

THE INFLUENCE OF NPF, BOPO, AND DPK ON THE ROA OF SHARIA BUSINESS UNIT IN INDONESIA

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Abstract: This research aims to analyze the influence of NPF, BOPO, and DPK on the ROA of Sharia Business Unit in Indonesia. This type of research data with secondary data is sourced from the Financial Ratios of Sharia Business Unit through the publication of Sharia Banking Statistics, Financial Services Authority (SPS-OJK). 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. Sampling technique with simple random sampling. The results of the research are as follows: (1) The estimation model shows an R² value of 0,862 which represents the value of the coefficient of determination. This means that 86,20% of the dependent variable variation is able to be explained by the independent variable in this model. The remaining 13,80% is explained by other causes that are not included in the model; (2) The regression model on the independent variable simultaneously influence the dependent variable, so that the independent variable regression model can be used to predict the dependent variable; and (3) This research produced output that BOPO and DPK have an influential and are significant on the ROA of Sharia Business Unit in Indonesia, while NPF has no influential and is not significant on the ROA of Sharia Business Unit in Indonesia.

Keywords: NPF, BOPO, DPK, ROA.

Introduction

Bank financial institutions in Indonesia are growing rapidly every year. Bank financial institutions are also one of the sectors that continue to play a significant influence in advancing a country's economy. This is because almost all economic sectors in Indonesia will need banking services to support their operational activities (Rachma & Wardana (2023), including sharia banking. The development of sharia banking in Indonesia has an important role. Therefore, it is necessary to improve the performance of sharia banking in order to remain healthy and efficient.

Sharia banking financial performance is a description of the financial condition of sharia banking in a certain period either per month, quarter, and or annually which includes aspects of collecting and distributing sharia banking funds themselves. Furthermore, the assessment of sharia banking financial performance can be carried out using analysis of the relevant sharia banking financial statements. However, the financial performance of sharia banking is directly proportional to the level of health. This indicates that the better the financial performance of sharia banking, the better the health level of sharia banking (Jatmika & Ningsih, 2018).

Therefore, the financial performance of sharia banking by analyzing financial statements and then evaluating financial ratios to determine how effectively sharia banking manage their capital and whether sharia banking should be incentivized to do a better job or not all of which are by analyzing financial statements (Melina et al., 2022; Gayatri & Sunarsih, 2020). Analysis used to measure the performance of an sharia banking, such as capital ratio, asset quality ratio, profitability ratio, solvency ratio, profitability ratio, and liquidity ratio (Permatasari & Yulianto, 2018; Rambe, 2020; Sahri et al., 2022).

In this research, the financial performance of sharia banking is reflected by looking at the level of profitability (Ahmadi et al., 2021) in 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). 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). Moreover, Bank Indonesia as a regulator and bank supervisor prioritizes the value of bank profitability as measured by ROA, most of whose assets come from customer funds (Ramadhan & Widiyanti, 2023). Furthermore, sharia banking financial performance by looking at Non-Performing Financing (NPF), The Ratio of Operational Expenses to Operational Revenue (BOPO), and Depositor Funds (DPK). From Table 1 below, we can see the NPF, BOPO, DPK, and ROA growth of Sharia Business Unit in Indonesia.

**Tabel 1. NPF, BOPO, DPK, and ROA Growth
Sharia Business Unit in Indonesia**

Ratio (%)	Year				
	2019	2020	2021	2022	2023
NPF (%)	2,90	3,01	2,55	2,23	2,03
BOPO (%)	78,01	78,96	72,70	77,97	79,60
DPK (Rp.)	127,580	143,124	171,572	177,034	190,578
ROA (%)	2,04	1,81	2,05	1,69	1,85

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

NPF is a representation of the risk of non-performing financing owned by sharia banking (Pringgabayu et al., 2021). The existence of high performing financing can certainly disrupt the working capital turnover of sharia banking. So, if sharia banking has a high amount of non-performing financing, then sharia banking will try to evaluate its performance. Therefore, sharia banking temporarily stop disbursing financing until the NPF decreases (Nasution & Siregar, 2023). In other words, the high NPF as an indicator of the failure of sharia banking in managing the funds they distribute to customers for business that can influence the financial performance of the bank itself. This risk is the biggest risk because losses due to problematic financing can potentially destroy banking capital (Nugrohowati & Bimo, 2019).

After that, BOPO. The BOPO is related to the efficiency of financing an sharia banking when running its business. The large amount of operational costs will cause the net profit generated by sharia banking to be lower because operating 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). Next, DPK. DPK is a sum of money generated by a bank and comes from an outside party who holds the money. In other words, the money held by the bank does not belong to the bank itself but is stored by a depositor funds. Banks are only as institutions that mobilize and will then be given back to the community in the form of loans (Sumadi & Romdhoni, 2020).

Thus, the purpose of this research is to analyze the influence of NPF, BOPO, and DPK on the ROA of Sharia Business Unit in Indonesia. In this case, this research produced output that BOPO and DPK have an influential and are significant on the ROA of Sharia Business Unit in

Indonesia, while NPF has no influential and is not significant on the ROA of Sharia Business Unit in Indonesia. Therefore, the results of this research support and do not support previous research as research gaps. At least, both have been written in the discussion. Therefore, this scientific research is interesting to research, quite important, and can be accounted for. In the end, the results of this research are expected to contribute in terms of facts and rules, objective, reasonable, and have empirical.

Literature Review

Non-Performing Financing (NPF)

NPF is loss financing in payments that occur due to intentional factors or accidental factors by borrower customers (Rizal & Rofiqo, 2020).

The Ratio of Operational Expenses to Operational Revenue (BOPO)

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

Depositor Funds (DPK)

DPK is the main fund for sharia banking which concerns the survival of sharia banking. DPK must then be managed optimally and as much as possible in order to increase ROA in sharia banking. DPK management can be carried out by sharia banking by channeling funds back to customers in the form of financing (Sarmigi, 2021).

Return On Assets (ROA)

Suwiknyo (2016) underlined that ROA is a ratio that describes the ability of sharia bank to manage funds invested in overall assets that generate profit.

Sharia Business Unit in Indonesia

In Law Number 21 of 2008 concerning Sharia Banking states that Sharia Bank is a bank that carries out its business activities based on sharia principles and according to its type consists of Sharia Commercial Bank and Sharia Rural Bank. Meanwhile, what is meant by sharia banking is everything that concerns Sharia Bank and Sharia Business Unit, including institutions, business activities and ways and processes in carrying out their business activities. Sharia Bank and Sharia Business Unit must implement good governance and include the principles of transparency, accountability, responsibility, professionalism, and fairness in carrying out their business activities (Law Number 21 of 2008).

Method

Sunggono (2015) explained that research is a channel of human curiosity at the scientific level 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) underlined because this research was analyzed based on statistical procedures and data in the form of numbers. Presumably, these figures as secondary data. According to Rusiadi et al. (2014), secondary data is data obtained or collected by researchers from various existing sources.

The secondary data is sourced from the Financial Ratios of Islamic Business Unit through the publication of The Sharia Indonesia Banking Statistics, Financial Services Authority (SPS-OJK). Therefore, research samples are taken periodically in the form of monthly data from January 2020 to August 2023. At least, the amount of data that can be further analyzed is 45 data. For sampling techniques with simple random sampling.

Somantri & Muhidin (2014) emphasized that simple random sampling is a process of sampling from the population that is carried out in such a random way that every sample unit in the population has the same opportunity to be selected into the sample. Simple random sampling is included in the probability sampling technique. After that, the research model was analyzed by multiple linear regression analysis using three independent variable and one dependent variable. The independent variable are not only NPF but also BOPO and DPK. In this case, the dependent

variable is the ROA of Sharia Business Unit in Indonesia. For this reason, this research model can be described in the equation:

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

Information:

Y = ROA of Sharia Business Unit in Indonesia

a = Constant

b_1, b_2, b_3 = Regression Coefficient

X_1 = NPF

X_2 = BOPO

X_3 = DPK

ε = Error Standard

Furthermore, this research framework is based on analyzing the influence of NPF, BOPO, and DPK whether it has an influencing and is significant on the ROA of Sharia Business Unit in Indonesia.

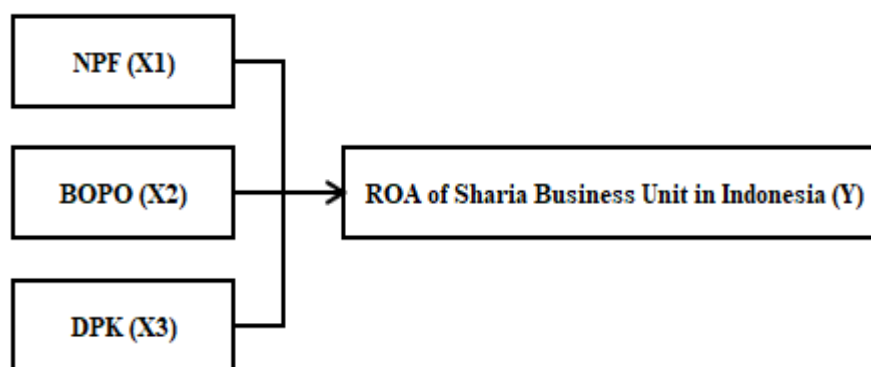


Figure 1: Research Framework

Result and Discussion

Result

R² Test Result

Based on Table 2, the R² value represents the value of the coefficient of determination of 0,862. That is, 86,20% of the variation in the dependent variable provides almost all the information needed to predict the independent variable in the model, while the remaining 13,80% is explained by other causes that do not enter the model.

F Test Result

Based on Table 2, a calculated F value of 85,722 is obtained which is greater than the table F value of 2,81 (85,722 > 2,81) then a Sig. value is obtained of 0,000 which is smaller than 0,05 (0,000 < 0,05). That is, reject H₀ and accept H_a. In conclusion, regression models on independent variable simultaneously have an influential and are significant on the dependent variable.

t Test Result

Based on Table 2, analysis and conclusions are obtained in the form of:

1. The calculated t value of the NPF variable (X_1) of 0,827 is smaller than the table t value of 2,01 (0,827 < 2,01) and then the Sig. value of 0,413 is obtained which is greater than 0,05 (0,0413 > 0,05). That is, accepting H₀₁ and rejecting H_{a1}. In this context, the NPF variable (X_1) has a negative relationship direction to the ROA variable of Sharia Business Unit in Indonesia (Y). In conclusion, the NPF variable (X_1) has no influential and is not significant on the ROA variable of Sharia Business Unit in Indonesia (Y).
2. The calculated t value of the BOPO variable (X_2) of 11,919 is greater than the table t value of 2,01 (11,919 > 2,01) and then the Sig. value of 0,000 is obtained which is smaller than

0,05 ($0,000 < 0,05$). That is, rejecting H_{02} and accepting H_{a2} . In this context, the BOPO variable (X_2) has a negative relationship direction to the ROA variable of Sharia Business Unit in Indonesia (Y). In conclusion, the BOPO variable (X_2) has an influential and is significant on the ROA variable of Sharia Business Unit in Indonesia (Y).

3. The calculated t value of the DPK variable (X_3) of 2,73 is greater than the table t value of 2,01 ($2,73 > 2,01$) and then the Sig. value of 0,028 is obtained which is smaller than 0,05 ($0,028 < 0,05$). That is, rejecting H_{03} and accepting H_{a3} . In conclusion, the DPK variable (X_3) has an influential and is significant on the ROA variable of Sharia Business Unit in Indonesia (Y).

Table 2. Regression Summary

Model	B	t	Sig.
Constant	7,506	9,545	0,000
NPF	-0,097	-0,827	0,413
BOPO	-0,059	-11,919	0,000
DPK	4,984	2,273	0,028
F=85,722; Sig.=0,000			
R=0,929; $R^2=0,862$			

Source: Data processed (2023)

Discussion

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

$$ROA = 7,506 - 0,097 \text{ NPF} - 0,059 \text{ BOPO} + 4,984 \text{ DPK}$$

1. A constant of 7,506 indicates that if NPF, BOPO, and DPK are constant, then the ROA of Sharia Business Unit in Indonesia increases by 7,506%. However, when viewed from the September 2023 period, which comes from the Financial Ratios of Sharia Business Unit through the publication of Sharia Banking Statistics, Financial Services Authority (SPS-OJK), the ROA of Sharia Business Unit in Indonesia decreased by 0,99% compared to the August 2023 period. Sastra et al. (2021) explained that 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, then the greater the level of profit achieved by sharia banking and the better the position of sharia banking in terms of asset use. A positive ROA shows that the total assets used for sharia banking operations are able to provide profits for sharia banking. Conversely, if the ROA is negative, it shows that the total assets used do not provide benefits or losses for the sharia banking. Siregar (2020) added that with the factors that influence the ROA of sharia banking, it certainly gives a message to the management to be able to maintain indicators concerning bank health. Moreover, 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 their assets to generate profits. Sharia Business Unit is part of sharia banking in Indonesia as referred to in Law Number 21 of 2008 concerning Sharia Banking that Sharia Banking is everything that concerns Sharia Banking and Sharia Business Unit, including institutions, business activities, and ways and processes in carrying out their business activities.
2. The regression coefficient of the NPF variable (X_1) is obtained at -0,097. This means that the decrease in NPF by 1% will influence the increase in ROA of Sharia Business Unit in Indonesia which increased by 0,097%. According to Fransiska & Siregar (2023), the collectibility of sharia banking NPF in the quality categories is substandard (KL), doubtful (D), and loss (M). That is, it should not exceed the limit of 5%. Febriani & Manda (2021)

added that the risk of this problematic financing ratio could occur due to the customer's failure or inability to return the loan amount received from sharia banking along with the profit sharing in accordance with a predetermined period. Therefore, Wahyuni et al. (2020) described that it should be a special concern for every sharia banking in order to minimize the increase in NPF risk. Fauzukhaq et al. (2020) explained that sharia banking in channeling its financing with customers through various contracts, such as mudharabah, musharakah, 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 a ratio of performing financing that occurs in sharia banking. The impact that occurs due to NPF is the loss of income from financing disbursed, thereby reducing the profit generation of sharia banking and affecting the profitability of sharia banking on ROA. So, if the lower the NPF level, the level of ROA increases because of the smaller the risk of non-performing financing borne by sharia banking. Conversely, if the higher the NPF level, the level of ROA decreases and sharia banking will lose the opportunity to earn profits. The hypothesis of this research should be that the NPF variable (X_1) has an influential and is significant on the ROA variable of Sharia Business Unit in Indonesia (Y). Basically, the results of this research do not fit the hypothesis. That is, rejecting H_{01} and accepting H_{a1} . In other words, the results of this research do not support the results of Siregar (2018); Muthmainnah et al. (2022); Rahmah et al. (2022); Siregar et al. (2023); and Pratama et al. (2023). However, the results of this research support the results of Fazriani & Mais (2019); Fadhilah & Suprayogi (2019); Devi (2021); Astuti (2022); and La Difa et al. (2022).

3. The regression coefficient of the BOPO variable (X_2) is obtained at -0,059. This means that the decrease in BOPO by 1% will influence the increase in ROA of Sharia Business Unit in Indonesia which increased by 0,059%. According to Dendawijaya (2009), BOPO is a comparison between operational costs and operating income which is used to measure the level of efficiency and ability of bank in their operations. Azizah & Manda (2021) explained that the ratio of operational expenses to operational revenue, called BOPO is a ratio level in weighing the performance of sharia banking activities when operating and is the level of efficiency at the bank. 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 their operations. The BOPO ratio also compares operating expenses with operating income in sharia banking, thus illustrating the very efficiency of sharia banking management in carrying out its operational activities. Syah (2018) underlined the amount of operational costs consisting of financing received, labor, maintenance, repairs, fixed assets, inventory, receivables, goods, and services of third parties. In this case, Yuliana & Listari (2021) explained that the 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 expenses increase, it will decrease profit before tax. In the end, it will lower the ROA ratio of sharia banking concerned. Riyadi (2014) describes that if BOPO is getting higher, then the performance of sharia banking will decrease. Conversely, if BOPO is getting lower, then the performance of sharia banking will increase. Presumably, the high and low BOPO influential the ROA of sharia banking. Basically, the results of this research fit the hypothesis. The results of this research are in accordance with the hypothesis that the BOPO variable (X_2) has an influential and is significant on the ROA variable of Sharia Business Unit in Indonesia (Y). That is, reject H_{02} and accept H_{a2} . Therefore, the results of this research support the 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 research do not support the results of Nanda et al. (2019); Alfianda & Widiyanto (2020); Suryadi et al. (2020); Fachri & Mahfudz (2021); and Supardi (2023).

4. The regression coefficient of the DPK variable (X_3) is obtained at 4,984. This means that the decrease in DPK by 1 billion rupiah will influence the increase in ROA of Sharia Business Unit in Indonesia which increased by 4,984 billion rupiah. Kasmir (2017) explained that DPK in the form of savings, current accounts, and deposits are sources of sharia banking funding from customers. In addition, Putriani & Farida (2019) explained that with high DPK, sharia banking must balance financing activities so that existing DPK are not idle. At the very least, Meliniawati (2022) underlines that the ratio commonly used to measure depositor funds (DPK) is the Financing to Deposit Ratio (FDR). If the FDR ratio of sharia banking is high, the greater the ROA level of sharia banking. In principle, when sharia banking channel financing from DPK, the higher the financing provided by sharia banking and will certainly increase ROA. Aulia & Anwar (2021) added that if DPK is high, it does not mean that the FDR ratio will also increase. However, sharia banking on average have a high FDR level to maintain liquidity and anticipate DPK that can be withdrawn at any time by customers. However, not according to Dasari & Wirman (2020) which explains that the size of existing DPK will not influencing ROA. In principle, DPK collected and received by sharia banking cannot directly generate profits, but must be distributed first to customers in the form of financing. Aishya et al. (2022) explained that the existence of DPK will result in financing growth which has an impact on non-performing financing (NPF). Basically, the results of this research fit the hypothesis. The results of this research are in accordance with the hypothesis that the DPK variable (X_3) has an influential and is significant on the ROA variable of Sharia Business Unit in Indonesia (Y). That is, reject H_{03} and accept H_{a3} . Therefore, the results of this research support the results of Angraini (2018); Nainggolan (2019); Mellaty & Kartawan (2021); Nurmalasari (2021); and Malik et al. (2023). However, the results of this research do not support the results of Husnah (2018); Amajida & Muthaher (2020); Subekti & Wardana (2022); Hanafia & Karim (2020); and Eramina & Muliasari (2023).

Conclusion

The results of the research are as follows: (1) The estimation model shows an R^2 value of 0,862 which represents the value of the coefficient of determination. This means that 86,20% of the dependent variable variation is able to be explained by the independent variable in this model. The remaining 13,80% is explained by other causes that are not included in the model; (2) The regression model on the independent variable simultaneously influence the dependent variable, so that the independent variable regression model can be used to predict the dependent variable; and (3) This research produced output that BOPO and DPK have an influential and are significant on the ROA of Sharia Business Unit in Indonesia, while NPF has no influential and is not significant on the ROA of Sharia Business Unit in Indonesia.

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