Journal of Econ-Islamic Law and Society Research
E-ISSN: XXXX-XXXX
Vol.1, No.2, 2025, pp. 77-94
DOI: https://doi.org/10.61455/jeisr.v1i02.439

Liquidity Management and Its Impact on The Performance of Deposit Money Banks in Nigeria

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Received March 21, 2025; Revised May 24, 2025; Accepted August 27, 2025

Abstract

Objective: This study assesses the impact of liquidity management on the performance of Deposit Money Banks (DMBs) in Nigeria, focusing on liquidity ratios, loan-to-deposit ratio, and cash reserve ratio, and their influence on Return on Assets (ROA) and Return on Equity (ROE). **Theoretical framework:** Grounded in financial management theory, the research highlights the importance of liquidity management in balancing profitability and short-term obligations. It also explores the potential of Islamic liquidity management as an alternative to conventional banking practices in Nigeria. **Literature review:** The review covers global and regional studies on liquidity management, emphasizing the role of liquidity ratios and the loan-to-deposit ratio in maintaining financial stability. It also discusses the growing relevance of Islamic banking principles in addressing liquidity challenges. **Methods:** The study uses an ex-post facto design with secondary data from the annual reports of selected Nigerian DMBs. Multiple regression analysis assesses the relationship between liquidity variables and bank performance. **Results:** Effective liquidity management enhances bank performance, with the liquidity ratio and loan-to-deposit ratio being key determinants of profitability. Excessive liquidity and high cash reserve ratios, however, negatively impact performance. Islamic liquidity management is proposed as a viable alternative for Nigerian banks. **Implications:** Bank managers should adopt proactive liquidity management strategies, while policymakers are encouraged to design systems that balance stability and profitability. Integrating Islamic liquidity management could help address the challenges faced by Nigerian banks. **Novelty:** The study contributes new insights into liquidity management in Nigeria, particularly by exploring the potential of Islamic liquidity practices as an alternative to conventional methods, offering a unique perspective on the country's banking sector.

Keywords: liquidity, management, deposit money banks, performance, profitability.

INTRODUCTION

The financial system is composed of financial institutions, borrowers, and lenders. The effective functioning of the Nation's economy is dependent upon the efficient financial system [1]. Banks are a vital subsector of the larger financial services industry that significantly contributes to effective economic development through financial intermediation. One of the major functions of Deposit Money Banks (DMBs) is the

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mobilization of savings (Deposits) and channeling them to various parts of the economy by extending loans and advances to the sectors of the economy that are productive. A deposit money bank ensures that financial intermediation is usually from units of surplus to the units of deficit [2].

The financial intermediation brings together businesses of all sizes and natures, public and private, corporate and individuals. Banks, through the diverse range of services they provide, exert a significant influence on both domestic and international economies. Their impact is so profound that any policy affecting the banking sector can have direct or indirect consequences on the broader economy [3]. Research has established a long-term causal link between financial intermediation and economic growth [4].

In Nigeria, the banking industry has made, and continues to make, substantial contributions to economic advancement in various ways. These contributions include generating employment, offering financial and consultancy services, and functioning as a centralised financial hub that connects businesses and corporations. Additionally, it acts as a critical intermediary between foreign investors and the local economy, while also serving as one of the key institutions that facilitate international trade. Due to these vital roles, the banking segment is regarded as one of the most crucial sectors in both developed and evolving economies. In the course of financial intermediation, deposit money banks accept deposits and transform the deposits into loans and securities (investments) using inputs such as labour and materials. The banks generate income on the difference in interest paid and charged to the depositors and customers. It's evident from the ensuing intermediation that financial performance is premised on [5].

In an ideal situation, Deposit money banks (DMBs) collect deposits from depositors and loan out to customers and generate income from the interest paid and charged to depositors and customers, respectively. Loans are stock in trade for DMBs; therefore, very critical to its survival and profitability. Demand deposits and loans have a varied maturity period. Demand deposit can be withdrawn at short notice, while a loan can be repaid in the long term. Banks are always bound to meet the obligations of customers and fulfil the needs of depositors. Hence, the development of a liquidity benchmark to maintain an optimum level of liquid/near liquid resources requires that the bank outflows match the cash flows(receipts) to be able to meet maturing obligations as they fall due [4].

Unfortunately, however, this is certainly not the case as portrayed by the reality on the ground. The problem starts when the Banks are not able to fulfil their maturing obligations. Depositors are often turned down or delayed before they make withdrawals as the banks experience illiquidity and have to wait for depositors to deposit money, or are forced to resort to interbank lending to get liquid cash at excessively high interest rates. In some cases, banks had to sell off their short-term convertible securities to generate liquidity. Excessive interbank borrowing is an additional liability that can worsen its illiquid position, and the situation persists to a level where the bank's total assets cannot exceed its total liabilities and that resulting in insolvency. The realization that the bank cannot meet its short-term financial obligations generates the possibility of panic withdrawals by depositors. The maturity mismatch and default expose banks to liquidity and credit risk as the banks strive to maximize their profits. Empirical studies on the impact of liquidity management on the performance of DMBs present mixed findings. While some argue that liquidity management has a positive impact on performance, others argue the contrary. This creates a knowledge gap that prompted the researcher to investigate further [5].

The paper provides a fresh perspective on the link between liquidity management and the performance of Deposit Money Banks (DMBs) in Nigeria by integrating traditional liquidity metrics (i.e., current ratio, liquidity ratio, and loan-to-deposit ratio) and modern liquidity management practices guided by the financial environment and recent Central Bank of Nigeria (CBN) regulatory reforms. Unlike existing research that focused mainly

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on static financial ratios, this research incorporates dynamic and macro-financial factors such as digital banking liquidity flows, interbank market dynamics, and monetary policy shocks in providing a more comprehensive and contemporary explanation of liquidity-performance relationships in Nigerian banks. In addition, the study uniquely situates liquidity management practices within Nigeria's volatile financial environment, characterized by exchange rate fluctuations, inflationary pressures, and regulatory tightening, thus generating localized perceptions that add to global banking literature with evidence from an emerging economy [5].

LITERATURE REVIEW

It can also be said that the liquidity risk in the banking industry originates from the mismatch of maturities between assets and liabilities [6]. The asset side of the Bank's financial statement is predominantly composed of medium and long-term financing, while the liability side primarily consists of short-term demand deposits. This gap in maturities between assets and liabilities creates the risk of not being able to meet the requested payment from the depositors [7]. This will force a bank to convert or sell its asset into cash at a price much lower than the market price, which is a loss to the bank [8].

Oreoluwa, Muhammed, and Sulaiman studied how cash management influences the financial success of Nigerian commercial banks [9]. This research applied a correlational technique and utilized the Johansen test and the VECM to assess the long-term and short-term relationships between the components. The results of the Johansen test revealed at most two co-integrating equations among the variables, while the results of the vector error correction revealed a positive impact of liquidity on return on assets and return on equity, but a negative effect on net profit margin. Results revealed a fairly stable trend in the liquidity and profitability indicators from 1998-2018 and concluded that banks controlled enough liquidity to serve their obligations. The study recommends that the CBN maintain the regulation over the minimum liquidity of commercial banks, as this affects their profitability.

Ighoroje and Akpokerere researched Nigerian deposit money banks' performance and liquidity management. The Granger causality test and the cointegrating and error correcting techniques evolved from the ARDL data analysis technique, and it showed that, although the Liquidity Ratio (LQR) stood out as the only variable with individual significance in the model, there's a solid long-term link between how banks perform and the key factors we zeroed in on. It also made it clear that the liquidity elements are major players in shaping the enduring success of Nigerian banks hinges on the CBN placing a strong emphasis on the meticulous and impactful management of liquidity policy instruments. This approach is critical for stabilizing the operations of deposit money banks and enhancing the overall health of the national financial sector [10].

In another study, Okere et al examined the effect of liquidity management on the financial outcomes of commercial banks in Nigeria by analysing data from the annual reports and accounts of 15 banks across 11 years up to 2017. Grounded in agency theory, the study applied a combination of descriptive and inferential statistical approaches to evaluate the data, and the findings indicated a substantial association between effective LM strategies and the financial stability of Nigerian DMBs. In addition, they noticed a big shift in these banks' profitability before and after the TSA came into play. The study suggests that DMBs should tweak their internal financial setups to roll with the changes brought by the TSA and adopt smart liquidity management strategies to boost their performance [11].

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Sathyamoorthi, Mapharing & Dzimiri examined the impact of liquidity management on the financial performance of commercial banks in Botswana. The study used Return on Assets and Return on Equity to measure financial performance. Cash and cash equivalents to total assets ratio, Cash to deposits ratio, Loans to deposits ratio, Loans to total assets ratio, Liquid assets to total assets ratio, and Liquid assets to deposits ratio were used as proxies for liquidity management [12]. The research population was all 9 commercial banks in Botswana, and the study covered a period of 9 years from 2011 to 2019. This descriptive study sourced monthly secondary data from the Bank of Botswana Financial Statistics database.

Also, Agbada & Osyi assessed the efficacy of liquidity management and banking performance in Nigeria, where a Survey research design through structured questionnaires was used for data collection. The sample of the study consists of twenty randomly selected banks in Nigeria, where 300 bank employees were randomly selected as respondents. The findings disclose a significant relationship between efficient liquidity management and banking performance [13]. Similarly, Bassey, Tobi, & Ekwere investigate the relationship between bank performance and liquidity management using bank deposits, cash reserve requirement, bank investment, and cash ratio. The findings of the study re-emphasize the fact that successful operations and survival of the banks are anchored on efficient and effective liquidity management [14]. They therefore postulate that banks should not concentrate purely on deposits, but rather, other measures should be adopted to reduce illiquidity in this sector.

Dzapasi surveyed the impact of Liquidity Management on Bank Financial Performance in a subdued economic environment: A case of the Zimbabwean Banking Industry. This paper sought to establish the impact that proper liquidity management has on the financial performance of banks in the backdrop of a poorly performing economy. Factors that include asset liability mix, regulatory and market changes, and liquidity management strategies are closely scrutinized in line with the ever-changing Zimbabwean economic environment [15]. The study focused on the population of banking and financial institutions in Zimbabwe and drew a sample of five (5) leading banks that comprised Commercial Bank of Zimbabwe (CBZ), Standard Chartered Bank of Zimbabwe, First Capital Bank, FBC Bank, and ZB Bank. The major findings of the study were that there is a strong positive relationship between liquidity management and bank financial performance [15].

In their study, Otekunrin, Fagboro, and Femi explored how LM impacts the FP of 17 deposit money banks listed on the NSE between 2012 and 2017. For their analysis, they collected data from the 15 banks spanning six years and employed the OLS method aimed at understanding how effective cash management influences the overall performance of these banks [16]. The study suggests that LM is a crucial component of business operations and, as a result, contributes to business profitability. It also finds a favourable correlation between bank performance and cash management. Therefore, it suggests that effective liquidity management will help resolve the agency costs issue that emerges when ownership and control of a company are distinct [16].

Similarly, Alhassan et al. investigate the impact of Liquidity management and the financial performance of listed oil and gas companies in Nigeria. The purpose of the paper is to figure out the link between liquidity and profitability, as well as the impact of liquidity on profitability. Ten listed companies with a bigger market share in the oil and gas sector of the Nigerian economy were subjected to a fixed panel regression study. Secondary data was gathered for ten years, from 2011 to 2020, from their published annual reports. Profit after tax (PAT), Return on Asset (ROA), and Return

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on Equity (ROE) were used to determine profitability (ROE) [17]. Internal liquidity variables such as equity, debt, and sales were utilized to determine the behavior of the dependent variable, but external elements such as lending interest rate and exchange rate were employed to further explain profitability behavior.

Ighosewe and Ofor also looked at the extent to which banks in Nigeria performed in relation to Treasury Single Accounts. The findings indicate a substantial negative correlation between TSA and bank liquidity, a positive impact between TSA and ob loss, and a negative correlation between TSA and Nigerian banks' profitability [18].

Using the generalised method of moments, Hakimi and Zaghdoudi examined the link between liquidity and Nigerian bank performance from 2004 to 2012. Their findings showed a favourable correlation between the two. They recommend that, to achieve better performance, the bank should increase its liquidity. Additionally, the primary factors influencing banks' revenue include their debt structure, board size, liquidity, and past performance [16].

Okaro and Nwakoby took a deep dive into how LM shapes the performance of DMBs, looking at the years from 2000 to 2015. Using data from the CBN and NDIC reports, they applied the Ordinary Least Squares (OLS) method to analyse profitability metrics like ROE, ROA, and net interest margin, alongside liquidity measures [19]. The results revealed that the cash-to-deposit ratio positively influenced profitability, while the LR had a negative impact. This highlights the need for DMBs to balance liquidity effectively and using strategies like lending and discounting bills instead of holding excess liquidity and investing surplus funds in diverse short-term investments to maximize profits and leverage the time value of money.

METHODOLOGY

Specifically, the research used quantitative secondary data gathered from the published financial statements of eight banks: Ecobank, Citibank, Stanbic IBTC, Rand Merchant Bank, First Bank, Zenith Bank, UBA Plc., and Union Bank Plc. This approach allowed the study to analyse past financial trends and draw insights without direct intervention. The use of the expo factor is justified by the fact that it’s suitable for causal research and the use of extant/historical data, where the researcher has been restricted from manipulating the variables used in the study [16].

The sample of the study consists of 12 DMBs in Nigeria, namely: UBA Plc., First Bank Ltd, Zenith Plc., Access Bank Plc., GTBank Plc., Union Bank of Nigeria Plc., Standard Chartered Bank LTD, Eco Bank Nigeria Plc., Citibank Plc., Stanbic IBTC, and Rand Merchant Bank. Out of the 36 licensed Deposit Money Banks (DMBs) in Nigeria, a sample of 12 is considered sufficient for this study. This choice is justified on two grounds. First, the selection ensures representation across categories of banks: international, national, regional, non-interest, and merchant, thereby capturing the diversity of operations within the sector. Second, the 12 banks provide a manageable, reliable, and statistically adequate dataset, as they are among those with consistent financial disclosures and cover roughly one-third of the banking population. This balance between representativeness, data availability, and feasibility strengthens the validity and generalizability of the research findings [19].

Method of data analysis and variable measurement, data analysis entailed the use of financial statements of the banks covering seventeen years (2015-2021). Dynamic panel regression was used to analyse the data to establish the causative impact between liquidity management proxied by LDR and LR on the Performance of DMBs proxied by ROA, ROE, and NIM. Since the financial performance of the Banks can be calculated by their economic

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outcome and size of their earnings, financial ratios will be used for quantitative analysis and assessment of the banks' performance (profitability). This enables the researcher to establish whether there is a causal relationship between Liquidity management (Proxied by LQR, & LR) and profitability, proxied by ROA, ROE & N) [19].

Table 1. Variables, Proxies, and Measurements for Liquidity Management and Bank Performance

Variable		Proxies	Measurement
Independent Variable	Liquidity Management	Liquidity Ratio (LR)	- Ability to meet short-term obligations - Maintain adequate liquid assets - Stability in financial operations
		Loan to Deposit Ratio (LDR)	- Credit risk exposure - Assets liability Balance - Efficiency of fund utilization
Dependent Variable	Performance of DMBs	Return on Assets (ROA)	- Assets Utilization Efficiency - Profitable relative to assets
		Return on Equity (ROE)	- Stakeholders value creation - Net income to equity capital
		Net Interest Margin (NIM)	- Interest involve interest expenses - Efficiency of core banking operations

Source: Oladipupo & Okafor, 2022, Enekwe etal, 2021, Afolabi/ 2020.

Model Specification

The study's model is built on the idea that financial performance is closely tied to profitability, and to measure performance using metrics that help to understand how effectively a bank manages its resources and generates profits. Thus, the functional model becomes:

$$ROA = f\,(LQR, LR) \quad \ldots\ldots 1$$

$$ROE = f\,(LQR, LR) \quad \ldots\ldots 2$$

$$NIM = f\,(LQR, LR) \quad \ldots\ldots 3$$

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \sum_{it}$$

$$ROA_{it} = \beta_0 + \beta_1 LDR_{it} + \beta_2 LR_{it} + \sum_{it}$$

$$ROE_{it} = \beta_0 + \beta_1 LDR_{it} + \beta_2 LR_{it} + \sum_{it}$$

$$NIM_{it} = \beta_0 + \beta_1 LDR_{it} + \beta_2 LR_{it} + \sum_{it}$$

Where;

$\beta_0 =$ intercept

$\beta_1 - \beta_2$ = coefficient parameters

i= 1

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t = time

∑ = summation

e=error term

Yit = Dependent variable of the model

Xit = independent variable of the model

ROA_{it} = Return on assets for bank I at time t

ROE_{it} = Return on equity for bank I at time t

NIM_{it} = Net interest margin for bank I at time t

LDR_{it} = Loan to deposit ratio for bank I at time t

LR_{it} = Liquidity ratio for bank I at time t.

RESULTS AND DISCUSSION

Data Presentation and Analysis

Hypothesis Testing

This section offers the results from testing the hypotheses to confirm if effective liquidity management has a substantial impact on the banks' overall performance.

Effect of Liquidity Management on the Financial Performance (ROA) of DMBs

$H0_1$: Liquidity Management has no significant effect on the ROA of the DMBs in Nigeria.

To understand how liquidity management impacts financial performance, the collected data were analysed using panel least squares regression analysis, and the results of this analysis are summarized in Table 1.

Table 2. Model Summary of the Effect of Liquidity Management on the ROA

Variables	Coefficients	Std. Error	t-Values	p-values	Hypothesis Testing
(Constant)	1.676	2.487	0.674	0.505	
LR	0.016	0.015	1.041	0.306	**$H_{o1(1)}$**: Not Rejected
LDR	-0.001	0.027	-0.035	0.972	**$Ho_{1(2)}$**: Not Rejected
R^2	0.037				
Adjust. R^2	-0.023				
F-Stats	0.622		0.543		

Source: Computed using EViews 10 from Secondary Data, 2023.

NB: LR = Liquidity Ratio, LDR = Loan to Deposit Ratio, ROA = Return on Asset

Table 4.1 reveals the Panel Lease Squares, which specifies that the R-Squared 0.37 further the model's Liquidity Ratio (LR) and Loan to Deposit Ratio (LDR) account for 37% of its explanation, and meanwhile, 63% of the variations are due to factors not included in the model. Additionally, the DW statistic of 1.624 suggests the absence of autocorrelation. However, the Analysis of Variance (ANOVA) results, which assess model fits the data, are not statistically significant (F = 0.622, P > 0.05). This means that the variables in the model

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do not collectively predict Return on Assets (ROA), and as a result, we conclude that liquidity management fails to significantly impact the ROA of DMBs in Nigeria.

Impact of Liquidity Ratio on ROA

$H0_{1\,(1)}$: Liquidity Ratio has no significant effect on Return on Assets of DMBs in Nigeria.

The hypothesis explores the link between the LR and ROA. According to the regression results in Table 4.1, the positive coefficient for LR is not statistically significant at the 5 percent level (β = 0.016, t = 1.041, p = 0.306). This indicates that while a unit rise in LR might increase ROA by 0.016 units, the effect lacks significance. Consequently, the hypothesis, which states that the Liquidity Ratio does not significantly affect the ROA of DMBs in Nigeria, remains valid.

Impact of Loan to Debt Ratio on ROA

$H0_{1\,(2)}$: Loan-to-Debt Ratio has no significant impact on Return on Assets of DMBs in Nigeria.

This hypothesis predicts the impact of LDR on ROA. The results of the panel regression coefficient of the model show that LDR is negative but not statistically significant (β = -0.001, t = -0.035, p = 0.972). These coefficients show that when there is an increase in LDR, the ROA is expected to decrease by 0.001 unit. The findings indicate a negative correlation that lacks statistical significance ($p < 0.05$), suggesting that the LDR does not substantially influence the Return on Assets of Deposit Money Banks in Nigeria.

Effect of Liquidity Management on the Financial Performance (ROE) of DMBs

$H0_2$: Liquidity Management has no significant effect on the ROE of the DMBs in Nigeria.

To assess how liquidity management influences Return on Equity (ROE), the collected data were analysed using panel least squares regression analysis, and the findings from this analysis are presented in Table 2.

Table 3. Model Summary of the Effect of Liquidity Management on the ROE

Variables	Coefficients	Std. Error	t-Values	p-values	Hypothesis Testing
(Constant)	-0.719645	7.486630	-0.096124	0.9240	
LR	0.145244	0.046634	3.114548	0.0039	**$Ho_{2(1)}$**: Rejected
LDR	0.011861	0.082012	0.144622	0.8859	**$Ho_{2(2)}$**: Not Rejected
R^2	0.249				
Adjust. R^2	0.202				
F-Stats	5.291		0.010		
Durbin-Watson stat = 1.337					

Source: Computed using EViews 10 from Secondary Data, 2023.

NB: LR = Liquidity Ratio, LDR = Loan to Deposit Ratio, ROE = Return on Equity

Table 4.2 reveals the Panel Lease Squares, which specifies that the R-Squared 0.24 suggests that 24% of the model has been captured by the variables in the model, that is, LR and LDR. The remaining 76% of the variation is described by factors outside the model, but the DW statistic of 1.337 reflects no autocorrelation in the model. The Analysis of Variance (ANOVA) results, which measure how well the model fits the data, are statistically significant (F = 5.291, $P < 0.05$). This means the variables in the model

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collectively predict ROE, and therefore, we conclude that liquidity management has a significant impact on the ROE of DMBs in Nigeria.

Impact of Liquidity Ratio on ROE

$H0_{2\,(1)}$: Liquidity Ratio has no significant effect on Return on Equity of DMBs in Nigeria.

This hypothesis investigates how the Liquidity Ratio (LR) affects ROE. The findings in Table 4.2 reveal that the LR coefficient is both positive and statistically significant at the 5% level ($\beta = 0.145$, $t = 3.115$, $p = 0.004$). This indicates that a 1% rise in the Liquidity Ratio is predicted to increase Return on Equity by 14.5%. Consequently, the alternative hypothesis, suggesting that the Liquidity Ratio significantly influences the ROE of DMBs in Nigeria, is supported.

Impact of Loan to Debt Ratio on ROE

$H0_{2\,(2)}$: Loan-to-Debt Ratio has no significant impact on Return of DMBs in Nigeria.

This hypothesis predicts the impact of LDR on ROA. The analysis of the panel regression model indicates a positive relationship between the LDR and ROE, with a coefficient of $\beta = 0.012$. However, this result is not statistically significant at the 5% level ($t = 0.145$, $p = 0.886$). While theoretically suggesting that an increase in LDR might yield a 1.2% rise in ROE, the lack of statistical significance implies that LDR does not substantially affect the ROE of deposit money banks in Nigeria.

Effect of Liquidity Management on the Financial Performance (NIM) of DMBs

$H0_3$: Liquidity Management has no significant effect on the Net Income Margin (NIM) of the DMBs in Nigeria.

To evaluate the impact of liquidity management on Net Interest Margin (NIM), PLRA was employed to assess the gathered data. The findings from this analysis are detailed in Table 3.

Table 4. Model Summary of the Effect of Liquidity Management on the NIM

Variables	Coefficients	Std. Error	t-Values	p-values	Hypothesis Testing
(Constant)	6.135	1.238	4.956	0.000	
LR	-0.032	0.008	4.173	0.000	**$Ho_{3(1)}$**: Rejected
LDR	0.015	0.014	1.092	0.283	**$Ho_{3(2)}$**: Not Rejected
R^2	0.431				
Adjust. R^2	0.396				
F-Stats	12.140		0.000		
Durbin-Watson stat = 0.787					

Source: Computed using EViews 10 from Secondary Data, 2023.

NB: LR = Liquidity Ratio, LDR = Loan to Deposit Ratio, NIM = Net Income Margin.

Table 4.3 reveals the Panel Lease Squares, and the R-Squared value of 0.431 indicates that 43.1% of the variation in the model is explained by the included variables, specifically the LR and LDR. Meanwhile, 56.9% of the variation is attributed to factors not captured by the model. The Durbin-Watson statistic of 0.787 demonstrates a lack of autocorrelation in the data, and additionally, the Analysis of Variance (ANOVA) results, which assess the model's goodness of fit, are statistically sig ($F = 12.140$, $P < 0.05$). This implies that the variables effectively predict the Net Income Margin (NIM) together. Consequently, we can

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conclude that liquidity management significantly impacts the Net Income Margin of DMBs in Nigeria.

Impact of Liquidity Ratio on NIM

$H0_{2\ (1)}$: Liquidity Ratio has no significant effect on Net Income Margin of DMBs in Nigeria.

This study explores the connection between the LR and the NIM. As shown by the RA in Table 4.3, the LR coefficient is negative and statistically significant at the 5% level (β = -0.032, t = 4.173, p = 0.000). This indicates that a 1% rise in the Liquidity Ratio is associated with a 3.2% decline in the Net Interest Margin. Consequently, the alternative hypothesis that the Liquidity Ratio significantly influences the NIM of DMBs in Nigeria is confirmed.

Impact of Loan to Debt Ratio on NIM

$H0_{2\ (2)}$: Loan-to-Debt Ratio has no significant impact on Net Income Margin of DMBs in Nigeria.

The hypothesis predicts the link of LDR with NIM, and the panel regression results show that LDR positively but does not have a significant effect at the 5% level (β = 0.015, t = 1.092, p = 0.283). This suggests that a rise in LDR could lead to a 1.5% increase in NIM, but this effect is not strong enough to be considered meaningful and this result is positively signed but not statistically significant ($p > 0.05$) indicating that we maintain the hypothesis, which specifies that Loan to Debt Ration has no significant impact on Net Income Margin of DMBs in Nigeria.

Granger Causality Test of the Loan to Debt Ratio on ROE

The Granger causality examines the interrelated causality between the dependent and independent variables.

Table 5. Granger Causality Test Results

Null Hypothesis:	Obs	F-Statistic	Prob.	Nature of causality
LR does not Granger-cause LDR	50	3.34701	0.0441	Unidirectional
LDR does not Granger-cause LR		1.14897	0.3261	
NIM does not Granger-cause LDR	50	0.99485	0.3778	No causality
LDR does not Granger-cause NIM		2.04890	0.1407	
ROA does not Granger-cause LDR	50	0.41053	0.6658	Unidirectional
LDR does not Granger-cause ROA		3.34916	0.0441	
ROE does not Granger-cause LDR	50	1.21071	0.3075	Unidirectional
LDR does not Granger-cause ROE		3.63148	0.0345	
NIM does not Granger-cause LR	50	1.11009	0.3384	Unidirectional
LR does not Granger-cause NIM		3.38022	0.0429	
ROA does not Granger-cause LR	50	0.10952	0.8965	No causality
LR does not Granger-cause ROA		0.02101	0.9792	
ROE does not Granger-cause LR	50	2.43098	0.0994	No causality
LR does not Granger-cause ROE		0.03431	0.9663	
ROA does not Granger-cause NIM	50	0.84126	0.4378	No causality

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NIM does not Granger-cause ROA		0.58717	0.5601	
ROE does not Granger-cause NIM	50	0.09122	0.9130	No causality
NIM does not Granger-cause ROE		0.11931	0.8878	
ROE does not Granger-cause ROA	50	0.52072	0.5976	No causality
ROA does not Granger-cause ROE		0.00449	0.9955	

Authors' Computation using EViews 2023

The Granger causality test results in Table 4.4 revealed that the LR Granger causes the loan on deposit ratio (LDR) at 5% level of significance, while the loan on deposit ratio (LDR) does not granger causes liquidity ratio (LR) at 5% level of significance. Thus, there is a one-way causality running from liquidity ratio (LR) to loan on deposit ratio (LDR). Net interest margin (NIM) does not Granger-cause loan on deposit ratio (LDR) at 5% level of significance, and loan on deposit ratio (LDR) does not Granger-cause net interest margin (NIM) at 5 percent level of significance. Return on asset (ROA) does not Granger-cause causes loan on deposit ratio (LDR) at 5% level of significance, but the Loan on Deposit Ratio (LDR) Granger-causes the Return on Asset (ROA) at 5% level of significance. The analysis shows a one-way relationship where the LDR influences Return on Assets (ROA). Similarly, ROE does not influence LDR at the 5% significance level, but LDR does influence ROE at this level, indicating another one-way relationship from LDR to ROE. Additionally, Net Interest Margin (NIM) does not influence the Liquidity Ratio (LR), but LR does influence NIM at the 5% significance level, suggesting a one-way relationship from LR to NIM. However, the results also show no causal relationship between ROA and LR, ROE and LR, ROA and NIM, ROE and NIM, or between ROE and ROA at the 5% significance level.

Summary of Findings

The analysis using Panel Least Squares for RROA indicates that while the Liquidity (LR) has a positive impact, it is not statistically significant at the 5% percent level. Similarly, the LLDR shows a negative effect but is also statistically not significant at the same level. Overall, these results suggest that effective liquidity management positively influences the ROA of DMBs.

In examining the Return on Equity (ROE) through Panel Least Squares, the Liquidity Ratio (LR) demonstrates a significant positive correlation at the 5% significance level, where a 1% increase in the Liquidity Ratio is associated with a 14% growth in ROE. Although the Loan to Deposit Ratio (LDR) also has a positive effect, it does not reach statistical significance at the 5% level. The findings underscore that effective liquidity management is vital for improving the ROE of DMBs.

The Panel Least Squares analysis reveals a negative and statistically substantial link between the LLR and the NNIM at the 5% significance level, suggesting that a 1% rise in the Liquidity Ratio might reduce the NIM by 3%. Conversely, while the LDR positively influences NIM, its impact is not statistically significant at this level. These results imply that effective liquidity management can positively affect the NIM of DMBs.

The Granger causality tests indicate that the LLR predicts changes in the LLDR at the 5% significance level, while the reverse is not true, showing a unidirectional causality from LR to LDR. Similarly, the LLDR predicts changes in RROA and RROE at the 5% significance level, but these do not affect LDR, illustrating a one-way causality from LDR to both ROA and ROE. Additionally, while the Liquidity Ratio (LR) forecasts changes in the Net Interest Margin (NIM) at the 5% level, NIM does not predict changes in LR, indicating a one-way causality from LR to NIM. The results further revealed that there is

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no causal relationship between ROA and LLR; RROE and LLR; RROA and NNIM; return on equity (ROE) and NNIM, and between return on ROE and ROA at 5% level of significance.

Discussions of Major Findings

The research indicates that LM has no notable effect on the ROA for DMBs in Nigeria. Nevertheless, Soyebi identified a meaningful connection between the liquid assets of commercial banks and their performance. Other studies, such as those by Olongo, Wanjohi, and Kavale [20], furthermore, there is evidence indicating a direct correlation between the practices of LM and the financial outcomes of a company [21]. These findings contrast with Patrick, who argued that liquidity management. The implementation of LM does not have a substantial impact on the economic outcomes of insurance firms, emphasizing equity management instead [22]. Similarly, Mishra and Pradhan concluded that excessive liquidity negatively impacts profitability, as measured by ROA, because banks hold onto funds rather than investing them to generate profits [23]. Olongo pointed out a favourable link between ROA and management of liquidity [24], whereas Molefe and Muzindutsi, along with Vintila and Nenu, observed an inverse connection between liquidity and ROA [25].

The study also confirmed that the Liquidity Ratio does not have a substantial impact on RROE. This finding contradicts Mishra and Pradhan, who found that the relationship between ROE and liquidity measures in Indian commercial banks is not significant [26]. Earlier studies by Al Nimer, Warrad, and Al Omari [27] and Saleem & Rehman [28] also concluded that the liquidity ratio has an insignificant impact on ROE, while additionally, this study established that LDR) does not significantly affect ROE in Nigerian DMBs, aligning with Edem (2017), who noted a weak negative relationship between ROE and LDR.

Therefore, one can posit that liquidity is not a strong determinant of conventional bank profitability. However, the reverse is observed where profitability is significantly driven by liquidity in Islamic banks. The findings of this study are in line with the submission of Rana Hossain & Rekha, were Islamic banks were found to fared better than conventional banks in terms of profitability and liquidity [29]. The findings of this study are also found to be in line with studies of Suresh and Bardastani, and Saifullah, were Islamic bank liquidity was found to rank higher than conventional banks [30], [31].

Finally, the study concluded that liquidity management significantly impacts the Net Income Margin (NIM) of DMBs in Nigeria, a finding consistent with the research by Waleed, Pasha, and Akhtar [32].

Islamic Perspectives on Liquidity Management

Issues in Islamic Liquidity Management

Instruments Recognizing potential problems and inefficiency arising from liquidity issues, Islamic financial institutions have evolved and started to develop liquidity management tools to be traded among Islamic banks. These liquidity instruments and infrastructures are bound to some issues and challenges.

Commodity Murabahah

Commodity *murabahah* is one of the most used instruments to manage liquidity risk, particularly in the Gulf region [33]. Malaysia has also initiated Bursa Suq Al-Sila, an international electronic commodity trading platform to facilitate commodity *murabahah*. The banks with surplus liquidity use commodity *murabahah* to earn some return from the excess cash that they have by buying a commodity on a spot payment from a party in the commodity market, then selling it to another party on a deferred payment basis with the same markup price. While the banks with a shortage of liquidity can purchase commodities

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from a party in the commodity market on deferred payment with a markup price, then sell them to a third party on a spot payment at market price. This transaction is also known as *tawarruq*.

The use of commodity *murabahah* is not without controversy. The *Tawarruq* contract has long been a debatable issue among scholars on its permissibility [34]. After the similar contract (bay al-inah) has been deemed non-permissible, Islamic finance has evolved it to tawarruq by involving a third party in the equation. However, many believe that the ultimate consequence of the transaction is the same as bay al-nah, and it is merely a *hilah* or ploy to legitimize *riba* [35]. Not only that, commodity *murabahah* does not tie its transaction with any real economic value, as the commodities traded are not used for production or consumption [36]. The commodity is not even physically moved from one storage to another as the whole transactions are done electronically. Furthermore, according to Ali, the use of commodity *murabahah* has transformed from a liquidity management tool into a source of funds. If this is done on a large scale, the missing link between financial and real economic sectors can lead to systematic risk [37].

Another problem arising from commodity *murabahah* is the inability to trade in the secondary market. Once the commodity is sold or bought on a deferred payment basis, it becomes debt, which is not allowed to be sold unless at par value. Although scholars have different views on the permissibility of *bay al-dayn* or sale of debt at discount to a third party, Hanafi's, Shafi'i's (some), Hanbali's, and Zahiri's scholars think that selling it for a lesser value is similar to *riba* as the value of the payment is tied to the time [38]. This inability to be sold in the secondary market makes commodity *murabahah* a less favorable option as a liquidity tool. The nature of liquidity management itself will require the instrument to be easily bought and sold on the secondary market to balance the liquidity position of the bank.

Interbank Deposit Placement

Interbank deposit placement based on *mudhārabah* or *wakalah* is a recourse for Islamic Banks to place their excess liquidity [39]. However, this will only be possible for countries with many Islamic banks exist in the market, or else they would have no partner for the deposit placement. The interbank deposit placement is, however, not a preferred means for Islamic banks to manage their liquidity.

First, the deposit placed in other banks does not meet the criteria of HQLA. To meet the liquidity coverage ratio set by Basel III, placing liquidity excess in HQLA assets is important. Since the Islamic banks where the fund is put also face liquidity problems, interbank deposits are also subject to counterparty risk, where the other party (other Islamic banks) cannot meet the obligation when it is due.

Another significant problem with interbank deposit placement is the fact that a bank's liquidity position tends to move similarly, especially during a significant macroeconomic event. For example, during a recession, most banks will be short of liquidity, and the interbank deposit will automatically disappear since banks do not have the excess funds to be deposited.

Islamic Interbank Money Market

Malaysia has pioneered the very first move in the formation of the Islamic Interbank Money Market (IIMM) in the year 1994. IIMM acts as an intermediary between the surplus and deficit banks to channel their fund to maintain the liquidity position. IMM has a total of twelve interbank investment and financial instruments with different underlying contracts and maturities (from overnight up to one-year placement). Since the money market integrates the banking system and capital market, it also acts as a channel for monetary policy. Although having an Islamic interbank money market is a big step forward,

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there are some issues and challenges faced by IIMM. The first latent problem that arises is the usage of the conventional interest rate as a benchmark yield. Further, according to Bacha, in a dual banking system, Islamic banks that issue IIMM instruments will face higher costs when the interest rate rises [40]. However, when the interest rate declines, the investors who hold IIMM instruments will suffer a lower return than those who hold conventional money market instruments.

Towards an Enhanced Liquidity Management in Islamic Banking

In pursuance of better liquidity management, Islamic banks have to redefine how they do business and operate their asset and liabilities. As mentioned earlier in this paper, an ideal Islamic bank that practices a profit and loss sharing contract in the business will not suffer from liquidity risk. Thus, imposing the usage of PLS contracts in both funding and financing will minimize the mismatch maturity between the two sides of the balance sheet. The cash inflow and outflow of assets and liabilities will move simultaneously as both parties share the risk of the project. The bank will only act as an intermediary without guaranteeing payment from depositors.

Islamic banks can also apply maturity matching strategies between their asset and liabilities. This could be done by channelling short-term funds to finance short-term projects, while long-term funds can be used to finance long-term projects. This strategy would allow Islamic banks to match the cash flow timing between their depositors and borrowers. It is also important to institutionalize liquidity risk governance in the banking structure to oversee liquidity position and take appropriate measures when needed. This could be done by having a special committee for liquidity management supported by a Sharia committee to oversee the Sharia compliance of liquidity management instruments that the bank uses. Another important action to be taken is enacting Basel III requirements in banking policy, following the United Kingdom, the United States, and the European Union. Since Basel III is a policy recommendation, its execution is not binding. Only if the central banks enact it in the banking policy, it becomes an enforceable law and force all banks to meet the standards [41].

The Islamic finance industry needs to keep its focus on the development of sharia-compliant liquidity management instruments. This is done to introduce a wide range of instruments regarding the maturities, features, and contracts. Having an extensive diversity of instruments will allow Islamic banks to choose the best instruments to meet their unique liquidity needs. Not only issuing a wide variety of instruments, but promoting an active secondary market is equally essential. To foster the activity in the secondary market, all stakeholders have to take part. Having an efficient, transparent, and trustworthy secondary market will attract a wide pool of players, which can facilitate the liquidity needs of Islamic banks.

The central bank should also play its role in this issue. For countries with little to no liquidity instruments available, the central bank should be able to be the last resort lender should the Islamic bank face liquidity problems. An interest-free instrument should be made available as a final recourse for Islamic banks. Not only that, it would also be an advantage for Islamic banks if Central banks hold certain eligible *sukuk* or other instruments as a part of the statutory reserve requirement of Islamic banks. This would allow Islamic banks to gain some earnings from the idle cash of the reserve management [41].

To achieve a more stable and robust global Islamic financial industry, we need to reinforce the global cooperation among Muslim countries. Among real actions that can be taken are as follows. First, having a global Sharia board issuing a fatwa that binds all Muslim countries will smooth the cooperation and cross-border trading of liquidity instruments. Although we already have the AAOIFI Sharia standard, it is not an international fatwa that is accepted by all Muslim countries in conducting their Islamic

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finance practices. In reality, each country issues a different fatwa, which makes it difficult to create cross-border initiatives. Second, there is a need for standardization of regulatory, pricing benchmark, and tax framework. By having a standardized practice of these, it would make it easier for transactions among jurisdictions. It will also enhance the competitiveness of the Islamic financial industry, which will attract players from outside the industry as well. Lastly, to cultivate an international interbank money market among Islamic banks, the restrictions on capital movement between Muslim countries should be removed [41].

In-Depth Analysis

The empirical evidence from this study offers significant insights into the complex relationship between liquidity management and the financial performance of Deposit Money Banks (DMBs) in Nigeria. The results reveal that the liquidity ratio (LR) has a dual impact: while it positively and significantly affects Return on Equity (ROE), it negatively influences Net Interest Margin (NIM). This duality illustrates the classic liquidity–profitability trade-off in banking operations, where maintaining high liquidity ensures solvency and stability but may simultaneously reduce earnings derived from interest-bearing assets. The finding that a 1% increase in LR leads to a 14% rise in ROE underscores the importance of maintaining adequate liquid assets to build investor confidence and sustain long-term profitability. In contrast, the negative and significant relationship between LR and NIM indicates that excessive liquidity can lead to underutilized resources, limiting income generation from lending activities. This observation aligns with the view that liquidity hoarding, though protective, may erode the efficiency of asset allocation. The Loan-to-Deposit Ratio (LDR), although statistically insignificant in some models, exhibits a unidirectional causality toward both Return on Assets (ROA) and ROE, implying that prudent credit creation remains a critical pathway through which liquidity policy shapes profitability.

The Granger causality results further reinforce the causal chain linking liquidity management to bank performance. The unidirectional flow from LR to NIM and from LDR to profitability measures highlights how liquidity shocks and lending decisions propagate through the banking system, influencing returns and risk exposure. These outcomes also expose structural weaknesses in Nigerian DMBs, such as dependence on short-term deposits and vulnerability to liquidity mismatches. From a policy standpoint, the findings suggest that Nigerian banks must pursue a balanced liquidity framework that aligns regulatory compliance with profitability optimization. Strengthening asset-liability management, diversifying funding sources, and integrating Islamic liquidity instruments such as Commodity Murabahah and Wakalah placements could provide more resilient liquidity buffers. Ultimately, effective liquidity management should not only secure solvency but also enhance financial intermediation, ensuring sustainable banking performance in Nigeria's volatile macroeconomic environment.

CONCLUSION

This study examined the impact of liquidity management on the performance of Deposit Money Banks (DMBs) using key financial indicators such as the Liquidity Ratio (LR), Loan to Deposit Ratio (LDR), Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin (NIM). The empirical results reveal important insights into how liquidity management influences profitability and operational efficiency in the banking sector. The findings indicate that the Liquidity Ratio (LR) has a positive and statistically significant effect on Return on Equity (ROE) at the 5% level. This suggests that effective liquidity management enhances shareholder value by enabling banks to meet short-term obligations while maintaining operational stability. Specifically, a 1% increase in the liquidity ratio corresponds to a 14% rise in the return on equity, emphasizing that maintaining adequate

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liquidity strengthens investors' confidence and supports sustainable profit growth. Conversely, the Liquidity Ratio (LR) exhibits a negative and significant relationship with Net Interest Margin (NIM), implying that higher liquidity levels can constrain the bank's ability to generate interest income. A 1% increase in LR reduces NIM by 0.3%, indicating that excessive liquidity may result in underutilized funds, thereby lowering interest-related profitability. This outcome underscores the delicate balance banks must maintain between liquidity sufficiency and profitability maximization. Furthermore, the Granger causality test results demonstrate a unidirectional causality from the Loan to Deposit Ratio (LDR) to both Return on Assets (ROA) and Return on Equity (ROE), confirming that efficient fund utilization and optimal credit management directly enhance bank performance. Similarly, there is a unidirectional causality running from the Liquidity Ratio (LR) to the Net Interest Margin (NIM), indicating that changes in liquidity conditions significantly influence the bank's core earning capacity. In summary, this study concludes that sound liquidity management is crucial for improving the financial performance of DMBs. Banks should maintain an optimal level of liquidity that supports operational stability without sacrificing profitability. Policymakers and financial managers are therefore encouraged to develop strategies that balance liquidity adequacy with profit generation to ensure sustainable banking growth and resilience in a dynamic financial environment.

Acknowledgments

We would like to thank all Persons who have assisted in the course of writing this research, including the anonymous reviewers, for providing valuable input on this paper.

Author Contribution

Hussein A. B. Sani: Conceptualization, Methodology, Writing – Review & Editing, Article administration. Aroyehun, Hafsat Odunola: Methodology, Writing – review & editing, Investigation.

Conflicts of Interest

All authors declare no conflict of interest.

REFERENCES

[1] M. Saint Marc, R. Goldsmith, and M. Saint Marc, *Financial Structure and Development*, vol. 21, no. 3. New Haven: Yale University Press, 1970. https://doi.org/10.2307/3499896.

[2] L. Ufot, *The Nigerian Financial System and the Role of the Central Bank of Nigeria*. Lagos: CBN Training Centre, 2004.

[3] Eugene Okoth, *The Effect of Liquidity Management on the Profitability of Deposit Taking Financial Institutions in Kenya*. School of Business, KCA University, 2017.

[4] K. M. Ayu, "Financial development and economic growth: Evidence from panel cointegration," *Int. J. Appl. Bus. Econ. Res.*, vol. 14, no. 5, pp. 3369–3396, 2016.

[5] O. M. Olarewaju and O. K. Adeyemi, "Causal Relationship between Liquidity and Profitability of Nigerian Deposit Money Banks," *Int. J. Acad. Res. Accounting, Financ. Manag. Sci.*, vol. 5, no. 2, pp. 165–171, 2015, https://doi.org/10.6007/ijarafms/v5-i2/1692.

[6] I. Sobol, "Liquidity Management Practices in Islamic Banking," *Zarządzanie i Finans*, vol. 11, no. 2, pp. 566–576, 2013, [Online]. Available: https://repozytorium.bg.ug.edu.pl

[7] A. K. Kashyap, R. Rajan, and J. C. Stein, "Banks as liquidity providers: An explanation for the coexistence of lending and deposit-taking," *J. Finance*, vol. 57, no. 1, pp. 33–73, 2002, https://doi.org/10.1111/1540-6261.00415.

[8] J. Muranaga and M. Ohsawa, "Measurement of liquidity risk in the context of market risk calculation," … *The Measurement of Aggregate Market Risk*. Institute for Monetary and Economic Studies, Bank of Japan, Tokyo, pp. 193–214, 1997. [Online]. Available: http://www.bis.org/publ/ecsc07j.pdf

Copyright © 2025 Authors

[9] O. Olaleye, M. Adesina, and S. Yusuf, "Effect of Liquidity Management on Profitability of Commercial Banks in Nigeria," *Am. J. Financ.*, vol. 6, no. 2, pp. 25–34, 2021, https://doi.org/10.47672/ajf.859.

[10] Eze Emmanuel and Agu Stephen, "Liquidity Management and Performance of Deposit Money Banks in Nigeria," *EPRA Int. J. Multidiscip. Res.*, vol. 12, no. 1, pp. 358–367, 2020, https://doi.org/10.36713/epra3138.

[11] I. E. Joseph and O. Adelegan, "Liquidity Management and Financial Performance of Deposit Money Banks in Nigeria," *SSRN Electron. J.*, vol. 1, no. 1, pp. 24–32, 2023, https://doi.org/10.2139/ssrn.4349839.

[12] C. R. Sathyamoorthi, M. Mapharing, and M. Dzimiri, "Liquidity Management and Financial Performance: Evidence From Commercial Banks in Botswana," *Int. J. Financ. Res.*, vol. 11, no. 5, pp. 399–413, 2020, https://doi.org/10.5430/ijfr.v11n5p399.

[13] A. O. Agbada And C. Osuji, "The Efficacy of Liquidity Management and Banking Performance in Nigeria," *Int. Rev. Manag. Bus. Res.*, vol. 2, no. 1, pp. 223–233, 2013.

[14] P. P. Athanasoglou, S. N. Brissimis, and M. D. Delis, "Bank-specific, industry-specific and macroeconomic determinants of bank profitability," *J. Int. Financ. Mark. Institutions Money*, vol. 18, no. 2, pp. 121–136, 2008, https://doi.org/10.1016/j.intfin.2006.07.001.

[15] D. Farai Don, "The Impact of Liquidity Management on Bank Financial Performance in a Subdued Economic Environment: A Case of the Zimbabwean Banking Industry," *J. Bank. Financ. Manag.*, vol. 2, no. 4, pp. 16–27, 2019, https://doi.org/10.22259/2642-9144.0204003.

[16] A. O. Otekunrin, G. D. Fagboro, T. I. Nwanji, F. F. Asamu, B. O. Ajiboye, and A. J. Falaye, "Performance of deposit money banks and liquidity management in Nigeria," *Banks Bank Syst.*, vol. 14, no. 3, pp. 152–161, 2019, https://doi.org/10.21511/bbs.14(3).2019.13.

[17] I. Alhassan and K. M. Anwarul-Islam, "Liquidity Management and Financial Performance of Listed Oil and Gas Companies in Nigeria," *Int. J. Account. Financ. Rev.*, vol. 8, no. 1, pp. 15–25, 2021, https://doi.org/10.46281/ijafr.v8i1.1364.

[18] E. Nwolisa, O. Obi-Nwosu, madubuko Ubesie, and A. Mbanefo, "Effect of Treasury Single Account (Tsa) on Nigerian Banks' Performance," *Int. J. Adv. Acad. Res.*, vol. 15, pp. 18–29, 2020, https://doi.org/10.46654/ij.24889849.s6616.

[19] U. O. Chinweoda, U. R. Onuora, E. M. Ikechukwu, A. C. Ikechukwu, and O. A. Ngozika, "Effect of Liquidity Management on the Performance of Deposit Money Banks in Nigeria," *J. Soc. Sci. Res.*, vol. 10, no. 63, pp. 300–308, 2020, https://doi.org/10.32861/jssr.63.300.308.

[20] N. Noori, "The Effects of Financial Risks Management on Financial Performance of Commercial Banks in Malaysia," University of Nairobi, 2021.

[21] A. K. Përvetica and S. Ahmeti, *The Effect of Financial Risk Management on the Financial Performance of Commercial Banks in Western Balkans Before and During Covid-19*, vol. 32, no. 7. University of Nairobi, 2023.

[22] O. A. Azeez, "Impact of Liquidity Management on Profitability of Selected Companies in Nigeria," *J. Econ. Manag. Res.*, vol. 9, no. 1, pp. 1–5, 2020, https://doi.org/10.47363/jesmr/2020(1)112.

[23] S. Mishra and B. B. Pradhan, "Impact of liquidity management on profitability: An Empirical analysis in Private Sector Banks of India," *Espacios*, vol. 40, no. 30, 2019.

[24] I. Abdeljawad, M. Rashid, M. A. Alia, R. Qushtom, M. A. Irshaid, and A. Sahyouni, "Cushion hypothesis and credit risk: Islamic versus conventional banks from the MENA region," *PLoS One*, vol. 19, no. 7 July 2024, https://doi.org/10.1371/journal.pone.0306901.

[25] G. Vintilă and E. Alexandra Nenu, "Liquidity and Profitability Analysis on the Romanian Listed Companies," *J. East. Eur. Res. Bus. Econ.*, pp. 1–8, 2016, https://doi.org/10.5171/2016.161707.

[26] W. A. Sanyaolu, T. T. Siyanbola, and O. Innocent, "Corporate Governance and Liquidity Management: Evidence from Nigerian Deposit Money Banks," *Iran. Econ. Rev.*, vol. 25, no. 4, pp. 791–801, 2021, https://doi.org/10.22059/ier.2020.76110.

[27] M. Al Nimer, L. Warrad, and R. Al Omari, "The Impact of Liquidity on Jordanian Banks' Profitability through Return on Assets," *Eur. J. Bus. Manag. www.iiste.org ISSN*, vol. 7, no. 7, pp. 229–232, 2015, [Online]. Available: www.iiste.org

[28] Q. Saleem and R. U. Rehman, "Impacts of liquidity ratios on profitability," *Interdiscip. J. Res. Bus.*, vol. 1, no. 7, pp. 95–98, 2011.

Copyright © 2025 Authors

[29] S. Chandra, P. Probir, K. Bhowmik, M. Rakibul, I. Abdul, and K. Abdullah, "Profitability and Liquidity of Conventional Banking and Islamic Banking in Bangladesh : A Comparative Study," *Int. J. Appl. Res.*, vol. 5, no. 24, pp. 113–124, 2013.

[30] C. Suresh and M. Bardastani, "Financial Performance Of Selected Conventional And Islamic Banks In Kingdom Of Bahrain – A CAMEL Ranking Based Approach," *Eur. J. Econ. Law Polit.*, vol. 03, no. 01, pp. 23–59, 2016, https://doi.org/10.19044/elp.v3no1a2.

[31] M. Safiullah, "Superiority of Conventional Banks & Islamic Banks of Bangladesh: A Comparative Study," *Int. J. Econ. Financ.*, vol. 2, no. 3, pp. 199–207, 2010, https://doi.org/10.5539/ijef.v2n3p199.

[32] A. Waleed, A. T. Pasha, and A. Akhtar, "Exploring the impact of liquidity on profitability: Evidence from the banking sector of Pakistan," *J. Internet Bank. Commer.*, vol. 21, no. 3, 2016, https://doi.org/10.2139/ssrn.2899817.

[33] M. A. El-Gama, *Islamic finance: Law, economics, and practice*. Cambridge: Cambridge University Press, 2006. https://doi.org/10.1017/CBO9780511753756.

[34] S. Y. &Md H. Essia Ries Ahmed, "Shubuhat on Matter of Bai ' alinah and Tawarruq," I*nternational J. Bus. Technopreneurship*, vol. 2, no. October 2012, pp. 85–101, 2016.

[35] R. M. Azli, A. M. Noor, and M. A. Wahid, "A Review of Islamic Credit Card Using Bay' al-'inah and Tawarruq Instrument as Adopted by Some Malaysian Financial Institutions," *ICiF2010*, no. December 2006. pp. 1–21, 2010. http://www.maybank2u.com.my/iwovresources/islamicmy/document/my/en/islamic/scoe/knowledgecen

[36] Gholamreza Zandi, "Some issues on Murabahah practices in Iran and Malaysian Islamic banks," *African J. Bus. Manag.*, vol. 6, no. 24, pp. 7066–7073, 2012, https://doi.org/10.5897/ajbm11.2859.

[37] S. S. Ali, "State of Liquidity Management in Islamic Financial Institutions," *Islam. Econ. Stud.*, vol. 21, no. 1, pp. 63–98, 2013, https://doi.org/10.12816/0000240.

[38] H. Amin, "An Analysis of the Classical and Contemporary Juristic Opinions on Bay Al-Dayn," *Labu. e-Journal Muamalat Soc.*, vol. 1, pp. 29–40, 2007, https://doi.org/10.51200/ljms.vi.2994.

[39] L. G. Deidda and E. Panetti, "Bank recovery and resolution planning, liquidity management and fragility," *J. Financ. Stab.*, vol. 78, 2025, https://doi.org/10.1016/j.jfs.2025.101395.

[40] O. Ismath Bacha, "The Islamic inter-bank money market and a dual banking system: the Malaysian experience," *Int. J. Islam. Middle East. Financ. Manag.*, vol. 1, no. 3, pp. 210–226, 2008, https://doi.org/10.1108/17538390810901140.

[41] A. Mirakhor, N. Krichene, and M. Shaukat, "Unsustainability of the Regime of Interest-Based Debt Financing," *ISRA Int. J. Islam. Financ.*, vol. 4, no. 2, pp. 25–52, 2012, https://doi.org/10.55188/ijif.v4i2.145.

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