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Journal homepage: <https://ejournal.uinmadura.ac.id/index.php/shafin>**Determinants of Islamic Bank Profitability World: Liquidity, Financing Risk, and Technology***Violinda Syahgaria Firdaus^{1*}, Guntur Kusuma Wardana²*¹ *Fakultas Ekonomi, Universitas Islam Negeri Maulana Malik Ibrahim Malang, Indonesia*² *Fakultas Ekonomi, Universitas Islam Negeri Maulana Malik Ibrahim Malang, Indonesia***Corresponding email: 220503110051@student.uin-malang.ac.id* <https://doi.org/10.19105/sfj.v6i1.24304>**ARTICLE INFO****Keywords:**Islamic Banking; Bank Profitability;
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ABSTRACT

The development of global Islamic banking has not been accompanied by an equal distribution of profitability among banks, so internal bank factors need to be examined as determinants of financial performance. This study analyzes the effect of liquidity, financing risk, and technology on the profitability of global Islamic banks. The research uses a quantitative approach with balanced panel data on 34 Islamic banks affiliated with the Islamic Financial Services Board during 2020–2024. The analytical method used is panel data regression. The results show that liquidity (FDR, Quick Ratio, and Cash Ratio) and financing risk have a significant effect on profitability, whereas technology does not have a significant effect. The contribution of this study lies in testing the profitability of Islamic banks in a global context during the post-pandemic recovery period and the acceleration of digitalization, by integrating liquidity, financing risk, and technology while using three liquidity indicators to examine inconsistent findings in previous studies. These findings affirm that profitability is more determined by productive liquidity management and the quality of financing, whereas the benefits of technology are not immediately reflected in profits. The research implications emphasize the importance of proportional liquidity management, strengthening financing risk, and evaluating technology investments to support sustainable profitability.

*This journal under licensed Creative Commons Attribution-NonCommercial 4.0 International License***INTRODUCTION**

The global economy has remained relatively unstable, characterized by subdued growth, policy uncertainty, geopolitical uncertainty, inflationary pressures, and the lingering effects of multiple economic shocks. The World Bank report states that global growth is at a low level, around 2.7%, and not yet strong enough to drive sustainable economic development, while the International Monetary Fund (IMF) emphasizes that economic and geopolitical uncertainty can amplify the risk of shocks and expose financial vulnerabilities.¹ These conditions underscore the importance of examining the financial performance of the banking sector, as financial performance reflects banks' ability to maintain resilience, efficiency, and sustainability amid external pressures. One segment of banking that also faces these demands is Islamic banking, considering its continuously growing role in the global financial system. Islamic financial institutions have expanded across various regions, not only in countries with large Muslim populations but also in Europe, Africa, and East Asia.² Empirically, this development is

¹ World Bank, "Global Economic Prospects," 2025; International Monetary Fund, "Global Financial Stability Report," 2024.

² Nazmeen Ramjanibhai Barafwala and Dr. Amitkumar S. Mehta, "Shariah-Compliant Finance: An Analysis of the Islamic

evident from the report of the Islamic Financial Services Board (IFSB), which shows that the total assets of the global Islamic financial services industry reached USD 3.88 trillion in 2024, with an annual growth rate of 14.9%. Within these total assets, Islamic banking constituted the largest sector, accounting for 71.6%, followed by sukuk at 23.3%, Islamic funds at 3.7%, and takaful at 1.4%, thereby highlighting the significant role of Islamic banking in the global Islamic financial industry.³

Although asset growth indicates industry expansion, this measure is not sufficient to explain the quality of Islamic banks' performance. Banks with large assets still need to be assessed based on their ability to generate profits efficiently and sustainably. In banking studies, this ability is reflected in profitability, which is generally measured using Return on Assets (ROA).⁴ Referring to previous research, the ROA indicator is more appropriate than ROE because the ROE indicator is influenced by leverage, the ROE value can appear high solely due to the bank using significant debt.⁵ In contrast, ROA reflects the actual operational performance, as it measures profit relative to total assets, making it more objective for assessing how management generates profit from the bank's resources.⁶

Based on the ROA indicator, the profitability of global Islamic banks shows an aggregate increase from 1.1% in 2020 to 2.2% in 2024. However, this increase does not necessarily indicate an even distribution of profitability across regions. The Gulf Cooperation Council (GCC) region maintained a stable ROA, increasing to 2.5%, while the Sub-Saharan Africa (SSA) region experienced a recovery of 2.6% in 2024 after a decline due to the pandemic. Europe and Central Asia (ECA) saw a rise to 3.0% in 2022, but it fell to 2.5%, whereas South Asia experienced a sharp increase to 5%. Conversely, the East Asia and Pacific (EAP) region weakened from 1.3% to 1.1%, and the non-GCC Middle East and North Africa (MENA) tended to decline from 1.5% to 1.1%.⁷ This difference indicates the existence of a gap between the growth of the global Islamic banking industry and banks' ability to maintain stable and equitable profitability.

The uneven distribution of ROA across regions indicates that the expansion of the global Islamic banking industry is not sufficient to explain differences in Islamic bank profitability. Profitability also depends on the bank's ability to manage funds, maintain financing quality, and improve operational efficiency, which in this study is represented through liquidity, financing risk, and technology.⁸ From the perspective of signal theory, this financial information can serve as a signal for external parties in assessing the condition and performance prospects of the bank.⁹ One of the determining factors is liquidity, which in this study is measured by the Financing to Deposit Ratio, Quick Ratio, and Cash Ratio. Liquidity is an important aspect of the profitability of Islamic banks because it relates to the bank's ability to maintain sufficient funds while allocating them productively. However, the relationship between liquidity and profitability is not straightforward. The research results indicate that FDR significantly influences profitability because banks that maximize their intermediation function by allocating funds to productive financing will increase operational income.¹⁰ However, other studies have found that the effect of FDR on profitability is statistically insignificant because the allocation of financing is not yet entirely of high quality, thus posing a risk of problematic financing¹¹. This difference

Financial Services Industry," *International Journal of Management, Public Policy and Research* 2, no. 4 (2023): 88–94.

³ Stability Islamic Financial Services Board Report, Islamic Financial Services Board,"2025.

⁴ Guntur Kusuma Wardana, Noer Aisyah Barlian, and Chairil Fadillah Ichsan, "World Sharia Banking Capital Structure: Value, Size, Profitability and Dividend Policy," *Prosiding Konferensi Internasional Ekonomi Dan Bisnis Islam (ICONES)* 10, no. 1 (2025): 231–42.

⁵ Jasim Latif et al., "Re-Examining the Financial Performance Measures of Commercial Banks in Pakistan," *Pakistan Journal of Social Sciences (PJSS)* 42, no. 4 (2022): 785–98.

⁶ Svetlana Sitnicka et al., "Determinants Affecting Bank Profitability : A Broad and Comparative Analysis Across Regions and Income Groups," *Financial Markets, Institutions and Risks* 9, no. 3 (2025): 120–58.

⁷ Stability Islamic Financial Services Board Report, Islamic Financial Services Board,"2024.

⁸ Elvira Eka Rahmawati, Tenny Badina, and Elif Pardiansyah, "Analisis Pengaruh Faktor Internal Dan Bank Umum Syariah di Indonesia," *Jurnal Masharif Al-Syariah: Jurnal Ekonomi Dan Perbankan Syariah* 10, no. 204 (2025): 2809–34.

⁹ Elwisam et al., "Implementation of Signaling Theory in Financial Management: A Bibliometric Analysis," *Revista de Gestao Social e Ambiental* 18, no. 3 (2024): 1–13.

¹⁰ Farisa Regina, "Pengaruh FDR Dan BOPO Terhadap Profitabilitas Bank Umum Syariah Di Indonesia Periode 2020-2023," *Jurnal Ilmiah Ekonomi Dan Manajemen* 2, no. 6 (2024): 754–62.

¹¹ Lukman Hakim, Mutia Pamikatsih, and Hatta Setiabudi, "Analisis Pengaruh CAR, NPF, dan FDR Terhadap ROA Bank

indicates that the relationship between liquidity and profitability depends not only on the amount of funds disbursed but also on the bank's effectiveness in managing financing. Different findings are also observed in QR and CR. These two indicators can reflect a bank's ability to maintain liquidity stability and meet short-term obligations, but to some extent, they may also indicate funds that have not been productively utilized. Therefore, this study does not rely on a single measure of liquidity but integrates FDR, QR, and CR so that the impact of liquidity on profitability can be analyzed more comprehensively.¹²

Financing risk, as an internal factor of Islamic banks, is measured through Non-Performing Financing, which has been shown to negatively affect financial performance due to an increased likelihood of customer defaults that reduces the quality of the bank's assets.¹³ However, other studies suggest that NPF does not directly affect profitability, especially if the bank has good risk management and loss provisioning, as the impact of financing can still be controlled and asset quality maintained.¹⁴ Therefore, this study examines NPF in the context of global Islamic banks to provide clearer evidence on the role of financing risk in determining profitability, which is still debated in previous studies. The next factor is technology; previous studies identified a statistically significant influence of technology on profitability through increased efficiency and services, whereas other studies indicated that technology investments have not yet had a significant short-term impact because their benefits require time and proper strategy.¹⁵ In this study, technology is proxied by $\ln(\text{non-interest expenses})$, as adopted in several prior studies to reflect banks' technology investments.¹⁶ However, in this study, the proxy is applied to cross-country Islamic banks to assess whether technology can explain variations in profitability in a global context.

Based on the discussion above, previous research shows inconsistent findings regarding the influence of liquidity, financing risk, and technology on the profitability of Islamic banks. The difference in these findings indicates that the relationship between variables is still debated and can be influenced by indicators, periods, objects, and the scope of the research area. In addition, most previous studies are still limited to a single country or certain region, and there are not many studies that comprehensively integrate liquidity measured by FDR, quick ratio, and cash ratio, financing risk, and technology with the profitability of Islamic banks worldwide.¹⁷ The 2020–2024 period is also important because it encompasses the post-pandemic recovery phase and the acceleration of digitalization, making it relevant to reassess the determinants of global Islamic banks' profitability. This study also considers

Umum Syariah,” *Jesya* 6, no. 1 (2023): 649–60.

¹² Lanemey Brigitha Pandeirot, Elvis Ronald Sumanti, and Andrew Christian Aseng, “An Empirical Study of Quick Ratio and Profitability on Manufacturing Firms in Indonesia,” *Society* 10, no. 2 (2022): 525–33; Kolija Gultom, Devi Yulianty Sihombing, and Thomas Firdaus Hutahaean, “Pengaruh Quickratio (QR), Net Interest Margin (NIM), Loan To Deposit Ratio (LDR), Dan Capital Adequacy Ratio (CAR) Terhadap Profitabilitas Pada Perusahaan Jasa Subsektor Perbankan Yang Terdaftar Di Bursa Efek Indonesia Tahun 2016 – 2019,” *Jurnal Ilmiah MEA (Manajemen, Ekonomi, & Akuntansi)* 5, no. 2 (2021): 212–28; Violita Oktaviani and Apriyana Maya, “Pengaruh Likuiditas Dan Risiko Pembiayaan Terhadap Kinerja Keuangan Bank Syariah Di Indonesia Tahun 2018-2022,” *NISBAH: Jurnal Perbankan Syariah* 9, no. 2 (2023): 92–102.

¹³ Oktaviani and Maya, “Pengaruh Likuiditas Dan Risiko Pembiayaan Terhadap Kinerja Keuangan Bank Syariah Di Indonesia Tahun 2018-2022.”

¹⁴ Nurrosyida Latifa Himaa and Tiara Juliana Jaya, “The Effect of Macroeconomic and Microeconomic Variables on the Profitability of Sharia Commercial Banks in Indonesia,” *Maliki Islamic Economics Journal (M-IEC Journal)* 4, no. 1 (2024).

¹⁵ Ahlem Chhaidar, Mouna Abdelhedi, and Ines Abdelkafi, “The Effect of Financial Technology Investment Level on European Banks' Profitability,” *Journal of the Knowledge Economy* 14, no. 3 (2023): 2959–81; Shafa Nabilah Putri and Ulfi Pristiana, “Pengaruh Financial Technology, Fee-Based Income, Dan Biaya Operasional Pendapatan Operasional Terhadap Profitabilitas Perusahaan Perbankan Syariah Yang Terdaftar Di Bursa Efek Indonesia,” *Jurnal Manajemen Bisnis Era Digital* 2, no. 3 (2025).

¹⁶ Razali Ade Syahputra Hasibuan Hasibuan and Ulfi Kartika Oktaviana, “Technological Innovation in Influence the Financial Performance of Sharia Banking In Indonesia,” *Jurnal Ilmiah Ekonomi Islam* 9, no. 01 (2023): 283–91; Hamid Uddin, Sabur Mollah, and Hakim Ali, “Does Cyber Tech Spending Matter for Bank Stability?,” *International Review of Financial Analysis* 72, no. 1 (2020): 101587.

¹⁷ Habriyanto Habriyanto, Khairiyani Khairiyani, and Muhammad Amir Alfaruq, “Pengaruh Risiko Pembiayaan Dan Risiko Likuiditas Terhadap Profitabilitas Bank Umum Syariah Periode 2018-2020,” *Al Fiddbob: Journal of Banking, Insurance, and Finance* 4, no. 1 (2023): 57–65; Muhammad Haris, HongXing Yao, and Hijab Fatima, “The Impact of Liquidity Risk and Credit Risk on Bank Profitability During COVID-19,” *Plos One* 19, no. 9 (2024): 1–24.

bank size, CAR, and solvency as control variables to ensure that the analysis of the effects of the main variables is more proportional. On that basis, this study aims to analyze the effect of liquidity, financing risk, and technology on the profitability of Islamic banks worldwide during the period 2020–2024.

Hypotheses Development

The FDR is a liquidity ratio used by Islamic banks to measure the extent to which third-party funds are channeled into financing.¹⁸ From the perspective of signal theory, FDR can be understood as financial information that provides a signal regarding the effectiveness of banks in performing their intermediation functions. This ratio is relevant to profitability because financing is one of the main sources of income for Islamic banks through margins or profit sharing.¹⁹ An optimally managed FDR indicates that the funds collected are not merely kept as liquidity, but can be directed into productive financing that supports profit performance. However, if the FDR value is too high, the bank may be unable to meet its short-term obligations, thereby causing liquidity problems.²⁰ Previous empirical findings reinforce this relationship by demonstrating that FDR influences profitability, particularly because this ratio reflects a bank's ability to convert collected funds into financing that generates revenue.²¹ Therefore, the hypothesis proposed in this study is.

H₁: Financing to Deposit Ratio has a significant effect on the profitability of Islamic banks worldwide

The QR is a liquidity indicator used by Islamic banks to assess the bank's capacity to settle short-term obligations through the utilization of easily liquidated assets such as cash, cash equivalents, and current receivables.²² From the perspective of signaling theory, the QR can serve as financial information that signals a bank's liquidity readiness and operational stability. This ratio is relevant to profitability because adequate liquid assets help banks meet their obligations without short-term funding pressures that may generate additional costs. Maintained liquidity enables banks to preserve operational continuity, sustain customer trust, and manage expenses more effectively.²³ However, QR management still needs to be carried out proportionally because excessively large liquid assets can reduce the bank's opportunity to allocate funds to more productive activities. Previous empirical findings indicate that QR affects profitability because the ability to maintain liquid assets is related to earnings performance.²⁴ Therefore, the hypothesis proposed in this study is.

H₂: Quick Ratio has a significant effect on the profitability of Islamic banks worldwide

Focusing on cash and cash equivalents, the CR assesses whether a bank can settle short-term liabilities without depending on other assets.²⁵ From the perspective of signal theory, CR can be financial information indicating a bank's readiness to face daily liquidity pressures. This ratio is relevant to profitability because adequate cash allows the bank to meet immediate liquidity needs, such as customer withdrawals, without causing additional funding pressure. However, excessively large cash holdings can also suppress profits because the funds are not directed towards productive financing.²⁶

¹⁸ Wahyu Agung Panji Subekti and Guntur Kusuma Wardana, "Pengaruh CAR, Asset Growth, BOPO, DPK, Pembiayaan, NPF dan FDR terhadap ROA Bank Umum Syariah," *INOBIS: Jurnal Inovasi Bisnis Dan Manajemen Indonesia* 5, no. 2 (2022): 270–85.

¹⁹ Regina, "Pengaruh FDR dan BOPO Terhadap Profitabilitas Bank Umum Syariah di Indonesia Periode 2020-2023."

²⁰ Lucky Nugroho et al., "Islamic Bank Profitability: Financing Micro and Small Segment, Promotion, Financing Quality, Labor Aspects (Indonesia Cases)," *European Journal of Islamic Finance*, 2022, 2421–2172.

²¹ Regina, "Pengaruh FDR Dan BOPO Terhadap Profitabilitas Bank Umum Syariah Di Indonesia Periode 2020-2023."

²² Oktaviani and Maya, "Pengaruh Likuiditas Dan Risiko Pembiayaan Terhadap Kinerja Keuangan Bank Syariah Di Indonesia Tahun 2018-2022."

²³ Utami Prihati Ning Tias, Arni Purwanti, and Surtikanti, "Pengaruh Likuiditas (Quick Ratio) Dan Perputaran Modal Kerja Terhadap Return On Asset," *Responsive* 3, no. 1 (2020): 1–17.

²⁴ S Khumaini and M Nurzansyah, "Pengaruh Quick Ratio Dan Financing To Deposit Ratio Terhadap Return On Assets Pada PT. Bank Negara Indonesia Syariah Tahun 2016-2019," *Al Maal: Journal of Islamic Economics and Banking* 2, no. 1 (2020): 38–48.

²⁵ Kasmir, *Analisis Laporan Keuangan* (Depok: PT RajaGrafindo Persada, 2019).

²⁶ Adinda Dwi Ristiyono et al., "Analisis Kinerja Keuangan Menggunakan Rasio Likuiditas Pada PT . Bank Rakyat Indonesia

Previous empirical findings indicating the influence of CR on profitability reinforce that cash management is related to a bank's ability to balance liquidity readiness and the efficiency of fund utilization. Therefore, CR remains relevant to analyze in this study, and the proposed hypothesis is.

H₃: Cash Ratio has a significant effect on the profitability of Islamic banks worldwide

Financing risk represents a potential source of loss for Islamic banks, as it is closely associated with customers' ability to fulfill their financial obligations.²⁷ This risk is commonly assessed using the non-performing financing (NPF) ratio, which reflects the share of impaired financing relative to total financing extended to customers. From the perspective of signaling theory, NPF can be financial information indicating the quality of assets and the level of bank risk. NPF is relevant to profitability because the higher the problematic financing, the greater the potential disruption of financing income and the increase in provisioning burdens, thus potentially putting pressure on the bank's profit.²⁸ Empirically, previous findings indicate that NPF significantly affects profitability, while also confirming that financing quality and risk management effectiveness are important factors in maintaining the performance of Islamic banks' profits.²⁹ Therefore, the hypothesis proposed in this study is.

H₄: Financing risk has a significant effect on the profitability of Islamic banks worldwide

Technology is an important factor in bank operations as it relates to operational effectiveness and service quality for customers. From the perspective of signal theory, the utilization of technology can provide signals regarding a bank's readiness to adapt to digitalization. Technology is relevant to profitability because faster and integrated service systems can expand transactions, reduce operational barriers, and support the bank's ability to generate profits.³⁰ Previous empirical evidence indicates that technology contributes to bank performance when its utilization is able to improve work processes, not merely increase digital investment costs.³¹ Therefore, the hypothesis proposed in this study is.

H₅: Technology has a significant effect on the profitability of Islamic banks worldwide

METHOD

Research Design

This study uses a quantitative approach with a causal design because it aims to examine the influence of liquidity, financing risk, and technology on the profitability of Islamic banks worldwide.³² This approach is appropriate because all variables are measured using numerical data from the banks' annual financial statements. The research data is in the form of panel data, which is a combination of cross-country Islamic banks and the 2020–2024 period, thereby capturing differences in characteristics between banks and changes in performance over time. Indicators and variable measurements are presented in Table 1.

(Persero) Tbk Tahun 2020–2022,” *Jurnal Rumpun Manajemen Dan Ekonomi* 1, no. 1 (2024): 30–39.

²⁷ Haris, Yao, and Fatima, “The Impact of Liquidity Risk and Credit Risk on Bank Profitability During COVID-19.”

²⁸ Aulia Siska Puspita Dewi, Moch Khoirul Anwar, and Maryam Bte Badrul Munir, “Pengaruh Tabungan Wadiah, Pembiayaan Bermasalah (NPF) Dan Risiko Likuiditas (FDR) Pada Produk ‘Tepat Pembiayaan Syariah’ Terhadap Profitabilitas (ROA) PT. Bank BTPN Syariah Tbk (2015 – 2023),” *El-Qist: Journal of Islamic Economics and Business (JIEB)* 14, no. 1 (2024): 64–81, <https://doi.org/10.15642/elqist.2024.14.1.64-81>.

²⁹ Ichsan Hamidi et al., “Does The Risk and Financing Structure Affect Islamic Bank Performance In Indonesia?,” *Journal of Islamic Economics and Finance Studies* 6, no. 2 (2025): 432–49, <https://doi.org/http://dx.doi.org/10.47700/jiefes.v6i2.11323> ISSN.

³⁰ Xiao Tong and Wang Yang, “Empirical Analysis of The Impact of Financial Technology on the Profitability of Listed Banks,” *International Review of Economics and Finance* 98, no. 1 (2025): 103788, <https://doi.org/10.1016/j.iref.2024.103788>.

³¹ Chhaidar, Abdelhedi, and Abdelkafi, “The Effect of Financial Technology Investment Level on European Banks' Profitability.”

³² John W. Creswell and Creswell J. David, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (Thousand Oaks, California: SAGE Publications, 2023).

Table 1. Variable Measurement

Variable	Formula
Profitability (Y)	$ROA = \text{Net income} / \text{Total Assets} \times 100\%$
Financing to Deposit Ratio (X ₁)	$FDR = (\text{Total Financing} / \text{Third-Party Deposits}) \times 100\%$
Quick Ratio (X ₂)	$QR = (\text{Current Assets} - \text{Inventory}) / \text{Current Liabilities} \times 100\%$
Cash Ratio (X ₃)	$CR = (\text{Cash} + \text{Cash Equivalents} / \text{Current Liabilities}) \times 100\%$
Financing Risk (X ₄)	$NPF = (\text{non performing financing} / \text{total financing}) \times 100\%$
Technology (X ₅)	$\text{Technology} = \ln(\text{Non-Interest Expenses})$
Bank Size (C ₁)	$\text{Bank Size} = \ln(\text{Total Assets})$
Capital Adequacy Ratio (C ₂)	$CAR = \text{Tier1} + \text{Tier2} / \text{risk weighted assets}$
Solvency (C ₃)	$\text{Solvency} = \text{Total Equity} / \text{Total Assets}$

(Source: Authors’ analysis, 2026)

This study includes control variables that can strengthen the research findings to be more comprehensive, accurate, and unbiased. Bank size is controlled because the amount of assets held can influence the bank's ability to generate profitability. CAR is controlled because capital adequacy helps the bank absorb losses and maintain stable financing. Furthermore, solvency is controlled because it illustrates the extent to which a bank's assets are financed by its own capital.³³ Data analysis begins with descriptive statistics, followed by the selection of a panel regression model using the Chow, Hausman, and Lagrange Multiplier tests. Once the best model is determined, classical assumption tests are conducted to ensure the model's feasibility. Next, hypothesis tests such as t-tests and the coefficient of determination are used to examine the effect of independent variables on profitability.

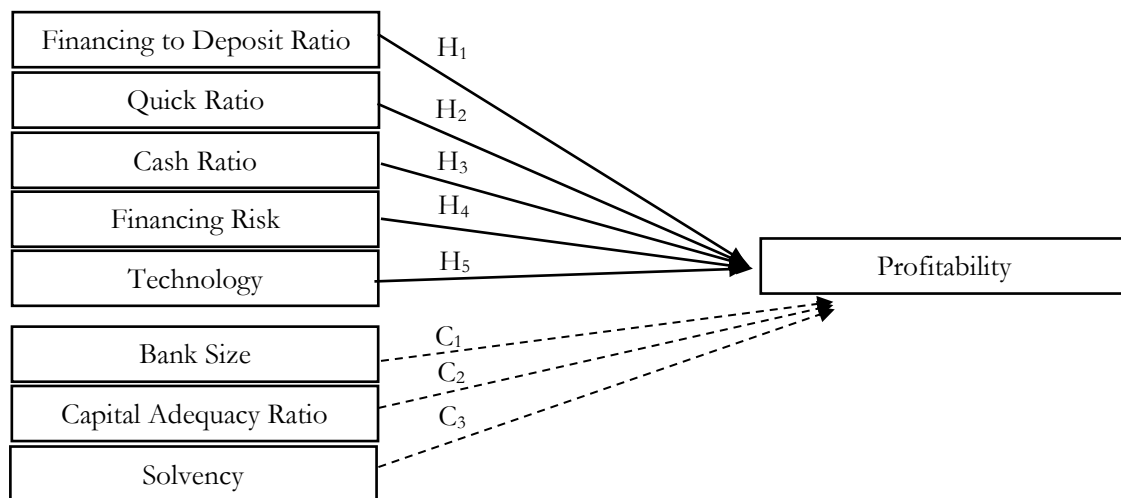


Figure 1: Research Framework

Participants/Sample Selection and Data Sources

The research concentrates on Islamic banks that satisfy predefined research requirements. Accordingly, purposive sampling is conducted on 52 Islamic banks registered with the Islamic Financial Services Board (IFSB) to identify samples that correspond with the study’s objectives, as detailed below:

Table 2. Sampling Method

Description	Quantity
Sharia banks registered as members of the Islamic Financial Services Board (IFSB) for the 2020-2024 period	52
Islamic banks that publish financial reports for the 2020-2024 period	(18)
The quantity of samples that satisfy the requirements	34
Research Period (Year)	5
Research data quantity	170

(Source: Authors’ analysis, 2026)

³³ Haris, Yao, and Fatima, “The Impact of Liquidity Risk and Credit Risk on Bank Profitability During COVID-19.”

Based on the selection criteria, 34 Islamic banks worldwide met the criteria. The research sample consists of the following Islamic banking institutions.

Table 3. List of Research Samples

Saudi Arabia	Bahrain	Kuwait
Al Rajhi Bank	Al Salam Bank	Boubyan Bank
Bank AlJazira	Bahrain Islamic Bank	Kuwait Finance House
		Kuwait International Bank
Oman	Qatar	UAE
Bank Nizwa	Dukhan Bank	Abu Dhabi Islamic Bank
	Masraf Al Rayan	Al Hilal Bank
	Qatar International Islamic Bank	Dubai Islamic Bank
	Qatar Islamic Bank	Emirates Islamic Bank
		Sharjah Islamic Bank
Brunei Darussalam	Malaysia	Bangladesh
Bank Islam Brunei Darussalam	Affin Islamic Bank Berhad	Al Arafah Islami Bank
	AmBank Islamic Berhad	
	Bank Islam Malaysia Berhad	
	Hong Leong Islamic Bank Berhad	
	Maybank Islamic Berhad	
	RHB Islamic Bank Berhad	
Sri Lanka	Pakistan	Jordan
Amana Bank	Meezan Bank	Islamic International Arab Bank
		Jordan Islamic Bank
Iraq	Turkey	Nigeria
Iraqi Islamic Bank	Albaraka Turk Participation Bank	Jaiz Bank
	Ziraat Katilim Bankasi	Taj Bank Limited

(Source: Authors' analysis, 2026)

Instrumentation/Data Collection

This research is based on secondary data collected from the annual financial statements of Islamic banking institutions worldwide. The required information was gathered through the official websites of Islamic banks affiliated with the Islamic Financial Services Board (IFSB), then selected and systematically organized according to the observation period of the study.

Data Analysis/Estimating Model/Variable Measurement

Panel data regression is employed as the analytical method in this research, supported by EViews version 12 software. This approach was chosen because it combines the dimensions of time and individual entities, thereby capturing the dynamics of Islamic bank performance across countries. Variable measurement refers to indicators used in previous studies, where liquidity is proxied by FDR, Quick Ratio, and Cash Ratio, financing risk is measured through NPF, technology is represented by ln (non-interest expenses), and profitability is measured using ROA, with additional control variables such as bank size, CAR, and solvency.

RESULTS

Descriptive Statistical Analysis

The selected FEM model is then used as the basis for estimating the following panel data regression.

Table 4. Descriptive Statistics

	Mean	Maximum	Minimum	Std. Dev.	Observations
ROA (Y)	1.450588	5.000000	-3.1	1.043393	170
FDR (X ₁)	86.61353	120.3000	43.70000	12.96201	170
QR (X ₂)	0.734082	1.651000	0.220000	0.322023	170

CR (X ₃)	0.578094	1.560000	0.107000	0.284759	170
Financing Risk (X ₄)	2.662647	9.950000	0.400000	1.904502	170
Technology (X ₅)	13.72406	18.30000	9.780000	2.344710	170
Bank Size (C ₁)	18.69941	27.16000	14.00000	2.826128	170
CAR (C ₂)	18.96071	41.00000	9.880000	3.954350	170
Solvency (C ₃)	11.46671	17.89000	4.220000	2.835793	170

(Source: Processed using Eviews 12, 2026)

Based on Table 4, the average ROA of 1.45% indicates positive profitability, but it is still lower compared to the global ROA of Islamic banks at 2%. This means that although the profitability of global Islamic banks has surpassed pre-pandemic levels, the banks in the research sample still show relatively lower profitability. The average FDR of 86.61% indicates active intermediation, in line with the global IFSB financing growth of 9.96% yoy, which surpasses deposit growth of 8.76% yoy. A QR of 0.734 and a CR of 0.578 indicate that short-term liquidity positions are still available, but they do not fully cover short-term obligations. The average NPF of 2.66% indicates controlled problematic financing, in line with the decline in global NPF according to IFSB to below pre-pandemic levels. A technology value of 13.72 indicates differences in the scale of technology expenditures among banks, as seen from the range of values between 9.78 and 18.30. A CAR of 18.96% indicates strong capitalization as it is still within the global CAR range for Islamic banks according to the IFSB report, which is approximately 17%–19.5%. A solvency of 11.46% indicates a fairly strong financial structure as it is close to the global leverage ratio for Islamic banks, around 10.7%.³⁴ The descriptive results indicate sufficient data variation to proceed with panel regression model selection and hypothesis testing.

Model Selection Test

After the data characteristics are described, the analysis continues with the selection of a panel regression model.

Chow Test

Table 5. Chow Test

Effects Test	Statistic	Prob.
Cross-section Chi-Square	257.567736	0.0000

(Source: Processed using Eviews 12, 2026)

From the table above, it can be seen that the p-value of $0,0000 < 0,05$ indicating that FEM is the best model for this test. The results indicate the presence of heterogeneity among the Islamic banks in the sample. Therefore, FEM is more appropriate to use because it is capable of capturing the differences in characteristics across cross-sectional units compared to CEM.

Hausman Test

Table 6. Hausman Test

Test Summary	Chi-Sq. Statistic	Prob.
Cross-section random	33.393730	0.0001

(Source: Processed using Eviews 12, 2026)

The probability value obtained from the Hausman Test result is $0,0001 \leq 0,05$ was obtained, indicating that the selected regression model is FEM. These results indicate the existence of a correlation between the individual effects of banks and the independent variables. Therefore, FEM is more appropriate to use than REM because it produces more consistent estimates.

³⁴ IFSB, “IFSI Stability Report 2025.”

Panel Data Regression Analysis

Table 7. Panel Data Regression Analysis

Estimation Command	LS(?) Y C X1 X2 X3 X4 X5 C1 C2 C3
Estimation Equation	$Y = C(1) + C(2)*X1 + C(3)*X2 + C(4)*X3 + C(5)*X4 + C(6)*X5 + C(7)*C1 + C(8)*C2 + C(9)*C3$
Substituted Coefficients	$Y = -8.616 + 0.022*X1 - 1.784*X2 + 1.988*X3 - 0.207*X4 + 0.018*X5 + 0.451*C1 + 0.017*C2 - 0.015*C3$

(Source: Processed using Eviews 12, 2026)

The FDR (X₁) coefficient of 0.022 indicates that an increase in the FDR is followed by a rise in ROA, suggesting that greater financing distribution tends to support profitability. The QR (X₂) coefficient of -1.784 indicates that an increase in the QR reduces ROA, which implies that an excessive increase in current assets relative to short-term liabilities can suppress bank profitability. A CR (X₃) coefficient of 1.988 indicates that the stronger a bank's cash position in meeting short-term obligations, the better its profitability level. An NPF (X₄) coefficient of -0.207 indicates that the higher the level of problematic financing held by the bank, the greater the decline in the bank's profitability. A technology (X₅) coefficient of 0.018 indicates that an increase in the allocation of technology costs managed effectively can drive an improvement in profitability. Meanwhile, Bank Size (C₁) and CAR (C₂) have positive coefficients, amounting to 0.451 and 0.017, respectively, indicating that asset scale and capital adequacy support ROA. Conversely, Solvency (C₃) has a coefficient of -0.015, which suggests that an excessively high equity proportion may suppress profitability if not optimized for productive activities.

Classical Assumption Test

After the regression results are obtained, classical assumption testing is conducted to ensure that the estimation model meets statistical feasibility.

Normality Test

Table 8. Normality Test

Jarque-Bera	3.307732
Prob.	0.191309

(Source: Processed using Eviews 12, 2026)

The results of the normality test show a p-value of 0.191309, which is greater than 0.05 and satisfies the normality assumption.

Multicollinearity Test

Table 9. Multicollinearity Test

	X ₁	X ₂	X ₃	X ₄	X ₅	C ₁	C ₂	C ₃
X ₁	1.000	0.010	0.150	0.096	-0.164	-0.078	-0.131	0.262
X ₂	0.010	1.000	0.814	0.103	0.191	0.166	0.073	0.051
X ₃	0.150	0.814	1.000	0.080	-0.062	0.060	0.126	0.232
X ₄	0.096	0.103	0.080	1.000	-0.197	-0.072	-0.045	0.099
X ₅	-0.164	0.191	-0.062	-0.197	1.000	0.578	0.301	-0.064
C ₁	-0.078	0.166	0.060	-0.072	0.578	1.000	0.055	0.027
C ₂	-0.131	0.073	0.126	-0.045	0.301	0.055	1.000	0.365
C ₃	0.262	0.051	0.232	0.099	-0.064	0.027	0.365	1.000

(Source: Processed using Eviews 12, 2026)

Based on the results of the multicollinearity test, no correlation values exceed 0.90, confirming that the research data meet the assumption of being free from multicollinearity.

Heteroscedastisitas Test

Table 10. Heteroscedastisitas Test

Variables	Prob.
Constant (C)	0.2041
FDR (X ₁)	0.1142
QR (X ₂)	0.8419
CR (X ₃)	0.9969
Financing Risk(X ₄)	0.2953
Technology (X ₅)	0.6268
Bank Size (C ₁)	0.1853
CAR (C ₂)	0.4285
Solvency (C ₃)	0.5091

(Source: Processed using Eviews 12, 2026)

From the test table, it can be seen that all p-values are $\geq 0,05$. Therefore, the data do not exhibit heteroscedasticity.

Hypothesis Test

After meeting the assumptions, hypothesis testing is conducted to examine the effect of each variable on profitability.

T-Test Results

Table 11. T-Test Results

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	-8.616784	2.367422	-3.639734	0.0004
FDR (X ₁)	0.022282	0.007142	3.119691	0.0022
QR (X ₂)	-1.784391	0.427959	-4.169541	0.0001
CR (X ₃)	1.988558	0.570058	3.488343	0.0007
Financing Risk (X ₄)	-0.207256	0.050335	-4.117509	0.0001
Technology (X ₅)	0.018963	0.134176	0.141327	0.8878
Bank Size (C ₁)	0.451614	0.140713	3.209462	0.0017
CAR (C ₂)	0.017052	0.023594	0.722747	0.4712
Solvency (C ₃)	-0.015600	0.039002	-0.399970	0.6898

(Source: Processed using Eviews 12, 2026)

Based on Table 10, FDR, QR, CR, and financing risk have a significant effect on profitability; thus, H₁, H₂, H₃, and H₄ are accepted. The positive coefficient of FDR reinforces previous research that the allocation of funds to financing becomes a primary source of income that can increase the profits of Islamic banks. The positive CR coefficient also supports previous findings that cash adequacy can maintain the bank's ability to meet immediate liquidity needs, thereby preserving profit performance.³⁵ A negative QR coefficient suggests that excess short-term liquidity may reduce profitability by creating idle funds.³⁶ Negative financing risk reinforces previous studies that NPF reduces profitability through a decline in financing quality and increased risk pressure.³⁷ Meanwhile, technology does not have a significant effect, so H₅ is rejected. This finding differs from studies on banking digitalization, which state that technology can improve bank performance; this difference may occur because the benefits of technology require time, implementation effectiveness, and varying levels of adoption among banks.³⁸

³⁵ Oktaviani and Maya, "Pengaruh Likuiditas Dan Risiko Pembiayaan Terhadap Kinerja Keuangan Bank Syariah Di Indonesia Tahun 2018-2022."

³⁶ Melpa Gusparini and Handra Tipa, "Analisis Modal Kerja, Current Ratio, Quick Ratio Dan Cash Ratio Terhadap Profitabilitas Di Bursa Efek Indonesia," *Owner: Riset & Jurnal Akuntansi* 6, no. 1 (2022): 570–79, <https://doi.org/10.33395/owner.v6i1.594>.

³⁷ Haris, Yao, and Fatima, "The Impact of Liquidity Risk and Credit Risk on Bank Profitability During COVID-19."

³⁸ Hasibuan and Oktaviana, "Technological Innovation in Influence the Financial Performance of Sharia Banking In Indonesia"; Alberto Citterio, Timothy King, and Rossella Locatelli, "Is Digital Transformation Profitable for Banks? Evidence from Europe," *Finance Research Letters* 70, no. June (2024): 106269, <https://doi.org/10.1016/j.frl.2024.106269>.

Coefficient of Determination (R^2)

Table 12. Determination Test

R-squared	0.835338
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(Source: Processed using Eviews 12, 2026)

Based on the R^2 value, the independent variables liquidity (FDR, QR, CR), financing risk, and technology account for 0.835338 or 83.5% of the variation in the dependent variable profitability, whereas the remaining 16.5% is explained by factors outside the specified model.

DISCUSSION***The Effect of Financing to Deposit Ratio on The Profitability of Islamic Banks in The World***

A p-value of 0.0022 obtained for variable FDR falls below the 0.05 threshold, confirming its statistical significance. This outcome leads to the conclusion that FDR has a statistically significant effect on the profitability level of Islamic banks worldwide. These results also indicate that the distribution of third-party funds to productive financing remains an important mechanism in the formation of Islamic banks' profits. These findings support previous research, which explains that FDR can increase profitability when the funds collected are effectively channeled into financing activities that generate revenue.³⁹ However, this positive influence does not mean that the higher the FDR, the better. The FDR will support profitability if it is at an optimal level, which is when financing remains productive without causing liquidity pressure. From the perspective of Signaling Theory, a well-managed FDR can be interpreted by investors and external parties as a signal that the bank is capable of performing its intermediation function effectively, maintaining liquidity balance, and sustaining profit prospects. Conversely, an excessively high FDR may serve as a risk signal, as it indicates the potential for overly aggressive lending or liquidity pressures. Thus, the positive results of FDR in this study are more appropriately understood as the impact of productive and controlled intermediation, rather than as a linear relationship where a higher FDR always results in greater profitability.⁴⁰

The Effect of Quick Ratio on The Profitability of Islamic Banks in The World

A p-value of 0.0001 obtained for variable QR falls below the 0.05 threshold, confirming its statistical significance. This outcome leads to the conclusion that QR has a statistically significant effect on the profitability level of Islamic banks worldwide. Economically, these results indicate that having excessively large liquid assets is not always advantageous, because a portion of the bank's funds is tied up in assets that are quickly liquidated but do not generate income as much as productive financing. From an asset efficiency perspective, this condition can reduce the bank's ability to generate profit from its assets. These findings reinforce the view that liquidity needs to be managed at a proportional level, rather than simply increased as much as possible.⁴¹ This result differs from studies that found QR to have a positive effect on ROA, as in those studies, QR was seen as facilitating the smooth operation of banks. However, this finding is more in line with studies showing that QR is not always a main determinant of Islamic bank performance, since high liquidity does not necessarily translate directly into profitability if it is not directed towards productive activities. From the perspective of Signaling Theory, an excessively high QR can be perceived by investors not only as a sign of liquidity security, but also as a signal that the bank has not optimized its assets to generate income. Thus, the negative relationship between QR and profitability indicates that liquidity stability must be balanced

³⁹ Heru Setyowiyono et al., "Determinants Of Profitability Of Islamic Commercial Banks (Bus): An Empirical Study Of The Effect Of Fdr, Car, And Npf In The 2020-2024 Period," *COSTING: Journal of Economic, Business and Accounting* 8, no. 6 (2025).

⁴⁰ Wahyu Agung Panji Subekti and Guntur Kusuma Wardana, "Pengaruh CAR, Asset Growth, BOPO, DPK, Pembiayaan, NPF Dan FDR Terhadap ROA Bank Umum Syariah," *INOBISS: Jurnal Inovasi Bisnis Dan Manajemen Indonesia* 5, no. 2 (2022): 270–85.

⁴¹ Yuni Mayanti and Muhammad Caesario Barkah, "Pengaruh Current Ratio Dan Quick Ratio Terhadap Return on Assets Pada Sektor Healthcare Yang Terdaftar Di BEI Tahun 2021-2023," *Jurnal Maps (Manajemen Perbankan Syariah)* 9, no. 1 (2025): 15–23.

with asset utilization efficiency.⁴²

The Effect of Cash Ratio on The Profitability of Islamic Banks in The World

A p-value of 0.0007 obtained for variable CR falls below the 0.05 threshold, confirming its statistical significance. This outcome leads to the conclusion that CR has a statistically significant effect on the profitability level of Islamic banks worldwide. The influence emerges as adequate cash reserves reduce exposure to liquidity risk and prevent operational disruptions, enabling Islamic banks to maintain stable activities that contribute positively to profitability.⁴³ This condition strengthens customer confidence because the bank is considered capable of meeting sudden withdrawals and short-term obligations promptly without having to seek additional high-cost funding, thereby maintaining funding stability and smooth intermediation.⁴⁴ This finding reinforces previous research that the CR plays a role in the financial performance of Islamic banks as a liquidity reserve supporting profit stability. However, an excessively high CR still needs to be scrutinized because excess cash can become a non-earning passive fund. From the perspective of Signaling Theory, investors can interpret a proportional CR as a signal of liquidity readiness and bank performance resilience, whereas an excessive CR indicates that cash has not been optimally utilized for productive activities.⁴⁵

The Effect of Financing Risk on The Profitability of Islamic Banks in The World

A p-value of 0.0001 obtained for variable financing risk falls below the 0.05 threshold, confirming its statistical significance. This outcome leads to the conclusion that financing risk has a statistically significant effect on the profitability level of Islamic banks worldwide. This is because the higher the NPF, the greater the risk faced by Islamic banks globally, as an increase in problematic financing will reduce profitability.⁴⁶ From the perspective of Signal Theory, a low NPF sends a positive signal indicating that the Islamic banking world can manage financing well. Conversely, a high NPF serves as a negative signal because it reflects poor financing quality and an increased risk of losses.⁴⁷ There is research that indicates that high credit risk tends to negatively affect bank profitability because excessive risk-taking behavior increases the amount of problematic financing, thereby pressuring financial performance and having an adverse impact on the stability of the financial system.⁴⁸ Furthermore, these results are also consistent with previous studies, which show that the increase in non-performing financing reflects a decline in the quality of productive assets because the financing no longer generates optimal income. At the same time, banks must set aside larger provisions for financing losses to anticipate the risk of default. This combination of reduced financing income and increased provision expenses is what pressures the profitability of Islamic banks.⁴⁹ Therefore, Islamic

⁴² Firman Junaidi and Anggraeni, "Understanding The Dynamics of Liquidity and Inflation on Islamic Bank Profitability In Indonesia," *Profit: Jurnal Kajian Ekonomi Dan Perbankan Syariah* 9, no. 1 (2025): 193–205; Khumaini and Nurzansyah, "Pengaruh Quick Ratio Dan Financing To Deposit Ratio Terhadap Return On Assets Pada PT. Bank Negara Indonesia Syariah Tahun 2016-2019."

⁴³ Eka Wahyu Hestya Budianto and Nindi Dwi Tetria Dewi, "Pemetaan Topik Penelitian Seputar Cash Ratio Pada Perbankan Syariah Dan Konvensional: Studi Bibliometrik VOSviewer dan Literature Review," *J-EBIS (Jurnal Ekonomi Dan Bisnis Islam)* 7, no. 1 (2023): 1–15.

⁴⁴ Tito Teguh Arnanto and L Lutfi, "Internal Financial Determinants of Profitability : Evidence From Rural Banks in Indonesia," *Golden Ratio Of Finance Management* 5, no. 2 (2025): 573–86; Ristiyono et al., "Analisis Kinerja Keuangan Menggunakan Rasio Likuiditas Pada PT . Bank Rakyat Indonesia (Persero) Tbk Tahun 2020-2022."

⁴⁵ Reza Santika, Rizka Ayuni, and Titin Trisnawati, "Analysis Of Liquidity Ratios In Islamic Banks In Indonesia," *International Journal Of Management Finance* 1, no. 4 (2024): 14–19; Oktaviani and Maya, "Pengaruh Likuiditas Dan Risiko Pembiayaan Terhadap Kinerja Keuangan Bank Syariah Di Indonesia Tahun 2018-2022."

⁴⁶ Haris, Yao, and Fatima, "The Impact of Liquidity Risk and Credit Risk on Bank Profitability During COVID-19."

⁴⁷ Aulia Siska Puspita Dewi, Moch Khoirul Anwar, and Maryam Bte Badrul Munir, "Pengaruh Tabungan Wadiah, Pembiayaan Bermasalah (NPF) dan Risiko Likuiditas (FDR) Pada Produk 'Tepat Pembiayaan Syariah' Terhadap Profitabilitas (ROA) PT. Bank BTPN Syariah Tbk (2015 – 2023)," *El-Qist: Journal of Islamic Economics and Business (JIEB)* 14, no. 1 (2024): 64–81.

⁴⁸ Isam Saleh and Malik Abu Afifa, "The Effect of Credit Risk, Liquidity Risk and Bank Capital on Bank Profitability: Evidence From an Emerging Market," *Cogent Economics and Finance* 8, no. 1 (2020).

⁴⁹ Oktaviani and Maya, "Pengaruh Likuiditas Dan Risiko Pembiayaan Terhadap Kinerja Keuangan Bank Syariah Di Indonesia Tahun 2018-2022."

banks worldwide need to strengthen financing feasibility assessments, monitor customers' creditworthiness, and manage non-performing financing to maintain stable profitability.⁵⁰

The Effect of Technology on The Profitability of Islamic Banks in The World

A p-value of 0.8878 for variable technology is above the 0.05 threshold based on the statistical procedure applied. This outcome leads to the conclusion that technology does not have a statistically significant effect on the profitability level of Islamic banks worldwide. These findings are in line with previous research that describes the profitability paradox, which occurs when technology is directed at improving efficiency, but profit benefits are not immediately realized due to initial costs and the digital implementation process.⁵¹ However, these results differ from studies that find that digitalization can enhance bank performance when its implementation successfully improves operational efficiency and service quality.⁵² The Resource-Based View approach also explains that new technology becomes an advantage if supported by resource planning, proper allocation, human resource quality, system integration, and effective implementation governance.⁵³ From the Signaling Theory perspective, technology indicators do not automatically serve as positive signals to investors. These signals are considered strong only when technology expenditures are reflected in cost efficiency, service improvement, transaction expansion, or profit enhancement. If technology improves but ROA has not yet improved, the resulting signal becomes weak and can be seen as an initial investment burden. Thus, the insignificance of technology indicates that digitalization requires time and internal capabilities before it has a real impact on profitability.⁵⁴

CONCLUSION

This study concludes that the profitability of global Islamic banks is influenced by liquidity and financing risk, whereas technology has not shown a significant impact during the observation period. The research findings indicate that liquidity should not only be maintained in large amounts but must be managed productively to support profit. Financing risk is also an important factor, as problematic financing can weaken asset quality and suppress profitability. Meanwhile, technology has not had a direct impact on profitability, so digitalization needs to be directed toward efficiency and measurable performance improvement. Therefore, enhancing the profitability of global Islamic banks requires proportional liquidity management, strengthening financing risk management, and evaluating the effectiveness of technology investments.

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⁵⁰ Besmir Çollaku and Muhamet Aliu, "Impact of Non-Performing Loans on Bank's Profitability: Empirical Evidence from Commercial Banks in Kosovo," *Journal of Accounting Finance and Auditing Studies* 7, no. 3 (2021): 226–42.

⁵¹ Elvira Cantika Daeli and Linda Kusumaning Wedari, "Exploring The Digital Transformation Impacts on Bank Profitability In Indonesia: A Textual and Sentiment Analysis Approach," *Banks and Bank Systems* 20, no. 1 (2025): 271–81.

⁵² Alberto Citterio, Timothy King, and Rossella Locatelli, "Is Digital Transformation Profitable for Banks ? Evidence from Europe," *Finance Research Letters* 70, no.6 (2024): 106269.

⁵³ Daeli and Wedari, "Exploring The Digital Transformation Impacts on Bank Profitability In Indonesia: A Textual and Sentiment Analysis Approach."

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