

## **Impact of Liquidity Ratios on Profitability of Commercial Banks in Sri Lanka**

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### **ABSTRACT**

The ultimate goal of a bank is to enhance the wealth of the shareholders. In order to achieve that objective, the concepts of liquidity and profitability play a crucial role. Especially, the liquidity and its management are influence the growth and profitability of a bank to a greater extent. As financial institutions play a crucial role in maintaining the economic stability and growth, understanding the relationship between liquidity and profitability is considered as essential for the implementation of effective management and regulatory practices. The study analyzes data from several commercial banks over the past decade, employing quantitative methods to assess how liquidity ratios such as the current ratio, quick ratio, cash ratio, loan to deposit ratio and cash and cash equivalents to deposit ratio affect the key profitability indicators such as Return on Assets (ROA) Return on Equity (ROE) and Net Interest Margin (NIM). The findings reveal a significant correlation between liquidity management and profitability, indicating that optimal liquidity levels enhance financial performance while excessive liquidity may lead to reduced returns. The study concludes with recommendations for improving liquidity management strategies in Sri Lanka's commercial banks which contributes to the broader discourse on financial stability and profitability in emerging markets.

**Keywords: Net Interest Margin, Return on Assets, Return on Equity**

### **1. INTRODUCTION**

Liquidity in the context of commercial banks refers to the ability of a bank to meet its short-term financial obligations and convert assets into cash quickly without any significant loss. It is a crucial aspect of a bank's financial health and stability. Liquidity is essential for a bank to handle day-to-day operations, meet withdrawal demands from depositors, and respond to unexpected funding needs. The definition of accounting liquidity is explained as "the ability of an organization to pay off matured short-term obligation within or less than one year." That is very much essential for the continued operation of the organization. When the liquidity ratio is greater than one (01) it seems natural for a company and when it is less than one (01) it considers that the firms do not have enough capital to pay off short-term liabilities. Liquidity management involves monitoring and adjusting the composition of a bank's assets and liabilities to ensure that it can promptly meet its financial obligations. If a bank faces a sudden increase in deposit withdrawals or other unforeseen events, having adequate liquidity ensures that the bank can continue its normal operations without resorting to fire sales of assets, which could lead to losses .Overall, liquidity is a critical aspect of a commercial bank's financial management, and banks use various tools and strategies to maintain an optimal balance between liquid and illiquid assets.

This study examines the relationship between liquidity and profitability in Sri Lankan commercial banks, emphasizing the importance of liquidity management for financial stability. Liquidity is defined as a bank's ability to meet short-term obligations, with key ratios including the Current Ratio, Loan-to-Deposit ratio, and Cash Ratio. Profitability is assessed through indicators such as Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin (NIM). The research aims to identify how various liquidity ratios impact profitability metrics, addressing ongoing liquidity challenges within the sector. The study's significance extends to academics, policymakers, and financial institutions, providing insights for better financial management, regulatory frameworks, and strategic planning. By focusing on the unique context of Sri Lankan banks, this research contributes to understanding the dynamics of liquidity and profitability in emerging markets

This research explores the relationship between liquidity ratios and profitability in commercial banks, highlighting the meanings and significance of these variables. Liquidity ratios, such as the current ratio, quick ratio, and cash ratio, are crucial for assessing a bank's ability to meet short-term obligations and manage operational risks. Research findings are mixed while Bhasin (2016) argues that higher liquidity correlates

positively with return on assets (ROA), (Ahmad et al., 2022) suggest that excessive liquidity may lead to inefficiencies. Emerging market studies, like those by Naceur and Omran (2011), underscore the need for localized research, as findings from developed markets may not apply to Sri Lanka.

## **2. LITERATURE REVIEW**

### **2.1 Theoretical Literature**

The research outlines several theories relevant to liquidity management such as Commercial Loan Theory, which emphasizes the risk assessment in lending, and Anticipated Income Theory, which focuses on future earnings potential as a guarantee for liquidity. The Shiftability Theory asserts that a bank maintains liquidity through marketable assets, while Liability Management Theory examines the way banks procure funds. These theories highlight the multifaceted nature of liquidity, but they lack a comprehensive framework that integrates all variables involved in the liquidity-profitability relationship.

### **2.2 Theoretical Gap**

The research identifies a gap in existing theories, noting the absence of a singular framework that encompasses all independent variables related to liquidity and profitability. This suggests the need for further exploration to establish a cohesive understanding of these dynamics in the banking sector.

### **2.3 Empirical Literature**

Profitability is typically measured using ROA, ROE, and Net Interest Margin (NIM). Various studies have indicated both positive and negative correlations between liquidity and profitability. This research also discusses various liquidity measures, such as the loan-to-deposit ratio and cash-to-deposit ratio, highlighting the conflicting views on their impact on profitability. Notably, a higher loan-to-deposit ratio might enhance profitability through increased interest income but could also lead to liquidity risks.

While the literature review provides a thorough review of both theoretical and empirical literature, it reveals several critical gaps. Mainly, the existing theories do not entirely capture the complexity of liquidity management in various contexts, particularly in emerging markets like Sri Lanka. Additionally, the mixed empirical findings underscore the need for more localized studies that consider unique regulatory and economic conditions. The reliance on traditional profitability metrics may also overlook other significant factors influencing bank performance. Ultimately, a more integrated approach that combines theoretical frameworks and empirical data is necessary to deepen understanding of the liquidity-profitability nexus in commercial banks. This literature review explores the relationship between liquidity ratios and profitability in commercial banks, highlighting key findings from both theoretical and empirical studies. Liquidity ratios, such as the Current Ratio, Loan-to-Deposit Ratio (LTDR), and Cash-to-Deposit ratio, are essential tools for assessing a bank's ability to meet its short-term obligations and manage operational risks. The review reveals mixed findings regarding the impact of liquidity on profitability. Some studies, like Bhasin (2016), suggest a positive correlation between higher liquidity ratios and profitability, particularly in terms of Return on Assets (ROA), as banks with sufficient liquidity can effectively capitalize on lending opportunities and mitigate financial shocks. However, other studies, such as (Ahmad et al., 2022), caution against excessively high liquidity ratios, arguing that they may reflect inefficiencies, as banks may hold excessive cash rather than invest in higher-yielding assets. This highlights the need for an optimal balance between liquidity and profitability.

The review also considers the role of number of macroeconomic factors, such as economic stability, inflation, and interest rates, in shaping the liquidity-profitability relationship. Al-Khouri (2011) found that banks tend to maintain higher liquidity during periods of economic instability, which may, however, negatively affect profitability. Furthermore, the regulatory environment plays a crucial role in influencing liquidity and profitability, as stringent liquidity requirements imposed by central banks can limit banks' ability to engage in profitable lending activities (Jabeen & Ahmed, 2019).

The theoretical literature outlines several frameworks for understanding liquidity management, including commercial loan theory, anticipated income theory, shiftability theory, and liability management theory. Each of these theories provide valuable insights into how banks manage liquidity, with a common theme being the importance of maintaining sufficient liquidity to meet short-term obligations while balancing profitability.

However, no single theory comprehensively addresses all the factors affecting liquidity and profitability, pointing to a theoretical gap that this research seeks to address.

Empirically, studies have utilized various profitability indicators, such as ROA, Return on Equity (ROE), and Net Interest Margin (NIM), to measure the financial performance of banks. ROA, in particular, has been widely used to assess how efficiently banks use their assets to generate profit. Studies such as Jeevarajasingam (2014) and Toutou & Xiaodong (2011) report a positive relationship between liquidity and ROA. Similarly, Nuriyeva (2014) found a negative impact of liquidity on both ROA and ROE in Azerbaijani banks. The review also discusses the complex relationship between liquidity and NIM, with studies indicating both positive and negative correlations, depending on the context.

Liquidity ratios, such as the Current Ratio, Loan to Deposit Ratio (LTDR), Deposit-to-Asset Ratio, and Liquid Asset Ratio, offer varying insights into a bank's financial health. While higher liquidity can provide safety and stability, it may also lead to opportunity costs, as banks forgo potentially higher returns from less liquid assets. The review identifies conflicting findings regarding the relationship between liquidity ratios and profitability, with some studies suggesting a positive impact, while others highlight the risks associated with excessive liquidity. This emphasizes the need for further research, particularly in emerging markets such as Sri Lanka, to better understand the nuances of liquidity management and its effect on profitability.

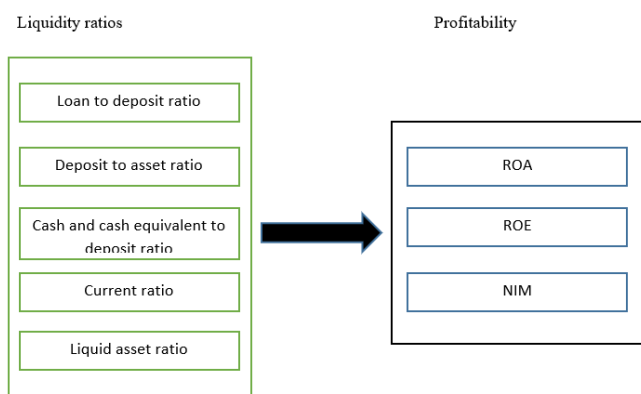
In conclusion, this review emphasizes the importance of liquidity management in determining the profitability of commercial banks, while also highlighting the complexity of the liquidity-profitability relationship. Further empirical research in Sri Lanka's unique economic and regulatory context is needed to deepen the understanding of how liquidity ratios influence bank profitability in emerging markets

### 3. MATERIALS AND METHODS

This study utilizes secondary data collected from the annual reports of ten commercial banks in Sri Lanka, which covers the period from 2014 to 2023. The research adopts a positivism paradigm and employs a quantitative methodology with a deductive approach aimed at hypothesis testing. A convenience sampling technique was used to select the banks from a population of 24. In order to assess the liquidity, five ratios were analyzed: Current Ratio, Quick Ratio, Loan to Deposit Ratio, Deposit to Asset Ratio, and Cash and Cash equivalents to Deposit Ratio. Profitability was measured using Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin (NIM). Multiple regression analysis was performed to examine the relationships between liquidity and profitability.

#### 3.1 Conceptual framework

Figure 01 Conceptual framework



According to the conceptual framework following hypotheses can be constructed;

H1: The loan to deposit ratio has a positive significant impact on ROA

H2: The loan to deposit ratio has a positive significant impact ROE

- H3: The loan to deposit ratio has a positive significant impact on NIM  
H4: The deposit to total asset ratio has a significant impact on ROA  
H5: The deposit to total asset ratio has a significant impact on ROE  
H6: The deposit to total asset ratio has a significant impact NIM  
H7: The cash and cash equivalent to deposit ratio has a significant impact on ROA  
H8: The cash and cash equivalent to deposit ratio has a significant impact on ROE  
H9: The cash and cash equivalent to deposit ratio has a significant impact on NIM  
H10: current ratio has a negative significant impact ROA  
H11: current ratio has a negative significant impact on ROE  
H12: current ratio has a negative significant impact on NIM  
H13: liquid asset ratio has a significant impact on ROA  
H14: liquid asset ratio has a significant impact ROE  
H15: liquid asset ratio has a significant impact on NIM

#### 4. RESULTS AND DISCUSSION

This section presents and analyzes data from annual reports of ten prominent Sri Lankan commercial banks over ten years. (Bank of Ceylon (BOC), People's Bank, Sampath Bank, Seylan Bank, National Development Bank (NDB), NTB, Cargills Bank, DFCC Bank, Union Bank and Hatton National Bank (HNB). Descriptive statistics reveal stable profitability metrics, with a mean Return on Assets (ROA) of 1.03% and Return on Equity (ROE) of 11.46%. Correlation analysis using Pearson's coefficient indicates strong relationships between liquidity ratios and profitability metrics, notably between ROA and ROE (0.87). Normality tests confirm that most datasets are normally distributed, except for the Cash to Deposit Ratio (CDR) and Quick Ratio (QR), necessitating further adjustments. Overall, effective liquidity management is essential for optimizing bank profitability

##### 4.1 Pearson's correlation coefficient

To analyze the correlation between independent and dependent variables, the Pearson's correlation coefficient was used. From this quantified the strength of the relationship between independent According to the Table 1 there was no relationship between Quick Ratio and profitability. Therefore, the quick ratio has been removed from further analysis.

Table 1. Covariance analysis

Covariance Analysis: Ordinary								
Date: 10/04/24 Time: 04:28								
Sample: 2014 2023								
Included observations: 100								
Correlation Probability	ROE	ROA	NIM	CDR	CR	DAR	LDR	QR
ROE	1.000000 ----							
ROA	0.869588 0.0000	1.000000 ----						
NIM	0.525983 0.0000	0.543836 0.0000	1.000000 ----					
CDR	-0.005371 0.9577	-0.006993 0.9450	0.421936 0.0000	1.000000 ----				
CR	0.429503 0.0000	0.595515 0.0000	0.430271 0.0000	0.110393 0.2742	1.000000 ----			
DAR	0.326731 0.0009	0.242401 0.0151	0.672875 0.0000	0.482512 0.0000	0.196544 0.0500	1.000000 ----		
LDR	-0.143267 0.1550	-0.174875 0.0818	-0.303305 0.0022	-0.313791 0.0015	-0.431693 0.0000	-0.262611 0.0083	1.000000 ----	
QR	0.109627 0.2776	0.068360 0.4992	0.136851 0.1746	0.005168 0.9593	0.094121 0.3516	0.042057 0.6778	-0.062888 0.5342	1.000000 ----

OLS method has been used to run the multiple regression model. Initially the regression model has been run under the random effect method and if the probability value is higher than the 0.05, the random effect method has been selected to run the regression model. If the probability value is less than the 0.05 the fixed method will be utilized.

Table 2. Data summarization

Dependent Variable	Variable	Coefficient	p-value	Significance	R square
ROA	Constant	-1.327	0.0020	Significant	0.882268
	LOG_CDR	-0.0437	0.1435	Not significant	
	CR	1.1443	0.0000	Significant	
	DAR	0.00997	0.0024	Significant	
	LDR	0.0042	0.1341	Not significant	
Dependent Variable	Variable	Coefficient	p-value	Significance	
ROE	Constant	3.4675	0.3635	Not Significant	0.896494
	LOG_CDR	-0.5415	0.0482	Significant	
	CR	6.4252	0.0000	Significant	
	DAR	0.0938	0.0018	Significant	
	LDR	-0.0646	0.0118	Significant	
Dependent Variable	Variable	Coefficient	p-value	Significance	
NIM	Constant	-1.4503	0.0886	Not Significant	0.768029
	LOG_CDR	0.0686	0.2880	Not significant	
	CR	0.9278	0.0000	Significant	
	DAR	0.0449	0.0000	Significant	
	LDR	0.0056	0.3320	Not significant	

Source: research output

### Return on Assets (ROA)

$$ROA = C + CR + \beta_2 \text{LAG\_CDR} + \beta_3 \text{LDR} + \beta_4 \text{DAR} + \epsilon$$

The results of the Hausman test and the subsequent panel regression analysis provide valuable insights into the relationship between various financial ratios and the dependent variable, Return on Assets (ROA), for the period 2014-2023. The Hausman test, with a probability value of 0.1327, suggests that the random effects model is appropriate for this analysis, as the probability exceeds the 0.05 threshold, meaning there is no significant difference between the random and fixed effects models.

The regression output reveals several key findings. The constant term is significantly negative, implying that without any independent variables, ROA would be negative. The Current Ratio (CR) shows a strong positive association with ROA, with a coefficient of 1.151 and a highly significant p-value ( $p < 0.001$ ). This indicates that better liquidity, represented by a higher current ratio, positively influences profitability. The Deposit-to-Assets Ratio (DAR) also has a positive and significant coefficient (0.0099,  $p = 0.0018$ ), suggesting that higher leverage is linked to improved ROA.

On the other hand, the Cash and Equivalent to Deposit Ratio (LOG\_CDR) has a negative but statistically insignificant coefficient (-0.0418,  $p = 0.1435$ ), indicating that it may not have a significant impact on ROA in

this context. The Loans-to-Deposit Ratio (LDR) has a marginally significant positive coefficient (0.0042p = 0.085), suggesting a potential relationship with ROA, though further investigation is needed.

The model explains approximately 88.22% of the variation in ROA, as indicated by the R-squared value, reflecting a good fit. However, the Durbin-Watson statistic (1.33) points to possible positive autocorrelation in the residuals, which could affect the model's accuracy. Overall, the results highlight the importance of liquidity and leverage on financial performance, while suggesting that the Cash-to-Deposit Ratio's impact requires further exploration.

### Return on Equity (ROE)

$$ROE = C + CR + \beta_2 LOG\_CDR + \beta_3 LDR + \beta_4 DAR + \epsilon$$

The results of the Panel Least Squares regression analysis for Return on Equity (ROE) from 2014 to 2023, using a balanced sample of 100 observations across 10 cross-sections, provide significant insights into the factors influencing ROE. The Hausman test, with a probability value of 0.0008, suggests that the fixed effects model is appropriate, as the probability is less than the 0.05 threshold, indicating a significant difference between the random and fixed effects models. Therefore, the researcher opted for the fixed effects model for the regression analysis. The model includes the constant term (C), Cash and Equivalent to Deposit Ratio (LOG\_CDR), Current Ratio (CR), Deposit-to-Assets Ratio (DAR), and Loans-to-Deposit Ratio (LDR).

The constant term, although included in the model, is not statistically significant with a p-value of 0.3635, suggesting that it does not contribute much to explaining variations in ROE. LOG\_CDR has a significant negative coefficient (-0.5415, p = 0.0482), indicating that a higher cash to deposit ratio is associated with lower ROE. This result may suggest inefficiencies in utilizing cash resources, as a higher cash reserve could imply missed opportunities for more productive investment or lending activities. In contrast, the Current Ratio (CR) demonstrates a strong positive relationship with ROE, with a coefficient of 6.4252 and a highly significant p-value (p < 0.001), which highlights the importance of liquidity in enhancing profitability. A higher Current Ratio, indicative of a company's ability to meet short-term liabilities, appears to significantly boost ROE, reflecting the positive impact of liquidity on financial performance. The Deposit-to-Assets Ratio (DAR) also shows a positive contribution to ROE, with a coefficient of 0.0938 and a significant p-value (p = 0.0018), suggesting that leveraging assets through increased deposits can enhance profitability. This suggests that higher leverage can be beneficial for improving ROE, as it allows the company to amplify returns. Conversely, the Loans-to-Deposit Ratio (LTDR) presents a negative and statistically significant coefficient (-0.0646, p = 0.0118), indicating that a higher reliance on loans relative to deposits may adversely affect ROE. This could imply that too much emphasis on loans as a source of income, relative to deposit-based funding, might increase risk and reduce profitability.

The model demonstrates strong explanatory power, with an R-squared value of 0.8965, suggesting that the independent variables account for approximately 89.6% of the variability in ROE. This reflects a robust fit for the data, indicating that liquidity, leverage, and cash management are essential factors in determining ROE. However, the Durbin-Watson statistic of 0.8572 raises concerns about potential positive autocorrelation in the residuals, which could indicate that the model's error terms are not independent, potentially affecting the reliability of the results. Despite this issue, the model's overall performance is strong, and the findings underscore the critical roles of liquidity, asset management, and the efficient use of financial resources in influencing ROE. Specifically, maintaining an optimal current ratio and managing leverage through deposits appears to be crucial for improving financial performance, while inefficiencies in cash management and an excessive reliance on loans may negatively affect profitability. These insights suggest that banks and financial institutions should carefully manage their liquidity and leverage strategies to maximize ROE and avoid inefficiencies related to cash holdings and excessive loan exposure.

### Net Interest Margin (NIM)

The regression analysis on Net Interest Margin (NIM) over the period from 2014 to 2023, based on a balanced panel of 100 observations across 10 cross-sections, provides valuable insights into the factors affecting NIM. The Hausman test result yielded a probability value of 0.4219, which is higher than the 0.05 significance threshold, indicating that the random effects model is appropriate for this analysis. The dependent variable in the model is NIM, and the independent variables include the constant term (C), Cash and Equivalent to Deposit Ratio (LOG\_CDR), Current Ratio (CR), Debt-to-Assets Ratio (DTAR), and Loans-to-Deposit Ratio (LTDR). The constant term is not statistically significant with a p-value of 0.089, implying its effect on NIM is marginal. LOG\_CDR has a positive but statistically insignificant coefficient (0.0686,  $p = 0.288$ ), indicating that the Cash to Deposit Ratio does not have a meaningful impact on NIM. However, CR shows a strong positive and statistically significant relationship with NIM (coefficient: 0.928,  $p < 0.001$ ), suggesting that improved liquidity significantly enhances NIM. DAR also exhibits a significant positive effect (coefficient: 0.0449,  $p < 0.001$ ), indicating that higher leverage contributes positively to NIM. Conversely, LDR has a positive but statistically insignificant coefficient (0.0056,  $p = 0.332$ ), suggesting it does not significantly influence NIM.

The model's R-squared value of 0.611 indicates that approximately 61.1% of the variability in NIM is explained by the independent variables, reflecting a moderate fit of the model to the data. The Durbin-Watson statistic of 1.124 suggests possible positive autocorrelation in the residuals, indicating that the errors are correlated, which could imply the need for model adjustments to address autocorrelation. Overall, these results emphasize that liquidity (as represented by the Current Ratio) and leverage (as reflected in the Debt-to-Assets Ratio) are critical factors in enhancing NIM, whereas cash management strategies (LOG\_CDR) and the Loans-to-Deposit Ratio (LDR) may require further exploration to understand their full impact on NIM. The findings point to the importance of improving liquidity and leverage management to enhance the financial performance of institutions in terms of NIM.

## 5. CONCLUSION

The analysis of Return on Equity (ROE) and Net Interest Margin (NIM) provides a comprehensive examination of the factors influencing bank profitability over the period from 2014 to 2023. The study, utilizing a balanced panel dataset of 100 observations across 10 cross-sections, explores the relationships between key financial ratios namely the Cash and Cash Equivalent to Deposit Ratio (LOG\_CDR), Current Ratio (CR), Deposit to Asset Ratio (DTAR), and Loans to Deposit Ratio (LTDR) and the performance metrics of ROA, ROE and NIM. The findings highlight the distinct roles that these ratios play in shaping the financial landscape of banks, offering critical insights for effective financial management and strategic decision-making. Starting with the analysis of ROE, the LOG\_CDR ratio, which measures the proportion of cash and equivalents relative to deposits, shows a significant negative impact on profitability with a coefficient of -0.541485 and a p-value of 0.0482. This suggests that banks holding higher levels of cash and equivalents, rather than deploying funds into higher-yielding investments or loans, tend to experience lower profitability. The negative correlation points to the opportunity cost of excessive liquidity, which underscores the need for banks to balance liquidity with profitability by effectively deploying resources into more productive assets. Conversely, the Current Ratio (CR) emerges as a strong positive determinant of ROE, with a coefficient of 6.425244 and a p-value less than 0.0001. A higher CR, indicating a bank's ability to meet short-term obligations using short-term assets, is associated with greater profitability. This reflects the importance of liquidity management, as a well-maintained current ratio boosts stakeholder confidence, improves credit ratings, and enhances overall profitability.

The study also finds that the Deposit to Asset Ratio (DTAR) has a positive impact on ROE, with a coefficient of 0.093836 and a p-value of 0.0018. This relationship suggests that banks with a larger proportion of deposits relative to total assets benefit from a stable and low-cost funding base, thereby improving profitability and reducing reliance on potentially riskier external financing sources. In contrast, the Loans to Deposit Ratio (LTDR) shows a negative relationship with ROE, with a coefficient of -0.064570 and a significant p-value of 0.0118. While lending is a key driver of bank income, excessive reliance on loans relative to deposits can lead to liquidity risks and potential defaults, ultimately harming profitability. This highlights the need for prudent lending practices and a balanced approach to loan growth, ensuring that it does not outpace deposit accumulation. Turning to the analysis of NIM, the Current Ratio (CR) again proves to be a crucial determinant,

with a positive coefficient of 0.905738 ( $p < 0.0001$ ), reinforcing that effective liquidity management is critical not only for short-term stability but also for enhancing net interest income. A higher CR allows banks to manage interest rate risks more effectively, helping them offer competitive lending rates while maintaining healthy margins.

The Deposit to Asset Ratio (DTAR) also plays a significant role in determining NIM, with a coefficient of 0.044108 and a p-value of less than 0.0001. This finding underscores the importance of a solid deposit base in generating interest income. A higher DAR indicates that banks can fund a larger share of their loans through deposits, thereby reducing their reliance on more expensive external funding sources, which is especially crucial in a low-interest-rate environment where managing funding costs is key to sustaining profitability. Interestingly, neither the LOG\_CDR nor the LDR demonstrate significant effects on NIM. The coefficients for LOG\_CDR (0.063718,  $p = 0.3255$ ) and LDR (0.004934,  $p = 0.4119$ ) suggest that these ratios do not directly influence net interest income, implying that while liquidity management is essential for overall bank performance, its specific impact on NIM is likely overshadowed by other operational factors, such as lending practices and interest rate management strategies. Comparing the findings from the ROE and NIM analyses, several key themes emerge. Both profitability measures emphasize the importance of liquidity management, particularly as reflected in the Current Ratio (CR). A strong CR is consistently linked to higher profitability, reinforcing the need for banks to effectively manage their short-term assets. The findings also highlight the significance of a stable Deposit to Asset Ratio (DTAR). A robust deposit base is positively correlated with both ROE and NIM, providing a solid foundation for lending and investment activities, while reducing dependency on external financing. Regarding the Loans to Deposit Ratio (LTDR), the negative relationship with ROE stresses the risks associated with overextending loan portfolios relative to deposits. Excessive loan growth can expose banks to liquidity constraints and potential defaults, underscoring the need for caution and balance in lending practices. In light of these findings, several strategic implications emerge for bank management. First, effective liquidity management should be prioritized, ensuring that the Current Ratio (CR) remains optimal and that cash reserves are strategically deployed to generate higher returns. Banks must strike a balance between maintaining sufficient liquidity and investing in productive assets to avoid sacrificing profitability in favor of excessive cash holdings. Additionally, strategies to increase the deposit base are critical. Banks should explore innovative product offerings, competitive interest rates, and targeted marketing strategies to attract deposits, thereby enhancing their ability to fund loans and investments. A strong deposit base not only ensures operational stability but also improves key profitability metrics like ROE and NIM. Moreover, banks must adopt prudent lending practices. Expanding loan portfolios should be approached with caution, maintaining a balanced Loans to Deposit Ratio (LDR) to mitigate liquidity risks. Diversifying loan portfolios and focusing on quality rather than quantity in lending can help align loan growth with a bank's overall risk appetite and financial goals. Continuous monitoring and evaluation of financial ratios are essential for banks to remain responsive to changes in market conditions and to ensure long-term profitability. In conclusion, the analysis provides valuable insights into the key determinants of bank profitability, emphasizing the need for effective liquidity management, a strong deposit base, and cautious lending practices. By adopting a comprehensive strategy that balances liquidity, capitalizes on stable deposit funding, and manages lending risks, banks can enhance their profitability and achieve sustainable growth in an increasingly complex financial environment. These insights will be instrumental in guiding bank management decisions, helping institutions navigate a competitive landscape and deliver value to stakeholders. The analysis of Return on Equity (ROE) and Net Interest Margin (NIM) highlights several strategic recommendations for banks aiming to enhance profitability and stability in a competitive environment. First, banks should prioritize effective liquidity management by optimizing their Current Ratio (CR) to ensure they can meet short-term obligations while strategically deploying cash reserves into higher-yielding investments. This balance helps avoid the opportunity costs associated with excessive liquidity. To further boost profitability, banks must focus on enhancing their deposit base by offering innovative products, competitive interest rates, and targeted marketing strategies. A strong deposit foundation not only supports lending activities but also improves both ROE and NIM, reducing the reliance on external financing.

In terms of lending practices, banks should maintain a balanced Loans to Deposit Ratio (LTDR) to mitigate liquidity risks. While expanding loan portfolios is important for profitability, banks must exercise caution by implementing thorough risk assessment frameworks to ensure that lending decisions align with their risk appetite and financial goals. Diversifying loan portfolios across sectors and customer types can help reduce



defaults and improve portfolio quality. Furthermore, banks should establish a system for continuous performance monitoring by regularly reviewing key financial ratios. This approach enables timely adjustments to strategies in response to changing market conditions, with the aid of real-time analytics and performance dashboards.

Investing in employee development is also crucial for fostering a culture of accountability and improving financial performance. Employees who are well-trained in liquidity management, customer service, and risk assessment can contribute to the overall financial health of the institution. Additionally, stakeholder communication plays a key role in building trust and transparency. Regular updates on liquidity management, deposit growth, and risk strategies enhance the bank's reputation and foster long-term relationships.

Despite the valuable insights, the study has several limitations. The small sample size of 10 banks limits the generalizability of the findings, and the 10-year period may not fully capture the dynamic nature of the banking industry, especially during events like the COVID-19 pandemic. Future research should expand the sample size, consider longer time frames, and include additional factors like market competition and macroeconomic conditions. A mixed-methods approach, combining quantitative analysis with qualitative insights, could further deepen understanding of the factors influencing bank profitability.

In conclusion, these strategic recommendations, combined with acknowledging the study's limitations, offer a pathway for banks to enhance profitability and adapt to a rapidly changing financial landscape.

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