

Islamic Banking Performance: Important Insights and Strategies

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Abstract: Banks are financial institutions are created for the purpose of aggregating and disbursing funds among the members of the community. Such operation aims at financial equality, and serves the purpose of creating a platform for stimulating economic growth and overall national stability, which is directed toward the community well being. The main objective of this research is to analyze the impacts of Return on Equity and Debt to Equity Ratio, Gross Domestic Product, and Exchange Rate on Return on Equity in the Islamic banking institutions. The research adopts Islamic banking institutions in Indonesia and consists of five Islamic banks as a purposeful sampling method. To conduct the statistical analysis the Random Effect Model is employed. The research analyzes the impact of these selected financial variables: Return on Equity, Debt to Equity Ratio, Gross Domestic Product, and Exchange Rate Impact on Return on Equity. The researcher has concluded that Return on Equity, Debt to Equity Ratio, and Gross Domestic Product have significant impact on the Islamic banks Return on Equity. Exchange Rate on the other hand has no significant impact on the Islamic banks Return on Equity. To sum up this research, this study provides a basis for an understanding of the statical relationship between ROE, DER, and GDP and ER on Return on Equity in Islamic banks. The understanding of such mechanism is a key premise for creating impact policies, which strategically improve then Islamic banks capabilities to grow and contribute to the country's wellbeing.

Keywords: Return on Equity (ROE); debt-to-equity ratio (DER); Gross Domestic Product (GDP); Exchange Rate (ER); Return on Assets (ROA); Random Effect Model

Abstrak : Bank, sebagai lembaga keuangan, memainkan peran penting dalam mengumpulkan dan menyalurkan dana di masyarakat. Fungsi ini diarahkan untuk mendorong pemerataan keuangan, merangsang pertumbuhan ekonomi, dan berkontribusi terhadap stabilitas nasional, yang semuanya bertujuan untuk meningkatkan kesejahteraan masyarakat secara keseluruhan. Tujuan utama dari penelitian ini adalah untuk menganalisis pengaruh Return on Equity (ROE), Debt to Equity Ratio (DER), Produk Domestik Bruto (PDB), dan Nilai Tukar (ER) terhadap Return on Assets (ROA) pada lembaga perbankan syariah di Indonesia. Dengan menggunakan metode purposive sampling, penelitian ini berfokus pada lima bank syariah terpilih dan menggunakan Random Effect Model untuk analisisnya. Hasil penelitian menunjukkan bahwa Return on Equity (ROE), Debt to Equity Ratio (DER), dan Produk Domestik Bruto (PDB) mempunyai pengaruh yang signifikan terhadap Return on Assets (ROA) pada bank syariah. Namun Nilai Tukar (ER) ternyata tidak mempunyai pengaruh yang signifikan terhadap Return on Assets (ROA) bank-bank tersebut. Singkatnya, penelitian ini memberikan wawasan tentang hubungan rumit antara indikator keuangan seperti ROE,

DER, PDB, dan ER serta dampak kolektifnya terhadap kinerja bank syariah di Indonesia, khususnya dalam hal Return on Assets (ROA). Memahami dinamika ini sangat penting untuk membentuk kebijakan dan strategi yang efektif guna meningkatkan kontribusi bank syariah terhadap pertumbuhan ekonomi dan kesejahteraan masyarakat.

Kata Kunci: Return on Equity (ROE); debt-to-equity ratio (DER); Gross Domestic Product (GDP); Exchange Rate (ER); Return on Assets (ROA); Random Effect Model.

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A. Introduction

Banks are financial institutions that have a crucial function in collecting and distributing funds to the community, intending to support equity, economic growth, and national stability to improve community welfare. The two main types of banks that exist are conventional banking and sharia banking. Islamic banks, as an alternative form of banking, operate without relying on an interest system known as interest-free banks. Its operations and products are developed based on the Al-Qur'an principles and the Prophet Muhammad's Hadith¹.

The profit sharing principle is a feature of Islamic banking, which differs from conventional banking. One of the principles itself is the one that is implanted on the principal system when making joint agreements or ties of individuals in business with the participation of all parties, and the resulting profit among them will be distributed as a whole². Islamic banks are the most developed in the national development and economic system of all countries. Profitability of Islamic banks becomes the most highlighted because of the huge influence of this variable on the entire bank performance and the risks that are encountered by banks. Thus, many researchers have conducted the studies with respect to the profitability of this category of banks, and their findings are valuable for Islamic banks.

For instance, According to Belkhaoui et al, 2020³ Murabahah financing in GCC countries is one of the most contributing factors to the profitability of Islamic banks since the growth of profitability leads to the growth of capitalization ratio and cost efficiency simultaneously. As for Indonesia, Kusumastuti & Alam, 2019⁴ have studied the impact of inflation, BI rate, CAR, NPF, and BOPO on profitability of Islamic banks. Another study conducted by Margarita & Kholis, 2021⁵, indicated the fact that the debt to equity ratio was significant in the growth of profit for all Sharia general banks without exception. There is also a need to keep the liquidity of any institution lower than the

¹ Kasmir, *Bank Dan Lembaga Keuangan Syariah* (Raja Grafindo Persada, 2012).

² Veithzal Rivai and Arviyan Arifin, *Islamic Banking; Sebuah Teori, Konsep Dan Aplikasi* (Bumi Aksara, 2010).

³ Samir Belkhaoui, Naif Alsagr, and Stefan F. van Hemmen, "Financing Modes, Risk, Efficiency and Profitability in Islamic Banks: Modeling for the GCC Countries," *Cogent Economics & Finance* 8, no. 1 (2020): 1–25.

⁴ Wahyu Intan Kusumastuti and Azhar Alam, "Analysis of Impact of CAR, NPF, BOPO on Profitability of Islamic Banks (Year 2015-2017)," *Journal of Islamic Economic Laws* 2, no. 1 (2019): 30–59.

⁵ Yossi Margarita and Nur Kholis, "Pengaruh Loan to Deposit Ratio, Net Profit Margin, Dan Debt to Equity Ratio Terhadap Profitabilitas (Studi Kasus Pada Bank Umum Syariah Yang Terdaftar Di Bursa Efek Indonesia Periode Tahun 2015-2019)," *Reviu Akuntansi dan Bisnis Indonesia* 5, no. 1 (2021): 104–111.

level of invested capital to make it grow in case of the fear of the growth of risks in credit financing.

Selayan, et al, 2023⁶ conducted their research to determine variables such as Inflation, the Exchange Rate, and GDP on Sharia Commercial Banks' Profitability. Their findings show that Inflation, Exchange Rate, and Financing were insignificantly affecting Profitability, while GDP were significantly affecting it positively. Hidayati, 2014⁷ conducted the research to prove the significant effect of exchange rates on Indonesian Islamic banks' profitability. The study concludes that currency appreciation or depreciation directly affect the profitability of Islamic banks. In addition, Mawaddah, 2015⁸ aimed to analyze independent variables such as Financing and Net Interest Margin on Return On Asset with intervening variables Non-Performing Finance.

Yusuf & Hidayat, 2022⁹ concentrated their research on the influence of various variables, namely CAR, BOPO, FDR, and NPF, on Profitability at Islamic Commercial Banks. Their findings show that only CAR and NPF have a significant partial effect on Profitability at Bank Syariah Indonesia. In another study by Masood & Ashraf, 2012¹⁰, studied the uncertain issues and groundbreaking opportunity, or the connection of asset size of Islamic banks and their profitability. The results of this study indicated that the larger the asset size, the more profitable the Islamic bank is. In addition, Capital adequacy, loans to assets, and asset management have a positive and significant relationship with return on assets and return on equity, which I have already concluded to have the biggest influence on overall bank profitability.

Overall, considered studies shed light on the profitability of Islamic banks in Indonesia in all its multiple aspects, thus creating a comprehensive picture. In analyzing the obtained results, one might note that the discrepancies discovered imply that it is necessary to analyze the given set of interrelations more thoroughly to identify the factors influencing internal and external relations with profitability. Additionally, the obtained findings allowed discussing particular issues related to the progressing evolution of Islamic bank operations and the influence on financial stability.

This research differentiates itself from previous research by considering more detailed variables, including internal and external variables, and determining the company that is the focus of the research. First, in the context of internal variables, this research identifies weaknesses in previous research, especially related to the internal variables used. Most previous research tends to use variables such as Return on Equity (ROE) and Return on Assets (ROA) as a representation of the company's financial performance (variable X). In this framework, researchers choose more specific internal

⁶ Asyaadatun Nazila Selayan, Muhammad Yafiz, and Aqwa Naser Daulay, "Pengaruh Inflasi, Kurs, Dan PDB Terhadap Profitabilitas Bank Umum Syariah Di Indonesia Dengan Pembiayaan Sebagai Variabel Intervening," *Jurnal Intelektualita: Keislaman, Sosial, dan Sains* 12, no. 2 (2023): 145–156.

⁷ Amalia Nuril Hidayati, "Pengaruh Inflasi, BI Rate, Dan Kurs Terhadap Profitabilitas Bank Syariah Di Indonesia," *An-Nisbah: Jurnal Ekonomi Syariah* 01, no. 01 (2014): 72–97.

⁸ Nur Mawaddah, "Faktor-Faktor Yang Mempengaruhi Profitabilitas Bank Syariah," *Etikonomi* 14, no. 2 (2015): 241–256.

⁹ Muhammad Yusuf and Rahmadani Hidayat, "Pengaruh Rasio Perbankan Syariah Terhadap Profitabilitas Bank Syariah Indonesia Periode 2016-2020" 2, no. 2 (2022): 94–105.

¹⁰ Omar Masood and Muhammad Ashraf, "Bank-Specific and Macroeconomic Profitability Determinants of Islamic Banks The Case of Different Countries," *Qualitative Research in Financial Markets* 4, no. 2 (2012): 255–268.

variables, namely ROE and Debt Equity Ratio (DER), to reflect the company's return on equity.

Then, there is a second research gap related to external variables, including currency exchange rates (KURS) and Gross Domestic Product (GDP). The addition of these external variables can help identify additional factors that influence Sharia banking profitability. Therefore, this research aims to provide a more holistic understanding of the relationship between financial ratios and sharia bank share prices. The third difference in this research is related to the company that is the subject of the research and the period used. Previous research often uses time frames that may no longer be relevant as the economy changes. This research overcomes this by selecting companies that are still active, involving data for the last five years, thereby producing more accurate and relevant research results.

It is hoped that the results of this research will provide new understanding as a basis for further research. Focusing on financial ratios in the Sharia banking sector using internal and external variables such as ROE, DER, KURS, and GDP is expected to be able to identify the influence of Sharia banking profitability more comprehensively. Thus, this research has the potential to provide strong guidance for further research, expanding knowledge about the relationship between profitability and external-internal factors in the Islamic banking sector, as well as providing academic and practical impacts.

Islamic banks, as principals, entrust customers as agents to manage funds, and customers are expected to return the funds following the agreement established by the Islamic bank. Profits obtained from financing provided to customers become a source of income for Islamic banks, and this can increase the bank's overall profits¹¹. In this context, financial and contractual relationships such as Mudharabah can be considered agency relationships, requiring transparency so that both parties, namely the bank and the customer, can understand each other and carry out the agreement well.

The profitability ratio is used as an indicator to measure the effectiveness of a company in creating profits. The more enormous this ratio, the more profit the company can be. Lower amount than others means that the bank or Islamic banking companies are not profitable¹². Alexakis, et al, 2019¹³ state that the profitability ratio is used to measure the effectiveness of Islamic banking companies. This research measure profitability using Return on Assets. ROA shows the profit that can be obtained at all assets are managed by bank and generally expressed as a percentage¹⁴. In this case, if the bank's

¹¹ Achmad Syaiful Nizar and Mochamad Khoirul Anwar, "Pengaruh Pembiayaan Jual Beli, Pembiayaan Bagi Hasil Dan Intellectual Capital Terhadap Kinerja Keuangan Bank Syariah," *Akrual: Jurnal Akuntansi* 6, no. 2 (2015): 127–143.

¹² Saad Azmat et al., "Islamic Banking, Costly Religiosity, and Competition," *Journal of Financial Research* 43, no. 2 (2020): 263–303; Marwan Izzeldin et al., "Efficiency Convergence in Islamic and Conventional Banks," *Journal of International Financial Markets, Institutions and Money* 70 (2021): 1–24.

¹³ Christos Alexakis et al., "Performance and Productivity in Islamic and Conventional Banks: Evidence from the Global Financial Crisis," *Economic Modelling* 79 (2019): 1–14.

¹⁴ Lu'lu'il Maknuun and Muhtadina Annisa, "The Effect of Good Corporate Governance, Third Party Funds and Asset Growth through Profitability on Bankruptcy Risk of Sharia Commercial Banks Listed on the Indonesia Stock Exchange," *Indonesian Interdisciplinary Journal of Sharia Economics (IIJSE)* 4, no. 1 (2021): 287–299.

ROA is high, the bank's profit to be gain became more significant and better in asset use

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The Effect of Return on Equity on Return on Assets

Return on Equity is a profitability ratio that compares company's net profit with its net assets or equity. It demonstrates how effective a company is in generating profits for shareholders from paid-in capital. In other words, it measures how much a company can boost shareholders' profit from the capital they have invested. The higher the value of ROE, the more effectively the company uses the capital contributed by its shareholders to generate profits. Generally, investors are interested in buying shares of companies with a high proportion of ROE as it is an indication that the company is capable of giving high return on investment. According to Hossain, one of the reasons why investors want to have shares of a given company is the high percentage of return on shareholding investment¹⁶. Return on Assets (ROA) and Return on Equity (ROE) are two important dimensions used to determine the financial performance of a company. The former demonstrates how much the firm can produce benefits from all its assets. It can be argued that the latter relates to the return on investment from shareholders' perspective.

While observing ROA and ROE values, investors and financial analysts are able to build a better strategy regarding the financial performance of a given company. High percentages of ROA and ROE are indicative that a firm has successfully coped with its assets and capital which might positively affect investors' confidence and growth in potential investment¹⁷. On the other hand, low value can serve as signal to conduct additional analysis in terms of how efficiently and effectively a definite company is operating.

H₁: Return on Equity Affects Return on Assets

The Effect of Debt to Equity Ratio on Return on Assets

Debt to Equity Ratio compares a company's total debt to its equity or capital. This ratio can determine the extent to which the company uses sources of funding in the form of debt in comparison to the capital it owns. The impact of DER on Return on Assets is one that is crucial to familiarize oneself with as it could provide insight into the manner in which a company's capital structure influences its profitability. Firstly, if the balance is high, it indicates that the company relies to a considerable extent on debt to fund operations or investments. This high level can be detrimental to profitability as it increases the financial risk of the investments. As such, the assets purchased or invested in might not generate enough revenue to offset the debts that must be serviced.

¹⁵ Abdul Haris Romdhoni and Ferlangga El Yozika, "Pengaruh Pembiayaan Mudharabah, Musyarakah Dan Ijarah Terhadap Profitabilitas Bank Muamalat Indonesia," *Jurnal Ilmiah Ekonomi Islam* 4, no. 3 (2018): 177–186.

¹⁶ Akhand Akhtar Hossain, "Inflationary Shocks and Real Output Growth in Nine Muslim-Majority Countries: Implications for Islamic Banking and Finance," *Journal of Asian Economics* 45 (2016): 56–73; Hasan Mukhibad, Kiswanto, and Prabowo Yudho Jayanto, "An Analysis on Financial and Social Performance of Islamic Banks in Indonesia," *International Journal of Monetary Economics and Finance* 10, no. 3–4 (2017): 295–308.

¹⁷ Bungatang and Edy Jumady, "Banking Financial Performance: Mitigation Forms, Efficiency, Capabilities and Debt," *Jurnal Akuntansi* 25, no. 2 (2021): 330–346; Mohamad Zulman Hakim and Dinda Apriliani, "Effect of Profitability, Liquidity, Sales Growth, Business Risk, and Asset Structure on Capital Structure," *Jurnal Akademi Akuntansi* 3, no. 2 (2020): 224–243.

Consequently, the company would suffer a loss that would be imposed by the burden of the payable interest rates to the lender.

On the other hand, a high DER can also improve ROA if the company manages its debt well and invests it in meaningful projects that generate income. While the interest costs would be high, well-managed companies would hopefully be making more money from the investments than what would otherwise be due to creditors ¹⁸.

H₂: Debt to Equity Ratio Affects Return on Assets

The Effect of Gross Domestic Product on Return on Assets

The dependence of Return on Assets on Gross Domestic Product is provided by the dependence of the country's economy on company indicators. Thus, GDP influences the indicators of a company's gross product. Many authors argue that the gross domestic product is the main leading indicator of national market activity. Moreover, the GDP indicator generally characterizes the entire value of all goods and services produced in the country. As a result, it is possible to trace the level of economic activity and economic growth ¹⁹. In this context, increasing the gross product of the country indicates the prospect of increasing profitability and expanding the range of activities of companies.

In other words, increasing the level of economic activity presupposes an increase in the demand for the produced products or services. However, GDP can also affect some other indicators indicating the profitability of companies. These factors include, but are not limited to fiscal and monetary policy, political instability, and market demand ²⁰. For example, even with economic growth, an enterprise may need support in increasing profitability if the country is economically unstable.

H₃: Gross Domestic Product Affects Return on Assets

The Effect of Exchange Rates on Return on Assets

Currency exchange rate is one of the variables that explain its influence on Return on Assets in Islamic banks. ROA shows the level of return on investments made by an entity. It is described as one of the ratios that indicate the assets' efficiency in generating profits. On the other hand, currency exchange rate reflects the effect of the fluctuations of the exchange rates to the financial performance of an entity. SS, therefore, the variable currency exchange rate is an important factor that can affect the profitability of Islamic

¹⁸ Maulia Rostanti and Maya Syafriana Effendi, "Pengaruh Return on Equity, Debt to Equity Ratio, Current Ratio Dan Inflasi Terhadap Nilai Perusahaan Sektor Property Dan Real Estate Yang Tercatat Di Bursa Efek Indonesia Periode 2011- 2018," *Ikraith-Ekonomika* 2, no. 3 (2019): 111–121; Uswatun Hasanah and Hari Sulistiyo, "The Effect of CR, DER, and ROE on Stock Prices Transportation Sub Sector Companies Listed on the Indonesia Stock Exchange," *Nominal: Barometer Riset Akuntansi dan Manajemen* 10, no. 1 (2021): 102–117.

¹⁹ Francis Chinedu Egbunike, Ochuko Benedict Emudainohwo, and Ardi Gunardi, "Tax Revenue and Economic Growth: A Study of Nigeria and Ghana," *Signifikan: Jurnal Ilmu Ekonomi* 7, no. 2 (2018): 213–220; Hajer Zarrouk, Khoutem Ben Jedidia, and Mouna Moualhi, "Is Islamic Bank Profitability Driven by Same Forces as Conventional Banks?," *International Journal of Islamic and Middle Eastern Finance and Management* 9, no. 1 (2016): 46–66.

²⁰ Abdul Rashid, Saba Yousaf, and Muhammad Khaleequzzaman, "Does Islamic Banking Really Strengthen Financial Stability? Empirical Evidence from Pakistan," *International Journal of Islamic and Middle Eastern Finance and Management* 10, no. 2 (2017): 130–148; Muhammad Nadrattuzzaman Hosen and Syafaat Muhari, "Liquidity and Capital of Islamic Banks in Indonesia," *Signifikan: Jurnal Ilmu Ekonomi* 6, no. 1 (2017): 49–68.

banks. Appreciation or depreciation of the currency exchange rate will directly affect the profitability of the Islamic banks. For instance, appreciating the rupiah exchange rate to US dollars will positively increase the profitability since the price of imported goods go down. This means that the cost of importation will also go down, thus the profit margin of Islamic banks increases.

On the other hand, exchange rate volatility and expectations of rupiah depreciation can hurt profitability. If a sharp depreciation occurs, bank debtors with liabilities denominated in foreign currencies may experience difficulty repaying their debts, increasing credit risk²¹. Liquidity difficulties that may arise due to exchange rate fluctuations can reduce the profit level of Islamic banks.

H₄: Exchange Rates Affect Return on Assets

B. Research Method

This research is conducted with the primary objective of assessing the influence of key variables, namely Return on Equity (ROE), Debt to Equity Ratio (DER), Gross Domestic Product (GDP), and Exchange Rate (ER), on the performance indicator Return on Assets (ROA) within the domain of Islamic banking. As mentioned, the quantitative research design allows a statistical examination of the variables to comprehend their interrelations and impact on ROA. Employing the purposive sampling technique, samples were judiciously selected, considering specific characteristics. The chosen sample encompasses Bank Mega Syariah, Bank Muamalat, Bank Central Asia Syariah, Bank Victoria, and Bank Bukopin Syariah, selected for their representativeness within the landscape of Islamic banking in Indonesia.

$$ROA_{it} = \alpha + \beta_1 ROE_{it} + \beta_2 DER_{it} + \beta_3 GDP_{it} + \beta_4 ER_{it} + \varepsilon_{i,t}$$

The data collection process encompasses the independent variables ROE, DER, GDP, ER, and the dependent ROA for Islamic banking entities. The data source is derived from the quarterly financial reports of Bank Mega Syariah, Bank Muamalat, Bank Central Asia Syariah, Bank Victoria, and Bank Bukopin Syariah. The goal of the research is to enhance the understanding of factors influencing the performance of Islamic banking in Indonesia with a focus on ROE, DER, GDP, ER, and ROA. The dataset includes internal and external financial reports containing ROA, ROE, DER, GDP, and exchange rates as internal variables and GDP and exchange rates as external variables. The period of the study is from 2018 to 2022.

Hypothesis testing will be conducted with a panel regression analysis, which structure supports the combination of time series and cross-sectional data. However, the key task of the panel regression implemented in the research is to identify the effect that financial ratio and macroeconomic factors have on the share prices in the Islamic banking sector. This analysis involves evaluating the ROE, DER, GDP, and exchange rate variables to elucidate their effects on the performance of Islamic banking

²¹ Letizia Montinari and Livio Stracca, "Trade, Finance or Policies: What Drives the Cross-Border Spill-over of Business Cycles?," *Journal of Macroeconomics* 49 (2016): 131–148; Agyenim Boateng et al., "Home Country Macroeconomic Factors on Outward Cross-Border Mergers and Acquisitions: Evidence from the UK," *Research in International Business and Finance* 30, no. 1 (2014): 202–216; Ahmed Mohamed Dahir et al., "Revisiting the Dynamic Relationship Between Exchange Rates and Stock Prices in BRICS Countries: A Wavelet Analysis," *Borsa Istanbul Review* 18, no. 2 (2018): 101–113.

institutions during the stipulated period. The result expected from the major research is a deeper concern related to dynamics and drivers of the development of the Islamic banking sector. The findings are anticipated to furnish valuable insights for stakeholders in the Islamic banking industry and augment the existing literature in Islamic finance and economics.

C. Results and Discussion

The Chow test is carried out to determine the most appropriate panel data regression model. The results of the Chow test value in this study, namely 0.0000, indicate a significance level of less than 0.05. Therefore, the regression model chosen is the Fixed Effect Model (FEM).

Table 1. Best Model

Test	Summary	Probability
Chow	Cross-section Chi-square	0.0000
Hausman	Cross-section random	1.0000
Lagrange Multiplier	Breusch Pagan	0.0000

The Hausman test was carried out to compare Random Effect Models to determine a more appropriate model. The Hausman test value in this study reached 1,000, more significant than the significance level of 0.05. So, with H_0 accepted, the regression model chosen is the Random Effect Model (REM). The Lagrange Multiplier test compares the Random Effect Model with the Common Effect Model to determine which model is more appropriate. The LM test value in this study was 0.000, smaller than the test significance level of 0.05. Thus, with H_0 accepted, the regression model chosen is the Random Effect Model (REM).

Table 2. Random Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.574790	1.800287	-0.319277	0.7502
ROE	0.116536	0.002238	52.08030	0.0000
DER	-0.029374	0.006989	-4.202725	0.0001
GDP	2.23E-07	1.26E-07	1.764661	0.0808
ER	0.024671	0.160713	0.153511	0.8783

1. The Effect of Return on Equity on Return on Assets

Return on Equity (ROE) measures financial performance and describes how much a company's net profit can create added value for shareholders about equity or paid-in capital. In Islamic banking, ROE is an important indicator that reflects the company's success in managing funds from shareholders or customers. The results of the analysis with an ROE probability of 0.0000 and a t-test significance of less than 0.05 show that the ROE variable significantly influences ROA in Islamic banking.

The relationship between ROE and ROA in Islamic banking can be explained as follows: First, the higher the ROE value, the greater the rate of return on banking equity. This means that the company has optimized its capital to achieve maximum profits. In the sharia context, the efficient use of capital reflects the success of banks in implementing sharia financial principles that encourage justice and sustainability.

Second, the positive relationship between ROE and ROA indicates that overall capital and asset management efficiency positively impacts the profitability of Islamic banking. In other words, Islamic banking that succeeds in creating added value for its

shareholders and efficiently managing assets can be expected to have a better ROA level

²².

From an Islamic banking perspective, these findings provide direction for bank management to focus more efforts on increasing the efficiency of capital use, which in turn will support sustainable profitability growth²³. These implications can also be a basis for regulators and researchers to develop further policies and research on financial management in the Islamic banking sector.

2. The Effect of Debt to Equity Ratio on Return on Assets

The statistical analysis of the variable DER has revealed some significant findings. The t-statistic value has been calculated to be -4.202725, with a Prob. (significance) of 0.0001. The value of the t-test significance is less than 0.05. It implies that the null hypothesis is rejected, and the alternative hypothesis is accepted. These results mean that the independent variable DER has a significant impact on the dependent variable. In other words, it can be concluded from the data that variable DER has an effect on variable ROA. Overall, it is possible to argue that the data analysis results of DER variable provide sufficient grounds for concluding that it influences the profitability of Islamic bank companies.

In particular, the further research conducted by Herliana, 2021²⁴ has shown that efficient debt management is important, especially for Islamic banking. It can be observed that companies that are unable to manage efficiently the funds that it obtained from the debt could be influenced negatively. The result is that this company could experience a negative impact, which may lead to a decrease in company profitability. On the other hand, debt management for Islamic banking allows beneficial influence, when funds are used on projects, which comply with Islamic principles and. Thus, efficient investment of debt funds under Islamic finance principles positively influences the performance of Islamic banking companies²⁵.

Therefore, it is reasonable to suggest that value of the DER variable influences the profitability of Islamic banking companies positively. This analysis provides important preliminary data about the influence of particular variables on Islamic bank companies. It should be noted that it can also serve as a preliminary empirical base for developing policies for financial management in Islamic banking companies.

²² Amalia Nasuha, "Dampak Kebijakan Spin-off Terhadap Kinerja Bank Syariah," *Al-Iqtishad: Journal of Islamic Economics* 4, no. 2 (2016): 241–258; Bungatang and Jumady, "Banking Financial Performance: Mitigation Forms, Efficiency, Capabilities and Debt"; Kusumastuti and Alam, "Analysis of Impact of CAR, NPF, BOPO on Profitability of Islamic Banks (Year 2015-2017)."

²³ K Priya and Nimalathan Balasundaram, "Liquidity Management and Profitability: A Case Study of Listed Manufacturing Companies in Sri Lanka," *International Journal of Technological Exploration and Learning (IJTEL)* 2, no. 4 (2013): 161–165; Hakim and Apriliani, "Effect of Profitability, Liquidity, Sales Growth, Business Risk, and Asset Structure on Capital Structure."

²⁴ Dessi Herliana, "Pengaruh Current Ratio Dan Debt to Equity Ratio Terhadap Return On Assets Pada Perusahaan Pertambangan Sub Sektor Batubara Yang Terdaftar Di BEI Tahun 2016—2018," *Jurnal Mahasiswa Akuntansi Unsuraya* 1, no. 1 (2021): 1–17.

²⁵ Wasiaturrahma et al., "Financial Performance of Rural Banks in Indonesia: A Two-Stage DEA Approach," *Heliyon* 6, no. 7 (2020): 1–9; Abdul Rahim Abdul Rahman and Romzie Rosman, "Efficiency of Islamic Banks: A Comparative Analysis of MENA and Asian Countries," *Journal of Economic Cooperation and Development* 34, no. 1 (2013): 63–92; Mohammad Dulal Miah and Helal Uddin, "Efficiency and Stability: A Comparative Study between Islamic and Conventional Banks in GCC Countries," *Future Business Journal* 3, no. 2 (2017): 172–185.

3. The Effect of Gross Domestic Product on Return on Assets

The t-statistic value of the statistical analysis of the variable GDP is equal to 1.764661. This value has probability 0.0808, which is less than the significance level of 10 percent $\alpha = 0.1$. According to the statistical inference, the null hypothesis H_0 can be rejected, and the alternative hypothesis H_a can be accepted. This means that there is a sufficient amount of statistical evidence that there is indeed an impact between the independent variable GDP and the dependent variable ROA.

Accordingly, it can be determined that the variable GDP is significantly important enough to make an impact on influencing the profitability levels of the Islamic banking sector. It is an important variable since it is well known that GDP is a measurement indicator accepted to measure the market value of all goods and services produced within a country. As for the research hypothesis of this study, the variable GDP determines ROA performance in banking companies. Accordingly, it can be assumed that GDP indeed significantly impacts the ROA variable. Thus, the GDP variable impacts the ROA variable of the Islamic banking sector when using a significance level of 10 percent.

The results of this study provide conclusive evidence that the impact of the GDP value indeed increases the level of profitability of the Islamic banking companies. Accordingly, it is the most significant result of the study, which can serve as the primary evidence. It is also expected that this result may serve as a short catalyst to facilitate subsequent research and policy intentions in the direction of increasing the profitability levels of the Islamic banking sector²⁶.

4. The Effect of Exchange Rates on Return on Assets

A t-statistic value of 0.153511 was obtained as a result of a statistical analysis of the exchange rate through a t-test. The probability of t-test was 0.8783. Since the t-test significance level is higher than the magnitude of the general significance level of 0.05, the null hypothesis is accepted. The alternative hypothesis is also rejected. According to this statement, there is not enough evidence to conclude that the independent variable has any significant effect on the dependent variable at the significance level of 5%.

Solihin et al, 2022²⁷ study claims that horrifying theory can be raised that the appreciation or depreciation of exchange rates can significantly affect banking profitability. The results of this academic research indicated that the effect of exchange rate on Islamic banking profitability is not significant. Currency exchange rates can have an effect on banking profitability by two different means. First and foremost, fluctuations in the exchange rates of other currencies can have a huge effect on banking revenue and the costs associated with these currency transactions.

Second, they also have an effect on the banking asset-liabilities portfolio, which alters the return on assets. Both of these effects can be attributed to the Islamic financial principles and religious etiquette for managing the risks in Islamic banking. Due to this,

²⁶ Jamel Boukhatem and Fatma Ben Moussa, "The Effect of Islamic Banks on GDP Growth: Some Evidence from Selected MENA Countries," *Borsa Istanbul Review* 18, no. 3 (2018): 231–247; Sabri Mohammad et al., "Liquidity Risk Exposure and Its Determinants in the Banking Sector: A Comparative Analysis between Islamic, Conventional and Hybrid Banks," *Journal of International Financial Markets, Institutions and Money* 66 (2020): 1–20.

²⁷ Ahmad Solihin, Wazim, and Oom Mukarromah, "Pengaruh Inflasi Dan Kurs Nilai Tukar Terhadap Profitabilitas Bank Umum Syariah," *Jurnal Manajemen dan Bisnis* 5, no. 1 (2022): 1–9.

the logic behind the flow of currency exchange rates must be understood by any financial institutions in order to effectively manage their risks and maximize their profitability²⁸.

D. Conclusion

Return on Equity, Debt to Equity Ratio, and Gross Domestic Product significantly affect Return on Assets in Islamic banking is the highlighted finding of the study. The estimation result of the regression of the model used in this study showed that ROE positively influenced the profit earning which means that the use of the equity properly will highly favor their outcome. In addition, DER is highly significant implying that the financial structure of the bank impacts the ROA profitably. Moreover, GDP is significant in determining the profitability of Islamic banking. This means that the growth of the country's economy can be vital in increasing the profitability of Islamic banking.

However, the Exchange Rates do not determine the profitability of Islamic Banking. According to the results, there is no significant effect of profitability made on the fluctuations in the currency exchange rates during this period. For that, these findings can be important for stakeholders, regulators, and researchers who want to understand the factors that affect the success of Islamic banks. However, there might be factors which might not be included in the study. Therefore, further research should consider more variables in detail to identify their role in a broader context.

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²⁸ Hossain, "Inflationary Shocks and Real Output Growth in Nine Muslim-Majority Countries: Implications for Islamic Banking and Finance"; Faizul Mubarak and Rusdianto, "The Distribution of Profits and Losses, As Well As Monetary Policy, in Islamic Banks Indonesia," *Journal of Islamic Economics and Business* 9, no. 1 (2023): 172–189.

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