

THE FINANCIAL PERFORMANCE OF BANK SYARIAH INDONESIA: PRE- AND POST-MERGER

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Abstract

Due to the merger, Bank Syariah Indonesia (BSI) recorded total assets of IDR 240 trillion. This study examines whether there are differences between the pre-and post-merger in the financial performance of BSI in terms of liquidity, solvency, and profitability using Wilcoxon signed test and paired sample t-test. This study finds significant differences in the level of liquidity and profitability of BSI's financial performance, while there is no significant difference in the level of solvency. This result implies that BSI's efficiency in managing business increases; therefore, the operational costs might be reduced, and the operating income tends to grow. Although the financing-to-debt ratio (FDR) is moderate, BSI still needs to improve the effectiveness of its fund distribution. This study contributes to the literature on mergers and acquisitions in the banking sector, particularly for Islamic banks, by providing new insight into its impact on financial performance.

Keywords: *financial performance; merger; islamic bank*

INTRODUCTION

Islamic banking's total assets, financing, and third-party funds (DPK) grew significantly. Total Islamic banking assets grew positively by 13.11% (yoy) to reach IDR 608.90 trillion, financing grew positively by 8.08% (yoy) to IDR 394.63 trillion, and TPF grew positively by 11.98% (yoy) to IDR 475.80 trillion by the end of 2020 (Financial Services Authority, 2020). As a pillar of stability, the economy demands accuracy in strategic planning. This approach also responds to globalization and aligns with research interests in shaping new economic frameworks (Gaiduchok, 2019). Indonesia, with the largest Muslim population in the world, is ranked 4th on the Global Islamic Economy Indicator (GIEI) 2020/21, with total Islamic financial assets ranked 7th in the world, and ranked 2nd on the Islamic Finance Development Indicator, where knowledge and awareness is an indication of an increase in good Islamic finance (DinarStandard, 2020). These facts indicate the virtuous potential for expanding the Islamic economy in Indonesia.

Several motives for the merger in the banking sector are to increase efficiency, reduce costs, reach economies of scale, and broaden the customer base and market coverage (Sarika & Vasantha, 2018). A company shall implement the appropriate strategy for expanding its business. One of the schemes that can be chosen is internal or external expansion. Internal expansion is apprehended by developing the firm's business from scratch, while external expansion might be realized by mergers or acquisitions of existing companies (Moin, 2004).

The Financial Services Authority (OJK) issued OJK Regulation No.12/POJK.03/2020 concerning Commercial Bank Consolidation to encourage banking consolidation and strengthen bank capital in Indonesia. Islamic banks, as part of the national banking industry, are in line with strengthening the identity of Sharia banking in the Roadmap for the Development of Indonesian Sharia Banking 2020 – 2025. It is expected to strengthen the structure of the banking industry and can contribute to national economic stability and growth, as well as

social development (Financial Services Authority, 2020). A solid Islamic bank in the capital can compete in the national banking industry. The merger of some Islamic banks is a vital consolidation momentum. Islamic banks play a significant role in Indonesia's banking industry (Fatwa, 2020).

On February 1, 2021, three state-owned Sharia banks were officially merged, namely Bank Rakyat Indonesia Syariah (BRIS), Bank Negara Indonesia Syariah (BNIS), and Bank Mandiri Syariah (BSM), to become Bank Syariah Indonesia (BSI). Due to the merger, with a market share of 2.7% of the entire national banking industry, BSI recorded total assets of IDR240 trillion, which is considered an Islamic bank with the most significant asset in Indonesia. The merger of the three central Islamic banks is expected to open opportunities for Islamic banks to have reliable differentiation and digital service support at their marketing outlets, to increase the competitiveness of Islamic banks, as a way to compete in the Islamic banking industry and to raise the ranking of Islamic finance globally (Financial Services Authority, 2020). Syahputra (2021) argues that although the market share remains at 6% after the merger, a low cost of funds can be achieved because more robust capital makes economies of scale bigger. A low cost of funds will then impact higher bank profitability.

Business competition and environmental factors drive companies to enhance their performance through mergers and acquisitions (Suryaningrum et al., 2023). Through mergers, three state-owned Sharia banks can pool their resources, reduce operational costs, and achieve efficiency on a larger scale. BSI can reduce costs and increase profits by combining infrastructure, technology, and operational networks. The next issue is: Can the merger of three state-owned Sharia banks leverage financial performance regarding liquidity, solvency, and profitability? This study applies the theory of economies of scale. By aggregating operations and resources, banks expect to reduce costs per transaction, optimize the use of technology, and improve overall operational efficiency. Banks' size affects several banks' various aspects, including their exposure to non-performing assets (Dhananjaya, 2020; Saha & Dash, 2016; Swami et al., 2019). This paper utilizes a financial analysis approach.

Financial ratio analysis is a technique for assessing a company's financial performance using the numbers in the financial statements and comparing them to determine their relationship (Kasmir, 2018). A company employs it to assess the trend and measure management's performance. It is one of the most frequently used financial analysis tools (Subramanyam & Wild, 2008). Financial ratio scrutiny is dissecting financial reports into their elements and analyzing them to understand and understand the financial statements (Hery, 2018).

Sanjaya and Rizky (2018) argue that financial performance is the company's success in managing company finances and achieving company goals. The company's financial performance can be seen from the financial statements published. Kwee (2021) claims that financial ratios commonly applied to assess a company's financial performance are the ratio of liquidity, solvency, profitability, activity, and market value. Some of these financial ratios have been examined by Safitri (2021), with PT Bank Woori Saudara Tbk as the research object for 2012-2017. This study partially adopts this research.

The study of bank performance has been a widely discussed subject in efficiency literature across the globe (San-Jose et al., 2014; Stoica et al., 2015; Sathye, 2015; Zhu et al., 2019; Partovi & Matousek, 2019). Analyzing the pre- and post-merger financial performance of banks listed on the IDX for the period 2008-2012, Amelia (2016) found there were significant differences in the loans to deposit ratio (LDR), capital adequacy ratio (CAR), net interest margin (NIM), net profit margin (NPM), return on equity (ROE), the operational expense to operating income (BO/PO), return on assets (ROA), and fixed assets to capital (ATTM). Gustina (2017) investigated IDX's pre- and post-merger and financial acquisition performance for 2011-2013. It claimed that there was only a significant difference in the results of testing the profitability ratios measured using the return on equity (ROE). In contrast, for other financial ratios, namely current ratio (CR), quick ratio (QR), and NPM, it was found that there was no difference between pre-and post-merger.

Finansia (2017) analyzed the financial performance of the IDX for the 2010-2013 period. It concluded that there was no difference in the test results using financial ratios with indicators of CR, fixed assets turnover (FATO), debt to total assets ratio (DAR), NPM, and ROA, pre- and post-merger/acquisition. In addition, Goso et al. (2018) examined the financial performance of Bank Mandiri for the 2010-2015 period, and they claimed that there was no significant difference in the test results measured using the debt-to-equity ratio (DER), loan-to-assets ratio (LAR), and ROA both pre- and post-merger.

Silalahi & Christina (2020) examined the differences in the financial performance of pre- and post-merger companies of Bank CIMB Niaga listed on the IDX for the period 2005-2007 (pre-merger) and the period 2015-2017 (post-merger). They found that the ratio NPM and financial leverage multiplier indicate the difference between pre-and post-merger while the ratio of total assets turnover ratio (TATO), ROA, and ROE do not.

Hikmah (2021) investigated the banking sector's pre- and post-merger financial performance listed on the IDX for the 2015-2019 period. It concluded that there are differences in financial performance as measured using the ROA ratio, financial leverage multiplier, and ROE between pre- and post-merger. Meanwhile, the NPM ratio measurement indicates no difference between pre-and post-merger. Analyzing the pre- and post-

merger financial performance of PT Bank Woori Saudara Tbk listed on the IDX for the 2012-2017 period, Safitri (2021) concluded that there was no significant difference in financial performance in the pre-and post-merger for some indicators such as CR, QR, ROE, DAR, return on investment (ROI), DER, receivable turnover ratio (RTO), and TATO.

Previous research suggests that the decision to pursue mergers and acquisitions does not consistently lead to improved performance. A case study of mergers and acquisitions in Indonesia's cement industry revealed that the acquisition was unsuccessful (Subiyanto, 2020). Borodin et al. (2020) demonstrated that following the decision to engage in mergers and acquisitions, the financial performance of banks in Pakistan declined. Management literature has long acknowledged that managers can explain differences in business performance. Managerial ability is essential to managerial characteristics (Salehi & Moghadam, 2019). It has a positive influence on returns following an acquisition (Doukas & Zhang, 2020; Chen & Lin, 2018; Cui & Leung, 2020).

Many research was mainly conducted in the non-financial and conventional banking sectors. This paper emphasizes the Islamic bank one year before and after the merger, particularly for an Islamic bank with the most significant asset in Indonesia. Although Muchtar (2021) assesses the level of efficiency and profitability for an Islamic bank with a vast asset, namely Bank Syariah Mandiri (BSM), it recently merged with two other banks. It became Bank Syariah Indonesia (BSI). This study tries to enrich the literature on Islamic bank mergers categorized as a bank with considerable assets in Indonesia. It examines whether there are differences between BSI's pre- and post-merger financial performance in terms of liquidity, solvency, and profitability.

This paper is organized as follows: The study starts with the growing trend of Islamic banks. It also includes a review of the merger bank literature, including gaps and problems in implementing a merger strategy. Subsequently, it describes the research method for data analysis. The following section presents the findings. Lastly, it concludes with a summary of implications for policymakers and suggestions for further research.

METHODS

This study uses a descriptive method with a quantitative approach, which is carried out by analyzing Islamic banks' financial statements related to pre-and post-merger. This paper applies the nonparametric method with Wilcoxon signed rank test and the parametric method with paired sample t-test (Triola, 2019) to examine whether there are differences in pre- and post-merger financial performance for liquidity, solvency, and profitability ratios. The paired sample t-test is a technique to test whether a treatment is considered adequate against the same sample but with different treatments. The effectiveness of the treatment can be seen from the average difference before and after treatment. The assumptions must be met: the data used must be normally distributed. The Wilcoxon signed-rank test is a nonparametric test that seeks to see whether there are differences between two data groups that receive different treatments. Unlike the paired sample t-test, which requires that the data be normally distributed, this test can be performed on data that is not normally distributed because there is no requirement for the data being tested to be normally distributed.

To answer the research objective of whether there are differences between BSI's pre- and post-merger financial performance, this paper uses the financing debt ratio (FDR) to measure liquidity. For the solvency ratio, it applies debt to asset ratio (DAR) and debt to equity ratio (DER). In addition, it uses return on asset (ROA), return on equity (ROE), and operating expenses to operating income ratio (BO/PO) to assess profitability. All these ratios are defined in Table 1.

Table 1. List of Ratios

Ratio	Description	Formula
FDR	to measure the level of bank liquidity	$FDR = \frac{\text{Total Financing}}{\text{Third-party funds}}$
DAR	to measure the level of bank solvency	$DAR = \frac{\text{Total Debt}}{\text{Total Asset}}$
DER	to measure the level of bank solvency	$DER = \frac{\text{Total Debt}}{\text{Total Equity}}$
ROA	to measure the level of bank profitability	$ROA = \frac{\text{Net Profit (Loss)}}{\text{Total Asset}}$
ROE	to measure the level of bank profitability	$ROE = \frac{\text{Net Profit (Loss)}}{\text{Total Equity}}$
BO/PO	to measure the level of bank profitability	$BO/PO = \frac{\text{Operating Expense}}{\text{Operating Income}}$

Source: Kasmir (2018)

This study employs secondary data in the form of financial statements of Islamic banks, consisting of BRI Syariah, BNI Syariah, Bank Mandiri Syariah in the pre-merger period (February 2020 to January 2021), and Bank Syariah Indonesia in the post-merger period (February 2021 to January 2022). All data were obtained from the official websites of each bank, the financial services authority (OJK), and the Indonesian Stock Exchange (IDX). The data used were all populations, so there is no need to determine the sample. Data gathered is monthly. In the pre-merger setting, this study measures all ratios by calculating the average of each bank proportionally. In this case, all financial ratios for Bank Rakyat Indonesia Syariah, Bank Negara Indonesia Syariah, and Bank Mandiri Syariah are summed and then divided by three as denominators.

Before testing the hypothesis, this study performs a normality test to examine whether all data is normally distributed. The parametric method is used if the data are normally distributed. This study uses a paired sample t-test to test the difference in the average of two paired samples, where samples from the same subject experience two different measurements or treatments. The nonparametric method tests the hypothesis if the data are not normally distributed. The Wilcoxon signed rank test is an alternative to the sample t-test on a nonparametric method with the same function, namely to test whether samples from data that are not normally distributed have a difference in the average of two paired samples (Suyanto & Gio, 2017).

RESULTS

The results of the data normality test in Table 2 show that not all variables are normally distributed both pre- and post-merger. Some indicators such as FDR, DAR, and BO/PO ratio will be carried out using a nonparametric method, namely the Wilcoxon test. In contrast, an indicator of DER will be tested using paired sample t-test.

Table 2. Test of Normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
FDR_pre	.287	12	.007	.766	12	.004
FDR_post	.287	12	.002*	.859	12	.047*
DAR_pre	.208	12	.159	.857	12	.045
DAR_post	.206	12	.171	.899	12	.154
DER_pre	.204	12	.179	.862	12	.052
DER_post	.211	12	.146	.902	12	.166
BO/PO ratio-pre	.217	12	.126	.852	12	.039
BO/PO ratio-post	.309	12	.002	.628	12	.001

Source: Data processing (2022)

The results of the Wilcoxon test for the FDR variable in Table 3 show a p-value of 0.023 with an alpha of 0.05. Based on this, it can be empirically concluded that BSI's financial performance, namely FDR, differs significantly before and after BSI merges.

Table 3. Test Statistics of Financing to Deposit Ratio

	Post-Merger --- Pre-Merger
Z	-2.275 ^b
Asymp. Sig. (2-tailed)	.023

Source: Data processing (2022)

The results of the Wilcoxon test for the DAR variable in Table 4 show a p-value of 0.060 with an alpha of 0.05. Based on this, it can be empirically concluded that there is no significant difference in the level of solvency of the company's financial performance, namely DAR, before and after the BSI merger.

Table 4. Test Statistics of Debt to Asset Ratio

	Post-Merger --- Pre-Merger
Z	-1.883 ^b
Asymp. Sig. (2-tailed)	.060

Source: Data processing (2022)

Table 5 strengthens this result using a paired sample t-test. The p-value is 0.169, with an alpha of 0.05. Hence, there is no significant difference in the level of solvency of the company's financial performance, DER, before and after the BSI merger.

Table 5. Test Statistics of Debt to Equity Ratio

		Paired Samples Test							Significance	
		Paired Differences								
		95% Confidence Interval of the Difference								
		Std. Mean	Deviation	Std. Error Mean	Lower	Upper	t	df	One-Sided p	Two-Sided p
Pair 1	Pre-Merger --- Post-Merger	-1.458	.34297	.099008	-.3637	.07208	-1.473	11	.084	.169

Source: Data processing (2022)

The results of the Wilcoxon test for the BO/PO ratio in Table 6 show a p-value of 0.002 with an alpha of 0.05. Based on this, it can be empirically concluded that there is a significant difference in the level of profitability of the company's financial performance both before and after mergers, namely the BO/PO ratio.

Table 6. Test Statistics of BO/PO Ratio

		Post-Merger --- Pre-Merger
Z		-3.061 ^b
Asymp. Sig. (2-tailed)		.002

Source: Data processing (2022)

DISCUSSIONS

FDR is one of the financial ratios used to measure the level of dependence of banks on third-party funds, such as customer deposits, in funding lending activities. Figure 1 shows that the FDR for the pre-merger period from March to June increased by 94%. The increase was significant compared to the average FDR ratio in the other calendar month, around 76%. There was a significant decrease to 74.11% compared to the average post-merger FDR ratio. The decrease in the FDR ratio indicates that the financing disbursed by banks is decreasing. However, the post-merger FDR ratio tends to be stable. A standard FDR ratio based on BI Regulation No. 13/24/DPNP/2011 ranges from 85% to 110%, then the level of liquidity based on the average post-merger FDR of BSI bank is considered not very good since it is below 80%. Hence, the effectiveness of its fund distribution still needs to be improved.

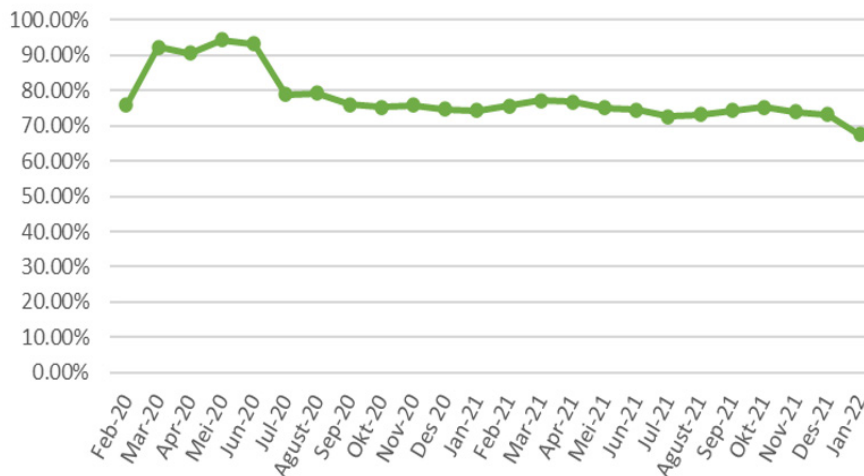


Figure 1. Comparison of Financing to Deposit Ratio

The result is in line with previous research conducted by Akhbar & Nurdin (2021) and Syahputra (2021), which also showed a significant difference in the level of liquidity of the company's financial performance before and after the merger. In those papers, the current ratio (CR) experienced a significant decrease due to insufficient funds to cover the company's short-term obligations. The decrease in the acquisition of funds correlates with the level of the FDR in this study, where the FDR experienced a significant decrease due to a decrease in financing channeled to third-party funds, so the availability of funds from financing income was also reduced.

FDR provides an overview of the extent to which a bank uses funds from customers or third parties to provide loans. A high ratio indicates that banks rely heavily on third-party funds in providing loans. In contrast, a low ratio indicates that banks rely more on internal funding sources or their capital. The test results of the

liquidity level using the FDR after the BSI merger showed a significant decrease, indicating that the financing distribution was reduced. All FDR values are less than 80%, and they dropped to 68% in the last observation period. BSI shall improve the effectiveness of its fund distribution. It should be able to manage the funds owned by optimizing the distribution of financing. The FDR must be maintained so that it is not too high or too low. Factors influencing the fluctuation of the FDR might come from internal and external banking conditions. Internal conditions can be reflected in the financial ratios of a bank, while external conditions can be reflected in the macroeconomy.

The solvency ratio shows how much debt a bank uses per unit of capital its owners invest. The higher this ratio, the greater the level of dependence of the company on debt and related risks. Based on Figure 2, the value of DAR every month is quite volatile and tends to increase after the merger, although not significantly. The overall increase in the post-merger DAR is around 0.23%. This increase indicates that more of the company's assets are financed by debt. However, according to Kasmir (2018), the solvency level of BSI, as measured using the DAR ratio after the BSI merger, is still relatively safe or healthy because the value is less than 100%.

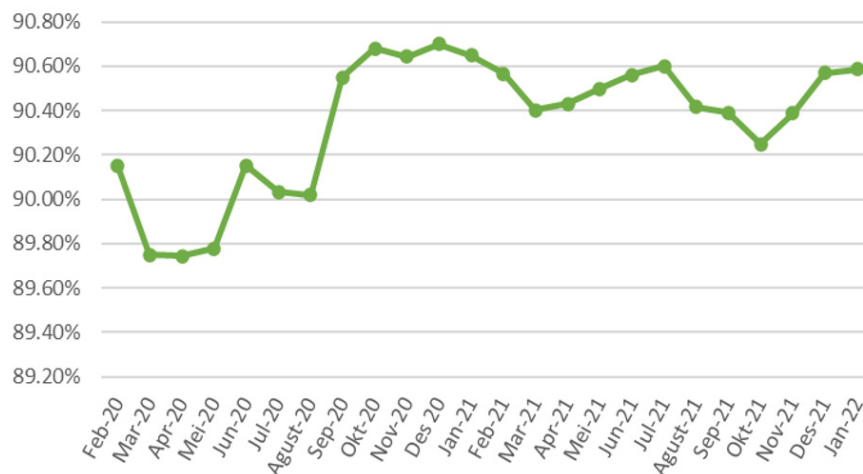


Figure 2. Comparison of Debt to Asset Ratio

According to Kasmir (2018), the company's solvency level, measured using the DER ratio after the BSI merger, shows an unsafe or healthy signal because the value is more than 100%. Similarly, Figure 3 shows that the value of the DER every month is quite volatile and tends to increase after the merger, although not significantly. The overall increase in the post-merger DER is around 14.58%. This increase indicates that the overall value of debt guaranteed from the equity section is increasing. Banks' high level of debt is generally reasonable because the bank itself has a savings and loan business model in which funds from customers and third-party funds (DPK) are counted as debt. A high DER ratio due to the use of large debt also has the potential to provide greater profits for banks. Hence, a high DER is not necessarily interpreted as a jeopardy signal for BSI as long as the company can maximize debt and convert it into optimal profit.



Figure 3. Comparison of Debt to Equity Ratio

This result is in line with previous research conducted by Goso et al. (2018), Safitri (2021), Sinaga et al. (2021), and Suprihatin (2022) that there is no significant difference in the level of solvency of the company's financial performance both before and after mergers and acquisitions. Due to the absence of additional debt obligations, which are much larger, the DER tends to be more stable and does not increase significantly post-merger.

From the results of testing the solvency level using some indicators of DAR and DER, there is no significant change. The DAR is still categorized as relatively healthy, while the DER is categorized as unhealthy because of its high ratio value. DAR describes the percentage of bank assets that are financed by debt. The higher this ratio, the more significant the proportion of assets financed by debt, which can indicate a higher level of risk for the company. It indicates the level of use of more debt. DER shows how much debt a company uses per unit of capital its owners invest. The higher this ratio, the greater the level of dependence of the company on debt and related risks. BSI must be able to utilize debt and convert this into optimal profit to keep the bank safe. For the bank itself, using enormous debt can obtain considerable profits.

The profitability ratio shows the extent to which a bank can generate profits from its operations. Based on Figure 4, the ROE ratio, both pre-and post-merger, continues to increase every month. The ROE ratio after the merger also increased compared to the pre-merger, although it was insignificant. The increase in the ROE ratio indicates that the management's ability to manage net income has increased. At the end of the pre-merger period, the ROE ratio was around 9% and increased after the merger to around 12%. Based on BI Regulation No.13/24/DPNP/2011 (2011), ROE is considered reasonable since the ratio is 12% or more. Hence, the profitability level of BSI is reasonably good.

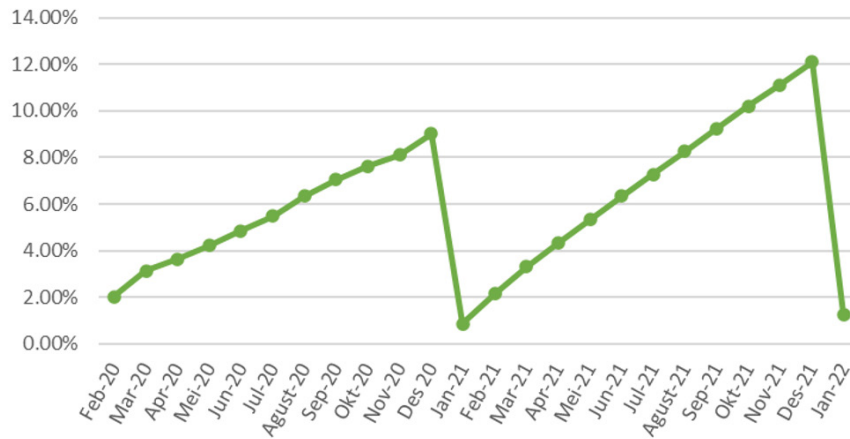


Figure 4. Comparison of Return On Equity

Similarly, Figure 5 shows that the ROA ratio of both pre- and post-merger remains to increase monthly. The post-merger ROA ratio also increased when compared to the pre-merger period. The increase in the ROA ratio indicates that the company is more effective in utilizing its assets to obtain greater profits. At the end of the pre-merger period, the ROA ratio was around 1.15% and increased after the merger to around 1.49%. Thus, profitability, as measured by the post-merger ROA ratio according to BI Regulation No.13/24/DPNP/2011, is categorized as a healthy bank.

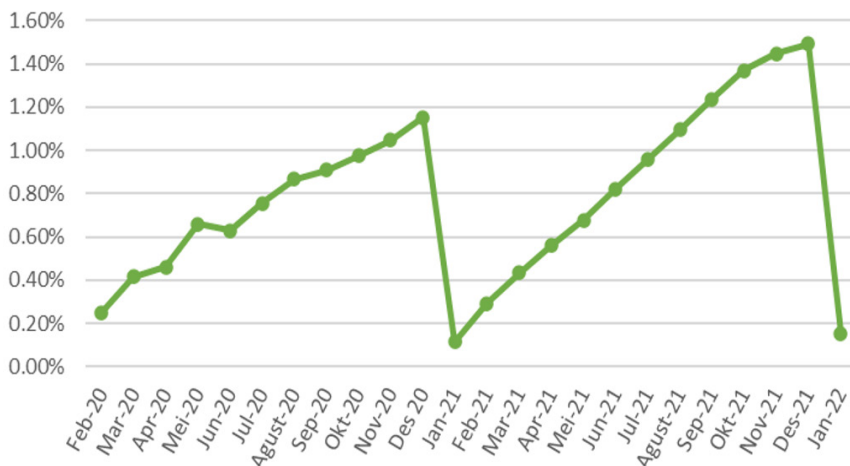


Figure 5. Comparison of Return On Asset

To verify this number, Figure 6 depicts that the BO/PO ratio is relatively stable, whereas the BO/PO ratio, when compared between pre- and post-merger, has decreased significantly. The overall decline in the post-merger BO/PO ratio is around 5.36%. This decrease indicates an increase in banks' ability to reduce operating expenses and increase operating income, which will increase their profits. According to Kasmir (2018), BSI's decreasing profitability level, as measured by the BO/PO ratio after the BSI merger, indicates that the bank's efficiency in managing its business is increasing.

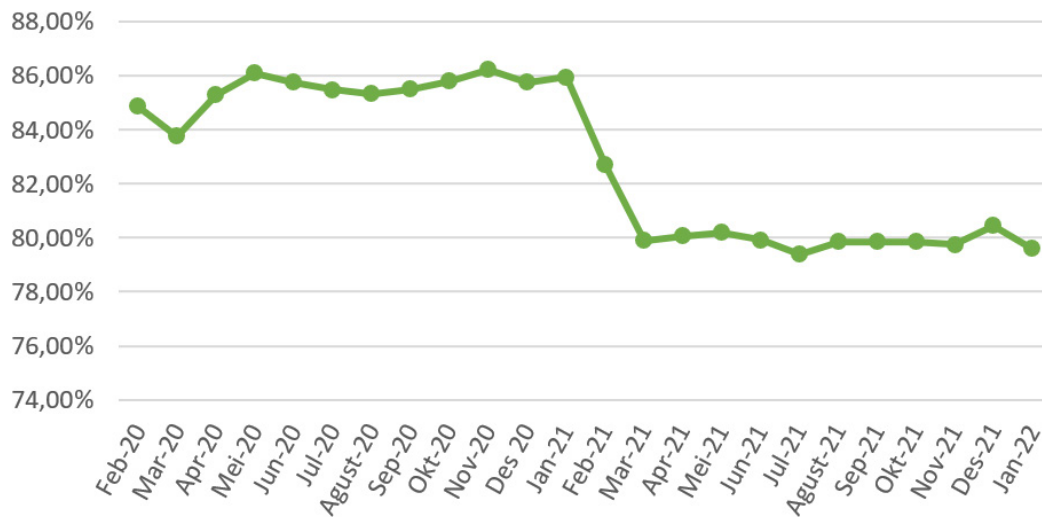


Figure 6. Comparison of BO/PO ratio

This finding aligns with previous research conducted by Halim & Widjaja (2020) and Amelia (2016), which also claimed a significant difference in the level of profitability of pre- and post-merger companies' financial performance. It is due to the revitalization of management capabilities so that banks can spend more efficiently on operational costs, and the post-merger BO/PO ratio can drop significantly. Bank's management has adopted various plans to enhance its efficiency in the business atmosphere (Chiu et al., 2021; Hartanto, 2020; Hasan, 2022; Syahputra, 2021; Ulfa, 2021). To support this notion, Figure 5 and Figure 6 confirm that the level of profitability using the ROE and ROA ratios after the BSI merger has consistently increased. Moreover, sustaining the value of ROE and BO/PO ratio is one of the primary keys to BSI's achievement in supporting the halal industry in Indonesia (Charisma, 2021). From these results, BSI's merger tends to be more operationally efficient, have a broader network, and serve more numerous consumers. Amin and Boamah (2021) argue that there are financial improvements in technical efficiency since the merged bank expands its optimal inputs at higher efficiency levels. Kundu & Banerjee (2022) also proposed merger of public sector banks to become such a large bank might be productive. This merger policy is expected to increase Islamic banks' competitiveness and raise Islamic finance's ranking.

CONCLUSIONS

This study confirms significant differences in the level of liquidity and profitability of BSI's financial performance. At the same time, there is no significant difference in the level of solvency of pre- and post-merger. The liquidity and profitability indicators, namely FDR and BO/PO ratio, significantly experience declined. The solvency measures of DAR and DER empirically show no significant change before and after the merger. The results imply that BSI's efficiency in managing business increases, so operational costs can be reduced and operating income increases. Even though the ratio of FDR is categorized as quite vigorous, BSI still needs to improve the effectiveness of its fund distribution.

This study has several boundaries, such as the limitations of the data obtained due to the relatively short period and differences in accounting methods as well as policies applied by the three banks before the merger that might exist. In addition, financial ratios only provide an overview and need to be combined with a more in-depth analysis. The suggestion for subsequent research is to apply a more extended timeframe in answering the issue of a shock effect on policy changes and employ a more robust method.

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