

Islamic Bank's Profitability Analysis with Dupont Method: Country Cases



Tuğba Demirtaş

PhD, Central Bank of the Republic of Türkiye, İstanbul/Türkiye, <https://orcid.org/0000-0002-8052-6082>

ABSTRACT: Islamic banking is an alternative banking area with an asset volume of approximately 3 trillion dollars today. Its working principles, products and services, balance sheet structure, and pricing behaviors differ from conventional banks. These differences are likely to be reflected in the factors that support the equity profitability of banks. For this reason, this study aims to find common components that support equity profitability through Islamic banking data from 14 countries. The study uses the Dupont method to examine the effectiveness of operational efficiency, asset efficiency, and leverage factors on the profitability of countries. The results show that the different structures of Islamic banks affect the factors supporting profitability performance in the same way across countries.

KEYWORDS: Islamic Banks ROE Performance, Dupont Analysis, Profitability

Jel Codes: *G21, G10, G00*

1. INTRODUCTION

Islamic banking continues to grow as an alternative banking area with an asset size of approximately 3 trillion. Islamic banks differ from conventional banks in principles, operations, and applications. This alternative banking system differs from traditional banks regarding products and services, balance sheet structure, pricing behavior, principles, and application areas. They vary from deposit banks because they offer interest-free products based on profit and loss sharing, different fund allocation and collection methods, and a pricing mechanism. Correctly reading the differences in the working structure of Islamic banks provides a better understanding of the holistic structure in the banking sector. (Demirtaş, 2024) This study examines these differences' reflections on Islamic banks' essential profitability components and also the main factors affecting profitability are in the same direction in countries operating with Islamic banking. This analysis looks at the leading equity and asset return determinants for detailed observation in all country examples.

Banks' return on equity (ROE) and return on assets ratios (ROA) provide a general idea of their profitability. Different methods are used for more detailed analysis of these ratios and measuring profitability components. This study uses the Dupont method for a more detailed analysis of Islamic banks' return on equity ratios. With this method, separating the components that constitute equity profitability are operational efficiency, asset efficiency, and leverage. Here, operational efficiency shows that banks can manage their expenses and income effectively, while asset efficiency explains how much assets they use in profitable areas. In addition, leverage also reflects equity efficiency since it shows equity per asset. While the working methods of banks determine the weights of all these variables, these ratios also reflect in their profitability at different rates. For this reason, this article shows the essential components that determine the return on equity of Islamic banks in detail.

This study conducts a comprehensive analysis of the equity and asset profitability of 14 countries with Islamic banking data. To ensure a robust assessment of the current situation, consider the last quarter of 2023 and the averages of the last four years, 2020-2024. Each country's data is examined both individually and comparatively with the average data of 14 countries, providing a thorough and reliable analysis.

The results of this study show that the differences in the working principles of Islamic banking and the efficiency factors affecting the profitability components in the same direction in all countries have practical implications. These results demonstrate the impact of collaborative working principles while providing actionable insights into areas where further development is needed.

Islamic Bank's Profitability Analysis with Dupont Method: Country Cases

2. LITERATURE REVIEW

The Dupont method is one of the most used techniques in the literature to compare profitability analyses for different countries and bank groups. This section includes analyses and findings on country examples.

Ajmera (2012) examined the return on equity ratio analysis of the banking sector in India between 2006 and 2011 using the Dupont method and ANOVA tests. The study investigated the comparative advantages of banks in the country through Dupont ratios. Banks' profitability ratio performances were reflected through asset efficiency, operational efficiency, and asset profitability.

AlAli (2019) analyzed the profitability performances of Kuwaiti banks in the 2012-2017 period using the Dupont method. The results of the comparative analysis of banks show that Kuwait National Bank was the best in active profitability, while Ali United Bank performed better in equity profitability.

Al-Khoury, Haddad, et al. (2022) analyzed the Jordanian banks' financial performance using Dupont analysis between 2000-2019. The study finds that banks' ROE performance fluctuates slightly despite the financial crises. According to the study, net profit margin, total asset turnover, and equity multiplier are the main determinants of ROE performance.

Almazari (2016) compared the profitability of two banks from Arabia and Jordan in the 2010-2015 period with Dupont analysis. Almazari found the Jordanian Arab Bank's higher profit margin supported its better equity return performance. In addition, Samba Bank had higher active profitability and equity multiplier.

Arslan and Bora (2021a) analyzed the profitability of deposit banks in the Turkish banking sector between 2015 and 2019 via the Dupont method. The comparison of the average values shows why private banks remained below the sector average values. This was due to the low asset profitability and equity multiplier. In their study, Arslan and Bora (2022b) examined the profitability performance of Turkish development and investment banks in the 2015-2020 period using the same method. The results show that development and investment banks operated with asset profitability above the sector average values and lower equity multipliers during this period.

Balaj (2015) analyzed the profitability performance of local and foreign banks operating in Kosovo from 2001 to 2007 via the Dupont method. The study reveals that the determinants of foreign banks' better asset and equity profitability performance' are high return margins, good cost management, and financial leverage.

Demirtaş (2024a) analyzed ROE profitability components with the Dupont method to the banking sector groups in Türkiye. The results show that the differences in working principles are also reflected in the comparative advantages in the components that constitute profitability. The comparative analysis reflects that participation banks, working with Islamic banking principles, have high leverage and operational efficiency, which are advantageous in supporting their ROE profitability.

Faruk and Alam (2014) examined the profitability of commercial banks in Bangladesh from 2005 to 2008 using the Dupont method. These banks also conduct Islamic banking. In the analysis comparing different banks, although the equity multiplier fluctuated over the years, it was still high. However, the low return on assets due to the insufficient use of assets negatively affects the return on equity.

Georgios et al. (2013) conducted a DuPont analysis of the world's 24 systemically important banks. The results showed that if a bank wants to increase its return on equity, it should use its resources more effectively by giving importance to operational profit. The effective use of assets, reducing the cost of deposits, and reducing the cost of borrowing are among the results of effective management.

Padake and Soni (2015) examined the profitability of 12 Indian banks with DuPont analysis. The analysis found that high profitability does not always mean resources are used effectively. In addition, the result shows that the use of assets is insufficient, and some assets do not perform well enough.

Rafi et al. (2020) examined the equity return analysis of banks in Bangladesh from 2013 to 2018 using the Dupont model. They concluded that assets should be transferred to productive areas, capital should be restructured in selected banks, and operational expenses should be reduced.

Rooplata (2016) examined the profitability performance of 19 national banks in India using the Dupont analysis. The results show that a bank's performance cannot be measured only by profit or certain ratios, and high profitability does not always bring high efficiency. Although it is possible to reach high profitability with high capital, this situation does not mean the efficient use of all resources.

Vidhya and Ravichandran (2018) compared Citibank's and Standard Chartered Bank's profitability in the 2002-2017 period with the Dupont analysis. The results showed Citibank's financial efficiency to be better, and the same bank's performance was higher in all three components of the Dupont analysis.

Zulfiqar et al. (2016) examined the equity return analysis of Dubai Islamic Banks operating in the United Arab Emirates, Pakistan, and Jordan using the Dupont method. The findings show that the highest value in equity multiplier is in Pakistan, the profit margin is in the United Arab Emirates, and the highest leverage ratio is in Pakistan. It has been found that the differences in ratios between countries are also reflected in the bank's equity return components.

In a nutshell, the studies in the literature include different countries and bank groups and show that the profitability components obtained with the Dupont analysis better determine the source of equity return. The results show that high capital does not always

Islamic Bank's Profitability Analysis with Dupont Method: Country Cases

mean high profitability and increases in profitability do not always reflect the efficient use of assets. For this reason, differences in profitability components better reflect the performance criterion. There is a lack of studies in the literature that examine the profitability performance of Islamic banking across countries holistically. For this reason, this study examined the standard view with a holistic approach.

3. METHOD

Dupont analysis; is a method that allows a detailed examination of the banks' return on equity ratios. While the return on equity ratio is used in calculating the profits obtained by banks in return for their capital, it is measured by dividing net profit by equity (Model 1). However, in this calculation, it is unclear if the profitability is due to operational efficiency, asset efficiency, or leverage. In Dupont's analysis, return on equity is examined in its simplest form by multiplying the return on assets ratio and equity multiplier (Model 2). Return on assets ratio; is the ratio of the period's net profit to total assets, and the equity multiplier shows the assets per equity. The return on assets ratio can also be separated in a way that measures operational and asset efficiency. Thus, the basic components determining the Dupont analysis separation are operational efficiency, asset efficiency, and leverage (Model 3).

$$\text{Return on Equity (ROE)} = \frac{\text{Total Net Profit}}{\text{Total Equity}} \quad (1)$$

$$\text{Return on Equity (ROE)} = \text{Return on Assets (ROA)} \times \text{Equity Multiplier (Leverage)} \quad (2)$$

$$\text{Return on Equity (ROE)} = \frac{\text{Total Net Profit}}{\text{Total Assets}} \times \frac{\text{Total Assets}}{\text{Total Equity}}$$

$$\text{Return on Equity (ROE)} = \text{Operational Efficiency} \times \text{Asset Efficiency} \times \text{Leverage} \quad (3)$$

$$\frac{\text{Total Net Profit}}{\text{Total Equity}} = \frac{\text{Total Net Profit}}{\text{Revenues}} \times \frac{\text{Revenues}}{\text{Total Assets}} \times \frac{\text{Total Assets}}{\text{Total Equity}}$$

Two components stand out in the examination of the return on equity ratios of banks. Here, the criterion of whether the assets are used in profitable areas or whether there are more or fewer assets than equity is decisive. In other words, better operational efficiency also supports equity profitability.

$$\text{Return on Assets (ROA)} = \text{Operational Efficiency} \times \text{Asset Efficiency} \quad (4)$$

$$\frac{\text{Total Net Profit}}{\text{Total Assets}} = \frac{\text{Total Net Profit}}{\text{Revenues}} \times \frac{\text{Revenues}}{\text{Total Assets}}$$

However, as seen in equation 4; while the operational efficiency of banks is higher, the asset efficiency may be lower. The lower asset efficiency indicates that profitability is supported by relatively lower expense items. This situation causes banks' return on assets lower than the sector.

This study analyzed 14 countries' ROE profitability for the Islamic banking sector. Dupont's method is useful for understanding whether the countries' comparative advantages and main components of profitability are the same or not. Tables 1 and 2 provide Dupont analysis results according to countries for the 2024Q4 and 2020-2023 periods.

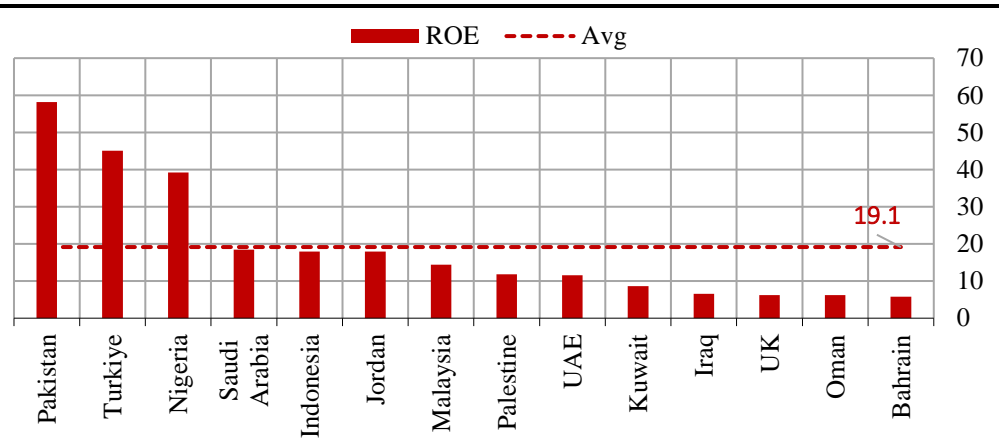
4. RESULTS

This section includes a detailed analysis of the average ROE and ROA values of 14 countries for the last quarter of 2023 and 2020-2023. The data shows no significant difference between the trend of the last quarter data and the four-year average values.

In Graph 1, the average ROE value of 14 countries over the four years is 19.1 percent, and 3 countries have a return on equity rates above average.

Islamic Bank's Profitability Analysis with Dupont Method: Country Cases

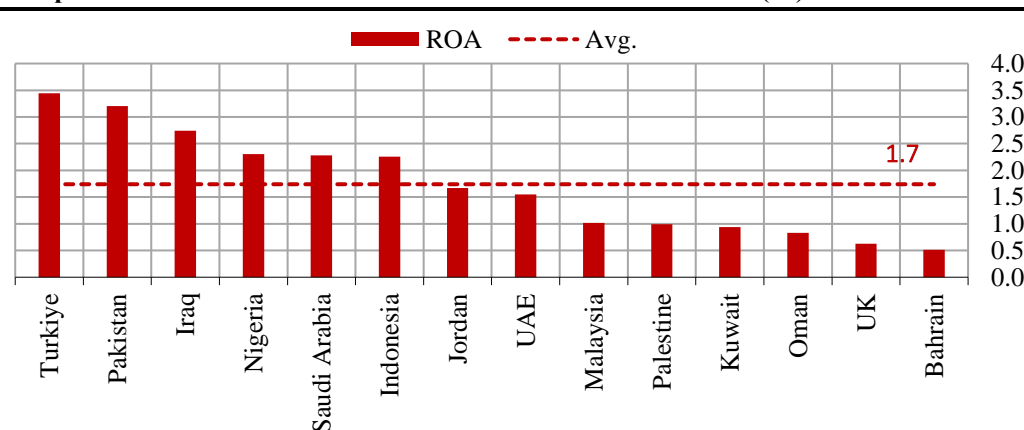
Graph 1: ROE Results of 14 Countries between 2020-2023 Period (%)



Sources: <https://www.ifsb.org/data-metadata/>

In Graph 2, the average ROA value of 14 countries over the four years is 1.7 percent, and 6 countries have a return on asset rates above average.

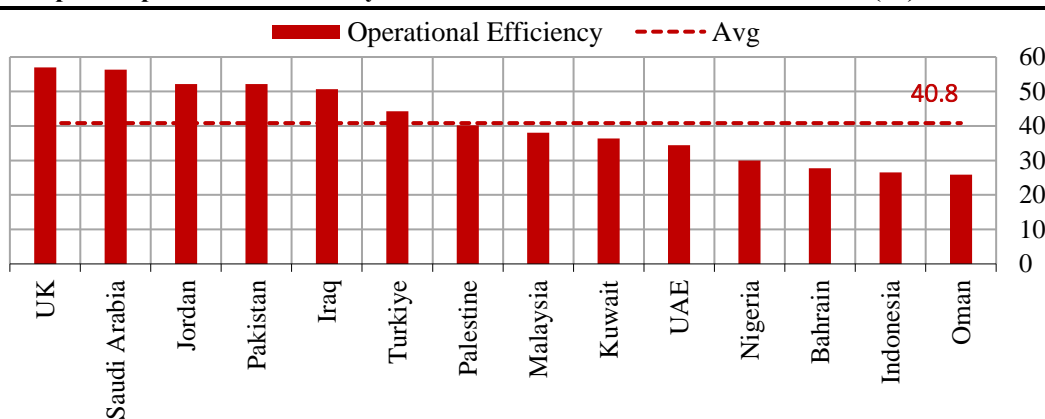
Graph 2: ROA Results of 14 Countries between 2020-2023 Period (%)



Sources: <https://www.ifsb.org/data-metadata/>

Graphs 3, 4, and 5 show the main components of the ROA and ROE ratios due to the Dupont method. These component trends also display the determinants and general tendency of all countries' profitability. In Graph 3, the average operational efficiency ratio is 40.8, which is higher than any other components, underscoring the pivotal role of operational efficiency in driving profitability. The observation of high operational efficiency in all countries also shows that the comparative advantage in profitability values is due to operational efficiency. The values in Table 1 and Table 2 also show that both quarterly and 4-year average data reflect the same results, further highlighting the significance of operational efficiency in the financial landscape.

Graph 3: Operational Efficiency of 14 Countries between 2020-2023 Period (%)

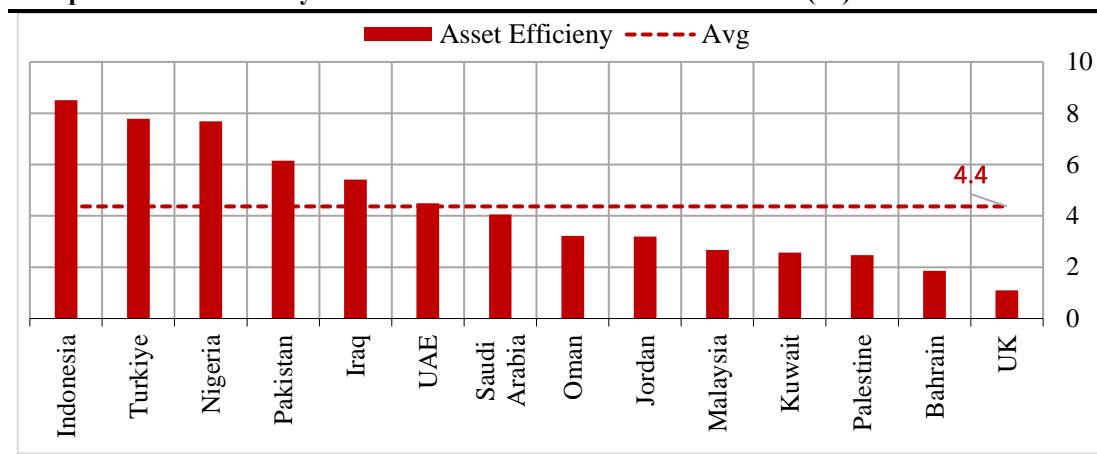


Sources: <https://www.ifsb.org/data-metadata/>

Islamic Bank's Profitability Analysis with Dupont Method: Country Cases

Graph 4 reveals that the average asset efficiency is 4.4 percent. However, asset profitability is relatively low compared to other profitability components.

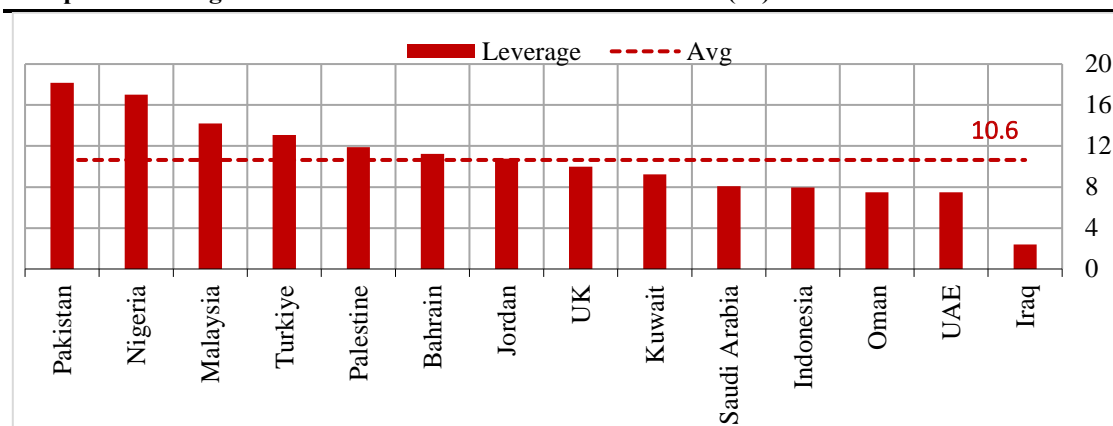
Graph 4: Asset Efficiency of 14 Countries between 2020-2023 Period (%)



Sources: <https://www.ifsb.org/data-metadata/>

Graph 5 shows that countries' average leverage value is 10.6 percent. This explains that leverage is the second important component supporting countries' profitability values.

Graph 5: Leverage of 14 Countries between 2020-2023 Period (%)



Sources: <https://www.ifsb.org/data-metadata/>

Table 1 reflects the last quarter of 2023, and Table 2 the average values for the years 2020-2023. Data from both periods show that operational efficiency is the primary determinant of profitability in all countries and is supported by leverage. On the other hand, asset efficiency ratios are lower in all countries.

All these results underscore the fact that operational efficiency and leverage are not just supported but are indeed the very backbone of the working principles of Islamic banking. This realization should foster a deep appreciation for the unique principles of Islamic banking. Two reasons stand out here.

- Operational efficiency also shows that income and expense items are managed in a way that supports net profit. Islamic banking distributes all pricing behaviors to fund owners based on the return it obtains from loans, that is, the funds it provides, which has been decisive in this result. Because, unlike conventional banks, deposit prices (profit ratio) or, in other words, the interest given to deposits are not determined in advance like conventional banks; on the contrary, the return received from loans is decisive for deposit profit ratios. The result obtained from the data also seems to have led to better management of income and expense items in Islamic banking.
- The emergence of leverage as a fundamental profitability component is underpinned by the fact that Islamic banking is rooted in profit and loss sharing, and it offers the opportunity to operate with less equity. This risk-sharing perspective allows fund owners to share the income obtained to the extent of profit and loss, thereby reducing the need for higher equity. This reassures us of the robustness of the Islamic banking system and instills confidence in its ability to manage risk and support profitability

Islamic Bank's Profitability Analysis with Dupont Method: Country Cases

	Operational Efficiency (Net Income/ Revenues)	Asset Efficiency (Revenues/ Avg. Assets)	Leverage (Avg. Assets/ Avg. Equity)	ROA (Net Income/ Avg. Assets)	ROE (Net Income/ Avg. Equity)
	1	2	3	4 (1*2)	(1*2*3) - (3*4)
Bahrain	37.3	2.3	12.1	0.8	10.2
Indonesia	33.3	7.7	7.1	2.6	18.2
Iraq	50.7	5.4	2.4	2.7	6.6
Jordan	51.4	3.0	11.1	1.5	16.9
Kuwait	54.9	3.2	7.9	1.8	14.0
Malaysia	37.9	2.5	13.8	1.0	13.2
Nigeria	31.8	7.3	23.6	2.3	54.4
Oman	36.4	3.2	7.5	1.2	8.8
Pakistan	59.7	8.4	17.3	5.0	86.8
Palestine	8.1	4.3	11.5	0.4	4.0
Saudi Arabia	72.1	3.6	7.7	2.6	20.1
Turkiye	49.7	8.7	12.7	4.3	55.1
UAE	35.7	5.6	7.6	2.0	15.3
UK	61.1	1.6	10.3	1.0	10.0

	Operational Efficiency (Net Income/ Revenues)	Asset Efficiency (Revenues/ Avg. Assets)	Leverage (Avg. Assets/ Avg. Equity)	ROA (Net Income/ Avg. Assets)	ROE (Net Income/ Avg. Equity)
	1	2	3	4 (1*2)	(1*2*3) - (3*4)
Bahrain	27.7	1.9	11.2	0.5	5.8
Indonesia	26.6	8.5	8.0	2.3	18.0
Iraq	50.7	5.4	2.4	2.7	6.6
Jordan	52.2	3.2	10.8	1.7	17.9
Kuwait	36.4	2.6	9.2	0.9	8.7
Malaysia	38.0	2.7	14.2	1.0	14.4
Nigeria	30.0	7.7	17.0	2.3	39.2
Oman	25.8	3.2	7.5	0.8	6.2
Pakistan	52.1	6.1	18.2	3.2	58.2
Palestine	40.2	2.5	11.9	1.0	11.8
Saudi Arabia	56.3	4.1	8.1	2.3	18.5
Turkiye	44.2	7.8	13.1	3.4	45.0
UAE	34.4	4.5	7.5	1.5	11.6
UK	57.0	1.1	10.0	0.6	6.2

Islamic Bank's Profitability Analysis with Dupont Method: Country Cases

5. CONCLUSION

This study analyzes Islamic banking profitability data from 14 countries, with average values between the last quarter of 2023 and 2020-2023. Although the return on equity and asset data give a general result, the Dupont method is effective in profitability analysis as it also shows the profitability components. The analysis also allows us to separate the key components of profitability into operational efficiency, asset efficiency, and leverage.

The results show that profitability in Islamic banking is supported by high operational efficiency and leverage in all countries. However, asset efficiency remains relatively low. The primary conclusions drawn here also coincide with the working principles of Islamic banking.

It is possible to explain the high operational efficiency in all countries. As a result of its working principle, Islamic banking does not price from liabilities to assets, unlike conventional banks, but from assets to liabilities. In other words, it does not determine the loan interest on top of the interest paid on collected deposits as in conventional banks. In other words, the return on the funds given is not added to the cost of the funds collected. On the contrary, the cost of the funds collected is determined according to the return on the funds given. For this reason, there is no expense above what is earned. On the other hand, Islamic banks adopting a participatory approach according to the profit and loss sharing principle also support risk sharing, allowing transactions with lower equity. This application supports working with higher leverage.

It is possible to explain the relatively low asset efficiency by income obtained from contract-based transactions with an asset behind them rather than from a predetermined interest basis. Here, it is also possible to raise the issue of using assets in more profitable businesses and processes. However, since speculation, interest, and deceiving businesses and transactions are prohibited as required by the basic principles of Islamic banking, all assets must have a counterpart in the real sector.

In summary, this study's results perfectly align with the working principles of Islamic banking. The data unequivocally show that the advantage of high operational efficiency and leverage supports profitability. However, further studies are needed to support channeling assets to more productive and profitable areas, undoubtedly contributing to the sector's development and profitability.

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