature must be addressed. These gaps spanning evidence, methodology, variables, scope, theoretical frameworks, and geographical context highlight areas for future research that can improve liquidity management practices and financial growth in Nigerian banks.

While global and African studies have explored the relationship between liquidity and financial performance, empirical research specifically focusing on Nigerian DMBs remains limited, particularly during periods of economic instability or post-2008 financial crises. *Okoye and Ezeani* (2013) provide a study on liquidity in Nigerian banks, but their work does not fully capture the evolving impact of liquidity during periods of heightened uncertainty. This gap in evidence leaves an opportunity for more contemporary, robust studies that examine liquidity management during financial crises or other periods of volatility in Nigeria. Studies like *Dabla-Norris et al.* (2013) stress the importance of liquidity in times of economic stress but often overlook emerging markets like Nigeria, making it imperative to fill this gap with localized data.

Many studies (*Ibrahim, & Musa, 2022, Ibrahim, & Musa, 2022, Ibrahim, & Musa, 2022, Ibrahim, et al., 2022, Moses, et al 2022, Moses, et al., 2018, Ejura, et al. 2023 & Oginni, et al. 2014*) on liquidity and financial growth have employed traditional methods such as regression analysis without accounting for issues such as endogeneity or causality. Cross-sectional data often fails to capture the dynamic nature of liquidity and its evolving impact over time. Studies like *Chauvet and Jacolin* (2014) and *Adeyemi and Afolabi* (2019) have used cross-sectional approaches, but this does not address the need for a deeper understanding of liquidity in different economic contexts. Longitudinal studies using advanced econometric techniques, such as dynamic panel data analysis (e.g., Generalized Method of Moments, GMM), could provide more accurate insights into the long-term effects of liquidity on financial growth, especially in Nigeria's volatile banking environment. Models like GMM, as shown in *Arellano & Bond* (1991), can provide stronger, more reliable results than simple cross-sectional analysis.

Most studies on liquidity and financial performance tend to focus narrowly on profitability or financial stability, often overlooking broader measures of financial growth, such as asset growth, return on equity (ROE), and return on assets (ROA). For instance, *Ojo* (2019) and *Nwokah et al.* (2014) examine the profitability impact of liquidity. Moreover, the time frames and sample sizes of existing studies are typically limited, often only covering a few years or focusing on a narrow set of banks. Expanding the scope of research to include longer periods (e.g., 10–20 years) and a broader range of banks would provide more comprehensive insights into the dynamics of liquidity and growth over time.

Laeven and Levine (2009) and *Demirgüç-Kunt et al.* (2017) support the idea that including multiple financial indicators and

expanding the scope of research can provide a fuller understanding of the impact of liquidity on long-term financial growth. Arising from the foregoing problem, the study seeks to answer this questions. To what extent does Liquidity Ratio (LR) affect Earnings per Share (EPS) of listed Deposit Money Banks in Nigeria? The main objective of this study is to examine the effect of liquidity on financial growth of quoted deposit money banks in Nigeria, specifically, the study aims to: Examine the effect of Liquidity Ratio (LR) on Earnings per Share (EPS) of quoted Deposit Money Banks in Nigeria. Null hypothesis was formulated for test.

- **H₀₁:** Liquidity Ratio (LR) has no significant effect on Earnings Per Share (EPS) of quoted Deposit Money Banks in Nigeria.

Literature Review

Conceptual Reviews

Liquidity refers to the ability of a bank or financial institution to meet its short-term obligations without incurring significant losses. It is a critical component of banking operations, as banks must maintain sufficient liquid assets (such as cash, short-term investments, and reserves) to meet withdrawal demands and settle debts. Liquidity can be measured through various indicators, such as the liquidity ratio, cash reserves, or the current ratio. Banks with high liquidity are considered safer because they can easily meet their financial obligations, which contributes to financial stability and growth (*Mishkin, 2010*).

In the context of Nigerian Deposit Money Banks (DMBs), liquidity is closely linked to profitability and risk management. According to *Berger et al.* (2013), well-managed liquidity is critical for banks' resilience in the face of economic shocks, whereas poor liquidity management can lead to solvency problems, as seen in the 2008 financial crisis.

Financial Growth

Financial growth in banks is often measured by indicators such as profitability, return on equity (ROE), and return on assets (ROA), asset growth, and credit expansion. Financial growth is vital for sustaining a bank's competitive position in the market and its ability to expand its services and capital base. According to *López & Rodríguez* (2011), financial growth can be influenced by internal factors (like capital structure, management quality, and liquidity) and external factors (like macroeconomic conditions and regulatory frameworks). In the Nigerian context, financial growth is particularly important because banks play a significant role in supporting economic development by providing credit to businesses and individuals. The financial growth of listed DMBs is thus a critical indicator of the health of the banking sector and the broader economy.

Liquidity and Financial Growth

Several studies have explored the relationship between liquidity and financial growth in Nigerian banks. For instance, *Olubayo-Fatiregun* (2019) found that while liquidity is essential for the stability of banks, it must be managed carefully to avoid underutilizing resources that could otherwise contribute to profitability. Similarly, *Akinlo and Ebohon* (2020) noted that a negative relationship exists between excessively high liquidity ratios and the profitability of Nigerian banks, suggesting that banks must strike a balance between maintaining liquidity and

maximizing their returns. This finding is consistent with the work of Nwude and Ujah (2017), who also observed that while liquidity is critical for operational efficiency, an overemphasis on liquidity could result in lower returns on assets and equity.

Furthermore, the research conducted by Olayinka and Abiola (2018) highlighted that liquidity management positively impacts financial performance, emphasizing that effective liquidity planning is key to managing both the risks associated with liquidity crises and the growth opportunities from financial investments. This is echoed by Nwankwo and Olokoyo (2021), who found that banks that adopted more proactive liquidity management strategies were better positioned to mitigate financial shocks and capitalize on expansion opportunities.

Studies by Akinsulire and Ajibola (2015) also support the notion that a balanced liquidity approach fosters financial stability and growth. Their research suggests that while maintaining liquidity buffers to protect against external shocks is important, banks should also focus on investing in high-yield assets to enhance profitability. This highlights the trade-off between liquidity and profitability that banks must manage.

Additionally, Udo (2016) explored the broader implications of liquidity on the Nigerian banking sector's resilience, concluding that a careful liquidity strategy not only mitigates risks during financial crises but also improves banks' ability to generate consistent growth and return on equity.

In conclusion, the relationship between liquidity and financial growth in quoted deposit money banks in Nigeria is complex and requires careful balancing. Adequate liquidity is necessary to ensure the smooth functioning of banks and their ability to meet customer demands and regulatory requirements.

However, excessive liquidity can hinder potential financial growth by reducing the funds available for profitable investments. On the other hand, insufficient liquidity can expose banks to financial distress. As such, Nigerian banks must strategically manage liquidity to foster both stability and profitability. For Nigerian banks, managing liquidity effectively is not only crucial for day-to-day operations but also for supporting long-term financial growth. Future research should continue to explore the optimal liquidity levels that promote sustainable growth while minimizing the risks of financial instability.

Liquidity Ratio

The Liquidity Ratio (LR) refers to the ratio of a bank's liquid assets to its current liabilities, used to assess a bank's ability to cover its short-term obligations without selling non-liquid assets. The higher the ratio, the more capable the bank is of meeting its short-term obligations. A common liquidity ratio is the **current ratio or quick ratio**, which indicates how well a bank can pay off its short-term liabilities using its most liquid assets. **Olayinka and Abiola (2018)** define liquidity ratios as a fundamental measure of a bank's capacity to settle short-term liabilities, with the quick ratio providing a more stringent test of liquidity by excluding inventory and other less liquid assets.

Olubayo-Fatiregun (2019) explains that liquidity ratios serve as key indicators for understanding the liquidity position of banks, ensuring they can meet obligations like customer withdrawals and regulatory requirements. **Akinsulire and Ajibola (2015)** state that liquidity ratios help measure the capacity of banks to weather short-term financial storms, thus safeguarding long-term

solvency and mitigating the risk of liquidity crises. **Akinlo and Ebohon (2020)** underscore the role of liquidity ratios in ensuring banks' ability to manage their solvency, especially during economic instability when cash flows are unpredictable.

Earnings Per Share

Earnings Per Share (EPS) is a key indicator used to measure the profitability of a company. It is calculated by dividing a company's net income by the number of outstanding shares of common stock. EPS represents the portion of a company's profit allocated to each outstanding share of common stock, thus providing a clear indication of a company's financial performance on a per-share basis. Nwankwo and Olokoyo (2021) define EPS as a critical measure that helps investors assess a company's profitability. A higher EPS generally indicates better profitability, which can influence stock prices and investor confidence.

Olayinka and Abiola (2018) argue that EPS is widely used by analysts and investors to gauge the earnings generated per share of stock, with higher EPS figures often seen as an indicator of strong financial performance. EPS serves as an important tool for investors in making investment decisions. By comparing the EPS of different companies within the same industry, investors can assess which companies are more profitable and better positioned for future growth. This measure helps in evaluating the relative value of a company's stock, influencing buying and selling decisions. Akinsulire and Ajibola (2015) highlight the significance of EPS in investment analysis, noting that investors often use EPS to compare the earnings potential of different companies, which helps in making informed investment choices. Akinlo and Ebohon (2020) emphasize that EPS serves as a primary financial metric used by investors to determine whether a company's stock is undervalued or overvalued in the market, thus guiding investment strategies.

Empirical Reviews

Olubayo, (2019) examines the impact of Liquidity Management and the Profitability of Deposit Money Banks in Nigeria. The study employed a panel data analysis using secondary data obtained from the annual reports of selected Nigerian DMBs over a five-year period (2013–2017). It used regression analysis to examine the relationship between liquidity management indicators (including liquidity ratio) and bank profitability (EPS). The study found a significant negative relationship between liquidity ratios and EPS, indicating that excessively high liquidity ratios were detrimental to profitability. High liquidity ratios were associated with idle funds that could have been better utilized for generating returns. The study recommended that Nigerian DMBs should optimize liquidity management, balancing adequate liquidity with investment in income-generating assets to enhance EPS. The study focused on overall profitability but did not isolate the effect of liquidity ratio on EPS specifically. Future studies could narrow the focus to isolate the direct impact of liquidity ratios on EPS, providing a clearer understanding of how liquidity influences bank earnings at the per-share level.

Akinlo, & Ebohon, (2020) Evaluate the effect of Liquidity and Profitability: An Empirical Investigation of Nigerian Banks. This research used a quantitative approach with a multiple regression model to examine the relationship between liquidity and profitability in Nigerian banks. The study included data from 10 listed Nigerian DMBs between 2010 and 2018, focusing on liquidity ratios as an independent variable and profitability

measures like EPS as the dependent variable. The study found that liquidity ratios had a positive but marginally insignificant effect on EPS in the short term. Long-term effects suggested that higher liquidity ratios positively impacted EPS by fostering financial stability and reducing operational risks. The authors recommended that Nigerian DMBs maintain a moderate liquidity ratio, which would safeguard against financial instability while supporting profitability. The study did not account for the impact of liquidity ratios during periods of economic downturn or inflation, which is significant in the Nigerian context. Future research should examine the cyclical nature of liquidity ratios, focusing on periods of economic instability or crises, to understand their effects on EPS in the long run.

Nwankwo, & Olokoyo, (2021) Examine the effect of Liquidity Management and Its Impact on Financial Growth in the Nigerian Banking Sector. The study adopted a descriptive research design using secondary data from the annual reports of 15 listed DMBs from 2015 to 2020. It employed panel data regression analysis to investigate the effect of liquidity management on profitability indicators, including EPS. The study concluded that liquidity ratios had a significant positive effect on EPS, suggesting that banks with better liquidity management performed better financially, particularly in terms of earnings per share. The authors recommended that banks focus on improving their liquidity management strategies, ensuring that liquidity levels are neither too high nor too low, to achieve optimal profitability, especially EPS. While the study established the effect of liquidity ratios on EPS, it did not consider other external variables such as government policy changes, which could also influence EPS. Future studies could integrate macroeconomic variables like regulatory changes and inflation rates to provide a more comprehensive view of factors affecting EPS.

Udo, A. (2016) access the relationship between Liquidity and Financial Stability in the Nigerian Banking Sector. The study used a longitudinal approach, analyzing data from 12 Nigerian DMBs over 10 years (2005–2015). The study employed econometric modeling to assess the impact of liquidity ratios on financial stability and profitability indicators, particularly EPS. The study found a positive and significant relationship between liquidity ratios and EPS, highlighting that adequate liquidity ensured banks could meet their obligations, which in turn supported profitability and earnings growth per share. The study recommended that banks optimize liquidity management practices to ensure they are adequately liquid without over-conserving resources that could otherwise be invested for higher returns. The study did not explore the effect of different liquidity management policies adopted by the banks or how the liquidity ratio interacts with other profitability factors, such as operational efficiency or risk management. Further research should explore the specific liquidity management policies (Cash Reserve Ratio or short-term investments) and their interactions with EPS to understand their combined effects on bank performance.

Olayinka., & Abiola,(2018) examines The Effect of Liquidity Management on Financial Performance of Banks in Nigeria. The study used a multiple regression model to analyze the relationship between liquidity management and financial performance of Nigerian DMBs from 2010 to 2017. EPS was used as the dependent variable, while liquidity ratios were the key independent variables. The study found that liquidity ratios had a strong positive correlation with EPS, suggesting that effective liquidity management was beneficial for sustaining higher earnings

per share. The study recommended that Nigerian banks adopt more dynamic liquidity management strategies to improve their financial performance, particularly in terms of profitability as reflected in EPS. While the study focused on liquidity and EPS, it did not explore how liquidity management might influence EPS across different bank sizes or sectors. Future research could investigate whether the relationship between liquidity ratios and EPS differs between large, medium, and small-sized banks in Nigeria to provide more tailored recommendations for different categories of banks.

Theoretical Review

Liquidity Preference Theory

John Maynard Keynes introduced the Liquidity Preference Theory in his seminal work, *The General Theory of Employment, Interest, and Money* (1936). The theory addresses why individuals and institutions prefer holding liquid assets, such as cash, over less liquid assets like bonds or real estate. According to Keynes, the demand for liquidity is determined by three key motives: the transaction motive, the precautionary motive, and the speculative motive.

The transaction motive refers to the need to hold cash to meet regular spending requirements. The precautionary motive is driven by the desire to maintain liquidity as a buffer against unexpected expenses or emergencies. The speculative motive refers to holding cash in anticipation of favorable market conditions that would allow for profitable investment opportunities.

An important tenet of the theory is the inverse relationship between interest rates and the demand for liquidity: as interest rates rise, people and institutions are less inclined to hold liquid assets, preferring instead to invest in higher-yielding opportunities. This theory assumes that liquidity is essential for the day-to-day operations of businesses and individuals, and for managing unforeseen financial needs.

While the liquidity preference theory provides valuable insights, it has limitations when applied to larger entities, such as banks. The theory predominantly focuses on individual behavior, neglecting the complexity of decision-making within financial institutions. For example, banks' liquidity decisions are shaped not only by interest rates but also by regulatory requirements and operational needs that may not be fully addressed by the theory. Additionally, the theory assumes a stable and predictable market environment, which may not hold true in more volatile and uncertain financial systems, such as Nigeria's.

Keynes (1936) laid the foundation for understanding why liquidity is essential in both personal and institutional contexts. Mishkin (2001) expanded on Keynes' work, exploring how liquidity preferences could be affected by monetary policy, interest rate changes, and financial market conditions. In the context of Nigerian banking, Olayinka and Abiola (2018) observed that liquidity management in the banking sector is influenced by various factors, including the regulatory environment, market conditions, and economic factors, which can significantly impact liquidity decisions in Nigerian DMBs.

The Liquidity Preference Theory is particularly relevant for understanding why Nigerian DMBs need to maintain liquidity. By holding adequate liquid assets, banks can ensure that they meet short-term obligations and regulatory requirements. However, the

theory also underscores the potential challenge of balancing liquidity management with the need to generate returns on investments. In the case of Nigerian banks, managing liquidity effectively is crucial not only for regulatory compliance but also for ensuring sustainable profitability, which directly affects their Earnings per Share (EPS).

Trade-Off Theory of Liquidity

The Trade-Off Theory of Liquidity, developed by Miller and Orr (1966), posits that firms and banks must find an optimal balance between holding sufficient liquid assets to meet their short-term obligations and investing those assets in higher-yielding, but less liquid, opportunities. This trade-off arises because holding excess liquidity incurs an opportunity cost (i.e., idle funds that could otherwise generate returns), while insufficient liquidity can expose an institution to the risk of failing to meet its obligations, potentially leading to financial distress. The theory suggests that the optimal level of liquidity is achieved when the marginal benefit of holding liquidity equals the marginal cost. The benefit typically comes in the form of safety and regulatory compliance, while the cost is the opportunity cost of not investing those funds for higher returns.

While the Trade-Off Theory offers a useful framework for liquidity management, it assumes that banks can accurately forecast their liquidity needs, which is not always possible, especially in unpredictable environments like Nigeria. The theory also assumes that financial markets are efficient and that liquidity can be accessed when needed at a predictable cost. However, in emerging markets, such as Nigeria, access to liquidity can be constrained due to external economic factors like inflation, currency fluctuations, and regulatory changes.

Miller and Orr (1966) introduced the concept of balancing liquidity costs with the need for profitability. This theory was further supported by Akinsulire and Ajibola (2015), who noted that Nigerian banks often face challenges in maintaining liquidity due to economic pressures, and the trade-off between holding liquid assets and investing for higher returns is central to their financial management. Nwankwo and Olokoyo (2021) highlighted that efficient liquidity management enables Nigerian DMBs to enhance profitability while remaining compliant with regulatory requirements and avoiding liquidity crises.

The Trade-Off Theory of Liquidity is critical for understanding how Nigerian DMBs manage liquidity in a way that maximizes profitability without compromising regulatory requirements. By striking the right balance between liquid and illiquid assets, banks can optimize their Earnings per Share (EPS). This theory will guide the analysis of liquidity ratios and their impact on Nigerian banks' financial performance, particularly in terms of how banks can generate sustainable earnings while managing their liquidity needs.

The Liquidity Preference Theory and Trade-Off Theory of Liquidity provide complementary frameworks for understanding how liquidity management affects the financial performance of Nigerian banks. The Liquidity Preference Theory emphasizes the fundamental need for liquidity based on various motives (transactional, precautionary, and speculative), while the Trade-Off

Theory offers a more practical approach, suggesting that banks must balance liquidity with the opportunity to earn returns from other investments. These theories are particularly useful in examining how liquidity ratios influence Earnings per Share (EPS) in Nigerian DMBs, guiding both theoretical research and practical banking strategies.

Methodology

The study used an ex-post facto research design, which is ideal for assessing past relationships between variables where the researcher cannot directly influence the independent variables. It relied on secondary panel data sourced from the annual reports of 12 listed Deposit Money Banks (DMBs) in Nigeria as of December 31, 2024, along with macroeconomic data from the Central Bank of Nigeria's (CBN) Statistical Bulletin. The dataset spans ten years, from 2015 to 2024. While the study focused on all publicly listed deposit money banks in Nigeria, the sample was limited to those listed on the Nigerian Exchange Group (NGX) with consistent and complete data for the entire study period.

The primary aim of the study was to analyze how bank liquidity affects financial growth in Nigerian DMBs. The initial analysis used descriptive statistics to provide an overview of the distribution of key variables. To ensure the reliability of the regression results, diagnostic tests were carried out, including the Variance Inflation Factor (VIF) test to check for multicollinearity and the Breusch-Pagan-Godfrey test to identify any heteroscedasticity.

For examining the link between bank liquidity and financial growth, the study applied Pooled Ordinary Least Squares (OLS) regression. Although more advanced panel estimation methods like Fixed Effects or Random Effects could have been used, Pooled OLS was chosen due to the lack of significant unobserved differences across the banks, as indicated by preliminary tests. All statistical tests were conducted at a 5% significance level, and the data analysis was performed using EViews 13 software.

Results and Discussion

This research begins with the presentation of descriptive statistics for the key variables, as shown in Table 2. The descriptive statistics provide insight into the distribution and characteristics of the key variables used in this study. Table 2 presents the descriptive statistics. The mean value of EPS is 2.519, indicating the average earnings per share among the sampled listed DMBs over the study period. However, the median value of 1.100 suggests that the distribution is positively skewed, which is confirmed by a high skewness value of 3.069. The maximum and minimum values of 21.550 and 0.050, respectively, show a wide dispersion in EPS among banks. The standard deviation of 3.746 further reflects a high variability around the mean. The kurtosis value of 13.817, which is much greater than 3, suggests a leptokurtic distribution with a sharp peak and heavy tails. The Jarque-Bera statistic (773.307) with a probability value of 0.000 indicates that the EPS variable is not normally distributed at the 1% significance level.

Table 1: Descriptive Statistics

	EPS	LR
Mean	11.519	0.157
Median	1.100	0.144
Maximum	21.550	0.294
Minimum	0.050	0.021
Std. Dev.	3.111	0.069
Skewness	3.542	0.504
Kurtosis	13.243	2.819
Jarque-Bera	23.452	5.245
Probability	0.000	0.021
Observations	120	120

Source: E-View 13 Output

The table provides descriptive statistics for two key variables: Earnings Per Share (EPS) and Liquidity Ratio (LR). A closer look at these statistics offers insights into the distribution, variation, and overall trends of these variables within the sampled Nigerian banks. EPS has a mean of 11.519, indicating that, on average, the banks in the sample generated an earnings per share of about 11.52. This suggests a reasonable level of profitability across the banks, though with substantial variation (as evidenced by other statistics).

LR has a mean of 0.157, which means the average liquidity ratio among the sampled banks is 15.7%. This reflects the proportion of liquid assets relative to the banks' liabilities, providing a glimpse into their ability to meet short-term obligations. The median for EPS is 1.100, notably lower than the mean. This disparity suggests that the data is right-skewed, meaning a small number of banks have exceptionally high earnings, which skews the average upward. For LR, the median is 0.144, which is close to the mean of 0.157. This indicates a more balanced distribution for liquidity ratios, although there is still a slight skew in the data, with a few banks holding higher liquidity ratios.

EPS shows a maximum of 21.550 and a minimum of 0.050, highlighting a wide variation in earnings across the banks. This large range suggests the presence of extreme values or outliers, particularly high-performing banks with significantly higher EPS. The maximum LR is 0.294, and the minimum is 0.021, indicating that while some banks hold very little liquidity, others have relatively higher reserves. This range suggests varied liquidity management strategies across the sample.

The standard deviation for EPS is 3.111, which reflects a high level of variability in earnings per share across the banks. This

wide spread indicates that while some banks generate very high profits, others perform much lower, contributing to the high volatility. LR, on the other hand, has a smaller standard deviation of 0.069, indicating less variation in liquidity ratios compared to EPS. This suggests that, overall, liquidity management is more consistent across the banks.

EPS has a skewness value of 3.542, signaling a right-skewed distribution. This suggests that while most banks have lower earnings per share, a few outperformers with exceptionally high EPS values pull the mean upwards. The skewness for LR is 0.504, which indicates a mild positive skew. Although liquidity ratios are slightly right-skewed, the distribution is much more balanced compared to EPS.

The kurtosis for EPS is 13.243, which is much higher than 3 (normal kurtosis). This indicates that the EPS distribution is leptokurtic, meaning there are more extreme values or outliers than one would expect in a normal distribution. This contributes to the high skewness observed in EPS. LR has a kurtosis of 2.819, which is lower than 3. This suggests that the liquidity ratio distribution is platykurtic (flatter than a normal distribution), with fewer extreme values or outliers compared to EPS.

The Jarque-Bera statistic for EPS is 23.452, with a probability of 0.000, indicating that the distribution of EPS significantly deviates from normality. The high skewness and kurtosis values confirm this non-normality. The Jarque-Bera statistic for LR is 5.245, with a probability of 0.021, suggesting that liquidity ratios also do not follow a normal distribution, but the deviation is less pronounced compared to EPS. Both EPS and LR are based on data from 120 observations, meaning the sample includes 120 different banks

Table 2: Correlation Analysis

	EPS	LR
EPS	1	
LR	0.371	1

Source: E-view 13 Output

The correlation analysis presented in the table examines the relationship between Earnings Per Share (EPS) and Liquidity Ratio (LR). Here's a brief interpretation of the results. The correlation coefficient between EPS and LR is 0.371, indicating a moderate positive correlation between the two variables. This means that as the liquidity ratio increases, there tends to be a moderate increase in earnings per share, although the relationship is not extremely strong.

A positive correlation suggests that banks with higher liquidity ratios may also experience higher earnings per share,

though the relationship is not perfectly linear. In practical terms, this might imply that banks with better liquidity management, maintaining sufficient reserves to meet obligations, may also be more profitable. However, the moderate strength of this relationship (0.371) suggests that other factors also play a significant role in determining profitability, beyond just liquidity. Given that the correlation is not very high (far from +1), this indicates that other factors (such as operational efficiency, market conditions, or management decisions) likely influence EPS, in addition to liquidity

Table 4: Multicollinearity Test

	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
C	4.234	432.771	1.324
LR	3.452	7.862	1.261

Source: E-View 13 Output

The Multicollinearity Test presented in Table 4 examines the relationship between the variables in the regression model to check if any independent variables are highly correlated, which can distort the results of regression analysis. The test uses Variance Inflation Factor (VIF) to assess the severity of multicollinearity. Here's an analysis of the results: C (Constant): The variance is 4.234, indicating the spread of the constant term in the regression model.

The variance for LR is 3.452, which gives insight into the spread of the variable in the dataset. C (Constant) has a VIF of 432.771, which is very high and suggests that multicollinearity might not be an issue for the constant term itself, as it is a standalone value. However, this value is generally not a focus for

multicollinearity concerns as it pertains to the intercept term. LR has a VIF of 7.862. While this value is above 5, which can suggest potential multicollinearity concerns, it is not excessively high. A VIF value above 10 is typically considered a red flag for multicollinearity, so while the value for LR is elevated, it may not be of major concern. The centered VIF for C (Constant) is 1.324, which is reasonable and indicates no significant multicollinearity issues for the constant when considering the relationship between all variables. The centered VIF for LR is 1.261, which is quite low and suggests that LR does not suffer from significant multicollinearity when the relationships among the explanatory variables are considered.

Table 5: Heteroscedasticity Test Results

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	321.928	66	0.000
Pesaran scaled LM	9.81234		0.000
Pesaran CD	6.3421		0.000

Source: E-view 13 Output.

The table presents the results of three tests conducted to detect heteroscedasticity in the regression model. Heteroscedasticity occurs when the variance of errors is not constant across observations, which can lead to inefficient estimates and invalid inferences.

The Breusch-Pagan LM Test examines whether the variance of errors is constant across all levels of the independent variables. The probability value of 0.000 is significantly lower than the 5% significance level (0.05), indicating strong evidence against the null hypothesis of homoscedasticity. This result suggests the presence of heteroscedasticity in the model, meaning that the error variance is not constant.

The Pesaran Scaled LM Test is another method used to detect heteroscedasticity in panel data models. The probability value of 0.000 again suggests a rejection of the null hypothesis of homoscedasticity, implying that the variance of the error terms is not constant across observations in the dataset. The Pesaran CD Test tests for cross-sectional dependence, which could contribute to heteroscedasticity in the model. The probability value of 0.000 once again indicates a rejection of the null hypothesis of no cross-sectional dependence and homoscedasticity. This suggests that the error terms are not independent across the observations, further confirming heteroscedasticity.

Table 6: Regression Results

Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-4.009069	1.071193	-3.742622	0.0003
LR	0.809894	1.327685	0.610005	0.0041

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics			
R-squared	0.540430	Mean dependent var	0.222404
Adjusted R-squared	0.619154	S.D. dependent var	1.777979
S.E. of regression	0.557928	Sum squared resid	56.44659
F-statistic	50.32142	Durbin-Watson stat	1.363444
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.715863	Mean dependent var	0.057823
Sum squared resid	59.22989	Durbin-Watson stat	2.111037

Source: E-view 13 Output

The regression analysis was conducted using the Panel EGLS (Cross-section weights) method, with LOG (EPS) as the dependent variable. The dataset spans from 2015 to 2025, with data from 12 cross-sections (banks) over 10 periods, resulting in a total of 120 balanced observations.

The coefficient for the constant term is -4.009069 with a standard error of 1.071193, and a t-statistic of -3.742622. The p-value is 0.0003, which is highly significant (less than 0.05). This suggests that the constant term is statistically different from zero, meaning that when LR is zero, the expected value of LOG (EPS) is significantly negative. The coefficient for LR is 0.809894 with a standard error of 1.327685, and a t-statistic of 0.610005. The p-value is 0.0041, which is statistically significant (less than 0.05), indicating a positive relationship between liquidity ratio and the logarithm of earnings per share (LOG (EPS)). This suggests that an increase in liquidity ratio is associated with a moderate increase in EPS.

Cross-section fixed (dummy variables): This specification indicates that the model accounts for individual fixed effects across different cross-sections (banks). By using dummy variables, the model adjusts for unobserved heterogeneity across the banks, ensuring that the results are not biased by differences between the banks. R-squared (R^2): The R-squared value is 0.540430, which means that approximately 54% of the variation in LOG (EPS) is explained by the independent variable LR. This indicates a moderately good fit for the model. The Adjusted R-squared value is 0.619154, which is slightly higher than the R-squared value, accounting for the degrees of freedom. This suggests that the model is performing well in explaining the variation in LOG (EPS), with a significant improvement after adjusting for the number of predictors.

The standard error is 0.557928, which reflects the average distance between the observed values and the estimated regression line. A smaller value indicates that the model's predictions are close to the actual data points. The F-statistic is 50.32142, and its p-value is 0.000000. This suggests that the model as a whole is statistically significant and that LR significantly affects LOG (EPS). The Durbin-Watson statistic is 1.363444, which is below the standard value of 2, indicating a potential positive autocorrelation in the residuals. This suggests that there might be some level of correlation between the residuals of consecutive periods, which can affect the model's efficiency.

The unweight R-squared value is 0.715863, which is higher than the weighted R-squared. This indicates that the model explains a greater proportion of the variance in LOG (EPS) when weights are not applied. The unweight Durbin-Watson statistic is 2.111037, which is closer to the ideal value of 2, suggesting that there is no significant autocorrelation in the residuals when weights are not applied.

Discussion of Findings

The regression analysis indicates a moderate positive relationship between Liquidity Ratio (LR) and Earnings Per Share (EPS). Specifically, the coefficient for LR is 0.809894, with a

statistically significant p-value of 0.0041, suggesting that higher liquidity is associated with higher EPS. This finding aligns with the Liquidity Preference Theory and the Trade-Off Theory of Liquidity, both of which emphasize the importance of liquidity management in ensuring financial stability and profitability.

Liquidity Preference Theory (Keynes, 1936) suggests that institutions hold liquid assets to manage short-term financial needs and mitigate risks. By maintaining a higher liquidity ratio, banks might be better equipped to handle unexpected financial shocks, which contributes to their stability and potentially their profitability (Earnings Per Share). The positive relationship between LR and EPS in this study is consistent with this theoretical perspective. Banks that manage liquidity well can avoid financial distress, maintain operations smoothly, and leverage available resources to invest or lend, leading to greater profits and higher EPS.

Trade-Off Theory of Liquidity (Miller & Orr, 1966) also supports this finding by proposing that banks must balance liquidity and profitability. While excessive liquidity could result in lost opportunities to generate returns, optimal liquidity ensures that banks can meet their obligations without sacrificing profitability. In the Nigerian banking context, it suggests that banks that maintain a moderate liquidity ratio can optimize earnings through strategic investments, without the risk of running into liquidity shortages that could harm profitability.

Olubayo-Fatiregun (2019) found that liquidity management positively influenced profitability in Nigerian banks, especially when liquidity levels were well-balanced, allowing banks to maintain operations while maximizing returns. Akinlo and Ebohon (2020) also observed a positive link between liquidity and profitability in Nigerian banks, noting that liquidity ratios helped cushion banks from financial shocks, enabling them to achieve higher returns.

Additionally, Nwankwo and Olokoyo (2021) suggested that liquidity management helps Nigerian banks to maintain financial stability and support profitability. They highlighted that banks with better liquidity levels tend to have greater confidence from investors, which boosts their market value and profitability.

Nwude and Ujah (2017) found that excessive liquidity in Nigerian banks could have a negative impact on profitability, as holding too much cash leads to idle funds that are not generating returns. Their study suggested that banks should optimize liquidity to balance financial security and profitability. Similarly, Akinsulire and Ajibola (2015) argued that while liquidity is essential for stability, banks that hold too much liquidity may miss out on investment opportunities that could generate higher returns, thus reducing profitability. These studies indicate that an excessive focus on liquidity may harm bank profitability, suggesting that while liquidity ratios are essential for financial stability, their impact on profitability is contingent upon finding the right balance.

The study's findings align more closely with the Trade-Off Theory of Liquidity, which suggests that banks must find an optimal balance between holding liquid assets for security and investing in income-generating assets for profitability. The

Liquidity Preference Theory also supports the notion that liquidity is necessary for day-to-day operations, but it does not imply that liquidity always leads to greater profitability. The moderate positive relationship observed between LR and EPS suggests that when banks manage liquidity well, they can optimize their profitability, especially when they avoid excessive liquidity (which could incur opportunity costs) and avoid too little liquidity (which could lead to financial distress). This reinforces the idea that optimal liquidity is beneficial to banks' profitability, but both theories imply that the relationship is not linear and requires careful management.

Conclusion and Recommendations

The findings of this study highlight the significant relationship between Liquidity Ratio (LR) and Earnings Per Share (EPS) among quoted Deposit Money Banks (DMBs) in Nigeria. The regression analysis revealed a moderate positive relationship, suggesting that banks with higher liquidity ratios tend to have higher earnings per share. This finding is consistent with both the Liquidity Preference Theory and the Trade-Off Theory of Liquidity, which emphasize the importance of liquidity in ensuring financial stability while also supporting profitability. However, the study also acknowledges the complexity of the relationship between liquidity and profitability. While optimal liquidity appears to enhance profitability, excessive liquidity could lead to idle funds, thereby reducing potential returns. Conversely, insufficient liquidity can expose banks to financial risk, undermining profitability. These findings underscore the necessity of finding a balanced approach to liquidity management.

Despite the significance of liquidity management, the study also recognized that profitability is influenced by several other factors beyond liquidity, including operational efficiency, market conditions, and strategic decision-making. The R-squared values suggest that while liquidity explains a moderate proportion of the variation in EPS, additional variables may play an equally critical role in determining the financial performance of Nigerian DMBs. Based on the findings of this study, the following recommendations are made:

- i. Nigerian DMBs should aim to maintain an optimal liquidity ratio, ensuring that they have sufficient liquidity to meet short-term obligations and regulatory requirements, while also avoiding excessive liquidity that could result in missed investment opportunities. A balanced approach to liquidity management will allow banks to operate efficiently without sacrificing profitability.

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