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# Efficiency Analysis of Islamic Banks Post-Merger Using DEA Methods

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***Abstract:***

*This academic study explores the impact of mergers on the efficiency of Islamic banks in Indonesia, mainly focusing on Bank Syariah Indonesia (BSI), formed from the merger of three state-owned Islamic banks. Covering the period from 2017 to 2023, the research utilizes Data Envelopment Analysis (DEA) to assess efficiency levels before and after the merger. Secondary data from financial statements and regulatory reports are analyzed to determine changes in market concentration and performance metrics such as profitability and operational efficiency. Results indicate a general decline in the industry's average efficiency post-merger despite BSI itself showing improvements in operational metrics. This study contributes to understanding the complex effects of mergers in the Islamic banking sector, offering insights for policymakers and stakeholders into the dynamics of corporate restructuring within the industry.*

***Keywords:*** *Bank Syariah Indonesia, Data Envelopment Analysis, Efficiency, Islamic Banking, Mergers*

## 1. Introduction

The development direction of Indonesia's Sharia economy and finance can be seen in the 2019-2025 Indonesian Sharia Economic Masterplan prepared by the National Committee for Sharia Financial Economy (KNEKS). KNEKS's vision, mission, strategy, and program framework refer to the Indonesian Sharia Economic Masterplan for 2019-2025. Furthermore, the direction of Islamic banking development is fully supported by the Financial Services Authority (OJK) through the

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Roadmap for the Development and Strengthening of Indonesian Sharia Banking for the 2023-2027 (RP3I) period. The background of RP3I is the issuance of Law Number 4 of 2023 related to the Development and Strengthening of the Financial Sector (PPSK Law), which becomes a solid legal basis for strategic steps to develop and strengthen more contributive Islamic banking effectively and comprehensively. RP3I aims to sharpen the direction of Islamic banking development in the future. This document is also aligned with the Global Islamic Financial Development Direction, such as IFSB Ten-Year Framework: Final Review and OJK Roadmap 2022-2027 (RP3I, 2023).

Sharia banking growth in 2022 is supported by the Sharia industry landscape consisting of 200 entities, including 13 Sharia Commercial Banks (BUS), 20 Sharia Business Units (UUS), and 167 BPRS (Sharia People's Economic Banks). The network of Islamic banking service offices is evenly distributed throughout Indonesia, covering 2,007 BUS service offices, 438 UUS offices, and 668 BPRS offices. Islamic banking performance in several indicators is better than conventional banking (Purnomo, 2023).

Based on the Indonesia Sharia Financial Development Report 2022 (OJK, 2023), throughout 2022, Islamic banking has proven its resilience and remains able to grow positively. In that period, the total assets of all Islamic banks reached Rp802.26 trillion or grew by 15.63% (yoy). The increase in Islamic banking assets was driven by double-digit growth in financing and third-party funds (DPK) by 20.44% (YoY) and 12.93% (YoY), respectively. Sharia banking growth is supported by 13 Sharia Commercial Banks (BUS), 20 UUS, and 167 BPRS, with the number of third offices reaching 3,113. BUS itself controls the market share of Islamic banking by 66.30%, UUS by 31.19%, and BPRS by 2.51%.

Based on the 2022 Islamic bank financial statements (OJK, 2023), BSI (Bank Syariah Indonesia) is the largest bank with assets of IDR 306 trillion, followed by UUS CIMB Niaga with assets of IDR 63 trillion, then Bank Muamalat (IDR 61 trillion), UUS BTN (IDR 45 trillion), and UUS Maybank with assets of IDR 40 trillion. From this data, BSI controls an asset market share of 38.15%, UUS CIMB Niaga 7.86%, and Bank Muamalat, UUS BTN, and UUS Maybank, respectively, are 7.61%, 5.61%, and 4.99%.

Bank Syariah Indonesia (BSI), the largest Islamic bank in Indonesia, is the result of the merger of Bank Syariah Mandiri (BSM), BNI Syariah (BNIS), and BRI Syariah (BRIS). According to Purnomo (2023), Bank Syariah Indonesia (BSI), as the result of the merger of three state-owned banks, was officially established on February 1, 2021, by the license for the merger of three Islamic bank businesses through a letter Number SR-3 / PB.1 / 2021 dated January 27, 2021. The financial performance of the merged bank (BSI) as of December 2020 was (i) total assets of IDR 240 trillion, (ii) total financing of Rp157 trillion, (iii) total deposits of Rp210 trillion, and (iv) core capital of Rp22.6 trillion. Moreover, BSI became the seventh-largest national bank. BSI's total assets in December 2022 increased from IDR 240 trillion at the beginning of the merger to IDR 306 trillion or grew by 27.5%. Two years after the merger, BSI's national ranking in terms of assets rose to rank 6 in 2022.

Many parties praised the successful merger of three Islamic banks owned by state-owned banks because it was considered successful in growing one large Islamic commercial bank and even ranked sixth in the national banking industry. There is much research on the impact of mergers on business development. Mergers in the banking sector in Indonesia contribute to increasing efficiency by reducing consolidation expenses and improving financial performance (Syarifuddin, 2021). Several studies have been conducted on mergers' impact on banking efficiency and productivity (Abdel-Azim, Soliman, & Fekry, 2019; Abd-Kadir, Selamat, & Idros, 2010; Ismail & Rahim, 2009; Wang, Tao, & Wen, 2022).

This study aims to analyze the effect of the merger of BSM, BNIS, and BRIS into Bank Syariah Indonesia (BSI) on the performance and efficiency of Sharia Commercial Banks using the DEA (Data Envelopment Analysis) model.

## 2. Theoretical Background

Efficiency is a comparison between activities and results that are interrelated with each other. Efficiency can be used as a parameter of the performance of an institution or organization to improve the quality of its business. There are several factors in efficiency, namely when the input needed is smaller, it can produce the same output, or with the same input, it can produce a larger output, and when using significant inputs,

it can produce a much larger output as well (Qurniawati, 2013; Al-Khasawneh et al., 2012; Azizi, 2014; Ghaeli, 2017).

Efficiency can also be interpreted as a benchmark for comparing input to output. In this case, the input can include how the comparison figure is obtained depending on the benchmark's purpose. Although efficiency has various elements, the savings in input value will be achieved by solving today's problems. Two factors affect efficiency, namely: a. If the same input can produce a larger output. b. If the input obtained is smaller, it will produce the same output. Efficiency, if explained by understanding input and output, is the ratio between output and input or can be expressed by the formula below: Output is reviewed based on the minimum desired result to be determined first, then the maximum input is determined. This is the standard limit of input. If the input is less than the stipulated, then it is efficient. It is inefficient if the input exceeds the determined maximum (Asmild et al., 2007; Kumar & Singh, 2014; Nazarko & Šaparauskas, 2014).

Efficiency is one of the parameters to measure fundamental performance in an organization. Efficiency has three banking concepts: cost-efficiency, alternative, and profit efficiency. Banking efficiency is also classified as follows:
1. Scope Efficiency: A bank is said to achieve efficiency if it can carry out its activities on allocation diversification.
2. Allocative Efficiency: A bank can achieve efficiency by determining various outputs that produce maximum profits.
3. Scale Efficiency: A bank can achieve efficiency if it can operate on a constant scale of results.
4. Technical Efficiency: A bank can be considered efficient if it can technically state that there is a relationship between inputs and outputs in a production process. This means that the input user can produce maximum output or the required output with the most minimal input (Sumarsih, 2017; Aldamak & Zolfaghari, 2017).

A company must use the DEA method to calculate efficiency and the Malmquist Productivity Index (MPI) method to measure productivity. The Data Envelopment Analysis (DEA) method compares input and output data from a DMU (Decision-Making Units) data organization with other input and output data in similar DMUs. This comparison is

done to obtain an efficiency value (Efendi, 2011; Abdel-Azim, Soliman, & Fekry, 2019).

Here are some assumptions contained in the DEA method, along with the advantages and disadvantages of the DEA method. In the application of the DEA model, there are underlying assumptions according to Ramanathan (2013); the DEA assumptions are (1) Decision-Making Units (DMU) must be homogeneous units, that is, have the same function and purpose; (2) Data is positive and weighted is limited to positive values; and (3) Inputs and outputs are variable.
Data Envelopment Analysis (DEA) has advantages and limitations, including:
1. Advantages of Data Envelopment Analysis (DEA)
   1. Can handle multiple inputs and outputs.
   2. There is no need to assume functional relationships between input and output variables.
   3. DMUs are compared directly to their peers.
   4. Inputs and outputs can have different units of measurement.

2. Limitations of Data Envelopment Analysis (DEA)
   1. The DEA standard formula creates a separate linear program for each DMU, based on which computational problems often occur.
   2. DEA is a non-parametric technique, so statistical hypothesis testing is complex.
   3. DEA is such an extreme point technique that measurement errors can cause significant problems.

In efficiency analysis using Data Envelopment Analysis (DEA) methods, VRS (Variable Returns to Scale) calculations play an essential role in evaluating how efficient the observed units are

## 3. Methodology

This quantitative research uses secondary data in Islamic banking performance data in Indonesia before the merger of 3 Islamic banks owned by state-owned banks (BSM, BNIS, and BRIS) and Islamic banking performance after merging 3 Islamic banks into Bank Syariah Indonesia. Data is obtained from the financial statements of Sharia Commercial Banks and OJK statistical data.

The sampling technique used is by taking a sample population from Islamic banking industry data in Indonesia for the period 2017 to 2023, where in this study, researchers limit the samples used only to Sharia Commercial Banks without including Sharia People's Credit Banks and Sharia Business Units. People's Credit Banks are not used as a sample of this study because their operational activities are different from the operational activities of Sharia Commercial Banks and Sharia Business Units.

The dataset consists of a panel of data covering 17 banks over seven years, from 2017 to 2023. The selection of inputs and outputs in this study is directed by choices made in previous studies and data availability. The three inputs included are assets, DPK (Third Party Funds), and BOPO (Operating Expenses Operating Income). For output, this study uses CAR (Capital Adequacy Ratio), NPF (Non-Performing Financing), FDR (Financing to Deposit Ratio), ROA (Return Of Assets), ROE (Return Of Equity), and NI (Net Income).

The DEA inputs-outputs table can be seen in Table 1.

**Table 1. DEA inputs and outputs**

| Input | Output |
|---|---|
| Aset | CAR (*Capital Adequacy Ratio*) |
| DPK (Dana Pihak Ketiga) | NPF (*Non Performing Financing*) |
| BOPO (Beban Operasional Pendapatan Operasional) | FDR (*Financing to Deposit Ratio)* |
| - | ROA (*Return Of Assets*) |
| - | ROE (*Return Of Equity*) |
| - | NI (*Net Income*) |

**Research Hypothesis**

The research hypothesis in this study aims to answer the formulation of the problem in this study, namely:

1. Does the performance of merged Islamic banks affect the performance of Islamic commercial banks in Indonesia?
   - H0: The performance of merged Islamic banks does not affect the performance of Islamic commercial banks in Indonesia.

- H1: The performance of merged Islamic banks significantly affects the performance of Islamic banking or the Islamic banking industry in Indonesia.

2. Does the merged Islamic bank affect efficiency in the Islamic banking industry in Indonesia?
   - H0: The merged Islamic bank has no effect on efficiency in the Islamic banking industry in Indonesia.
   - H1: The merged Islamic bank significantly affects Indonesia's banking industry efficiency

## 4. Empirical Findings/Result

The results of DEA analysis using R-Studio obtained VRS values for BUS in the 2017-2023 period, as shown in Table 2.

**Table 2. BUS Efficiency Score (2017-2023)**

| Efficiency Scores Timeline by Bank | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Bank** | **2017** | **2018** | **2019** | **2020** | **2021** | **2022** | **2023** |
| BCA Syariah | 0.1593346 | 0.1988701 | 0.1982602 | 0.1674742 | 0.1699698 | 0.1705272 0 | 0.169352 0 |
| BPD Nusa Tenggara Barat Syariah | - | 0.3657131 | 0.4779282 | 0.4198455 | 0.3886363 | 0.3501605 2 | 0.3565503 |
| BPD Riau Kepri syariah | - | - | - | - | - | 0.5170349 8 | 0.2976979 |
| Bank Aceh Syariah | 0.5514455 | 0.5480828 | 0.5669519 | 0.3590308 | 0.4009095 | 0.3247905 5 | 0.3927304 |
| Bank Aladin Syariah | - | - | - | - | 1.0000000 | 0.0989420 5 | 0.1786170 |
| Bank BNI Syariah | 0.5325107 | 0.5334176 | 0.6031618 | 0.4976144 | - | - | - |
| Bank BRI Syariah | 1.0000000 | 1.0000000 | 0.7096928 | 0.4549359 | - | - | - |
| Bank Jabar Banten Syariah | 0.7884134 | 0.5042317 | 0.4222998 | 0.6675427 | 0.5046742 | 0.4958269 3 | 0.3876296 |
| Bank Mega Syariah | 0.7442008 | 0.5137388 | 0.4174322 | 0.5174955 | 1.0000000 | 0.5595772 9 | 0.4403928 |
| Bank Muamalat Indonesia, Tbk | 0.5400244 | 0.5037428 | 0.8288582 | 0.7617797 | 0.0732288 | 0.2194068 2 | 0.1710939 |
| Bank Panin Dubai Syariah, Tbk | 0.9965192 | 0.7859376 | 0.5773586 | 0.5175942 | 0.1315240 | 0.7282593 9 | 1.0000000 |
| Bank Syariah Bukopin | 0.8421802 | 0.7547839 | 0.8177930 | 1.0000000 | 0.6830744 | 0.6662625 8 | 0.7831939 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Bank Syariah Indonesia, Tbk | - | - | - | - | 0.4875225 | 0.5093284 | 0.5391530 |
| Bank Syariah Mandiri | 0.6305302 | 0.4676061 | 0.5388350 | 0.4668791 | - | - | - |
| Bank Tabungan Pensiunan Nasional Syariah | 1.0000000 | 1.0000000 | 1.0000000 | 0.6761514 | 0.8710552 | 0.9374460 | 1.0000000 |
| Bank Victoria Syariah | 1.0000000 | 1.0000000 | 0.6483407 | 0.7348618 | 1.0000000 | 0.5291255 | 0.2808776 |
| Maybank Syariah Indonesia | 0.7450144 | 1.0000000 | 1.0000000 | 1.0000000 | - | - | - |

Based on the average efficiency score, we can find out whether the efficiency of a bank is ideal or not, according to the following conditions:

- A score of 1.00000 signifies maximum or ideal efficiency. The bank is considered to have managed its resources perfectly or as efficiently as possible compared to all banks listed in that period.
- A score close to 1.00000 indicates a high degree of efficiency.
- A low score indicates lower efficiency. This may mean that the bank has higher operating costs than its revenues or is not managing its assets as efficiently as possible.
- A "-" indicates the data is not available or the bank is not operating or not measured due to the absence/cessation of operations in that year.

The efficiency data in Table 2 shows the BUS Efficiency Score Results from 2017 to 2023. The BUS efficiency score shows how well a bank uses several input variables to generate output. The efficiency value comes from calculating financial ratios that compare inputs (Assets, DPK, and BOPO) to outputs (CAR, FDR, NPF, ROA, ROE, and NI).

Data Envelopment (DEA) Efficiency Analysis of Islamic banks in Indonesia from 2017 to 2023 reveals various significant efficiency patterns. There are fluctuations in efficiency results in almost all BUS in Indonesia. Bank Tabungan Pensiunan Nasional Syariah and Maybank Syariah Indonesia have consistently recorded the best efficiency scores for several years, demonstrating the most effective resource management and optimal operational approach. Bank Aceh Syariah also showed high efficiency despite a decline in 2020, indicating the need for strategic adaptation in facing operational challenges.

Several other banks showed fluctuations in their efficiency, such as Bank Syariah Mandiri, which recorded a sharp increase in 2019. However, there was no post-2020 data due to the merger of Bank Syariah Mandiri, BRI Syariah, and BNI Syariah. On the other hand, BPD West Nusa Tenggara Syariah and Bank Mega Syariah experienced increased efficiency over time, indicating continuous improvement in management and operational practices.

On the other hand, Bank Muamalat Indonesia and Bank Victoria Syariah showed low-efficiency scores and high volatility, indicating ongoing strategic and operational management challenges during the period.

Emerging banks such as Bank Aladin Syariah and Bank Syariah Indonesia, which have no data for the early years, performed well in the final years of the study period, illustrating the positive impact of practical strategies and the possibility of successful restructuring.

Furthermore, to see the average value of the efficiency of the Islamic banking industry during the 2017-2023 period, using R-Studio, the average score results were obtained in Table 3.

**Table 3 Average Efficiency Score BUS (2017-2023)**

| Average Efficiency Scores by Year | | | |
|---|---|---|---|
| **Year** | **Average Efficiency** | **Change** | **Trend** |
| 2017 | 0.7330903 | NA | NA |
| 2018 | 0.6554375 | -0.077652800 | Decrease |
| 2019 | 0.6290652 | -0.026372279 | Decrease |
| 2020 | 0.5886575 | -0.040407678 | Decrease |
| 2021 | 0.5592163 | -0.029441248 | Decrease |
| 2022 | 0.4697453 | -0.089470993 | Decrease |
| 2023 | 0.4613299 | -0.008415376 | Decrease |

- The "NA" indicates that data is unavailable, in which case there is no previous year's data to measure the change in that period.
- "Change" is the difference in the average efficiency of the year compared to the previous year.
- "Trend" is the result of changes in efficiency from the previous year that show an increase, decrease, or constant compared to the previous year.

Based on Table 3, the average efficiency value of the Islamic banking industry has a downward trend, both before and after the merger with the establishment of BSI, as shown in Figure 1.

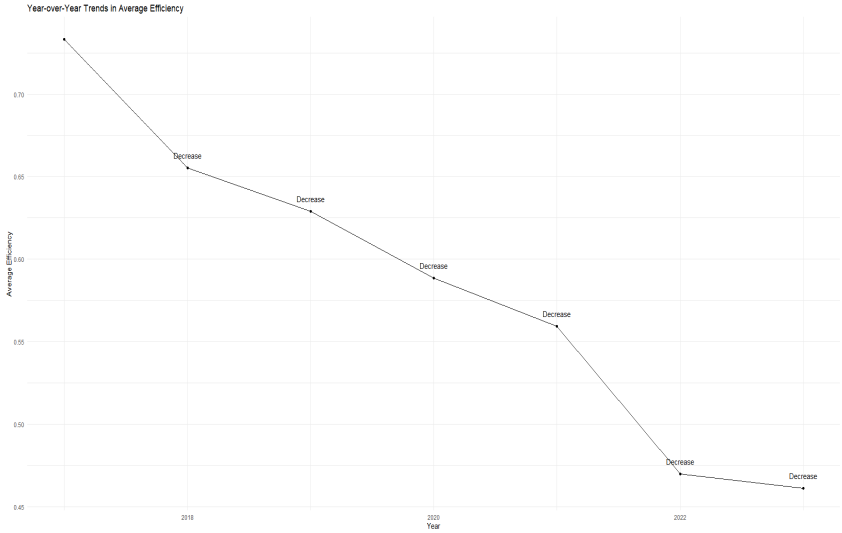


**Figure 1. Trend average efficiency BUS (2017-2023)**

According to a study conducted by Setyono et al. (2021), the efficiency of Islamic banks decreased during the COVID-19 pandemic, indicating that the pandemic harmed bank efficiency. In line with this research, the efficiency of BUS in Indonesia has decreased since 2017. In addition to the impact of COVID-19, this is possible due to increased concentration due to the BSI merger. Following research conducted by Rahmat, 2021 which states that efficiency is influenced by concentration ratio, it shows a relationship between concentration and efficiency. The discussion of the aggregate efficiency of BUS in Indonesia only compares the average efficiency in 1 period with other periods, so it does not consider the impact of mergers and efficiency on the merged entity. In this case, there is a more significant decrease in post-merger efficiency compared to pre-merger.

Covid-19 in 2020 certainly harmed BUS efficiency that year, but after the relaxation was lifted by OJK in 2023, it was seen that the aggregate efficiency of BUS in that year did not show an increase. On the contrary, it decreased again in aggregate. Business practices carried out with more significant resources can encourage the movement of other agencies' businesses, which leads to an increase or decrease in efficiency; in this case, there is a decrease in efficiency in the BUS group in Indonesia after the merger.

In addition, looking at the efficiency movements of each bank, several banks have experienced an extraordinarily high decrease in efficiency from year to year, such as Bank Muamalat and Bank Panin Dubai Syariah. Based on the bank's financial statements, there are several significant changes in the value of output, which cause the level of management efficiency of the company to drop quite dramatically and affect the aggregate efficiency of BUS in total.

To see the results of mergers in Islamic banking, a filter was carried out on banks that carried out mergers to determine whether there was an impact of mergers on the efficiency of banks that merged with the following results.

**Table 4. Efficiency Score of Merged Banks**

| Average 3 Bank Pra-Merger | | | |
|---|---|---|---|
| **2017** | **2018** | **2019** | **2020** |
| 0.721014 | 0.667008 | 0.617230 | 0.473143 |

| Post BSI Merger | | |
|---|---|---|
| **2021** | **2022** | **2023** |
| | 0.5093 | 0.539153 |
| 0.487523 | | |

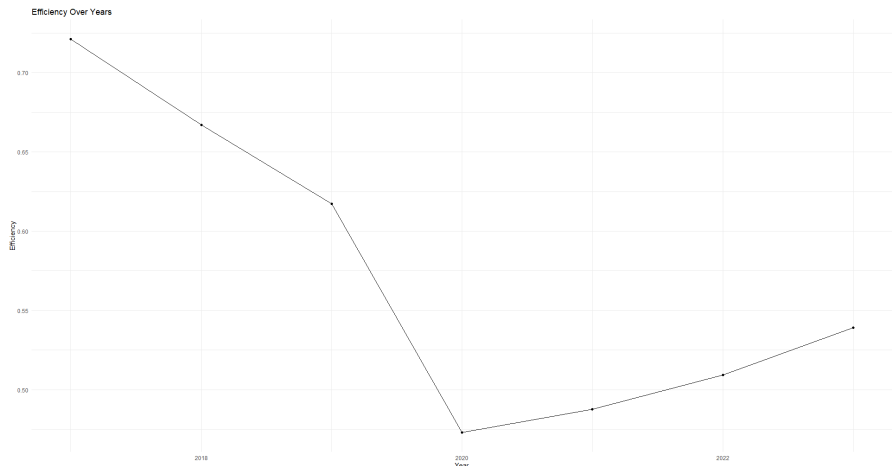


**Figure 2. Development of average efficiency of merged banks (2017-2023)**

Based on data from Table 4 and Figure 2, the efficiency results of the merged banks for 2017 to 2020 are aggregates of 3 pre-merger banks,

namely BSM, BNI Syariah, and BRI Syariah, which later merged into BSI. In Figure 2, you can see a graph of the decline from 2017 to 2020; the decline in aggregate efficiency occurred in 3 banks before the merger, but from 2020 to 2023, the efficiency trend increased. This contradicts the industry's aggregate efficiency results, which decreased until the end of 2023. This indicates that not all banks experienced efficiency improvements after COVID-19, but BSI, which merged in 2021, showed better efficiency results, increasing post-merger efficiency.

Based on BSI's financial statements, there has been an increase in Asset and DPK inputs, but the company's BOPO has decreased since the merger. Output data has increased in terms of NPF, FDR, ROA, and ROE, indicating that the company's performance after the merger can generate more than pre-merger.

Outside BSI, because of the merger, several banks showed an increase in efficiency scores after the merger of 3 banks in 2021. These banks include BJB Syariah, Bank Panin Dubai Syariah, Bank Riau Kepri, BCA Syariah, and BPD NTB Syariah.

## 5. Discussion

### Fluctuations in Efficiency Scores

The analysis reveals fluctuations in efficiency scores across almost all Islamic banks. Notably, Bank Tabungan Pensiunan Nasional Syariah and Maybank Syariah Indonesia consistently achieved high efficiency scores, often reaching the maximum score of 1.0000, indicating optimal resource management and effective operational strategies. In contrast, banks like Bank Muamalat Indonesia and Bank Victoria Syariah experienced lower and more volatile efficiency scores, suggesting ongoing challenges in strategic and operational management (Sumarsih, 2017; Coelli et al., 2005).

### Impact of the COVID-19 Pandemic

The average efficiency score of Islamic banks shows a downward trend, as seen in Table 3 and Figure 1. This decline is consistent with findings by Setyono et al. (2021), which indicated that the COVID-19 pandemic adversely affected bank efficiency. The pandemic led to operational disruptions and increased financial uncertainty, contributing to the

observed decline. The relaxation measures by OJK in 2023 did not significantly improve aggregate efficiency, further highlighting the pandemic's lasting impact on the banking sector (Setyono et al., 2021).

**Mergers and Efficiency**

The merger of Bank Syariah Mandiri, BRI Syariah, and BNI Syariah into Bank Syariah Indonesia (BSI) significantly impacted efficiency scores. Pre-merger efficiency data (2017-2020) showed a decline, but post-merger (2021-2023), BSI demonstrated an improvement in efficiency, contradicting the overall industry trend. This suggests that the merger facilitated better resource allocation and operational synergies, leading to enhanced efficiency (Rahmat, 2021; Aldamak & Zolfaghari, 2017).

Figure 2 and Table 4 show that while the aggregate efficiency of the merged banks declined before the merger, there was a notable improvement post-merger. BSI's financial statements post-merger indicate increased assets and DPK inputs, along with reduced BOPO, resulting in better output performance in terms of NPF, FDR, ROA, and ROE. This indicates that the merger effectively streamlined operations and improved overall performance (Al-Khasawneh et al., 2012; Kumar & Singh, 2014).

**Efficiency Trends and Strategic Insights**

Several banks, such as BJB Syariah, Bank Panin Dubai Syariah, Bank Riau Kepri, BCA Syariah, and BPD NTB Syariah, showed an increase in efficiency scores following the BSI merger. This suggests that the merger's positive impact might have created competitive pressure, encouraging other banks to optimize their operations and improve efficiency (Asmild et al., 2007; Azizi, 2014).

Conversely, the persistent low efficiency of banks like Bank Muamalat Indonesia and Bank Victoria Syariah highlights the need for strategic realignment and operational improvements. These banks must address their management and operational inefficiencies to achieve better performance (Ghaeli, 2017; Nazarko & Šaparauskas, 2014).

In conclusion, while the merger of BSM, BNIS, and BRIS into BSI shows promising efficiency improvements, the overall Islamic banking sector in Indonesia has faced challenges, particularly due to the COVID-

19 pandemic. Future strategies should focus on enhancing operational efficiencies and leveraging mergers' synergies to foster sustainable growth and performance improvements across the industry.

## 6. Conclusions

The merger of BSM, BNIS, and BRIS into Bank Syariah Indonesia has different aggregate impacts on Islamic commercial banks. Most BUS experienced a decline in efficiency levels after the BSI merger. Conversely, BSI as a merged bank showed an increase in efficiency value, which indicates the positive impact of the merger on the company that runs it even though the industry has decreased. The results of each Bank's efficiency score show that several banks are experiencing increased efficiency after the BSI merger. 6 banks are showing an increase in efficiency scores in the 2021-2023 period, namely BSI, BJB Syariah, Bank Panin Dubai Syariah, Bank Riau Kepri, BCA Syariah, and BPD NTB Syariah. Overall, this study shows that the merger of Islamic banks affects the decline in the efficiency level of the Islamic Commercial Bank industry. This shows that the dominant market control of the merged bank, namely BSI, affects the level of efficiency of the Islamic bank industry.

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