

Optimizing profitability: The impact of operational efficiency and FDR from Muamalat Islamic bank

Novia Sumarni¹, Francisca Sestri Goestjahjanti^{1,*}, Tias Pramono¹, and Wahyu Murti²

¹Faculty of Business, Universitas Insan Pembangunan Indonesia, Indonesia

²Faculty of Economics and Business, Universitas Borobudur, Indonesia

Abstract

This research examines the role of Bank Muamalat Indonesia's (BMI) operational efficiency and Financing to Deposit Ratio (FDR) in affecting its profitability. This topic becomes more important considering the issue of the bank being hit by a drastic decline in profits. Collected data from quarterly financial reports published on the BMI's official website from 2013 to 2023, covering 44 observation periods. The data were analyzed using SPSS 27. The results indicate the negative effect of BOPO and the positive effect of FDR on ROA. Indicates that operational inefficiencies will suppress profitability. On the other hand, through increased funding distribution, banks will also benefit from the profit sharing obtained. So, if a bank wants to increase profitability, the two methods are operational efficiency and increasing FDR. This result suggested that Islamic banks must manage their operational income while controlling their operation costs to maintain operational efficiency. Also advised to maintain their bank's performance by observing the financing options they offer for their customers. This finding is also expected, especially for policyholders at BMI, as an essential implication for getting out of the difficult situation.

Keywords: Profitability; operational efficiency; FDR; Islamic bank; Muamalat

1. Introduction

Islamic economy is one of the feasible solutions to global economics, including the exchange rate and global economic crisis. The Center for Islamic Economic Research and Development 2012 reported that the Islamic economy is a discipline that discusses, analyzes, and solves many economic issues through Islamic law, based on Islamic teachings in the Koran and the Sunnah of Rasulullah Muhammad SAW. Islamic banking is a banking system that applies Islamic values in its operation (Sharia). Avdukic and Asutay (2024) said IBF, or Islamic banking and finance, is based on the ethos of IME (Islamic moral economy), which has explicit values such as human dignity, equity, freedom of enterprise, moderation, and justice. This banking system was established following the prohibition of usury (collection of interest on loans) and investment in illicit business.

Islamic teaching argues that the usury system is heavily unjust, while conventional banking cannot be separated from this practice. The usury system requires the borrower of funds to return the loans more by not considering whether the borrower incurred a loss instead of a profit. The Islamic banking system follows a different system from conventional banking. In contrast, profit sharing is applied instead of usury, which allows lenders and borrowers to share the risk and agree on a prior profit distribution. Islamic banks must also strictly adhere to Sharia rules (Mamat *et al.*, 2024). From an economic standpoint, Islamic banking can be considered an intermediation media that acts as an effective tool to distribute public investment. This system also requires an individual to pay zakat (alms) and prohibits usury and gambling following Islamic values, ethics, morals, and principles.

Islamic banking in Indonesia was initiated following the establishment of the Islamic Development Bank (IDB) by the Organisation of Islamic Cooperation (OIC) in 1975. This development

* Corresponding author at Jl. Raya Serang Km.10, Kadu Jaya, Kec. Curug, Kabupaten Tangerang, Banten 15810. Email: sestri@unipem.ac.id

is possible with the help of IDB in facilitating the establishment of institutions for research, writing, and training in banking and Islamic financing in Indonesia. Hence, Indonesia can establish the first Islamic commercial bank under Bank Muamalat Indonesia (BMI) (Wulandari and Subagio, 2015). The initiatives to develop the first Islamic bank in Indonesia were started in 1990 by the Indonesian Council of Ulama (*Majelis Ulama Indonesia-MUI*) in collaboration with the Government of Indonesia and with support from the Association of Indonesian Muslim Scholars (*Ikatan Cendekiawan Muslim Indonesia-ICMI*) and Muslim Entrepreneurs in Indonesia. The initiative for Islamic bank establishment started with a workshop on 18-20 August 1990 in Bogor, Jawa Barat, where *Majelis Ulama Indonesia* (MUI) discussed bank and banking interest rates. The decision of this workshop led to the national assembly (*Musyawahar Nasional*) IV MUI in Jakarta on 22 - 25 August 1990, which concluded with a mandate to form a working group on establishing an Islamic bank in Indonesia.

Bank Muamalat Indonesia was officially established on 1 November 1991, with a commitment for equity investment valued at 84 billion Rupiah. The bank started its operation in May 1992 with initial capital totaling 106.2 billion Rupiah and successfully opened 45 branches across Indonesia until September 1999. Bank Muamalat, which applied the Sharia economics principle among the other conventional banks, proved its sustainability during the Indonesian monetary crisis of 1997 and 1998. Bank Muamalat is a public company whose shares are not listed on the Indonesia Stock Exchange (*Bursa Efek Indonesia-BEI*). It officially serves as a Foreign Exchange Bank starting on 27 Oktober 1994, according to the Bank Indonesia director's decree No. 27/76/KEP/DIR, and starting on 06 February 1995. BMI was officially appointed as a perception foreign exchange bank by the government of Indonesia through decree no. S-79/MK.03/1995. BMI is a bank that receives deposits from state revenues, including tax, customs, and other non-tax revenues, to support the state's financial and fiscal stability. On 25 July 2013, BMI was registered as a member of the Indonesia Deposit Insurance Corporation (IDIC) as stated through letter No. S.617/DPMR/VII/2013. Most recently, in 2013, Bank Muamalat's market share grew by 24% (up 1% compared to the previous year), and its assets reached IDR 54.9 trillion (Wiyanto, 2014). On 28 February 2018, BMI was also appointed as the bank receiving deposits for hajj pilgrimage costs as stated in the decree of hajj financial management agency No. 4/BPKH.00/2018.

Islamic banks became a banking model that Indonesian citizens often chose. This choice is affected by Islam as the majority religion in Indonesia, at the same time becoming the nation with the greatest number of Muslim citizens. Table 1. presents data released by the Financial Services Authority (*Otoritas Jasa Keuangan-OJK*) on the number of branches and total assets of Islamic commercial banks and business units between 2019-2023. In general, both experienced quite large growth except for the number of branches, which decreased between 2022 and 2023.

Table 1. Total branch and assets of Islamic commercial bank and business unit 2019-2023

Year	Total branch		Total Assets (in billions)			
	Islamic bank	commercial	Islamic business unit	Islamic bank	commercial	Islamic business unit
2019	1919		381	350.364		174.200
2020	2034		392	397.073		196.875
2021	2035		444	441.789		234.947
2022	2007		438	531.860		250.240
2023	1967		426	594.709		274.277

Along with this, Islamic banks in Indonesia gained strong legitimacy with the banking sector deregulation in 1983, namely the freedom to determine interest rates up to 0 (zero) percent or eliminate interest (McLeod, 1999). However, this opportunity has yet to be implemented, considering the provision prohibiting Indonesia from establishing new institutions. This provision lasted until 1988, when the Government of Indonesia released the October Policy Package (*Paket Kebijakan Oktober-Pakto*), which contained a policy to allow new banks to be established. This regulation has become the legal basis for Islamic banking in Indonesia.

Bank Indonesia (BI), as the central bank of Indonesia, holds the monetary supervision authority (Goestjahjanti, 2024). Issued Regulation No. 23 of 2004, which amended Regulation No. 23 of 1999,

on the authority given to commercial banks to implement Sharia-based monetary policy. Another Regulation no. 3 of 2006 on the amendment of Regulation no. 7 of 1989 on religious court delegates an absolute authority to the religious court to oversee the judicial process for Sharia economics-related disputes. Finally, regulation no. 21 of 2008 on Islamic banking covers all regulations for Islamic banking in Indonesia as mentioned in the Bank of Indonesia Regulation (*Peraturan Bank Indonesia-PBI*) and the Bank of Indonesia Circular Letter (*Surat Edaran Bank Indonesia-SEBI*).

This research seeks to investigate how Bank Muamalat Indonesia's profitability performance is influenced by operational efficiency and FDR. Considering that BMI's profitability performance continues to decline and its profits even dropped 83.68% (YoY) to 8.54 billion Rupiah (Octaviano, 2024), this creates problems. Especially for BPKH as the majority holder of BMI. This research is important, considering BPKH cannot invest in businesses that experience losses.

2. Literature review

Islamic bank

Islamic Bank can be defined by separating its nomenclature into two words, 'bank' and 'Sharia'. Conceptually, a bank refers to an institution acting as the financial intermediary between the capital owner and the seeker. Sharia can be defined as rules or agreements made by related parties, either the bank or other parties (depositor), related to a service provided to safeguard depositors' assets, funding business activities, including but not limited to other financial activities regulated by Islamic law. Islamic banks must demonstrate their innovative advantages while complying with sharia principles in the current contemporary business climate (Asutay, 2013).

The modern banking system lexicons are mostly taken from *fiqh* knowledge, such as credit derived from '*qord*'. In English, credit (loan) holds the meaning of lending money, while *credo* in the Roman language means trust; both meanings are covered in '*qord*', which refers to lending money based on trust. Additionally, 'check' is derived from '*suq*' in Arabic, which means market, and '*check*' is a payment tool used in a market. The pioneer of the Islamic bank can be traced back to the usury-free modern Islamic bank institution, established in Mit Ghamir village on the Nile riverbank, Cairo, in 1963, founded by Dr. Abdul Aziz El-Nagar known as "Islamic Rural Bank," which received funding aids from King Faisal in 1963 - 1967. Encouraged the establishment of the first Islamic bank in the world, namely in the 1970s (Warde, 2010).

In 1977, in line with the analysis conducted by Prof. Khurshid Ahmad based on a report by the International Association of Islamic Banks, up to August 1998, more than two hundred Islamic financial institutions were operating across the globe, of which 160 institutions serve as bank and the rest serving as a non-bank financial institution located in either Muslim-dominated countries, Europe, Australia, and the US, where Muslim is not the major religion. However, despite the rapid growth of Sharia financial institutions globally, until 2007, none of the established Islamic banks were included in the top 100 largest banks.

Sharia finance

According to Acharya (2019), Sharia finance is an approach to managing a company's funds and assets following Sharia principles, where transactions are conducted per Islamic law. Sharia finance is a financial governance concept aiming for sustainable economic and social welfare by avoiding usury elements, *ghahar*, and *masyir* following the Sharia principles (Kurniawan, 2023). Financial ratios are commonly applied in Islamic banks to forecast their business profitability. Profitability can be one of the appropriate indicators to measure a business or organization's performance. A commonly known profitability ratio as a measure of performance analyzed is the Return on Asset (ROA).

3 Method

Research design

This research uses a causality research design. According to Hermawan (2023), this design aims to identify and analyze the causal relationship between two or more variables and measure the effect of an independent variable on the dependent variable with a quantitative approach and secondary data to investigate it. The data is in the form of quarterly periodic data (time series) obtained from Bank Muamalat financial reports between 2013-2023. A total of 44 observations were obtained.

Population, sample, and variable

The population in this research is actually all Islamic banks in Indonesia. However, we only limited the sample to Muamalat Bank because this bank was considered to have relatively poor performance compared to other Islamic banks. Three variables were used in this research. First, the dependent variable is profitability measured by (ROA). Two independent variables are operational efficiency (BOPO) and financing-to-deposit ratio (FDR). More details of the variables we use are shown in Table 2 below.

Table 2. Research variable operationalization

Research variable	Indicator	Formula	Reference(s)
Dependent variable	Profitability	$ROA = \frac{Net\ income}{Total\ assets} \times 100\%$	(Risfandy and Pratiwi, 2022)
Independent variable	Operational efficiency	$BOPO = \frac{Total\ operating\ expenses}{Total\ operational\ revenue} \times 100\%$	(Harfiah <i>et al.</i> , 2016)
	Financing to deposit ratio	$FDR = \frac{Total\ financing}{Total\ deposit} \times 100\%$	(Harfiah <i>et al.</i> , 2016)

Analysis method

To test the impact of operational efficiency and liquidity on bank Muamalat profitability. We will use the regression equation as below:

$$Profitability_t = \alpha_0 + B_1OE_t + B_2FDR_t + e_t \dots (1)$$

Profitability is the dependent variable of this research, which ROA measures. The higher the ROA value, the better Muamalat bank's performance is considered. Meanwhile, OE is operational efficiency, which is proxied by BOPO. The higher the BOPO value, the more inefficient bank operations are. FDR itself is the second independent variable after OE. FDR is financing to deposit ratio. The higher FDR value indicates the bank's ability to channel funding from third-party funds. *t* is the research time variable.

4 Results and discussion

Descriptive analysis

We present a short overview of the research in Table 3. below regarding descriptive statistics. We present a short overview of the research in Table 3. below regarding descriptive analysis. ROA shows a mean of 0.33, indicating a relatively small profit level compared to total assets. With a standard deviation 0.50, the minimum value is 0.02, and the maximum is 1.72. For BOPO, the mean is 95.78, explaining that operational costs are quite large or almost equivalent to operational income. Indicates the low efficiency of Muamalat Bank. The relatively small variation in BOPO is shown by the standard deviation value of 4.88. With a minimum value of 82.07 and a maximum value of 99.90. Finally, the FDR variable is still considered ideal, with a mean of 76.99. So, Muamalat Bank is capable of channeling financing from third-party funds. The standard deviation is quite low, only 21.49. The minimum and maximum values are 38.33 and 106.50.

Table 3. Descriptive statistics

Variable	N	Minimum	Maximum	Mean	Standard deviation
ROA	44	0.02	1.72	0.33	0.50
BOPO	44	82.07	99.90	95.78	4.88
FDR	44	38.33	106.50	76.99	21.49

Partial correlation analysis

We also display the results of partial correlation analysis to determine the relationship of each independent variable to the dependent variable separately. The correlation test results in Table 4 below show that several conclusions were obtained. Firstly, the correlation value between BOPO and ROA is -0.98, indicating a strong negative relationship. The higher the BOPO, the more ROA will decrease; in other words, the more inefficient the bank will be, reducing profitability. Second, the correlation between FDR and ROA shows a relatively strong positive relationship of 0.57. This indicates that the more a bank can channel financing to other parties (FDR increases), the more profitability (ROA) tends to increase. Both show that the relationship is also very significant at the 1% level.

Table 4. Partial correlation analysis

		BOPO	ROA	FDR	ROA
BOPO	Pearson correlation	1	-0.98**		
	Sig. (2-tailed)		0.00		
	N	44	44		
ROA	Pearson correlation	-0.98**	1		
	Sig. (2-tailed)	0.00			
	N	44	44		
FDR	Pearson correlation			1	0.57**
	Sig. (2-tailed)				0.00
	N			44	44
ROA	Pearson correlation			0.57**	1
	Sig. (2-tailed)			0.00	
	N			44	44

** Correlation is significant at the 0.01 level (2-tailed)

Regression analysis

Multiple linear regression analysis tests the simultaneous effect of BOPO and FDR on ROA. Based on the result of the t-test, as reported in Table 5. The t-statistics for the impact of BOPO on ROA is -43.35, with a significance score of 0.00. This means operational inefficiency (increasing BOPO ratio) will significantly reduce bank profitability. In comparison, the t-test results for the effect of FDR on ROA had a significance score of 0.00, and the t-statistics were 6.54. This indicates a significant positive effect of FDR on profitability. The more Islamic banks increase their financing ratio from deposits, the more they will increase profitability.

Table 5. Regression test results

Model	Unstandardized coefficients		Standardized coefficients	t-statistics	Sig.
	β	Std. Error	β		
Constant	9.03	0.23		39.81	0.00
BOPO	-0.09	0.00	-0.920	-43.35	0.00
FDR	0.00	0.00	0.139	6.53	0.00

Discussion

The results of our research show that an increase in the BOPO ratio will hurt profitability at Islamic Bank Muamalat, in line with previous research from (Dina Sentika *et al.*, 2024). An increasing BOPO ratio indicates that the bank is operating inefficiently. On the other hand, if the bank can operate efficiently, it will increase profitability. As explained by Handoyo *et al.* (2023), operational efficiency will enable companies to offer more competitive prices to customers. Furthermore, it drives profitability. In a competitive market like now, companies with high operational efficiency will perform better (Lee *et al.*, 2021).

The following finding is that increasing FDR will increase the profitability of Islamic Bank Muamalat. These results align with research (Al Almer and Hidayah, 2023). With an increased FDR ratio, there will also be an increase in income from the revenue sharing of the

funds (Nur Janah and Siregar, 2018). However, an increase in FDR will also potentially cause liquidity difficulties for Bank Muamalat. It is also necessary to pay attention to the proportion of FDR balanced between income needs from funding and liquidity.

5. Conclusion

Our research investigates how operational efficiency and FDR affect Bank Muamalat's profitability. This topic becomes more important considering the issue of the bank being hit by a drastic decline in profits. And there is the potential that BPKH will withdraw its ownership there because regulations prohibit them from investing in entities with the potential to experience losses. Our findings show that operational efficiency and FDR will encourage increased bank profitability. With good operational efficiency, banks can offer cheaper products than their competitors. So that their products and services are more widely used.

Meanwhile, the increase in FDR indicates that banks are channeling funding to many places. Simultaneously, an increase in FDR could also increase bank income from revenue sharing, positively impacting bank profitability.

This case provides a reference and point of consideration for Islamic banks, particularly Muamalat bank, to increase their profitability by managing their operational income while controlling their operation costs to maintain operational efficiency in their banks. Islamic banks are also advised to keep their bank performance by observing the financing options they offer their customers.

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