



The Effect of Number of Offices, Profit Sharing Level, Inflation and BI Rate on the Development of Sharia Banks in Indonesia

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Abstract. Indonesian Sharia Banking has developed rapidly in the last two decades, but this development does not necessarily increase the contribution of Sharia banking in Indonesia compared to conventional banking. This can be seen from the proportion of Sharia banking assets, which is still smaller than conventional banking. This research aims to analyze factors that influence the development of Sharia banking as indicated by the proportion of Sharia banking assets in Indonesia from 2017 to 2021. The data used is statistical data on sharia banking in Indonesia, inflation, and the BI rate from January 2017 to December 2021 obtained from OJK, BI, and BPS publications. The multiple linear regression analysis method is used to analyze the influence of the variables number of offices, level of profit sharing, inflation and BI rate on the development of sharia banks as indicated by the proportion of sharia banking assets. The research results show that the number of offices and the level of profit sharing, significantly influence the development of sharia banks. However, inflation and the BI rate, do not affect the development of Sharia banks.

Keywords: *Sharia Bank, Sharia Bank Development, Sharia Bank Assets*

1. Introduction

Indonesian Sharia banking has developed rapidly in the last two decades. With 12 Sharia banks, 21 Sharia business units, and 164 Sharia people's financing banks, annual growth reaches more than 40% [1]. Sharia banking, or interest-free banking, has a yield pattern as the basis for all its operations in funding, financing, and other products. Sharia banks use two principles of collecting funds: wadiah and mudharabah. Efforts to raise these funds are classified based on the fatwa of the National Sharia Council. Bank Indonesia has launched a blueprint for developing sharia banks in Indonesia to achieve a 20% share of the Sharia banking market in the last ten years [2]. Sharia Banking aims to increase financial activities significantly domestically and abroad with Law Number 21 of 2008 concerning sharia banking, which was created in 2008 to encourage the growth of sharia banks in Indonesia (see Fig. 1).

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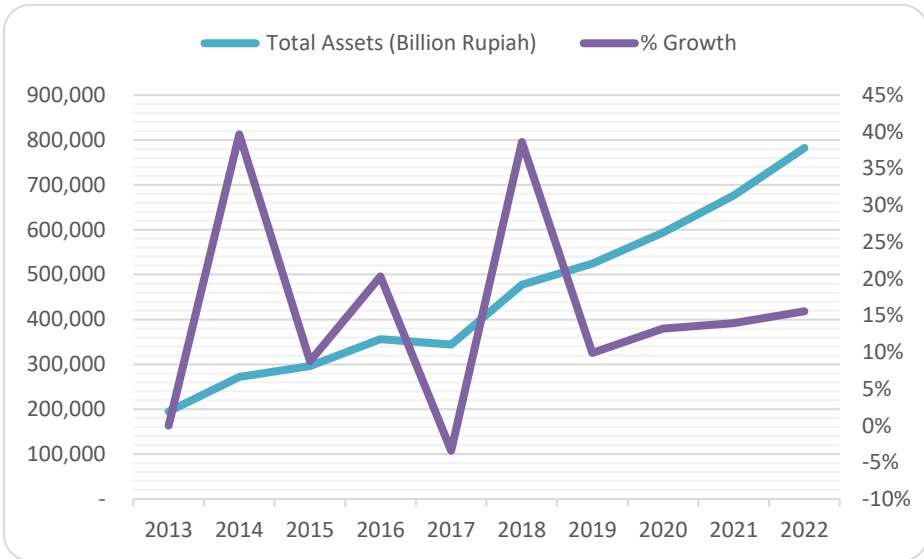


Fig. 1. Development of Sharia Banking Assets

Even though sufficient laws have been implemented on the Sharia banking system in Indonesia, this cannot promise significant growth in the five to ten years since the implementation of the policy. The Sharia banking market share is only six percent of the national banking industry (see Fig. 2).

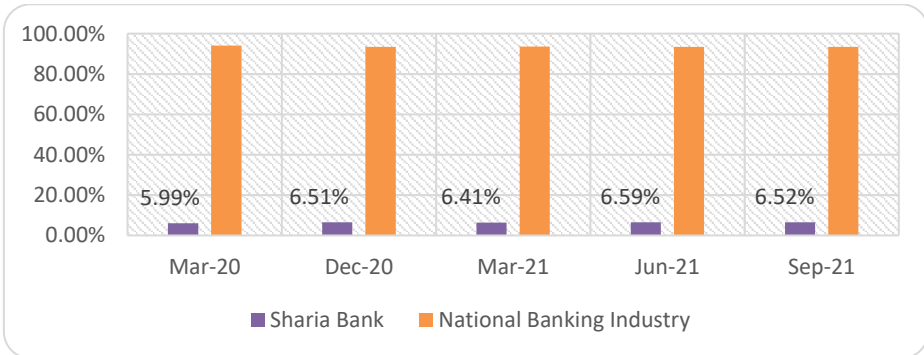


Fig. 2. Sharia Bank Market Share (OJK, 2021)

Amid the sharia banking industry's development, it must be acknowledged that several challenges still need to be resolved so that the sector can improve the quality of its growth and maintain its acceleration. This challenge is caused by many people's views about Sharia banking, which must be corrected. According to several academics and observers of Islamic economics, there is no difference. Many people still consider Sharia banks the same as conventional banks, which are different only

because Sharia banks use profit sharing in calculating credit and deposits. This is in line with the findings of a previous study regarding the Influence of Perceptions on Community Preferences for Sharia Commercial Banks in Polewali Mandar Regency, West Sulawesi. Studies show that public perception of Sharia banking positively and significantly impacts people's preferences for Sharia banks. From this perspective, most people know about the existence of Sharia banks. [3].

In addition, Indonesia's Muslim population of 86.7% has the power to encourage the growth of Sharia Banks. In the same way, the basic principle of Sharia banking, the profit-sharing system, should also contribute to the development of Sharia banking. Nugraheni's research [4] reveals the role of Sharia banks in encouraging financing based on profit sharing or profit sharing. Apart from that, Sharia banking stagnation also occurs in several Muslim countries and countries with Muslim populations, such as Turkey, Kuwait, Saudi Arabia, Bahrain, and Malaysia [5]. Currently, various research on Sharia banking is also starting to develop.

According to Nurhidayat's study [6], Increasing Sharia bank offices will significantly impact improving sharia bank assets in Indonesia. The number of offices also influences the amount of mudharabah deposits in Sharia banks in Indonesia. One aspect of the services offered by Sharia banks to the public is the number of offices. Increasing the number of offices will make it easier for people to place their funds in Sharia banks, especially in mudharabah deposit products [7]. Additionally, increasing the number of offices will open up more significant opportunities for Sharia banks to collect funds from the public. Several other researchers have found that the number of offices or office channeling is a factor that influences the development of Sharia banks. The findings of the two researchers are in line with research by Syafrida [8].

Some principles influence the outcomes Sharia bank customers consider when depositing their funds in Sharia banks. This is similar to how interest rates influence conventional bank customers' decisions when choosing to get credit or save their funds in Sharia banks. However, the principles underlying these results are different from the interest system in conventional banks. In the Islamic economy, profit sharing regulates funds by dividing business results between capital owners (shahibul maal) and managers (mudharib) [9]. In Indonesia, the principle of profit sharing is applied using two methods: profit sharing and revenue sharing. Revenue sharing is a calculation of profit sharing based on business income without reducing business expenses or costs. On the other hand, profit sharing is based on the net result of total income after deducting the expenses incurred to obtain income [10]. According to Kasri & Kassim [11], Profit sharing affects mudharabah deposits. The amount of Sharia bank mudharabah deposits depends on how people deposit their funds. Considering that most Sharia bank customers are also conventional, they tend to place their funds in savings products that provide higher returns. As a result, the profit sharing factor as a return from investments made is significant before placing funds in mudharabah deposit products.

Inflation can benefit producers because it increases the price of goods so that producers can increase their production. However, the problem is that inflation in Indonesia is very complex, high, and unstable. In the case of Sharia banking, customers also consider the inflation factor in the banking activities they will carry out. Sharia banking faces two main problems when dealing with inflation. The first is related to collecting Third Party Funds (TPF). The inflation rate will increase deposit

interest rates in conventional banking, which attracts more funds than returns from Sharia banking. A higher rate of return in conventional banking will cause a significant diversion of funds from Sharia banking to conventional banking. After all, a decrease or increase in TPF will cause a reduction in the ability of Sharia banks to manage [12]. The second problem is related to financing. Inflation can benefit producers of goods and services if the income earned exceeds the increase in production costs. However, if inflation causes production costs to increase, producers will ultimately experience a decline in financial performance.

In deciding to take out financing from a Sharia bank, the interest rate, is one of the primary considerations. The Bank Indonesia interest rate (BI rate) affects the profit-sharing margin income of Sharia Banks. Conceptually, interest rates are positively related to Bank Indonesia's total assets. Bank Indonesia can use monetary policy to encourage economic activity when the economy experiences a downturn. By lowering the BI rate, the demand for banking credit will increase. Muhammad [10] said that the way bank funds are managed is influenced by monetary policy, especially those related to withdrawing funds. One of the policies often issued by the central bank is the BI rate. The BI rate set by the central bank can help banks generate more funds for third parties. This will also impact the inflation rate's stability and the rupiah's value. Asset Demand Theory also shows that predicted returns for alternative assets are positively correlated with the amount of demand for the asset [13]. Therefore, it can be concluded that fund owners will be interested in saving their funds in the bank based on the interest rate or profit-sharing rate provided. Based on the background above, it is interesting to research the factors that influence the development of Sharia banks. In this case, the researcher takes the number of offices and profit-sharing levels, inflation and the BI rate.

2. Method

This research uses secondary data from a monthly period from 2017 to 2021. This data was collected from the official Indonesian Sharia Banking Statistics website and distributed by Bank Indonesia and the Financial Services Authority (OJK). This research is a type of quantitative research that involves the use of numerical data and statistical analysis. The multiple linear regression analysis method is used to analyze the effect of the independent variable on the dependent variable. In this research, the independent variables are the number of offices, profit-sharing rate, inflation, and BI rate. The dependent variable is the development of Sharia banks as indicated by the proportion of Sharia bank assets. The operational definition of each variable is as follows:

- Number of Offices (X1) is the number of offices owned by a Sharia Commercial Bank, both in branch offices and units. Units of measurement are expressed in terms of the number of units.
- Profit Sharing Rate (X2) is the distribution of business results that have been carried out by the parties agreeing, namely the customer and the Sharia bank, which is obtained from the equivalent rate of profit sharing issued by the OJK in the Sharia Banking Statistics (SPS) report. Units of measurement are expressed in percentage (%).
- Inflation (X3) is a continuous increase in the general prices of an economy. Units of measurement are expressed in percentage (%).

- BI Rate (X4) is a reference interest rate set by the central bank for various operational targets of monetary policy in order to increase the effectiveness of monetary policy. The data used in this research is the BI Rate in percent units (%).
- Sharia Bank Development (Y) is the proportion of Sharia banking assets as measured by the total assets of Sharia banks compared to the total assets of all banks in Indonesia. Units of measurement are expressed in percentage (%).

3. Result

3.1 Descriptive Statistics Test

This research uses descriptive statistics to provide information about the number of offices, profit sharing level, inflation, BI rate, and asset proportion. Table 1 shows a list of descriptive research variables for 60 periods (see Table 1). Before testing the hypothesis using regression analysis, classical assumptions were tested, namely normality, multicollinearity, and heteroscedasticity tests. The normality test used a descriptive test with a normal curve P-P Plots. Based on the results of the normality test (see Fig. 3), it was found that the asset proportion variable was normally distributed because the data points were distributed around the diagonal line, and the distribution was in the same direction as the diagonal line.

Table 1. Descriptive Statistics

| | N | Minimum | Maximum | Mean | Std. Deviation |
|-----------------------------|----|---------|---------|---------|----------------|
| Number of Offices | 60 | 7.58 | 7.82 | 7.7312 | .04823 |
| Profit Sharing Rate | 60 | 9.24 | 12.21 | 10.5723 | .85961 |
| Inflation | 60 | 1.32 | 4.37 | 2.7263 | .89534 |
| BI Rate | 60 | 3.50 | 6.00 | 4.6167 | .83674 |
| Proportion of Assets | 60 | 5.13 | 6.69 | 5.8305 | .31523 |
| Valid N (listwise) | 60 | | | | |

Source: Output SPSS, 2023

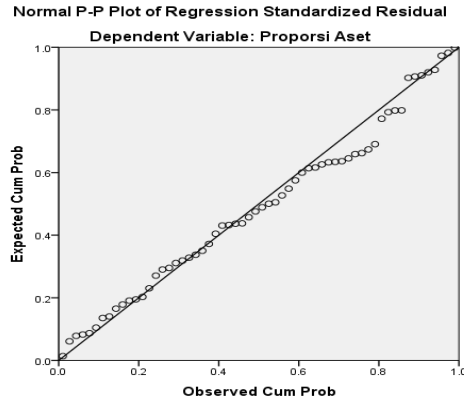


Fig. 3. Normality Test

Furthermore, multicollinearity and heteroscedasticity were also tested with the multicollinearity test results shown in the following table:

Table 2. Collinearity Statistics

| | | Tolerance | VIF |
|---|---------------------------------|-----------|-------|
| 1 | Number of Offices | .174 | 5.735 |
| | Profit Sharing Rate RateRate | .106 | 9.419 |
| | Inflation | .133 | 7.514 |
| | BI Rate | .361 | 2.767 |

a. Dependent Variable: Proportion of Assets

Source: Output SPSS, 2023

The results of the multicollinearity test show that the VIF value is smaller than 10, so there is no multicollinearity. Furthermore, the results of heteroscedastic testing show that there is no heteroscedasticity, which can be seen in Figure 4 below:

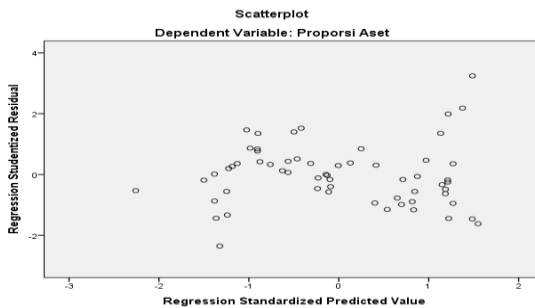


Fig. 4. Scatterplot

3.2 Multiple Regression Analysis

Based on the results of the regression analysis (see Table 4), the following equation is produced:

$$\text{Proportion of Assets} = -7,121 + 1,971x_1 - 0,198x_2 - 0,020x_3 - 0,030x_4 + e$$

Table 4. Multiple Linear Regression Analysis

| Model | | Unstandardized | | Standardized | t | Sig. |
|-------|---------------------|----------------|------------|--------------|--------|------|
| | | Coefficients | | Coefficients | | |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -7.121 | 7.661 | | -.929 | .357 |
| | Number of Offices | 1.971 | .920 | .301 | 2.141 | .037 |
| | Profit Sharing Rate | -.198 | .066 | -.539 | -2.988 | .004 |
| | RateRate | | | | | |
| | Inflation | -.020 | .057 | -.056 | -.350 | .728 |
| | BI Rate | -.030 | .037 | -.080 | -.817 | .418 |

a. Dependent Variable: Proportion of Assets

Source: Output SPSS, 2023

The results of data processing show that the constant value of the proportion of Sharia bank assets is -7,121. It shows that if there were no variables for the number of offices, profit sharing rate, inflation, and BI rate, the proportion of Sharia bank assets would reach -7,121%. Based on the significant results in the table above, the number of offices and profit-sharing level influence Sharia banks' development. The number of offices has a positive influence, and the level of profit sharing has a negative influence. Meanwhile, the other two variables, namely inflation and the BI rate, have no effect on the development of Sharia banks.

3.3 Simultaneousts Test

Based on the results of the simultaneous analysis, the calculated F value was obtained (58,526) with a significance level of $0,000 < 0,05$ (see Table 5). It shows that the independent variables, namely number of offices (X1), profit sharing level (X2), inflation (X3), and BI rate (X4), simultaneously influence the development of sharia banks (Y).

Tabel 5.Multiple Linear Regression Analysis

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|-------------|----------------|----|-------------|--------|-------------------|
| 1 | Regressi on | 4.748 | 4 | 1.187 | 58.562 | .000 ^b |
| | Residual | 1.115 | 55 | .020 | | |
| | Total | 5.863 | 59 | | | |

a. Dependent Variable: Proportion of Assets

b. Predictors: (Constant), BI Rate, Profit Sharing Rate, Number of Offices, Inflation

Source: Output SPSS, 2023

3.4 Coefficient of Determination Test

Based on the statistical analysis results, the Adjusted R Square value was 0,796 (see Table 6). It shows that 79,6% of the variation in the development of Sharia banks is shown by the four variables analyzed, namely number of offices, profit sharing level, inflation, and BI rate. Other factors not included in this study could contribute 20,4 percent of the variation.

Tabel 6. Coefficient of Determination Test Results (R²)

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .900 ^a | .810 | .796 | .14237 |

a. Predictors: (Constant), BI Rate, Profit Sharing Rate, Number of Offices, Inflation

b. Dependent Variable: Proportion of Assets

Source: Output SPSS, 2023

4. Discussion

4.1 The Effect of the Number of Offices on the Development of Sharia Banks

In the model, it can be seen that the slope of the number of offices shows a positive value, namely 1,971. It shows a positive relationship between the increase in the number of offices and the proportion of Sharia banking assets in Indonesia. Thus, if the number of offices increases by 1% while other variables are considered constant (*ceteris paribus*), the proportion of Sharia banking assets will increase by 1,971%. This condition is also strengthened by the t-test results and the significance value of 0,037 (smaller than 0,05), which shows that increasing the number of offices influences the proportion of Sharia bank assets. Every change that occurs in the number of offices will cause a change in the proportion of sharia banking assets. The results of this research align with previous research, which analyzed internal and external factors that influence the growth of Sharia banking assets in Indonesia and found that the number of offices positively affected the growth of Sharia banking assets in Indonesia [8]. This is very possible because increasing the number of offices allows sharia banks to attract more third party funds so that sharia banks have more capital to redistribute in the form of financing or productive assets. Increasing financing distributed by sharia banks will increase sharia bank assets.

4.2 The Effect of Profit-Sharing Levels on the Development of Sharia Banks

In the model, it can be seen that the slope of the profit-sharing rate shows a negative value, namely $-0,198$. It shows a negative relationship between the level of profit sharing and the proportion of Sharia banking assets in Indonesia. Thus, if there is an increase in profit sharing by 1% while other variables are considered constant (*ceteris paribus*), then the proportion of Sharia banking assets will decrease by 0,198%. This condition is also reinforced by the t-test results with a significance value of 0,004 (smaller than 0,05), which shows that profit sharing influences the proportion of Sharia bank assets. Any changes in the profit-sharing level will cause changes in the proportion of Sharia banking assets. It can happen because when a customer wants to take out financing at a Sharia bank, of course, one of the factors that will be taken into consideration is the level of profit sharing that is determined, especially in financing that uses the profit-sharing principle, such as working capital financing (commonly known as *musyarakah*) at sharia banks. The results of this research are in line with Nita's research [14] found that the level of profit sharing had a positive and significant effect. However, in this study, the effect was a positive influence, different from the results obtained.

4.3 The Effect of Inflation on the Development of Sharia Banks

The t-test results and the significance value of 0,728 (greater than 0,05) show that inflation does not influence the proportion of Sharia banking assets. It means that an increase in inflation does not immediately and only sometimes results in changes to the proportion of Sharia banking assets in Indonesia. It is in line with previous research, which analyzed the influence of internal and external factors from Sharia banking on asset growth [15]. From this research, one of the internal factors in question is inflation, which does not influence the growth of Sharia banking assets. These results also align with Kristianingsih's research [16] which found that the CAR, Inflation, GDP, and BI Rate variables did not significantly affect total assets. This is due to the fact that the Sharia Bank system does not use an interest system, so that the money managed will not be too volatile when inflation occurs as happens in conventional banks.

4.4 The Effect of the BI Rate on the Development of Sharia Banks

The t-test results and the significance value of 0,418 (greater than 0,05) show that the BI rate does not influence the proportion of Sharia banking assets. It means that an increase in the BI rate does not immediately and only sometimes results in changes to the proportion of sharia banking assets in Indonesia. This research's results align with Kristianingsih's research [16], which analyzed the determining factors of the growth rate of total Sharia banking assets in Indonesia. This research shows that in the long and short term, the DPK and FDR variables positively and significantly affect total Sharia banking assets. On the other hand, the CAR, Inflation, GDP, and BI Rate variables do not significantly affect total assets. In the case of sharia banks, this might happen that the BI rate has no effect on the proportion of sharia bank assets. An increase in the BI rate will generally be followed by an increase in interest rates at conventional banks. However, this increase does not affect Sharia banks directly. This is because sharia banks do not refer to interest rates directly in carrying out their business, but use profit sharing ratios in accordance with sharia banking principles. It

differs from previous research conducted by Prasetyo, [17] which showed that the BI Rate variable could increase the relationship between internal variables (CAR, FDR, NPF, and DPK) and the growth of Sharia bank assets.

5. Conclusion

Based on the results of research that has been carried out to determine the determinants of the development of Sharia banks, it can be concluded that the variables number of offices and level of profit sharing, influence the development of Sharia banks. Meanwhile, the variables inflation and BI rate, have no effect on Sharia banks' development. Based on the results of this research, further research can add mediator or intervening variables to get a broader picture of the relationship that strengthens the proportion of Sharia bank assets or the indirect factors that influence the development of Sharia banks.

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References

1. Otoritas Jasa Keuangan, "Statistik Perbankan Syariah," vol. 4, no. 1, pp. 1–23, 2021.
2. Otoritas Jasa Keuangan, "Snapshot Perbankan Syariah Indonesia 2020 (Posisi Desember 2020)," *Snapshot Otoritas Jasa Keuangan*, pp. 1–6, 2020.
3. S. A. R. Manggu and D. Dahlia, "The Influence of Perceptions Towards Preference Communities on Islamic Banks in Polewali Mandar District, West Sulawesi," in *International Conference on Environmental Awareness for Sustainable Development in conjunction with International Conference, ICEASD*, Kendari, Indonesia: EAI, 2019. doi: 10.4108/eai.1-4-2019.2287181.
4. P. Nugraheni and I. N. Alimin, "Factors influencing PLS financing: the perspective of Indonesian Islamic banks employees," *PSU Research Review*, vol. 6, no. 2, pp. 77–89, 2022, doi: 10.1108/PRR-07-2020-0022.
5. H. Yanikkaya and Y. U. Pabuçcu, "Causes and solutions for the stagnation of Islamic banking in Turkey," *ISRA International Journal of Islamic Finance*, vol. 9, no. 1, pp. 43–61, 2017, doi: 10.1108/ijif-07-2017-005.
6. S. Nurulhidayat, "Analisis Faktor-Faktor Yang Mempengaruhi Jumlah Deposito Mudharabah Pada Bank Syariah Mandiri," 2014.
7. Y. Aryanto, "Faktor-Faktor Yang Mempengaruhi Universitas Indonesia Faktor-Faktor Yang Mempengaruhi," Universitas Indonesia, 2011.

8. I. Syafrida and A. Abror, “Faktor-Faktor Internal Dan Eksternal Yang Mempengaruhi Pertumbuhan Aset Perbankan Syariah Di Indonesia,” *Ekonomi dan bisnis*, vol. 10, no. 1, pp. 25–33, 2011.
9. M. S. Antonio, *Bank Syariah: dari teori ke praktik*. Jakarta: Gema Insani Press, 2001.
10. Muhammad, *Manajemen Keuangan Syari’ah: Analisis Fiqh & Keuangan*. Yogyakarta: UPP STIM YKPN, 2016.
11. R. A. Kasri and S. H. Kassim, “Empirical determinants of saving in the Islamic banks: Evidence from Indonesia,” *Journal of King Abdulaziz University, Islamic Economics*, vol. 22, no. 2, pp. 181–201, 2009, doi: 10.4197/islec.22-2.7.
12. J. Agung, B. Kusmiarso, B. Pramono, E. G. Hutapea, A. Prasmuko, and N. J. Prastowo, *Credit Crunch di Indonesia Setelah Krisis*. 2001.
13. F. S. Mishkin, *Ekonomi Uang, Perbankan, dan Pasar Keuangan*, Edisi 8. Jakarta: Salemba Empat, 2008.
14. D. D. Nita, M. Ariffin, and N. Nurisnaini, “Analisis Pengaruh Tingkat Inflasi Dan Tingkat Bagi Hasil Terhadap Profitabilitas Pada Bank Umum Syariah Di Indonesia,” *Jurnal Ilmiah Manajemen Kesatuan*, vol. 9, no. 2, pp. 121–130, 2021, doi: 10.37641/jimkes.v9i2.763.
15. D. R. Aisy and I. Mawardi, “Faktor – Faktor Yang Mempengaruhi Pertumbuhan Aset Bank Syariah Di Indonesia Tahun 2006-2015,” *Jurnal Ekonomi Syariah Teori dan Terapan*, vol. 3, no. 3, pp. 249–265, 2016.
16. K. Kristianingsih, R. S. Ziljiani, K. Purwihartuti, H. Karnawati, and S. Setiawan, “Analisis Determinan Tingkat Pertumbuhan Total Aset Perbankan Syariah di Indonesia,” *Ekonomi, Keuangan, Investasi dan Syariah (EKUITAS)*, vol. 3, no. 4, pp. 868–874, 2022, doi: 10.47065/ekuitas.v3i4.1615.
17. P. P. Prasetyo and A. Susetyohadi, “Determinants Affecting Growth Of Islamic Bank Assets In Indonesia: External Factors As Moderating Variables,” pp. 15–27, 2022.

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