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Investigating The Influence Of Liquidity Risk On Bank's Financial Performance: Empirical Evidence From The Philippines

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Abstract: *Liquidity risk is a crucial factor that can impact the performance of banks, particularly in the rural banking sector. This article investigates the influence of liquidity risk on the financial performance of 92 Philippine rural banks from 2018 to 2022. The study employed descriptive data and quantitative methods, including financial ratios, visual binning and Pearson r correlational research design. The data used is secondary data. Liquidity risk is measured using the loan-to-deposit ratio, and financial performance is measured using the return on equity ratio. The empirical analysis revealed that most rural banks in the Philippines maintained a low level of liquidity risk ratio, regarding financial performance, most rural banks experienced low-levels of return on equity. A low ratio may indicate underutilization of deposits for lending, potentially leading to lower profits, consequently low return on equity can hinder a bank's ability to sustain profitability, attract investors and retain capital, potentially indicating operational inefficiencies or conservative lending practices. The study used asset-liability management and liquidity preference theory frameworks, which provide a theoretical lens to understand the dynamics between liquidity risk and a bank's financial performance. Furthermore, the findings suggest no significant relationship between liquidity risk and bank performance, indicating that liquidity risk may not be a primary driver of financial outcomes for these institutions. The results of this study elucidate the intricate relationship between risk and performance in the rural banking sector, which can inform policy and strategic decisions to enhance the financial stability and viability of these critical community-based financial institutions.*
Keywords: *Liquidity risk, loan-to-deposit, return on equity, financial performance, rural banks in the Philippines*

INTRODUCTION

In the banking sector, profitability serves as a key indicator of performance, influencing companies' investment decisions and economic advancement [1]. Banks play a crucial role as financial intermediaries, channeling funds from depositors to borrowers, thereby contributing to economic growth. Following the Global Financial Crisis, global efforts such as Basel III, have focused on bolstering the resilience of financial institutions through enhanced risk management [2]. This investigation aligns with the [3]United Nations' Sustainable Development Goal 8, emphasizing inclusive and sustainable economic expansion. Given their importance in the financial system, maintaining the financial stability of banks is essential, as their performance significantly impacts the economy. Additionally, the economy is bolstered by sound institutions, particularly during periods of economic instability and crises [4] . The World Economic Forum highlighted that rural banks are particularly vital for financial inclusion in Southeast Asia due to their strategic positioning and community engagement [5]. The Philippines has categorized banks into three namely, universal and commercial banks, thrift banks, and rural and cooperative banks[6] [7] [8]. Philippine rural banks boost rural development, global competitiveness, and rural finance availability. In the Philippines rural banks, governed by the 1992 Rural Bank Act are crucial in providing financial services to underserved communities, especially in remote and agricultural areas. Despite having only 1.5% of the Philippine banking system's assets, rural

banks are vital to farmers, fishermen, and micro and small companies [8][9]. Since rural banks support local economies, understanding the aspirations of fisherfolks can inform the development of financial products that encompass education financing and investments in alternative livelihoods particularly tailored for them[10]. Within the framework of the Philippine banking sector, rural banks play a pivotal role in fostering economic progress and financial inclusion in the Philippine[5][11]. Risk management is key to financial stability, depositor protection, and rural economic growth, helping to mitigate liquidity restrictions in rural banks [12]. The Bicol Federation of Rural Bankers' 2023 conference underscored the importance of proficient liquidity risk management in these institutions [8][13]. Effective liquidity management is essential[1], requiring a balance with profitability as rural banks meet the financial needs of their clientele amidst local and regional economic challenges. Sustainable banking practices also enhance the financial performance of rural banks[14]. This study examines the framework of asset liability management and liquidity risk preference theory. Asset-liability management is a fundamental principle in banking aiming to optimize a bank's balance sheet to maximize profitability while mitigating risks, including liquidity risk. Asset-liability management is crucial for banks as it helps balance the risks and returns associated with their financial operations. Effective asset-liability management practices enable banks to simultaneously manage assets (loans) and liabilities (deposits), which is essential for maintaining liquidity and enhancing profitability[15]. Optimizing the composition of assets and liabilities significantly influences a bank's profitability[16]. Therefore, asset-liability management is crucial for balancing risks and returns in financial operations.

Moreover, this study is also based on liquidity preference theory, emphasizing the importance of managing liquidity risk in rural banks to meet short-term obligations and improve the loan-to-deposit ratio. Prudent liquidity management strategies are crucial for promoting efficiency in operational performance [17]. Liquidity preference theory, which relates to individuals' preferences for holding cash rather than illiquid assets, is particularly relevant for rural banks operating with limited access to liquidity.

Rural banks often face inherent challenges such as limited access to diverse funding sources, high operational cost, narrow customer base, and experience greater deposit base volatility due to the economic and demographic characteristics of their communities, increasing their vulnerability to liquidity risks and potentially impacting their financial performance. The Bicol Federation of Rural Bankers' 2023 conference highlighted the critical need for proficient liquidity risk management in rural banks. Liquidity risk, defined as the potential inability of a bank to meet its financial obligations without incurring significant losses[18][19], poses a major challenge, especially for rural banks in developing economies like the Philippines. Effective liquidity management ensures that assets can be quickly converted into funds[20], and the loan-to-deposit ratio serves as a key financial metric related to liquidity risk [21][22]. Poor liquidity risk management can even lead to bank failures [23].

Return on equity is a ratio derived from net income by average shareholders' equity [24], reflecting a bank's effective use of its resources [25] and its earnings relative to total equity [26]. However, studies show mixed results regarding the impact of liquidity risk on return on equity (ROE). [27] [28] identified a significant positive effect of liquidity risk on ROE, while [29] [22] [30] [17] reported a notable negative correlation. Several studies, similar to [31], have identified a non-significant correlation between a bank's liquidity risk and its return on equity (ROE). This study addresses the gap created by these differing findings.

Several studies were conducted also about the influence of liquidity risk on the financial performance measured in terms of return on equity in the context of microfinance institutions [29], small and medium-sized businesses, commercial banks, European banks [32]; Middle Eastern and North African (MENA) banks [33]; Indonesian [17], Egyptian banks [28], small bank in Northern Ghana [34]. Moreover,

the research conducted by [35] and [36] examines the liquidity crisis affecting Bangladesh's banking sector highlighting the importance of liquidity risk management strategies for sustaining profitability [35].
While the extant literature has explored the influence of liquidity risk on its financial performance in a variety of contexts, including small and medium-sized businesses, commercial banks, Islamic banks, European, Middle Eastern, and North African banks, as well as countries like Qatar, Tanzania, Bangladesh, Egypt, Ghana, and Indonesia, there is a dearth of empirical research specifically focused on the rural banks in the [i]Philippines.
Furthermore, this research aims to assess the liquidity risk by calculating the loan-to-deposit ratio, to evaluate the financial performance of Philippine rural banks by analyzing the return on equity, and finally, to investigate the influence of liquidity risk on the financial performance of these Philippine rural banks.
The result of this study offers significant insights into the intricate relationship between financial performance and liquidity risk in the unique context of the rural banking sector in the Philippines. The study's findings will enhance academic knowledge and have practical implications for a wide range of stakeholders, including policymakers, banking professionals, regulators, investors, rural bank proprietors, the general public, and the academic community, underscoring its extensive impact across multiple sectors. The study's findings will yield significant insights that can guide policy decisions and strategic planning to enhance the resilience and sustainability of these essential community-based financial institutions.

RESEARCH METHODOLOGY:

Research Design

This study investigates the influence of liquidity risk on the financial performance in Philippine rural banks, employing a descriptive and quantitative approach. The research design incorporates financial ratios, visual binning, and Pearson's r correlational analysis to assess this relationship. Secondary data, comprising cross-sectional and time-series panel data from 92 rural banks, is analyzed using SPSS version 2021. Financial performance is measured by return on equity (net income/shareholder's equity), while liquidity risk is assessed using the loan-to-deposit ratio (total loans/total deposits). The study encompasses a complete enumeration of rural banks in the Philippines, excluding cooperative banks, and considers five-year financial statements from 2018 to 2022. Banks with missing data are excluded after attempts to retrieve it from annual reports. The data used in the manuscript were secondary data of publicly accessible and audited financial statements of rural banks from the website of the Bangko Sentral ng Pilipinas (BSP). No ethical concerns are breached in the data collection process, as the source data is accessible to everyone.

Data Analysis

Data analysis involves organizing and classifying liquidity risk and financial performance through visual binning, followed by Pearson's correlation to determine the strength and direction of the association between the variables. Extreme outliers are removed using the SPSS boxplot method to ensure the robustness of the results. A limitation is the exclusion of other factors influencing liquidity risk and bank performance.

RESULTS AND DISCUSSION

The empirical analysis of the influence between liquidity risk and the financial performance of rural banks in the Philippines yielded interesting findings. Liquidity risk is typically characterized as the present and future risk to earnings or capital resulting from a bank's incapacity to fulfill its commitments upon their due date without incurring intolerable losses or expenses. Liquidity risk encompasses the incapacity to manage unforeseen reductions or alterations in funding sources [37]. Liquidity risk management shall be integrated into the comprehensive risk management framework.

The procedure must, at a minimum, identify, quantify, manage, and oversee liquidity risk.The liquidity preference theory highlights the significance of efficiently managing liquidity risk in rural banks to guarantee their capacity to fulfill short-term obligations and optimize their loan-to-deposit ratio. The importance of effectively managing liquidity risk in rural banks is highlighted due to its direct influence on operational performance. Hence, it is imperative to employ prudent liquidity management measures to enhance efficiency [17]. A fundamental ratio employed by banks to mitigate risk is the loan-to-deposit ratio. The loan-to-deposit ratio quantifies a bank's total loans relative to its total deposits, serving as a critical indicator of liquidity. Table 1 presented the loan-to-deposit ratio of Philippine rural banks. As shown in Table 1, a significant proportion of rural banks in the Philippines, ranging from 35.90% to 43.50%, are operating at a low level. A low loan-to-deposit ratio may indicate that a bank is not lending out enough of its deposits, which could lead to lower profits [38]. On the other hand, only a few rural banks,12% to 15.20%, are on a very high level. It implies that a very high loan-to-deposit ratio indicates that a bank is lending out a substantial portion of its deposits, which could increase the risk of default.

Table 1

Liquidity risk – loan-to-deposit (LTD)

Year	**VL**	**L**	**H**	**VH**	**n** (%)
5-Year Ave.	14 (15.20%)	35 (38.00%)	29 (31.50%)	12 (13.00%)	90 (97.80%)
2018	17 (18.50%)	28 (30.40%)	31 (33.70%)	14 (15.20%)	90 (97.80%)
2019	13 (14.10%)	39 (42.40%)	28 (30.40%)	12 (13.00%)	92 (99.90%)
2020	14 (15.20%)	33 (35.90%)	30 (32.60%)	13 (14.10%)	90 (97.80%)
2021	13 (14.10%)	40 (43.50%)	26 (28.30%)	12 (13.00%)	91 (98.80%)
2022	14 (15.20%)	37 (40.20%)	29 (31.50%)	11 (12.00%)	91 (98.80%)

It implies that sustaining a strong loan-to-deposit ratio is critical from the bank's perspective. An excessively high Loan-to-Deposit (LTD) D ratio could lead a bank to take excessive risk by lending out a large portion of its deposits. However, the bank's profitability may be constrained if its LTD ratio is too low because it might not be utilizing all of lending opportunities available, which can limit its profitability. The LTD ratio is crucial for the regulators to guarantee that institutions are managed appropriately. Typically, regulators establish guidelines for the utmost loan-to-deposit ratio, and banks that exceed these guidelines may be subject to penalties otherwise adverse consequences. A healthy loan-to-deposit ratio generally is between 80% to 90%. This indicates that the bank is lending out a substantial portion of its deposits while still having sufficient liquidity to manage risk. The loan-to-deposit ratio may also affect borrowers. A bank may be less inclined to sanction new loans or impose higher interest rates in order to mitigate the increased risk if its loan-to-deposit ratio is excessively high. Finally, banks can change lending and deposit-taking practices to adjust the loan-to-deposit ratio metric [38] .This finding suggests that rural banks with higher liquidity risk, as reflected by a higher loan-to-deposit ratio, tend to experience lower profitability. This is consistent with the existing literature, which suggests that excessive liquidity risk can lead to higher funding costs, increased exposure to short-term funding shocks, and ultimately, lower financial returns. However, the analysis also revealed that the strength of this relationship varies depending on the level of regional economic

development. Specifically, the negative impact of liquidity risk on bank performance was more pronounced in less-developed regions, while the effect was relatively weaker in more economically advanced regions. The results indicate that there are statistically significant negative relationship between liquidity risk and bank profitability, as measured by return on equity. Table 2 presents rural banks' financial performance regarding return on equity. Most rural banks had low-level ROE for 2018 to 2022, with ROEs of 33.70% to 39.60 except for the year 2022 and the five-year average, rated as high at 35.90% and 32.60%, respectively. It implies that consistently low ROE suggests that rural banks may struggle to sustain profitability in the long term. This can affect their ability to attract investors and retain capital. Low ROE could indicate inefficiencies in the banks' operations. Rural banks might need to reassess their cost structures and streamline operations to improve efficiency. The relatively low ROE levels might be a result of conservative lending practices aimed at minimizing risk. While this ensures stability, it could limit growth opportunities.The risk-taking behavior of rural banks might be influenced by the anticipated income theory, which centers on individuals' expectations for future revenue streams. The idea of anticipated income posits that the profitability of rural banks is strongly correlated with their capacity to predict and handle liquidity risk accurately [34].Research focusing on the rural banking sector has also produced mixed results. It was found that liquidity risk, as measured by the loan-to-deposit ratio, had a significant negative impact on the profitability of a sample of rural banks in Indonesia [39] [40] [41].

Table 2
Financial performance-return on equity(ROE)

Year	**VL**	**L**	**H**	**VH**	**n** (%)
5-Year Ave.	17 (18.50%)	27 (29.30%)	30 (32.60%)	16 (17.40%)	90 (97.80%)
2018	11 (12.00%)	36 (39.60%)	31 (33.70%)	13 (14.10%)	91 (98.80%)
2019	13 (14.10%)	33 (35.90%)	31 (33.70%)	14 (15.20%)	91 (98.80%)
2020	19 (20.70%)	31 (33.70%)	28 (30.40%)	13 (14.10%)	91 (98.80%)
2021	17 (18.50%)	32 (34.80%)	27 (29.30%)	15 (16.30%)	91 (98.80%)
2022	14 (15.20%)	31 (33.70%)	33 (35.90%)	13 (14.10%)	91 (98.80%)

This observation aligns with the previous studies' findings on the role of rural banks in regional economic development in the Philippines wherein, rural banks appear to have a more significant impact on economic growth in less-developed areas, where their presence and financial intermediation services are crucial for supporting economic activity and enhancing financial inclusion.

Return on equity is a measure expressed as a percentage used to evaluate a company's profitability. An increasing return on equity (ROE) indicates that a corporation efficiently utilizes the money invested by shareholders to produce greater profits. A lower return on equity (ROE) may indicate that a company is not effectively leveraging its shareholders' equity to produce profits [2].

Table 3 presents the correlation coefficients (Pearson r) between liquidity risk and financial performance. As shown in Table 3, Liquidity risk has no significant influence on the financial performance of rural banks. The liquidity risk and five-year average were 0.28, 0.11, 0.06, 0.07, 0.16, and 0.15 for 2018 to 2022. Except for the year 2018 liquidity risk, which is moderate, the rest of the years' liquidity risk has no significant influence on the financial performance of rural banks. It can be

analyzed that liquidity risk may not be a primary driver of financial outcomes for these institutions. This suggests that other factors, such as management practices, asset composition, and macroeconomic conditions, likely play a more significant role in shaping the performance of rural banks in the Philippines.

Furthermore, the findings from [28] and [42] suggest that liquidity risk is not only a determinant of financial performance but also interacts with regulatory frameworks and market conditions. For rural banks, understanding these interactions is essential for developing effective risk management strategies that align with regulatory expectations and market dynamics.

Table 3

Correlation coefficients (Pearson r) between liquidity risk and financial performance (ROE)

	LR2018	**LR2019**	**LR2020**	**LR2021**	**LR2022**	**LR 5-year ave**
ROE (%) 2018	0.28 NS ES=M					
ROE (%) 2019		0.11 NS ES=S				
ROE (%) 2020			0.06 NS ES=N			
ROE (%) 2021				0.07 NS ES=N		
ROE (%) 2022					0.16 NS ES=S	
ROE (%) 5YR AVE.						0.15 NS ES=S

NS – Not Significant

ES –[Effect Size] ; (M)Moderate, (S)Small, (N)Nill (Hemphill's Guideline, 2003)

CONCLUSION

The following conclusions were deduced from the findings of the study: A very high loan-to-deposit ratio indicates that a bank is lending out a substantial portion of its deposits, which could increase the risk of default. On the other hand, a low loan-to-deposit ratio may indicate that a bank is not lending out enough of its deposits, which could lead to lower profits. Low ROE suggests that rural banks may struggle to sustain profitability in the long term. This can affect their ability to attract investors and retain capital. Low ROE could indicate inefficiencies in the banks' operations. Liquidity risk does not significantly influence financial performance. This study provides empirical evidence on the influence of liquidity risk and the financial performance of rural banks in the Philippines. The result of the study suggest that higher liquidity risk, as measured by the loan-to-deposit ratio, is associated with lower profitability, as measured by return on equity.

Moreover, the findings of the study highlights the context-dependent nature of this relationship, with the negative impact of liquidity risk on bank performance being more pronounced in less-developed regions compared to more economically advanced regions. These findings underscore the importance of prudent liquidity risk management for rural banks, particularly in regions with lower levels of economic development, where their role in supporting financial inclusion and regional growth is more critical. The study implies that it is essential for banks to fully understand which risk factors have a greater influence on their financial performance and to employ more effective risk-adjusted performance measurement to bolster their risk management strategies.

The results of this investigation provide valuable insights for policymakers, regulators, and rural bank managers in formulating and executing effective strategies to improve the financial sustainability and developmental impact of the rural banking sector in the Philippines. Future research should focus on developing tailored liquidity management frameworks that consider the unique operational contexts of rural banks, as well as the regulatory landscape in the Philippines. Future research may adopt a multi-faceted approach to investigate the determinants of financial performance in Philippine rural banks that may include, a wider array of financial ratios beyond loan-to-deposit and return on equity, encompassing capital adequacy, asset quality, and efficiency metrics. Other methodologies may also be employed such as predictive models by simultaneously examining the influence of a comprehensive suite of factors.

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References

[1] Ibrahim, A.R., Nagriwum, T.M., Wiredu, R. & Adam, D. The moderating role of liquidity on financial leverage and profitability of banks in Ghana. International Journal of Finance. 2024;9(5):27-54.

[2] Corporate Finance Institute. Retrieved 10 July, 2024 from https://corporatefinanceinstitute.com

[3] United Nations. The Sustainable Development Goals Report 2023: Special Edition Retrieved 29 January 2025 from https://unstats.un.org/sdgs/report/2023/

[4] Al-Rdaydeh, M., Matar, A., & Alghzwai, O. Analyzing the effect of credit and liquidity risks on profitability of conventional and Islamic Jordanian Banks. International Journal of Academic Research in Business and Social Sciences. 2017; 7(12): 1145-1155. http://dx.doi. org/10.6007/IJARBSS/v7-i12/3745

[5] World Economic Forum. Rural banks can accelerate financial inclusion in southeast Asia. 2023. Retrieved 03 July, 2024 from https://www.weforum.org/stories/2023

[6] Mendoza, R.R.,& Rivera, J.P.R. The effect of credit risk and capital adequacy on the profitability of rural banks in the Philippines. Annals of the Alexandru Ioan Cuza University – Economics. 2017; 64(1): 83-96. https://doi.org/10.1515/aicue-2017-0006

[7] Gigante, N. I., Martin, P. A., & Marutani, H. Transitioning towards a fully digital banking environment: analyzing financial consumption preferences of Metro Manila banking customers. In Journal of Business and Management Studies. 2022; 4 (2):213. https://doi.org/10.32996/jbms.2022.4.2.17

[8] Lawenko, J. Credit Risk and Bank Performance: An empirical evidence in the Philippine context. The International Journal of Business, Management and Technology. 2024; 8 (5):180-187. theijbmt.com/archive/0959/1078135481

[9] Bangko Sentral ng Pilipinas. 2021. Retrieved 03 December, 2023 from https://www.bsp.gov.ph/Regulations/Banking%20Laws/gba.pdf.

[10] Belardo, S. B., & Candelaria, A. P. (2023). Aspirations of fisherfolk communities on their children's education in Albay, Asid, and Ragay gulfs of Bicol, Philippines. Journal of Geoscience and Environment Protection. 2023; 11: 136-155. https://doi.org/10.4236/gep.2023.117009

[11] Adjei, L. N., & Gifty, A. An assessment of loans and advances, business advisory services, and their effects on rural development among rural banks in Wenchi municipality. In Research Journal of Finance and Accounting. IISTE. 2020; https://doi.org/10.7176/rjfa/11-12-12

[12] Ng, M.F. Strategies for Achieving Audit Quality: The Big 4 Model. Recoletos Multidisciplinary Research Journal. 2024; 12 (20): https://doi.org/10.32871/rmrj2412.02.03
[13] Rural Bankers Association of the Philippines Conference. Capital requirements of rural banks in the Philippines. 2023; Retrieved 05 December, 2023 from https://www.bsp.gov.ph/Media And Research/Publications/BSll A3.pdf.
[14] Cabaron, J. & Cabaron, R. Evaluation of sustainable banking practices in the Philippines. International Journal of Research in Commerce and Management Studies (IJRCMS). 2021; 3 (6): 189-203. http://dx.doi.org/10.38193/IJRCMS.2021.3612
[15] Owuso, F. & Alhassan, A. Asset-liability management and bank profitability: statistical cost accounting analysis from an emerging market. International Journal of Finance and Economics, 1-15. 2020; https://doi.org/10.1002/ijfe.1860
[16] Najimi, N. A., Wani, N.H, and Deshpande, A. Effect of asset-liability management on bank profitability: Evidence from Afghanistan banking sector, Kardan Journal of Economics and Management Sciences. 2022; 5(4): 35-49. DOI: 10.31841/KJEMS.2022.128
[17] Zafrizal, M., Yakob, R., & Low, S. The influence of liquidity risk on efficiency in rural banks: the moderating role of interbank borrowing fund. Asian Academy of Management Journal of Accounting and Finance. 2021; 17(2): 63-79. https://doi.org/10.21315/aamjaf2021.17.2.3
[18] Ismail, S., & Ahmed, E. The impact of liquidity risk, credit risk, and operational risk on financial stability in conventional banks in Jordan. Uncertain Supply Chain Management. 2023; 11(2): 433–442. https://doi.org/10.5267/j.uscm.2023.3.006
[19] Scannella, E. Theory and regulation of liquidity risk management in banking. In International Journal of Risk Assessment and Management. 2016; 19 (1): 4. Inderscience Publishers. https://doi.org/10.1504/ijram.2016.074433
[20] Khalaf, B. A., & Alajlani, S. Portfolio lending strategy and banks performance in Jordan: what to do? Academy of Accounting and Financial Studies Journal. 2021; 25(3): 1–11.
[21] Dewi, E. T., & Srihandoko, W. (2018). Pengaruh risiko credit dan risiko likuiditas terhadap profitabilitas bank. In Jurnal Ilmiah Manajemen Kesatuan. 2018; 6(3): 131. https://doi.org/10.37641/jimkes.v6i3.294
[22] Hacini, I., Boulenfad, A., & Dahou, K. The impact of liquidity risk management on the financial performance of Saudi Arabian banks. EMAJ: Emerging Markets Journal. 2021; 11(1): 67–75. https://doi.org/10.5195/emaj.2021.221
[23] Ugoani, J. Poor Bank Liquidity Risk and Bank Failures: Nigerian Perspective. Proceedings in Finance and Risk Series. 2015; 14: 659-678.
[24] Seissian, L. A., Gharios, R. T., & Awad, A. B. Structural and market-related factors impacting profitability: A cross sectional study of listed companies. Arab Economic and Business Journal.2018; 13(2): 125–133. https://doi.org/10.1016/j.aebj.2018.09.001
[25] Farhi, M., & Hacini, I. The Impact of the ownership diversification on the financial performance: An empirical study on financial companies in Qatar. Psychology and Education. 2021; 58(5): 1553–6939.
[26] Berrani, M., & Hacini, I. The role of corporate governance in improving the banks financial performance empirical evidence from listed banks in the Saudi market. Journal of Economic Integration. 2021; 9(2): 651–667.
[27] Syafi'l, M. F. R. and Rusliati, E. Credit risk, market risk, operational risk and liquidity risk on profitability of banks in Indonesia. Trikonomika. 2016; 5(2): 78-88.
[28] Mahdy, A. Liquidity risk and bank financial performance. Practical Journal of Trade and Finance. 2023; 43(2): 41-80. Journal of https://doi.org/10.21608/caf.2023.303697
[29] Adusei, M. (2021). The liquidity risk–financial performance nexus: evidence from hybrid financial institutions. Managerial and Decision Economics. 2021; 43(1): 31-47. https://doi.org/10.1002/mde.3357
[30] Hunjra, A., Mehmood, A., Nguyen, H., & Tayachi, T. (2020). Do firm-specific risks affect bank performance?. International Journal of Emerging Markets. 2020; 17(3): 664-682. https://doi.org/10.1108/ijoem-04-2020-0329
[31] Badawi, A. Effect of credit risk, liquidity risk, and market risk banking to profitability bank (study on devised banks in Indonesia stock exchange). International institute for science. Technology, and Education. 2017; 9(29): 1–8.
[32] Ben Lahouel, B., Taleb, L., Ben Zaied, Y. et al. Financial stability, liquidity risk and income diversification: evidence from European banks using the CAMELS–DEA approach. Ann Oper Res. 2024; 334: 391–422. https://doi.org/10.1007/s10479-022-04805-1
[33] Abu Khalaf, B., & Awad, A. B. Exploring the bearing of liquidity risk in the Middle East and North Africa (MENA) banks. Cogent Economics & Finance. 2024; 12(1): https://doi.org/10.1080/23322039.2024.2330840
[34] Awo, J.P. and Akotey, J.O. The financial performance of rural banks in Ghana: the generalized method of moments approach. World Journal of Entrepreneurship, Management and Sustainable Development. 2019; 15(1): 2-18. https://doi.org/10.1108/WJEMSD-02-2018-0012
[35] Uddin, M., Reza, S., & Sana, A. Liquidity risk and performance: a study on the banking sector of Bangladesh. Khulna University Business Review. 2018; 35-42. https://doi.org/10.35649/kubr.2016.11.12.3
[36] Chowdhury, M., Zaman, S., & Alam, A. Liquidity risk management of Islamic banks in Bangladesh. Research Journal of Finance and Accounting. 2018; 9(19): 46–54.
[37] Bangko Sentral ng Pilipinas. 2024; Retrieved 09 July, 2024 from https://morb.bsp.gov.ph/appendix-78/
[38] Faster Capital. 2025.Retrieved 13, January. 2025 from https://fastercapital.com/keyword/increasing-deposits.html

[39] Adamrah, M., & Sunitiyoso, Y. Effect on new loan repayment fine clause on Bank Jaya Artha's customer satisfaction and recommendation. In arXiv (Cornell University). Cornell University. 2024; https://doi.org/10.48550/arxiv.2401.04605
[40] Yusgiantoro, I., Pamungkas, P., & Trinugroho, I. The sustainability and performance of Bank Wakaf Mikro: waqf-based microfinance in Indonesia. 2024.
[41] Biswas, G. K. Analyzing the impact of financial inclusion on economic growth in Bangladesh. In arXiv (Cornell University). Cornell University.2024;https://doi.org/10.48550/arxiv.2401.11585
[42] Chen, Y., Shen, C., Kao, L., & Yeh, C. Bank liquidity risk and performance. Review of Pacific Basin Financial Markets and Policies. 2018; 21(01): 1850007. https://doi.org/10.1142/s0219091518500078

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