

## THE INFLUENCE OF DPK, NPF, AND BOPO ON ROA ISLAMIC COMMERCIAL BANKS IN INDONESIA

Lailan Azmi Nasution<sup>1\*</sup>  
Pani Akhiruddin Siregar<sup>2</sup>  
Yulia Sari<sup>3</sup>  
Patimah<sup>4</sup>  
Novita Sari Pasaribu<sup>5</sup>

\*1, 2, 3, 4, 5 Universitas Muhammadiyah Sumatera Utara  
\*1 email: [lailanazminst@gmail.com](mailto:lailanazminst@gmail.com)

**Abstract:** This study was conducted to formulate whether DPK, NPF, and BOPO affect the ROA of Islamic Commercial Banks in Indonesia. The type of research data with secondary data sourced from the Financial Performance of Islamic Commercial Banks through the publication of Sharia banking Statistics, Financial Services Authority (SPS-OJK). SPS-OJK is a publication media that presents data on Sharia banking in Indonesia. The research sample was taken periodically in the form of monthly data from January 2020 to September 2023. At least, the amount of data that can be further analyzed is 45 data. Sample withdrawal technique with simple random sampling. The research results are as follows: (1) The estimation model shows an R2 value of 0.551 which represents the coefficient of determination. This means that 55.10% of the variation in the dependent variable can be explained by the independent variables in this model. The remaining 44.90% is explained by other causes that are not included in the model; (2) The regression model on the independent variables simultaneously affects the dependent variable so that the independent variable regression model can be used to predict the dependent variable; and (3) This study produces the output of not only DPK but also BOPO which has a significant effect on the ROA of Islamic Commercial Banks in Indonesia. Except that, NPF has no effect and is not significant on the ROA of Islamic Commercial Banks in Indonesia.

**Keywords:** DPK, NPF, BOPO, ROA.

### Introduction

Sharia banking has the same role as conventional banking, namely as an intermediary or intermediary institution to save and collect funds from the public which are later channeled back to the public in the form of financing. Although the role is the same as conventional banking, the two banks still have differences. Basically, it can be seen from the foundation underlying the two banks, such as the vision and mission, operational activities carried out, and also from the objectives. Moreover, in the acquisition of profits and also the return of rewards from customers to banks, conventional banking applies the principle of interest, while Sharia banking uses the principle of profit sharing. Sharia banking is a bank financial institution whose entire transaction activities and regulations are based on Islamic sharia principles where we know that usury in Islamic teachings is said to be prohibited (Nafis & Sudarsono, 2021).

Theoretically, Sharia banking should be able to contribute greatly to the national banking scene. This is because the character of Sharia banking is considered to be able to accommodate the needs of marginalised economic actors, especially because of its system that eliminates loan

interest and eliminates collateral requirements. In addition, the Muslim population in Indonesia is the largest in the world (Ludiman & Mutmainah, 2020).

The Islamic economy in Indonesia began with the emergence of Sharia banking as a financial institution based on systems and ethics based on the Quran and Hadiths of the Prophet Muhammad Saw. The existence of Sharia banking in various parts of the world, not only in Islamic countries, is a tangible form of the development of Islamic economics in the world. Therefore, Sharia banking, which is part of the national banking system, is expected to become one of the pillars of a country's economic development. Article 3 of Law Number 21 of 2008 concerning Sharia banking states that Sharia banking aims to support the implementation of national development in order to increase justice, togetherness, and equitable distribution of people's welfare. The issuance of the new law has a positive impact on sharia compliance, investment climate and business certainty, as well as consumer protection, and the stability of the banking sector as a whole that can be felt (Yuniar & Yuningsih, 2023).

In fact, it is necessary to improve the performance of Sharia banking to remain healthy and efficient (Rachma & Wardana, 2023). Sharia banking financial performance is a description of the financial condition of Sharia banking in a certain period either per month, quarter, and or yearly which includes aspects of collecting and distributing Sharia banking funds themselves. In principle, the assessment of the financial performance of Sharia banking can be done by analysing the financial statements of the Sharia banking concerned. However, the financial performance of Sharia banking is directly proportional to its health level. This indicates that if the better the financial performance of Sharia banking, the better the health level of Sharia banking (Jatmika & Ningsih, 2018).

In this study, the financial performance of Sharia banking is reflected by looking at the level of profitability (Ahmadi et al., 2021) on Return On Assets called ROA (Ria, 2022). If profitability continues to decline, it will have a negative impact on customer image and certainly cause problems in raising funds from customers (Pradesyah & Aulia, 2021; Sitindaon & Pohan, 2021). ROA is used to measure the ability of Sharia banking to generate profits in the past and can project profits in the future (Hanafi & Halim, 2014). ROA is calculated based on total net profit after tax divided by total assets (Olivia et al., 2022).

Therefore, the ratio commonly used to measure profitability performance with ROA. ROA is important for Sharia banking because ROA is used to measure the company's effectiveness in generating profits by utilising its assets (Endraswati, 2018). Companies with good profitability show that the company has good prospects and will be able to maintain the continuity of the company in the long term. After all, Bank Indonesia as a regulator and supervisor of banks prioritises the value of bank profitability as measured by ROA, which most of its assets come from customer funds (Ramadhan & Widiyanti, 2023). Furthermore, the financial performance of Sharia banking, especially Islamic Commercial Banks by looking at Third Party Funds (DPK), Non-Performing Financing (NPF), and Operating Costs to Operating Income (BOPO).

After that, DPK is one of the guidelines for measuring the performance of Sharia banking in financing its operational activities (Gusnimar & Sentosa, 2019). This means that the growth of Sharia banking is strongly influenced by the ability of an Islamic bank to raise public funds. In other words, DPK is a source of liquidity for the distribution of financing in Sharia banking. If the

higher the DPK, then Sharia banking has high financial resources in channeling its financing. Thus, financing has also increased (Akbar, 2018).

NPF is a representation of the risk of non-performing financing owned by Sharia banking (Pringgabayu et al., 2021). The existence of high non-performing financing can certainly disrupt the working capital turnover of Sharia banking. So, if Sharia banking has a high amount of non-performing financing, Sharia banking will try to evaluate its performance. For this reason, Islamic banks temporarily stop the distribution of financing until the NPF decreases (Nasution & Siregar, 2023). In other words, the high NPF is an indicator of the failure of Sharia banking in managing the funds it distributes to customers for businesses that can affect the financial performance of the bank itself. This risk is the biggest risk because losses due to non-performing financing can potentially destroy bank capital (Nugrohowati & Bimo, 2019).

After that, BOPO. BOPO is related to the financing efficiency of an Islamic bank when running its business. The large amount of costs for operations will cause the net profit generated by Sharia banking to be lower because operational costs act as a deduction from net profit (Mutmainnah & Wirman, 2022). Basically, with good cost efficiency, of course, the smaller the BOPO ratio (Isnaini et al., 2021). Furthermore, DPK. DPK is the amount of money generated by the bank and comes from outside parties who hold the money. In other words, the money held by the bank does not belong to the bank itself but is deposited by third parties. The bank is only an institution that mobilises and then will be given back to the community in the form of loans (Sumadi & Romdhoni, 2020). Table 1 below shows the development of DPK, NPF, BOPO, and ROA of Islamic Commercial Banks in Indonesia.

**Table 1. CAR, NPF, BOPO, and ROA Growth  
 Sharia Commercial Bank in Indonesia**

Ratio	Year				
	2019	2020	2021	2022	2023
DPK (Rp.)	288978	322853	365421	429029	432667
NPF (%)	5,23	3,13	2,59	2,35	2,28
BOPO (%)	84,45	85,55	84,33	77,28	76,53
ROA (%)	1,73	1,40	1,55	2,00	2,04

Source: Sharia Banking Statistics, Financial Services Authority (September 2023)

Thus, the purpose of this study is to design the effect of DPK, NPF, and BOPO on the ROA of Islamic Commercial Banks in Indonesia. Indeed, this study produces the output that not only DPK but also BOPO has an effect and is significant on the ROA of Islamic Commercial Banks in Indonesia. Except that, NPF has no effect and is not significant on the ROA of Islamic Commercial Banks in Indonesia. Nonetheless, the results of this study support and do not support previous research as a research gap. At least, both have been written in the discussion. Nevertheless, this research is interesting to study, quite important, and can be accounted for. In the end, the results of this study are expected to contribute in terms of facts and rules, be objective, reasonable, and have empirical assumptions of scientific truth.

## Literature Review

### Third Party Funds (DPK)

DPK is the main fund for Sharia banking which concerns the survival of Sharia banking. This DPK must then be managed as optimally and maximally as possible in order to increase the acquisition of ROA in Sharia banking. DPK management can be carried out by Islamic banks by channeling funds back to customers in the form of financing (Sarmigi, 2021). DPK as explained in Law Number 10 of 1998 concerning Banking is funds entrusted by the public to banks based on deposit agreements in the form of demand deposits, deposits, certificates of deposit, savings or other forms (Law Number 10 of 1998).

### Non-Performing Financing (NPF)

NPF is bad financing in its payments due to intentional or unintentional factors by borrowing customers (Rizal & Rofiqo, 2020).

### Biaya Operasional Terhadap Pendapatan Operasional (BOPO)

BOPO is a comparison or ratio of operating expenses in the past year to operating income in the same period (Hasibuan, 2020).

### Return On Assets (ROA)

Suwiknyo (2016) underlined that ROA is a ratio that describes the ability of Sharia banking to manage funds invested in overall assets that generate profits. Habibi et al. (2022) added that ROA is the ability of capital invested in all Sharia banking assets to generate profits.

### Islamic Commercial Banks in Indonesia

Islamic Commercial Bank is an Islamic Bank which in its activities provides services in payment traffic. Islamic Commercial Banks in Indonesia are part of Sharia banking in Indonesia as referred to in Law Number 21 of 2008 concerning Sharia banking that Islamic Banks are banks that carry out business activities based on sharia principles and according to their type consist of Islamic Commercial Banks and Islamic People's Financing Banks, while what is meant by Sharia banking is everything related to Islamic Banks and Islamic Business Units, including institutions, business activities and methods, and processes in carrying out their business activities (Law Number 21 of 2008).

## Method

Sunggono (2015) explains that research is a channelling of human curiosity in a scientific level that will only be drawn based on conclusions with convincing evidence and collected through clear, systematic, and controlled procedures. Research approach with quantitative methods. Noor (2016) underlines that this research is analysed based on statistical procedures and the data is in the form of numbers. Presumably, these numbers are secondary data. According to Rusiadi et al. (2014) secondary data is data obtained or collected by researchers from various existing sources.

The secondary data comes from the Financial Performance of Islamic Commercial Banks through the Sharia banking Statistics, Financial Services Authority (SPS-OJK). SPS-OJK is a publication media that presents data on Sharia banking in Indonesia. SPS-OJK is published monthly by the Banking Licensing and Information Department, Financial Services Authority, to provide an overview of the development of Sharia banking in Indonesia. Therefore, the research sample was taken periodically in the form of monthly data from January 2020 to September 2023. At least, the amount of data that can be analysed further is 45 data.

For sample withdrawal techniques with simple random sampling. Somantri & Muhidin (2014) emphasised that simple random sampling is a process of sampling from a population that is carried out in such a random manner that each sample unit in the population has the same chance of being selected into the sample. Simple random sampling is included in the probability sampling technique. After that, the research model was analysed by multiple linear regression analysis using three independent variables and one dependent variable with the help of SPSS version 23 data processing. The independent variables are not only DPK but also NPF and BOPO. In this case, the dependent variable is the ROA of Islamic Commercial Banks in Indonesia. Finally, this research model can be described in the equation:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + \epsilon \dots\dots\dots (1)$$

Description:

- Y = ROA of Sharia Commercial Bank in Indonesia
- a = Constants
- b<sub>1</sub>,b<sub>2</sub>,b<sub>3</sub> = Regression Coefficient
- X<sub>1</sub> = DPK
- X<sub>2</sub> = NPF
- X<sub>3</sub> = BOPO
- ε = Error Standard

For this reason, the framework of this study is to formulate whether DPK, NPF, and BOPO have a significant effect on the ROA of Islamic Commercial Banks in Indonesia as shown in Figure 1 below

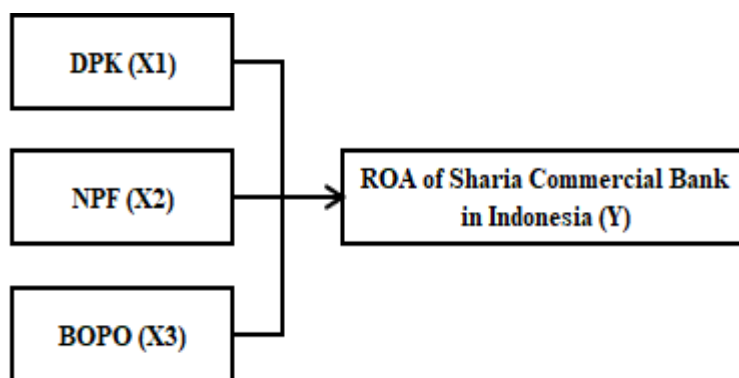


Figure 1: Research Framework

**Result and Discussion**

**Result**

**R<sup>2</sup> Test Result**

Based on Table 2, the R<sup>2</sup> value is obtained which represents the coefficient of determination of 0.551. This means that 55.10% of the variation in the dependent variable provides almost all the information needed to predict the independent variable in this model, while the remaining 44.90% is explained by other causes that are not included in the model.

**F Test Result**

Based on Table 2, the calculated F value obtained is 16.785 greater than the F table value of 2.81 (16.785 > 2.81), while the Sig. value obtained is 0.000 smaller than 0.05 (0.000 < 0.05). This means that Ho is rejected and Ha is accepted. In conclusion, the regression model on the independent variables simultaneously affects and is significant to the dependent variable.

**T Test Result**

Based on table 2, the analysis and conclusions are as follows:

1. In this case, the t value of the DPK variable (X<sub>1</sub>) of 3.516 is greater than the t table value of 2.01 (3.516 > 2.01), while the Sig. value of 0.001 is smaller than 0.05 (0.001 < 0.05). This means that Ho1 is rejected and Ha1 is accepted. In conclusion, the DPK variable (X<sub>1</sub>) has a significant effect on the variable ROA of Islamic Commercial Banks in Indonesia (Y).
2. In this case, the t value of the NPF (X<sub>2</sub>) variable of 0.611 is smaller than the t table value of 2.01 (0.611 < 2.01), while the Sig. value of 0.544 is greater than 0.05 (0.544 > 0.05). This means that Ho2 is accepted and Ha2 is rejected. In conclusion, the NPF variable (X<sub>2</sub>) has no effect and is not significant on the variable ROA of Islamic Commercial Banks in Indonesia (Y).
3. In this case, the t value of the BOPO variable (X<sub>3</sub>) of 6.233 is greater than the t table value of 2.01 (6.233 > 2.01), while the Sig. value of 0.000 is smaller than 0.05 (0.000 < 0.05). This means that Ho3 is rejected and Ha3 is accepted. Moreover, the BOPO variable (X<sub>3</sub>) has a negative relationship direction to the variable ROA of Islamic Commercial Banks in Indonesia (Y). In conclusion, the variable BOPO (X<sub>3</sub>) has a significant effect on the variable ROA of Islamic Commercial Banks in Indonesia (Y).

**Table 2. Regression Summary**

Model	B	t	Sig.
Constants	8,308	7,752	0,000
DPK	0,034	3,516	0,001
NPF	0,042	0,611	0,544
BOPO	-0,049	-6,233	0,000
F= 16,785; Sig.= 0,000			
R= 0,742; R <sup>2</sup> = 0,551			

Source: Data Processed (2023)

**Discussion**

Based on Table 2 by looking at the results of the t test, the interpretation of the multiple linear regression equation is as follows:

$$ROA = 8,308 + 0,034 DPK + 0,042 NPF - 0,049 BOPO$$

1. The constant of 8.308 indicates that if DPK, NPF, and BOPO are constant, then the ROA of Islamic Commercial Banks in Indonesia increases by 8.308%. However, when viewed from the periodic September 2023 sourced from the Financial Performance of Islamic Commercial Banks through Sharia Banking Statistics, Financial Services Authority (SPS-OJK), the ROA of Islamic Commercial Banks in Indonesia increased by 1% compared to the periodic August 2023. Sastra et al. (2021) explain ROA as a measure of financial performance is because ROA is used to measure the ability of Sharia banking management



to obtain overall profits. If the ROA is greater, the greater the level of profit achieved by the Sharia banking and the better the position of the Sharia banking in terms of asset utilization. A positive ROA indicates that the total assets used for Sharia banking operations are able to provide profits for Sharia banking. Conversely, if ROA is negative, it shows that the total assets used do not provide profit or loss for the Sharia banking. Siregar (2020) added that the existence of factors that affect the ROA of Sharia banking certainly gives a message to the management to be able to maintain indicators concerning bank health. After all, kebe The sustainability of Sharia banking in its business activities will be greatly influenced by the amount of profit obtained. Thus, Syakhrun et al. (2019) underlined that ROA is used to evaluate the capacity of Sharia banking in using its assets to generate profits.

2. In this case, the regression coefficient of the DPK variable ( $X_1$ ) is 0.034. This means that an increase in DPK of 1 billion rupiah will affect the increase in ROA of Islamic Commercial Banks in Indonesia by 0.034 billion rupiah. The hypothesis of this study is that the DPK variable ( $X_1$ ) has a significant effect on the ROA variable of Islamic Commercial Banks in Indonesia (Y). Basically, the results of this study are in accordance with the hypothesis. That is,  $H_01$  is rejected and  $H_a1$  is accepted. Therefore, the results of this study support the research results of Katuuk et al (2018); Angraini (2018); Utami & Muslikhati (2019); Siregar et al. (2023); and Malik et al. (2023). However, the results of this study do not support the results of Husnah (2018); Haris (2018); Hanafia & Karim (2020); Finandiarsi (2021); and Eramina & Muliarsari (2023). Subekti & Wardana (2022); Rahman & Setiawansi (2021) explain that DPK is a very important main source of funding for Sharia banking so that the source of funds obtained by Sharia banking from DPK will have an impact on the ability of Sharia banking to meet the scale and volume of transactions which in turn can increase profits. According to Kasmir (2017) DPK in the form of savings, current accounts, and deposits is a source of Sharia banking funding from customers. Putriani & Farida (2019) added that with high DPK, Sharia banking must balance financing activities so that existing DPK is not idle. At least Meliniawati (2022); Astuti (2022) underlined that the ratio commonly used to measure DPK activity is FDR. If the FDR ratio of Sharia banking is high, the greater the level of ROA of Sharia banking. In principle, when Islamic banks channel financing from DPK, the higher the financing provided by Islamic banks and of course it will increase ROA. Therefore, FDR has a positive effect on Sharia banking ROA. Aulia & Anwar (2021) examined that if DPK is high, it does not mean that the FDR ratio will also increase. Even so, on average, Islamic banks have a high FDR level to maintain liquidity and anticipate deposits that can be withdrawn at any time by customers. However, not according to Dasari & Wirman (2020) who explained that the size of the existing DPK will not affect ROA. Presumably, the deposits collected and received by Sharia banking must first be given to customers as funding in order to generate profits. Aishya et al. (2022) explained that the existence of DPK will result in financing growth which has an impact on non-performing loans.
3. In this case, the regression coefficient of the NPF variable ( $X_2$ ) is 0.042. This means that an increase in NPF by 1% will affect the decrease in ROA of Islamic Commercial Banks in Indonesia by 0.042%. Basically, the results of this study are not in accordance with the hypothesis. That is,  $H_03$  is accepted and  $H_a3$  is rejected. Therefore, the results of this study

do not support the research results of Siregar (2018); Muthmainnah et al. (2022); Rahmah et al. (2022); Rahayu & Siregar (2023); and Pratama et al. (2023). However, the results of this study support the results of Munir (2018); Fazriani & Mais (2019); Fadhilah & Suprayogi (2019); Devi (2021); and La Difa et al. (2022). According to Fransiska & Siregar (2023), the collectibility of NPF in Sharia banking is categorised as substandard (KL), doubtful (D), and loss (M). That is, it should not exceed the 5% limit. Febriani & Manda (2021) added that the risk of this non-performing financing ratio can occur due to the failure or inability of customers to return the amount of loans received from Sharia banking along with the profit sharing in accordance with the predetermined period. Therefore, Wahyuni et al. (2020) describe that it should be a special concern for every Sharia banking in order to minimise the increase in NPF risk. Fauzukhaq et al. (2020) explained that Sharia banking distributes its financing with customers through various contracts, such as mudharabah, musyarakah, murabahah, ijarah, istishna', and many other contracts. Therefore, financing is the largest source of income for Sharia banking. Edriyanti et al. (2020) underlined that NPF is the ratio of non-performing financing that occurs in Sharia banking. The impact that occurs due to NPF is the loss of income from channeled financing, which reduces the profit of Sharia banking and affects the profitability of Sharia banking on ROA. So, if the lower the NPF level, the level of ROA will increase due to the smaller risk of non-performing financing borne by Sharia banking. Conversely, if the higher the NPF level, the level of ROA will decrease and Sharia banking will lose the opportunity to earn profits.

4. In this case, the regression coefficient of the BOPO variable ( $X_3$ ) is -0.049. This means that a decrease in BOPO by 1% will affect the increase in ROA of Islamic Commercial Banks in Indonesia by 0.049%. The hypothesis of this study is that the BOPO variable ( $X_3$ ) has a significant effect on the variable ROA of Islamic Commercial Banks in Indonesia (Y). Basically, the results of this study are in accordance with the hypothesis. That is,  $H_03$  is rejected and  $H_a3$  is accepted. Therefore, the results of this study support the research results of Janah & Siregar (2018); Rahmalita et al. (2019); Siregar et al. (2019); Ramadanti & Setyowati (2022); and Angraeni et al. (2022). However, the results of this study do not support the results of Suwarno & Muthohar (2018); Kusumastuti & Alam (2019); Nanda et al. (2019); Fachri & Mahfudz (2021); and Supardi (2023). According to Dendawijaya (2009) BOPO is a comparison between operating costs and operating income which is used to measure the level of efficiency and ability of banks in their operations. Azizah & Manda (2021) explained that operating costs to operating income, called BOPO, is a ratio level in weighing the performance of Sharia banking activities when operating and is a level of efficiency in banks. Moorcy et al. (2020); Pratama et al. (2021) added that the BOPO ratio is used to measure the level of efficiency and ability of Sharia banking in carrying out its operations. The BOPO ratio also compares operating expenses with operating income in Sharia banking so that it illustrates the high efficiency of Sharia banking management in carrying out its operational activities. Syah (2018) underlined that the amount of operating expenses consists of financing received, labour, maintenance, repairs, fixed assets, inventory, receivables, goods, and third party services. In this case, Yuliana & Listari (2021) explained that an increase in the BOPO ratio indicates an increase in the proportion of operating expenses to operating income received by Sharia banking. In other words, if



operating costs increase, it will reduce profit before tax. In the end, it will reduce the ROA ratio of the Sharia banking concerned. Riyadi (2014) describes that if BOPO is higher, then the performance of Sharia banking decreases. Conversely, if BOPO gets lower, then the performance of Sharia banking increases. Presumably, the high and low BOPO affects the ROA of Sharia banking.

## Conclusion

The research results are as follows: (1) The estimation model shows an R2 value of 0.551 which represents the coefficient of determination. This means that 55.10% of the variation in the dependent variable can be explained by the independent variables in this model. The remaining 44.90% is explained by other causes that are not included in the model; (2) The regression model on the independent variables simultaneously affects the dependent variable so that the independent variable regression model can be used to predict the dependent variable; and (3) This study produces the output of not only DPK but also BOPO which has a significant effect on the ROA of Islamic Commercial Banks in Indonesia. Except that, NPF has no effect and is not significant on the ROA of Islamic Commercial Banks in Indonesia.

## References

- Ahmadi, P. F., Alboneh, Z., & Ardiansyah, F. (2021). Analisis Kinerja Keuangan Perbankan Syariah Sebelum Merger Menjadi Bank Syariah Indonesia. *Jurnal Riset Akuntansi dan Bisnis Indonesia*, 1(1), 95-110.
- Aishya, D. D., Nasution, D. S., & Mas' ud, R. (2022). Pengaruh Dana Pihak Ketiga, Non-Performing Financing, dan Kecukupan Modal Terhadap Profitabilitas pada Bank Umum Syariah Tahun 2018-2021. *JPS: Jurnal Perbankan Syariah*, 1(1), 1-8.
- Akbar IT, K. (2018). *Analisis Pengaruh Dana Pihak Ketiga (DPK) Return On Asset (ROA), dan Sertifikat Bank Indonesia Syariah (SBIS) Terhadap Pembiayaan Modal Kerja pada Perbankan Syariah (Periode Tahun 2012-2016)* (Doctoral dissertation, Universitas Brawijaya).
- Angraeni, B. D., Widodo, S., & Lestari, S. S. (2022). Analisis Pengaruh Non-Performing Financing (NPF), Financing to Deposit Ratio (FDR), Biaya Operasional Terhadap Pendapatan Operasional (BOPO), dan Debt to Equity Ratio (DER) Terhadap Return on Equity (ROE) pada Bank Umum Syariah di Indonesia Periode 2016–2020. *Jurnal Masharif Al-Syariah: Jurnal Ekonomi dan Perbankan Syariah*, 7(1), 128-155.
- Angraini, D. (2018). Pengaruh Dana Pihak Ketiga, Non-Performing Financing, Tingkat Bagi Hasil, dan Modal Sendiri Terhadap Profitabilitas Dengan Pembiayaan Bagi Hasil Sebagai Variabel Intervening pada Perbankan Syariah. *Jurnal Akuntansi Berkelanjutan Indonesia*, 1(1), 122-146.
- Astuti, R. P. (2022). Pengaruh CAR, FDR, NPF, dan BOPO Terhadap Profitabilitas Perbankan Syariah. *Jurnal Ilmiah Ekonomi Islam*, 8(3), 3213-3223.
- Aulia, R., & Anwar, S. (2021). Pengaruh Biaya Operasional dan Pendapatan Operasional, Net

Operating Margin, Dana Pihak Ketiga, dan Capital Adequacy Ratio Terhadap Profitabilitas Bank Syariah. *Bukhori: Kajian Ekonomi dan Keuangan Islam*, 1(1), 21-38.

Azizah, A. N., & Manda, G. S. (2021). Pengaruh CAR dan BOPO Terhadap Return On Assets Bank Umum Syariah Tahun 2015-2019. *JEMPER (Jurnal Ekonomi Manajemen Perbankan)*, 3(2), 79-88.

Dasari, S. A., & Wirman, W. (2020). Pengaruh Dana Pihak Ketiga dan Non-Performing Financing Terhadap Return On Asset Bank Umum Syariah di Indonesia (Periode 2014-2019). *NISBAH: Jurnal Perbankan Syariah*, 6(2), 124-130.

Dendawijaya, L. (2009). *Manajemen Perbankan*. Bogor: Ghalia Indonesia.

Devi, H. P. (2021). Pengaruh Rasio Kesehatan Bank (CAR, NPF, FDR, BOPO) Terhadap Return On Assets pada Bank Umum Syariah di Indonesia. *Owner: Riset dan Jurnal Akuntansi*, 5(1), 1-11.

Edriyanti, R., Chairina., C., & Khairunnis, A. (2020). Analisis Pengaruh Pembiayaan Mudharabah, Musyarakah, Murabahah, dan NPF Terhadap ROA (Studi Kasus BPRS di Indonesia). *NISBAH: Jurnal Perbankan Syariah*, 6(2), 63-74.

Endraswati, H. (2018). Konsep Awal Islamic Corporate Governance: Peluang Penelitian yang Akan Datang. *Muqtasid: Jurnal Ekonomi dan Perbankan Syariah*, 6(2), 89-108.

Eramina, R., & Muliastari, N. K. (2023). Pengaruh Cadangan Kerugian Penurunan Nilai (CKPN), Jumlah Kredit yang Diberikan, dan Kondisi Permodalan Terhadap Profitabilitas. *JAKA (Jurnal Akuntansi, Keuangan, dan Auditing)*, 4(1), 259-261.

Fachri, M. F., & Mahfudz, M. (2021). Analisis Pengaruh CAR, BOPO, NPF, dan FDR Terhadap ROA (Studi pada Bank Umum Syariah di Indonesia Periode Tahun 2016-2019). *Diponegoro Journal of Management*, 10(1), 1-10.

Fadhilah, A. R., & Suprayogi, N. (2019). Pengaruh FDR, NPF, dan BOPO Terhadap ROA Perbankan Syariah di Indonesia. *Jurnal Ekonomi Syariah Teori dan Terapan*, 6(12), 2369-2380.

Fazriani, A. D., & Mais, R. G. (2019). Pengaruh Pembiayaan Mudharabah, Musyarakah, dan Murabahah terhadap Return On Asset melalui Non-Performing Financing sebagai Variabel Intervening (pada Bank Umum Syariah yang Terdaftar di Otoritas Jasa Keuangan). *Jurnal Akuntansi dan Manajemen*, 16(01), 1-34.

Fauzukhaq, M. F., Sari, D., & Wiranata, S. (2020). Pengaruh Inflasi, BI Rate, Kurs, CAR, dan FDR Terhadap Non- Performing Financing Bank Syariah Mandiri. *Media Ekonomi*, 28(2), 129-140.

Febriani, D. N., & Manda, G. S. (2021). Pengaruh NPF, BOPO, dan FDR Terhadap Return On Assets (ROA) pada Bank Umum Syariah. *Jurnal Humaniora: Jurnal Ilmu Sosial, Ekonomi dan Hukum*, 5(1), 54-63.

Finandiarsi, E. I. (2021). *Pengaruh Dana Pihak Ketiga (DPK), Capital Adequacy Ratio (CAR), dan Non-Performing Financing (NPF) Terhadap Profitabilitas Bank Syariah Dengan*

*Pembiayaan Sebagai Variabel Intervening Periode 2015-2019* (Doctoral dissertation, IAIN Salatiga).

- Fransiska, Y., & Siregar, P. A. (2023). The Analysis of Macroeconomic and Microeconomic Factors in Non-Performing Financing of Sharia Bank in Indonesia. *Ekonomi, Keuangan, Investasi, dan Syariah (EKUITAS)*, 4(4), 1128-1136.
- Gusnimar, G., & Sentosa, S. U. (2019). Pengaruh Dana Pihak Ketiga, Inflasi, dan Tingkat Suku Bunga Kredit Terhadap Permintaan Kredit Investasi Bank Pemerintah Daerah di Indonesia. *Jurnal Kajian Ekonomi dan Pembangunan*, 1(2), 553-562.
- Habibi, A., Fahrudin, A., & Marhamah, A. (2022). Faktor yang Mempengaruhi Return On Asset (ROA) Perbankan Syariah di Indonesia. *Margin: Jurnal Bisnis Islam dan Perbankan Syariah*, 1(1), 61-70.
- Hanafia, F., & Karim, A. (2020). Analisis CAR, BOPO, NPF, FDR, NOM, dan DPK Terhadap Profitabilitas (ROA) pada Bank Syariah di Indonesia. *Target: Jurnal Manajemen Bisnis*, 2(1), 36-46.
- Hanafi, M. M., & Halim, A. (2014). *Analisis Laporan Keuangan*. Yogyakarta: UPP STIM YKPN.
- Haris, A. (2018). *Pengaruh Dana Pihak Ketiga dan Penyaluran Kredit Terhadap Profitabilitas pada Bank Milik Pemerintah yang Terdaftar di Bursa Efek Indonesia* (Doctoral dissertation).
- Hasibuan, M. S. P. (2020). *Manajemen Sumber Daya Manusia*. Jakarta: Bumi Aksara.
- Husnah, S. (2018). *Pengaruh Penerapan Cadangan Kerugian Penurunan Nilai (CKPN) Terhadap Rentabilitas Bank di PT. BPRS Bhakti Sumekar Kantor Cabang Pamekasan* (Doctoral dissertation, IAIN Madura).
- Isnaini, L., Haryono, S., & Muhdar, I. (2021). Pengaruh ROA, CAR, BOPO, FDR, dan Inflasi Terhadap Pembiayaan Bermasalah (NPF) di Bank Umum Syariah. *JPEK (Jurnal Pendidikan Ekonomi dan Kewirausahaan)*, 5(1), 65-75.
- Janah, N. J. N., & Siregar, P. A. (2018). Pengaruh Rasio Keuangan Terhadap Profitabilitas Perbankan Syariah Indonesia. *AT-TAWASSUTH: Jurnal Ekonomi Islam*, 3(1), 163-183.
- Jatmika, D., & Ningsih, S. (2018). Kinerja keuangan Koperasi Jasa Keuangan Syariah (KJKS) di Jawa Tengah. *Al-Tijary*, 2(2), 145-153.
- La Difa, C. G., Setyowati, D. H., & Ruhadi, R. (2022). Pengaruh FDR, NPF, CAR, dan BOPO Terhadap Profitabilitas Bank Umum Syariah di Indonesia. *Journal of Applied Islamic Economics and Finance*, 2(2), 333-341.
- Ludiman, I., & Mutmainah, K. (2020). Analisis Determinan Market Share Perbankan Syariah di Indonesia (Studi Empiris pada Bank Umum Syariah dan Unit Usaha Syariah yang Terdaftar di OJK Periode Maret 2017 sampai September 2019). *Journal of Economic, Management, Accounting and Technology*, 3(2), 169-181.
- Kasmir (2017). *Analisis Laporan Keuangan*. Jakarta: PT Rajagrafindo Persada.
- Katuuk, P. M., Kumaat, R. J., & Niode, A. O. (2018). Pengaruh Dana Pihak Ketiga, Loan to

- Deposit Ratio, dan Biaya Operasional Pendapatan Operasional Terhadap Return on Asset Bank Umum di Indonesia Periode 2010.1-2017.4. *Jurnal Berkala Ilmiah Efisiensi*, 18(2), 170-180.
- Kusumastuti, W. I., & Alam, A. (2019). Analysis of Impact of CAR, NPF, BOPO on Profitability of Islamic Banks (Year 2015-2017). *Journal of Islamic Economic Laws*, 2(1), 30-59.
- Malik, F. A., Majid, N., & Fielnanda, R. (2023). Pengaruh Dana Pihak Ketiga, Total Aset, dan Pembiayaan Bagi Hasil Terhadap ROA Unit Usaha Syariah Bank 9 Jambi. *Manajemen Keuangan Syariah*, 3(2), 45-53.
- Meliniawati, M. (2022). *Pengaruh Kinerja Keuangan Terhadap Cadangan Kerugian Penurunan Nilai (CKPN) pada Bank BCA Syariah priode 2014-2021* (Doctoral dissertation, UIN Sultan Maulana Hasanuddin Banten).
- Moorcy, N. H., Sukimin, S., & Juwari, J. (2020). Pengaruh FDR, BOPO, NPF, dan CAR Terhadap ROA pada PT. Bank Syariah Mandiri Periode 2012-2019. *Jurnal GeoEkonomi*, 11(1), 74-89.
- Munir, M. (2018). Analisis Pengaruh CAR, NPF, FDR, dan Inflasi Terhadap Profitabilitas Perbankan Syariah di Indonesia. *Ihtifaz: Journal of Islamic Economics, Finance, and Banking*, 1(2), 89-98.
- Muthmainnah, M., Maloka, S., & Jayengsari, R. (2022). Pengaruh Pembiayaan Bagi Hasil, Pembiayaan Jual Beli, dan NPF Terhadap ROA Perbankan Syariah. *El-Ecosy: Jurnal Ekonomi dan Keuangan Islam*, 2(1), 16-31.
- Mutmainnah, S., & Wirman, W. (2022). Pengaruh Capital Adequacy Ratio (CAR), BOPO, Financing To Deposit Ratio (FDR), dan Non-Performing Financing (NPF) Terhadap Return On Asset (ROA) Bank Syariah (Studi Kasus pada Bank Umum Syariah yang Terdaftar di OJK Periode 2016-2020). *Jurnal Aktual Akuntansi Keuangan Bisnis Terapan (AKUNBISNIS)*, 5(1), 81-93.
- Nafis, R. K., & Sudarsono, H. (2021). Faktor–Faktor Yang Mempengaruhi Pembiayaan Mudharabah pada Bank Umum Syariah di Indonesia. *Jurnal Ilmiah Ekonomi Islam*, 7(1), 164-173.
- Nanda, A. S., Hasan, A. F., & Aristyanto, E. (2019). Pengaruh CAR dan BOPO Terhadap ROA pada Bank Syariah pada Tahun 2011-2018 (The Effect of CAR and BOPO Against ROA in Sharia banking in 2011-2018). *Perisai: Sharia banking and Finance Journal*, 3(1), 19-32.
- Nasution, S., & Siregar, P. A. (2023). Analisis Kinerja Perbankan Syariah 2018-2022 Dengan Menggunakan Pendekatan Islamicity Performance Index. *Ekonomi, Keuangan, Investasi, dan Syariah (EKUITAS)*, 4(4), 1120-1127.
- Noor, J. (2022). *Metodologi Penelitian: Skripsi, Tesis, Disertasi, dan Karya Ilmiah*. Jakarta: Kencana.

- Nugrohowati, R. N. I., & Bimo, S. (2019). Analisis Pengaruh Faktor Internal Bank dan Eksternal Terhadap Non-Performing Financing (NPF) pada Bank Perkreditan Rakyat Syariah di Indonesia. *Jurnal Ekonomi & Keuangan Islam*, 5(1), 42-49.
- Olivia, H., Fadillah, T. D., Farizki, A. A., Namira, A., & Rezeki, H. H. (2022). Pengaruh Profitabilitas dan Ukuran Perusahaan Terhadap Audit Delay di BEI Tahun 2019-2021. *ARBITRASE: Journal of Economics and Accounting*, 3(2), 323-327.
- Pemerintah Indonesia. (1998). Undang-Undang Nomor 10 Tahun 1998 Tentang Perbankan berlaku tanggal 10 November 1998.
- Pemerintah Indonesia. (2008). Undang-Undang Nomor 21 Tahun 2008 Tentang Perbankan Syariah berlaku tanggal 16 Juli 2008. Jakarta: Sekretariat Negara.
- Pradesyah, R., & Aulia, N. (2021). Pengaruh Pembiayaan Murabahah dan Musyarakah Terhadap Profitabilitas pada PT. Bank Syariah Mandiri. *AGHNIYA: Jurnal Ekonomi Islam*, 3(1), 76-89.
- Pratama, M. S., Mubaroh, S., & Afriansyah, R. (2021). Pengaruh CAR, LDR, NIM, dan BOPO Terhadap ROA pada Sektor Perbankan Go Public di BEI 2016-2018. *INOVASI*, 17(1), 118-126.
- Pratama, R., Zaroni, A. N., & Komariah, K. (2023). Pengaruh Non-Performing Financing (NPF), Financing to Deposit Ratio (FDR), dan Capital Adequacy Ratio (CAR) Terhadap Profitabilitas (ROA) pada Bank Umum Syariah di Indonesia. *Indonesian Scientific Journal of Islamic Finance*, 1(2), 183-192.
- Pringgabayu, D., Afgani, K. F., & Ricederia, A. (2021). Perbedaan NPF dan FDR Bank Muamalat Antara Sebelum dan Selama Pandemi Covid-19. *Jurnal Maps (Manajemen Perbankan Syariah)*, 4(2), 122-134.
- Putriani, T.A., & Farida, A. (2019). Pengaruh Dana Pihak Ketiga dan Pembiayaan Terhadap Profitabilitas Bank Umum Syariah di Indonesia Periode 2014-2018. *MALIA: Jurnal Ekonomi Islam*, 11(1), 1-20.
- Rachma, A. F., & Wardana, G. K. (2023). Profitabilitas Bank Muamalat Indonesia: Fee Based Income, Biaya Operasional Pendapatan Operasional, dan Dana Pihak Ketiga. *ITHSOM: Jurnal Ekonomi Syariah*, 2(2), 100-116.
- Rahayu, R. S., & Siregar, P. A. (2023). Analisis Rasio Keuangan Dalam Memprediksi Profitabilitas Bank Syariah di Indonesia. *AT-TAWASSUTH: Jurnal Ekonomi Islam*, 8(1), 19-34.
- Rahmah, S. A. N., Djuwarsa, T., & Juniwati, E. H. (2022). Profitabilitas pada Bank Umum Syariah di Indonesia: Pengaruh Faktor Internal serta Pembiayaan UMKM Sebagai Variabel Intervening. *Journal of Applied Islamic Economics and Finance*, 3(1), 23-35.
- Rahmalita, D. Y., Siregar, P. A., & Bancin, K. (2019). Analisis Rasio Keuangan Terhadap Profitabilitas Perbankan Syariah Indonesia. *Jurnal Penelitian Medan Agama*, 10(2), 198-211.



- Rahman, A. F., & Setiawansi, Y. (2021). Analisis Determinan Dana Pihak Ketiga Bank Umum Syariah di Indonesia. *Jurnal Ilmiah Ekonomi Islam*, 7(1), 154-163.
- Ramadanti, F., & Setyowati, E. (2022). Pengaruh NPL, LDR, BOPO, dan NIM Terhadap ROA pada PT Bank Mandiri (Persero) Tbk. Tahun 2013-2021. *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi dan Bisnis*, 10(2), 695-706.
- Ramadhan, M. R., & Widiyanti, D. R. (2023). Analisis Faktor-Faktor yang Mempengaruhi Profitabilitas Bank Syariah di Indonesia. *Islamic Economics and finance in Focus*, 2(3), 525-536.
- Ria, N. (2022). Analisis Faktor-Faktor yang Mempengaruhi Profitabilitas Bank Umum Syariah di Indonesia. *JEKSYAH (Islamic Economics Journal)*, 2(02), 112-123.
- Riyadi, S. (2014). *Banking Assets and Liability Management*. Jakarta: LPFE Universitas Indonesia.
- Rizal, F., & Rofiqo, A. (2020). Determinants of Sharia Banking Profitability: Empirical Studies in Indonesia 2011-2020. *El Barka: Journal of Islamic Economic and Business*, 3(1), 137-161.
- Rusiadi, Subiantoro, N., & Hidayat, R. (2014). *Metode Penelitian: Manajemen, Akuntansi, dan Ekonomi Pembangunan*. Medan: USU Press.
- Sarmigi, E. (2021). Pengaruh Dana Pihak Ketiga dan Pertumbuhan Pembiayaan Terhadap Profitabilitas Bank Umum Syariah Periode 2015-2019. *Al Fiddhoh: Journal of Banking, Insurance, and Finance*, 2(2), 56-65.
- Sastra, H., Ariziq, B., & Sukartaatmadja, I. (2021). Pengaruh Financing To Deposit Ratio dan Non-Performing Financing Terhadap Return On Asset. *Jurnal Ilmiah Manajemen Kesatuan*, 9(3), 653-664.
- Syakhrun, M., Anwar, A., & Amin, A. (2019). Pengaruh CAR, BOPO, NPF, dan FDR Terhadap Profitabilitas pada Bank Umum Syariah di Indonesia. *Bongaya Journal for Research in Management (BJRM)*, 2(1), 1-10.
- Siregar, P. A. (2018). Analisis Faktor-Faktor Yang Mempengaruhi Profitabilitas Perbankan Syariah Di Indonesia. *HUMAN FALAH: Jurnal Ekonomi dan Bisnis Islam*, 5(2), 249-268.
- Siregar, P. A. (2020). Risiko Keuangan dan Pengaruhnya Terhadap Profitabilitas Bank Syariah di Indonesia. *AT-TAWASSUTH: Jurnal Ekonomi Islam*, 5(1), 120-141.
- Siregar, P. A., Nuruddin, A., & Yusuf, M. (2019). Influence of Financial Risk to The Profitability of Sharia Banking In Indonesia. *Journal of Management and Business Innovations*, 1(1), 1-9.
- Siregar, P. A., Suginam, S., Harahap, N. A., & Olivia, H. (2023). Menganalisis Pengaruh Cadangan Kerugian Penurunan Nilai (CKPN), Dana Pihak Ketiga (DPK), dan Non-Performing Financing (NPF) Terhadap Profitabilitas Perbankan Syariah di Indonesia. *Ekonomi, Keuangan, Investasi, dan Syariah (EKUITAS)*, 5(2), 307-316.
- Sitindaon, S.C., & Pohan, S. (2021). *Pengaruh Pembiayaan Mudharabah, Musyarakah,*

*Murabahah, dan Inflasi Terhadap Tingkat Profitabilitas (Studi Kasus Bank BRI Syariah)* (Doctoral dissertation, UMSU).

- Somantri, A. & Muhidin, S.A. (2014). *Aplikasi Statistika Dalam Penelitian*. Bandung: CV Pustaka Setia.
- Subekti, W. A. P., & Wardana, G. K. (2022). Pengaruh CAR, Asset Growth, BOPO, DPK, Pembiayaan, NPF, dan FDR Terhadap ROA Bank Umum Syariah. *INOBISS: Jurnal Inovasi Bisnis dan Manajemen Indonesia*, 5(2), 270-285.
- Sumadi, S., & Romdhoni, A. H. (2020). Pengaruh Financing to Deposit Ratio (FDR), Dana Pihak Ketiga (DPK), dan Return On Asset (ROA) Terhadap Pembiayaan Musyarakah (Studi Kasus Bank Syariah Mandiri Periode 2010-2018). *Jurnal Ilmiah Ekonomi Islam*, 6(3), 598-608.
- Sunggono, B. (2015). *Metodologi Penelitian Hukum*. Jakarta: PT Rajagrafindo Persada.
- Supardi, P. L. (2023). Pengaruh CAR, NPF, FDR, dan BOPO Terhadap Profitabilitas (ROA) pada Bank Umum Syariah (Studi Kasus: Bank Syariah yang Terdaftar di OJK 2018-2022). *Jurnal Ekonomi Trisakti*, 3(2), 3243-3254.
- Suwarno, R. C., & Muthohar, A. M. (2018). Analisis Pengaruh NPF, FDR, BOPO, CAR, dan GCG Terhadap Kinerja Keuangan Bank Umum Syariah di Indonesia Periode 2013-2017. *BISNIS: Jurnal Bisnis dan Manajemen Islam*, 6(1), 94-117.
- Suwiknyo, D. (2016). *Analisis Laporan Keuangan Perbankan Syariah*. Yogyakarta: Pustaka Pelajar.
- Syah, T. A. (2018). Pengaruh Inflasi, BI Rate, NPF, dan BOPO Terhadap Profitabilitas Bank Umum Syariah di Indonesia. *El-Jizya: Jurnal Ekonomi Islam*, 6(1), 133-153.
- Utami, M. S. M., & Muslikhati, M. (2019). Pengaruh Dana Pihak Ketiga (DPK), Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF) Terhadap Likuiditas Bank Umum Syariah (BUS) Periode 2015-2017. *Falah: Jurnal Ekonomi Syariah*, 4(1), 33-43.
- Wahyuni, T., Siregar, P. A., & Bancin, K. (2020). Faktor Makroekonomi dan Mikroekonomi dalam Pembiayaan Bermasalah Bank Syariah di Indonesia. *Equilibrium*, 8(1), 89-108.
- Yuliana, I. R., & Listari, S. (2021). Pengaruh CAR, FDR, dan BOPO Terhadap ROA pada Bank Syariah di Indonesia. *Jurnal Ilmiah Akuntansi Kesatuan*, 9(2), 309-334.
- Yuniar, D., & Yuningsih, I. (2023). Pengaruh Dana Pihak Ketiga (DPK), Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF), dan Biaya Operasional terhadap Pendapatan Operasional (BOPO) terhadap Profitabilitas pada Bank Umum Syariah. *Jurnal Ekonomi Syariah Mulawarman (JESM)*, 2(1), 27-36.