

## THE IMPACT OF FINANCIAL RATIO INDICATORS ON PROFITABILITY IN SHARIA BANKS IN INDONESIA PERIOD 2019-2023

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### *Abstract*

*This study aims to analyze the impact of financial ratios on the profitability of Sharia banks in Indonesia during the period 2019–2023. The financial ratios used in this research include Non-Performing Financing (NPF), Capital Adequacy Ratio (CAR), Financing to Deposit Ratio (FDR), Operational Efficiency Ratio (BOPO), and Net Operating Margin (NOM). Profitability is measured by Return on Assets (ROA). The research method employed is a quantitative approach with panel data analysis using secondary data obtained from the annual financial reports of Sharia Commercial Banks published by the Financial Services Authority (OJK). The results of the partial research (t-test) indicate that the CAR, FDR and NOM variables have positive and significant effect on profitability (ROA). Meanwhile, the NPF and BOPO variables do not have a significant effect on ROA.*

**Keywords:** CAR, FDR, NPF, BOPO, NOM, ROA, Profitability, Sharia Banking.

### *Abstrak*

Studi ini bertujuan untuk menganalisis dampak rasio keuangan terhadap profitabilitas bank syariah di Indonesia selama periode 2019–2023. Rasio keuangan yang digunakan dalam penelitian ini meliputi Pembiayaan Bermasalah (NPF), Rasio Kecukupan Modal (CAR), Rasio Pembiayaan terhadap Simpanan (FDR), Rasio Efisiensi Operasional (BOPO), dan Marjin Operasi Bersih (NOM). Profitabilitas diukur dengan Laba atas Aset (ROA). Metode penelitian yang digunakan adalah pendekatan kuantitatif dengan analisis data panel menggunakan data sekunder yang diperoleh dari laporan keuangan

tahunan Bank Umum Syariah yang diterbitkan oleh Otoritas Jasa Keuangan (OJK). Hasil penelitian parsial (uji-t) menunjukkan bahwa variabel CAR, FDR, NOM berpengaruh positif dan signifikan terhadap profitabilitas (ROA). Sementara variabel NPF dan BOPO tidak berpengaruh signifikan terhadap ROA.

**Kata kunci :** *CAR, FDR, NPF, BOPO, NOM, ROA, Perbankan Syariah, Profitabilitas.*

## INTRODUCTION

The development of Islamic banking in Indonesia has shown a positive trend, with profitability increasing year after year (Ananda & Inayati, 2024). As a sub-system of the financial services industry, banking is widely regarded as one of the main determinants of national economic development (Agus Suryanto et al., 2020). By mobilizing public funds, financing investments, and providing payment services, banks contribute significantly to raising the standard of living in society (Ailien, 2024; Bawono et al., 2021; Wahab et al., 2016). Within this framework, Islamic banking has recorded rapid growth in recent decades, supported by rising public demand for financial products and services in line with Sharia principles (Asike et al., 2024). This growth reflects the dual role of Islamic banks, not only as competitive financial institutions but also as social instruments for advancing community-based economic justice (Rakhima Salsabila et al., 2023).

However, this profitability achievement does not fully reflect the fundamental strength of Islamic banks' financial performance. Previous studies indicate that key indicators such as Capital Adequacy Ratio (CAR), Financing to Deposit Ratio (FDR), Net Operating Margin (NOM), Non-Performing Financing (NPF), and Operational Expenses to Operating Income (BOPO) exert varying impacts on profitability. CAR has been found to have a positive and significant effect, emphasizing the importance of strong capitalization for bank sustainability (Izzah et al., 2019). Similarly, FDR and NOM significantly influence Return on Assets (ROA), suggesting that the capacity to channel financing and generate margins plays a crucial role (Sihotang, 2021). Conversely, NPF and BOPO tend to negatively affect profitability, though often insignificantly (Dwi Angraeni Berlina, 2019), reflecting challenges in managing financing risks and optimizing operational efficiency. This reality illustrates that despite

continuous growth, Indonesian Islamic banks still face difficulties in balancing the need for capital strengthening, financing quality, and cost efficiency (Roziq & Ahmad, 2024).

This condition underscores an important research gap. Although prior studies have examined the individual impacts of these indicators, few have comprehensively analyzed the simultaneous interplay of CAR, FDR, NOM, NPF, and BOPO in influencing Islamic banks' profitability. In fact, profit growth alone does not necessarily capture the resilience of Islamic banks, as sustainable growth requires sound capital management, prudent financing, operational efficiency, and stable margin generation capacity (Alifandi & Sisdianto, 2024). Neglecting these dimensions risks unsustainable expansion and financial vulnerability, which may undermine the social mission of Islamic banks as instruments of economic justice.

Against this backdrop, this study aims to examine the effects of CAR, FDR, NPF, BOPO, and NOM on the profitability of Islamic banks in Indonesia. The study seeks to evaluate the extent to which capital strength, financing quality, operational efficiency, and margin-generating capacity contribute to long-term sustainability. The findings are expected to enrich academic discourse and provide practical insights for regulators and industry practitioners in enhancing the competitiveness of Islamic banks. Ultimately, this research contributes to strengthening Islamic banking not only as a competitive financial institution but also as a sustainable social mechanism committed to promoting community economic justice (Dirie et al., 2024).

## **LITERATURE REVIEW**

A bank is an organization that efficiently and successfully gathers and disburses funds to raise a community's standard of living. (Car et al., 2024) According to Article 1, paragraph 13 of Law No. 10 of 1998, the agreement based on Islamic law between the bank and other parties for the custody of funds and/or financing of other commercial activities that are deemed to be in compliance with sharia constitutes the sharia concept. (Profitabilitas & Pada, 2022) Profit-sharing, leasing, and buying and selling processes that do not employ an interest system at all are given priority by Islamic banks in contrast to conventional banks that do. (Ailien, 2024) Islam's financial system does not employ usury (interest), gharar (ambiguity), or maysir (gambling), and it can

provide value-based advantages for human well-being. (B, 2022). Part of the money that a bank can utilize for day-to-day operations is called capital. Because of its huge cash reserves and management's ability to allocate funds to profitable projects, a company with a greater ratio is more likely to turn a profit. There are two methods to assess the capital adequacy ratio (CAR), according to Zainul Arifin: A comparison of capital with funds from external parties. The capital ratio is calculated in relation to third-party deposits, which include savings, time deposits, and current accounts. b) Through a comparison of risk-weighted assets and capital.

The ratio of financing to funds provided is known as the Financing to Deposit Ratio (FDR). This ratio's outcome can be used to gauge the amount of liquidity and assess the bank's capacity to cover its funding requirements using its entire asset base.(Amalia & Diana, 2022) The higher the Financing to Deposit Ratio (FDR), the lower the liquidity capacity of the bank in question.(Ningsih & Rachmawati, 2019)

Since a bank's ability to survive is directly correlated with the quality of its productive assets, bank management must continuously assess and evaluate the latter.(Syachreza & Mais, 2020) Non-Performing Financing is one of the instruments used to measure the performance ratio of Islamic banks in terms of customers' inability to repay loans and to measure the risk of financing failure.(Permana & Musthofa, 2023)

The ratio known as the Operating Expense to Operating Revenue (BOPO) ratio illustrates the percentage of a company's operating costs or expenses relative to its operating revenue over a given time period.(Moch Fajar Suryo Atmojo et al., 2021) A bank is considered efficient when its BOPO ratio is low and its operating costs are low. As a result, financial institutions face fewer and more manageable problems.(Supardi & Syafri, 2023)

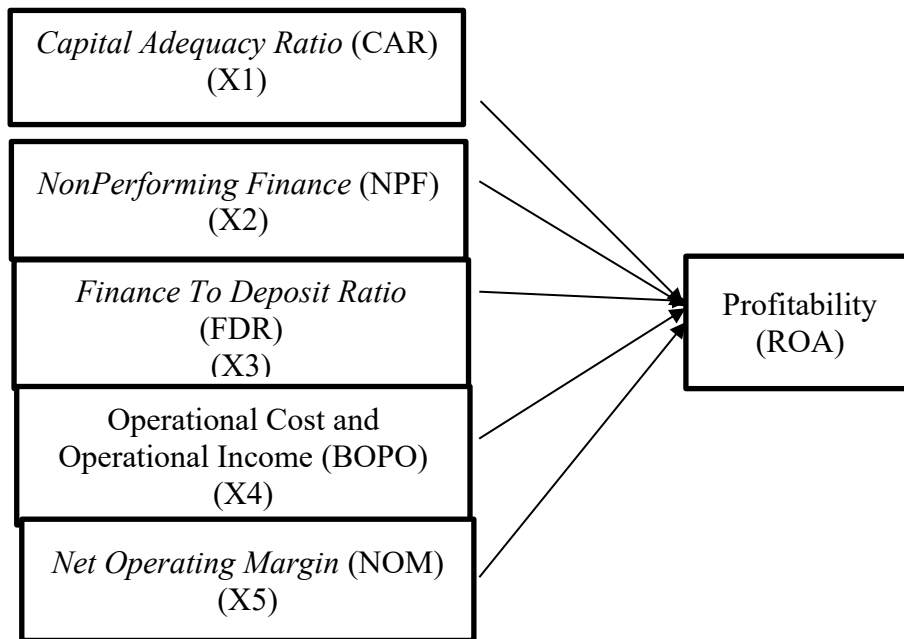
The profitability ratio of a bank is called NOM (Net Operating Margin). Since NOM needs to remain constant, a low NOM will also result in a low profitability rate and a little profit.(Agus Suryanto et al., 2020) The NOM ratio shows how well the bank can use its producing assets to produce net interest income.(Moch Fajar Suryo Atmojo et al., 2021)

The most crucial metric for assessing a bank's performance is its profitability. The ability of a bank to generate or generate a profit efficiently is another aspect of

profitability.(Shafiin, 2014) Profitability ratios measure the company's ability to generate profits from its activities.(Amalia & Diana, 2022) The higher the return on investment (ROA), the better the financial performance. A bank's performance can also serve as a barometer of its soundness if its banking operations have been managed in compliance with relevant regulations and good banking principles.(Wita Sari et al., 2023)

**FRAMEWORK**

The framework for this research is as follows:



*Source: Processed by the author, 2024*

From the chart above, the relationship with the research framework in this study uses five independent variables, namely CAR as (X1), NPF as (X2), FDR as (X3), BOPO as (X4), and NOM as (X5). Finally, ROA is the dependent variable (Y).

**Hypothesis**

Two terms, "Hypo" and "thesis," which are Greek in origin, make up a hypothesis. "Thesis" denotes opinion, and "hypo" signifies less. A hypothesis, then, is a provisional solution or conclusion about the study problem. This was produced

by a writer or researcher who makes use of preliminary data, the accuracy of which is subsequently assessed by the findings of the study (Tanjung & Devi, 2013).

According to the framework mentioned above, a number of hypotheses have been developed based on research that looks at how CAR, NPF, FDR, BOPO, and NOM affect the profitability of Islamic banks in Indonesia. These include the following:

1.  $H_0$  : *Capital Adequacy Ratio* (CAR) has no positive and significant effect on the profitability of Islamic Banks in Indonesia.  
 $H_1$  : *Capital Adequacy Ratio* (CAR) positively and significantly influences the profitability of Islamic Banks in Indonesia.
2.  $H_0$  : *Financing to Deposit Ratio* (FDR) doesn't significantly and favorably impact Indonesia's Islamic banks' earnings..  
 $H_1$  : *Financing to Deposit Ratio* (FDR) favorably and considerably impacts Indonesia's Islamic banks' profits.
3.  $H_0$  : *NonPerforming financing* (NPF) doesn't significantly and favorably impact Indonesia's Islamic banks' earnings.  
 $H_1$  : *NonPerforming financing* (NPF) has a favorable and noteworthy effect on Indonesia's Islamic banks' profits.
4.  $H_0$  : The Operating Expense to Operating Income Ratio (BOPO) does not have a positive and significant effect on the profitability of Islamic Banks in Indonesia.  
 $H_1$  : The Operating Expense to Operating Income (BOPO) ratio has a positive and significant effect on the profitability of Islamic Banks in Indonesia.
5.  $H_0$  : *Net Operating Margin* (NOM) has no substantial and positive impact on Indonesia's Islamic banks' earnings.  
 $H_1$  : *Net Operating Margin* (NOM) has an important and good effect on Indonesia's Islamic banks' profits.

## RESEARCH METHODS

This research is quantitative research. This study analyzes and describes data obtained from the bank's quarterly reports. The samples utilized in this study will be

chosen according to preset criteria using a purposive sampling technique. This study employed secondary data as its data type. This study also involves use of documentation data and a survey of the literature. Bank profiles, literature, journals, books, and the quarterly financial statements of Islamic Commercial Banks for the 2019–2023 period are among the sources of data used in this study. The data analysis techniques used in this study include the use of SPSS software for descriptive statistics, multiple linear regression analysis, the traditional assumption test, and the hypothesis test (T-test, F-test, and R-test).

## RESULT AND DISCUSSION

### 1. Descriptive Statistics

Descriptive statistics describe or characterize data based on the mean, maximum, minimum, and standard deviation, which are used to determine whether the variables are normally distributed. The variables studied in this research are one dependent variable and five independent variable data: CAR, NPF, FDR, BOPO, and NOM.

**Table 1**  
Descriptive Statistics Analysis Result  
(Sample Size, Minimum, Maximum, Mean, and Standard Deviation)

<b>Descriptive Statistics</b>					
	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>CAR</b>	60	0,12	0,47	0,2793	0,10080
<b>FDR</b>	60	0,39	0,99	0,7215	0,17814
<b>NPF</b>	60	0,00	0,06	0,0212	0,01637
<b>BOPO</b>	60	0,65	1,00	0,8811	0,09953
<b>NOM</b>	60	0,00	0,05	0,0104	0,00907
<b>ROA</b>	60	0,00	0,04	0,0107	0,01020
<b>Valid N (listwise)</b>	60				

According to Table 1, the information was taken from each bank's quarterly financial statements for a period of five years, from 2019 to 2023. With a total of 60 data points (N), the sample data originates from three Indonesian Islamic banks and

includes all of Bank Indonesia's annual financial statements. In general, the explanation presented in the above table looks like this:

- a. Based on the data above, where CAR is variable X1, displays the results of the descriptive data test. The CAR variable has a minimum value of 0.12, a maximum value of 0.47, an average (mean) of 0.2793, and a standard deviation of 0.10080.
- b. FDR is the X2 variable in Table 1's descriptive data test findings. The variable's lowest (minimum) unit value is 0.39, its highest (maximum) value is 0.99, and its average (mean) is 0.7215 with a standard deviation of 0.17814.
- c. The results of the descriptive data test in 1, where NPF is variable X3, show that the NPF variable has the lowest (minimum) value of 0.00, the highest (maximum) value of 0.0212, the average (mean) value of 0.01637, and a standard deviation of 0.10080.
- d. The BOPO variable, variable X4, has the lowest (minimum) value of 0.65, the highest (maximum) value of 1.00, and an average (mean) of 0.8811 with a standard deviation of 0.09953, according to the findings of the descriptive data test in Table 2.1.
- e. The NOM variable has the lowest unit value (minimum) of 0.00, the highest value (maximum) of 0.05, an average (mean) of 0.0104, and a standard deviation of 0.00907, according to the findings of the descriptive data test in Table 1, where NOM is variable X5.
- f. As the Y variable in Table 1's descriptive data test, ROA has the lowest (minimum) value of 0.00, the highest (maximum) value of 0.04; the average (mean) value is 0.0107, with a standard deviation of 0.01020.

### **Normality Test**

A result of 0.0000 from a normalcy test with 60 objects did not satisfy the Jarque-Bera probability. This suggests that the data is distributed irregularly. Outliers are eliminated in order to normalize the data since they indicate notable variations from the other observations.(Kharimah et al., 2024) A result of 0.0000 from a normality test with 60 objects did not satisfy the Jarque-Bera probability. This

suggests that the data is distributed irregularly. Outliers are eliminated to normalize the data because they indicate significant variations from the other observations. Data can be considered normally distributed if the significance is greater than 5% or 0.05.

Table 2  
 Hasil Uji Kolmogorov-Smirnov  
**One-Sample Kolmogorov-Smirnov Test**  
 Unstandardized Residual

N		60
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	.55884886
	Most Extreme Differences	
	Absolute	.126
	Positive	.126
	Negative	-.108
Test Statistic		.126
Asymp. Sig. (2-tailed)		.271 <sup>c</sup>

*Source: Results of SPSS Data Processing Version 26 for Windows (2024)*

Based on the results of the Kolmogorov-Smirnov normality test in the table above, the probability or Asymp. Sig. (2-tailed) value obtained is 0.271. This indicates that the significance value is greater than the confidence level value  $\alpha = 0.05$ , so it can be concluded that the residuals are normally distributed.

**Multicollinearity Test**

Multicollinearity testing can be seen from the Variance Inflation Factor (VIF) and Tolerance (TOL) values of each independent variable against its dependent variable. If the VIF value is  $< 10$  or has a tolerance  $> 0.10$ , then there is no

multicollinearity problem (Tanjung & Devi, 2013). The results of the multicollinearity test (VIF test) can be seen in the following table:

**Table 3**  
Multicollinearity Test Result  
(Uji VIF)

Variabel	Collinearity Statistics	
	Tolerance	VIF
CAR	.367	2.724
FDR	.622	1.608
NPF	.321	3.112
BOPO	.253	3.948
NOM	.189	5.291

Dependent Variable: ROA

*Source: Results of SPSS Data Processing Version 26 for Windows (2024)*

Based on the results of the multicollinearity test above, it can be seen that the Tolerance value is  $> 0.10$  and the VIF value for each is less than 10. Therefore, it can be concluded that there is no multicollinearity between the independent variables.

### Heteroskedasticity Test

Table 4 below demonstrates that each variable's significance or profitability value is higher than 0.05, proving the absence of heteroskedasticity. Stated differently, the correlation between each variable and its residual value yields a number that is higher than alpha.

Table 4  
Heteroskedasticity Test Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.092	1.344		-.068	.946
CAR	-.009	.316	-.007	-.029	.977
FDR	.015	.356	.008	.043	.966
NPF	-.002	.187	-.003	-.013	.990
BOPO	-.184	1.356	-.037	-.136	.893
NOM	-.011	.138	-.025	-.077	.939

a. Dependent Variable: Unstandardized Residual  
 Source: Results of SPSS Data Processing Version 26 for Windows (2024)

**Autocorrelation Test**

The Durbin-Watson method is used to determine if autocorrelation is present or not. The following describes how to use Durbin-Watson to find autocorrelation in a regression analysis model:

Table 5  
Autocorrelation Test Result

Model	Model Summary <sup>b</sup>			
	R	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.740 <sup>a</sup>	.548	.00222553	2.033

a. Predictors: (Constant), CAR3

b. Dependent Variable: Unstandardized Residual

Source: Results of SPSS Data Processing Version 26 for Windows (2024)

It is evident from the Durbin-Watson value (DW Statistic) of the regression findings, which is 2.033 at a 5% significance level with a sample size (n) of 60, five independent variables, and one dependent variable (k=6). There is no positive autocorrelation because Durbin-Watson falls between  $d_l = 1.372$  and  $d_u = 1.808$ , and since  $d > d_u$ , the outcome is  $2.033 > 1.808$ . Additionally, the result is  $1.967 > 1.808$ , which shows no negative autocorrelation because  $4 - d > d_u$ . Since there is neither positive nor negative autocorrelation, the autocorrelation test is deemed successful.

### Multiple Linear Regression Analysis

To investigate the impact of independent factors on the dependent variable, multiple linear regression model testing is employed. The purpose of multiple linear regression model testing is to assess the validity of the study's initial hypothesis, which can be explained when there are at least two independent variables. The following table displays the multiple linear regression model test results.

Table 6  
Multiple Linear Regression Analysis Result

		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	-2.198	1.316		-1.670	.101
	CAR	.492	.312	.111	1.577	.121
	FDR	.793	.352	.122	2.256	.028
	NPF	-.258	.185	-.105	-1.395	.169
	BOPO	-3.916	1.271	-.261	-3.080	.003
	NOM	.756	.134	.553	5.625	.000

Source: Results of SPSS Data Processing Version 26 for Windows (2024)

Based on the table above, the multiple linear regression analysis model used in this study is formulated as follows.

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e$$

$$\text{ROA} = -2.198 + 0.492 (\text{CAR}) + 0.793 (\text{FDR}) - 0.258 (\text{NPF}) - 3.916 (\text{BOPO}) + 0.756 (\text{NOM}) + e$$

From the results of the regression equation above, the following interpretation is obtained:

a. Constant a

Based on the coefficient table above, the constant value of -2.198 indicates that if the variables CAR, FDR, NPF, BOPO, and NOM are considered constant or non-existent, or equal to -2.198, then Y (ROA) will increase.

b. Coefficient  $b_1$

CAR (X1) has a regression coefficient value of 0.492 against ROA, meaning that for every one-unit increase, ROA growth increases by 0.492, assuming the values of other variables remain constant.

c. Coefficient  $b_2$

With a regression coefficient value of 0.793 against ROA, FDR (X2) indicates that, under the assumption that all other factors stay the same, ROA growth will rise by 0.793 for every unit increase.

d. Coefficient  $b_3$

Assuming all other variables stay constant, NPF (X3) has a regression coefficient value of -0.258 against ROA, meaning that for every unit increase, ROA growth will fall by -0.258.

e. Coefficient  $b_4$

The regression coefficient value of -3.916 for BOPO (X4) versus ROA indicates that, assuming all other variables stay constant, ROA growth will fall by -3.916 for every unit increase.

f. Coefficient  $b_5$

NOM (X5) has a regression coefficient value of 0.756 against ROA, meaning that for every one-unit increase, ROA growth will decrease by 0.756, assuming the values of other variables remain constant.

The (+) sign indicates a positive relationship, while the (-) sign indicates an inverse relationship between the independent variable (X) and the dependent variable (Y).

**Hypothesis Test**

a. t Test

Each independent variable's (partially) significant positive impact on the dependent variable is assessed using the t-test. The significance level in this study is 0.05, or  $\alpha = 5\%$ . The following guidelines influence whether to accept or reject a preliminary hypothesis during decision-making:

- 1) When the calculated t-value is less than the critical t-value or the significance level is greater than 0.05, it means the null hypothesis (Ho) is accepted. It partially indicates that the independent variable has a positive but insignificant effect on the dependent variable.
- 2) Ha is accepted if the estimated t-value is higher than the acceptable t-value or if the significance level is less than 0.05. This suggests that the dependent variable is significantly positively impacted by the independent variable.

Finding the degrees of freedom is a prerequisite for figuring out the value of the t table. The formula for determining the degrees of freedom is degrees of freedom (df) = n – k. Notes:

n = Number of observations.

k = Number of variables.

Table 7  
t Test Result

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.198	1.316		-1.670	.101

CAR	.492	.312	.111	1.577	.121
FDR	.793	.352	.122	2.256	.028
NPF	-.258	.185	-.105	-1.395	.169
BOPO	-3.916	1.271	-.261	-3.080	.003
NOM	.756	.134	.553	5.625	.000

*Source: Results of SPSS Data Processing Version 26 for Windows (2024)*

Based on the data above, it can be seen that:

1. The t-statistic for the CAR variable is 1.577. With a profitability of 0.121, which is above 0.05. Therefore, it can be said that CAR has a statistically insignificant positive effect on profitability (ROA), thus H1 is rejected.
2. The Financing to Deposit Ratio (FDR) variable's t-test findings revealed a profitability value of 0.028 and a t-statistic of 2.256. Given that the probability value is less than 0.05, it may be concluded that FDR significantly boosts profitability (ROA). H2 is therefore approved.
3. The NPF variable's t-test findings revealed a t-statistic of -1.395 and a profitability value of 0.169, indicating a probability value ( $p > 0.05$ ). Thus, it may be concluded that NPF has a negligible impact on ROA, and as a result, H3 is disproved.
4. The BOPO variable's t-test findings indicate a profitability value of 0.003 and a t-statistic of -3.080. This indicates that BOPO significantly reduces profitability (ROA), with the likelihood value being less than 0.05. H4 is therefore approved.
5. According to the NOM variable's t-test results, the profitability value was 0.000 and the t-statistic was 5.625. The probability value is less than 0.05, which suggests that NOM significantly boosts profitability (ROA). Thus, H5 has been granted approval.

### **F Test**

The F-test uses the probability value (Sig) to determine whether the independent variables (CAR, FDR, NPF, BOPO, and NOM) and the dependent variable (profitability) have a substantial positive impact on it at the same time.

0.05, or  $\alpha = 5\%$ , is the study's significance level. The following are the decision-making provisions:

1. When the calculated F value is less than the table F value or the significance level is greater than 0.05, it means  $H_0$  is accepted. It simultaneously shows that the independent variable has a positive but insignificant effect on the dependent variable.
2. The alternative hypothesis ( $H_a$ ) is accepted if the computed F-value is higher than the crucial F-value or if the significance thresholds is less than 0.0. This demonstrates that the independent variable significantly improves the dependent variable at the same time.

Calculating the degrees of freedom is necessary when searching for a value in a table. The guidelines for figuring the degrees of freedom are:

$$Df1 \text{ (Numerator)} = k - 1$$

$$Df2 \text{ (Denominator)} = n - k$$

Keterangan:

n = Number of Observations.

k = Number of Variables

Table 8

F Test Result

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.006	5	.001	95.201	.000 <sup>b</sup>
	Residual	.001	54	.000		
	Total	.006	59			

a. Dependent Variable: ROA

b. Predictors: (Constant), NOM, FDR, CAR, NPF, BOPO

Source: Results of SPSS Data Processing Version 26 for Windows (2024)

The F-test indicates that H0 is rejected because, as the test above shows,  $F_{\text{calculated}} = 95.201$  with a profitability of  $0.000 < 0.05$ . This suggests that the factors CAR, FDR, NPF, BOPO, and NOM have a favorable and noteworthy impact on the profitability (ROA) of Indonesian Islamic banks.

**Coefficient Determination**

The coefficient of determination test (R2) is used to see the percentage of success in changes caused by the independent variables (CAR, FDR, NPF, BOPO, and NOM) in influencing the dependent variable (profitability). If the percentage value of the coefficient of determination (R2) increases, the percentage value of changes in the dependent variable (profitability) caused by the independent variables will also increase. Conversely, if the percentage value of the coefficient of determination (R2) decreases, the percentage value of changes in the dependent variable (profitability) caused by the independent variables will also decrease. The coefficient of determination in this study uses the Adjusted R2 value. The results of the coefficient of determination test (R2) in the table can be seen as follows:

Table 9  
Determination Test Result (R<sup>2</sup>)  
**Model Summary<sup>b</sup>**

Model	R	Adjusted R Square	Std. Error of the Estimate
1	.948 <sup>a</sup>	.898	.00340

a. Predictors: (Constant), NOM, FDR, CAR, NPF, BOPO

b. Dependent Variable: ROA

*Source: Results of SPSS Data Processing Version 26 for Windows (2024)*

The size of the correlation coefficient (R) is 0.948, as can be shown from the above determination test computation results. It shows a 94.8% correlation between the independent and dependent variables. Other factors account for the remaining 5.2% of the variation in profitability (ROA), with CAR, FDR, NPF, BOPO, and NOM accounting for the majority of the difference.

The Adjusted R-squared (R<sup>2</sup>) value is 0.889. It shows that 88.9% of the dependent variable (profitability) is controlled by the independent variables (CAR, FDR, NPF, BOPO, and NOM), with the remaining 11.1% being influenced by variables not included in the study model.

## RESULT AND DISCUSSION

The results of the regression analysis show that the variables CAR, FDR, NPF, BOPO, and NOM from the F-test results in the table above (4.8) obtained an F-statistic of 95.201 with a p-value of  $0.000 < 0.05$ . Because the probability is much smaller than 0.05, it can be concluded that  $H_0$  is rejected, which means that the variables CAR, FDR, NPF, BOPO, and NOM have a simultaneous or significant effect on the profitability (ROA) of Islamic Banks in Indonesia.

The regression analysis's R-squared value, which was 0.898, indicates that the independent variables—CAR, FDR, NPF, BOPO, and NOM—all simultaneously contribute 10.2% to the profitability (ROA) of Indonesia's Islamic banks. Consequently, profitability (ROA) is significantly enhanced by the independent variables. Pengaruh CAR terhadap ROA

According to the research findings above using the SPSS software, the partial hypothesis test indicates that CAR (X1) has a statistically significant impact on ROA (Y) with a t-count of 1.577 and a significance value of 0.121, where the significance value is higher than the alpha value of 0.05.

According to the CAR of Indonesian Islamic banks from 2019 to 2023, a bank's return on assets (ROA) increases with its CAR. It is due to the fact that the CAR ratio signifies the adequacy of a bank's capital, which will be utilized in its production activities to generate profit and reduce the risk of business losses. Consequently, the larger the ROA, the higher the CAR.

### 1. FDR's Impact on ROA

According to the results of the study conducted using the SPSS software, the variable FDR (X2) has a t-value of 2.256 and a significance level of 0.028. The significance level is less than the alpha of 0.05, which enables the hypothesis to be

supported statistically that FDR (X2) has a positive and significant impact on ROA (Y) at syariah banks.

The financing to deposit ratio (FDR) compares the total amount of money raised from the public to cover short-term obligations with the amount of financing that is dispensed in order to determine the degree of liquidity. The bank's profit margin is determined by the quantity of financing that is disbursed. Losses for the bank may result from its inability to collect substantial sums of money from the public and distribute finance effectively. For the FDR ratio, Bank Indonesia establishes a threshold of 80% to 110%. When a bank's FDR ratio falls below 80%, it indicates that it can only distribute a fraction of the money it has received.

According to the study's findings, FDR significantly and favorably affects ROA. Sharia banks are therefore capable of performing their intermediation role effectively. Depositors trust that Sharia banks can handle their money since they are thought to be able to maximize the distribution of funding to the general public. The amount of money received from depositors increases with the level of public trust in Sharia banks. The ROA level at Bank Universal Syariah may be impacted by these funds. If the bank can maximize its credit disbursement, the company's revenues can rise in tandem with the FDR. Consequently, it may be said that, provided the bank is able to distribute financing as efficiently or maximally as possible, bank profits will rise in tandem with the Financing to Deposit Ratio (FDR).

## **2. NPF's Influence on ROA**

According to the research findings above utilizing the SPSS software, the NPF variable (X3) has a t-statistic of -1.395 and a significance value of 0.169, where the significance value is higher than the alpha value of 0.05. Consequently, the partial hypothesis test indicates that ROA (Y) is not statistically impacted by NPF (X3). These findings suggest that Islamic banks' profitability will suffer from a greater NPF. Since ROA is not greatly impacted by the risk represented in the NPF, this is probably due to the relatively small amount of non-performing financing.

The fact that NPF is tied to bank funding is one of the reasons it has no effect on ROA. As a result, NPF is ineffective since many Islamic banks are picky about

who they lend money to. Because the bank gives customer applications too much weight, the financing that is disbursed does not operate as efficiently as it could. As a result, the bank's profit creation is not maximized and only a little quantity of loans is disbursed. Although the bank has taken commendable steps to strengthen its vigilance against problematic financing, it should be highlighted that if the bank is overly selective in its financing of customers, it will not maximize profit and will not be able to expand the bank's profitability. As a result, the bank's profit creation is not maximized and only a little quantity of loans is disbursed. Although the bank has taken excellent steps to strengthen its vigilance against problematic financing, it should be highlighted that if the bank is overly selective in its financing of customers, it will not maximize profit and will not be able to expand the bank's profitability.

### **3. BOPO's Influence on ROA**

Based on the results of the study conducted using the SPSS software, it can be concluded that the variable BOPO (X4) has a  $t$  hitung of -3.080 and a significance level of 0.003, with a significance level lower than the alpha of 0.05, indicating that the hypothesis is statistically insignificant.

The result is supported by the study's findings. Since banking operations are directly linked to the expenses involved in making a profit, operating costs are theoretically significant in managing a bank's operations. Dendiwijaya asserts that any rise in operating expenses has the potential to lower the bank's pre-tax profit or profitability (ROA). Because BOPO and ROA are negatively correlated, increasing BOPO will result in decreased efficiency. This can be attributed to the bank's operational efficiency, which has an impact on its revenue. The bank's revenue will rise when its operational activities are operating efficiently, which is shown by a low BOPO ratio. It is possible to interpret the negative correlation between BOPO and ROA as indicating that a bank's ROA level decreases as its BOPO level increases. Good bank management abilities to meet operating costs while making the most profit, hence increasing ROA, are indicated by a low BOPO level.

### **4. NOM's Impact on ROA**

The partial hypothesis test indicates that NOM (X5) statistically has a positive and significant effect on ROA (Y) in Indonesian Islamic banking based on the research results above using the SPSS program, which show that the CAR variable (X1) has a t-statistic of 5.625 and a significance value of 0.000, where the significance value is smaller than the alpha value of 0.05. The profitability of Islamic banks will rise in tandem with the NOM ratio.

The ability of a sharia bank to earn more profit-sharing income than the profit-sharing costs spent for managing the disbursed finance is indicated by a high NOM ratio. According to this study, ROA is significantly improved with NOM. Islamic banking demonstrates that productive assets' capacity to provide net operating income and, consequently, profits, increases with the quantity of NOM. The NOM's size reflects the bank's capacity to control client financing disbursements and operating expenses, preserving the caliber of its productive assets and boosting revenue.

It is clear from the examination of all the bank ratio indicators above that this study supports earlier findings that found a substantial relationship between ROA and CAR, FDR, and NOM (Wahyudi, 2020 ; Asike et.al., 2024 ; Azizah, 2021). However, this study contradicts previous research findings which showed that NPF and NOM significantly affect ROA. (Syachreza et.al.,2020 ; Pratiwi et.al.,2021)

## **CONCLUSION**

The research findings indicate that Return on Assets (ROA) in Indonesian Islamic banking is highly influenced by the Capital Adequacy Ratio (CAR), Financing to Deposit Ratio (FDR), and Net Operating Margin (NOM). It suggests that operational margins, capital adequacy, and the bank's capacity to disburse funding all contribute significantly to higher profitability. Therefore, Islamic banks need to strengthen their capital, optimize financing, and increase margins to boost profits.

Operating Expenses to Operating Income (BOPO) and Non-Performing Financing (NPF) had no apparent effects on ROA, indicating that operational effectiveness and financing quality were not the primary determinants of Islamic

banks' profitability during the study period. However, in order to control the NPF level and increase operational efficiency through better cost management and the use of digital technology, Islamic banks still need to preserve the quality of funding. Efficiency can be improved, long-term profitability can be better guaranteed, and the danger of non-performing credit can be reduced.

## REFERENCES

- Ades, A., Ramdhani, R., Taufiq, M., Yusril, Rahmidi, Patricia, I., Abbas, A., Amal, F. Analysis of the Impact of Ratio Indicators on The Profitability of Sharia Commercial Banks in Indonesia. *MANOR: Jurnal Manajemen dan Organisasi Review* (Vol.6, No 1, Mei 2024). <https://doi.org/10.47354/mjo.v6i1.818>.
- Agus Suryanto, D., Susanti, S., Studi Manajemen, P., Ekuitas, S., & Barat, J. (2020). Analisis Net Operating Margin (NOM), Non Performing Financing (NPF), Financing to Debt Ratio (FDR) dan Pengaruhnya Pada Efisiensi Perbankan Syariah di Indonesia. *Jurnal Riset Akuntansi Dan Keuangan*, 8(1), 29–40. <https://doi.org/10.17509/jrak.v8i1.19331>. Copyright
- Ailien, N. (2024). *Pengaruh Capital Adequacy Ratio (CAR) Terhadap Return On Asset (ROA) (Studi Pada Bank Umum Syariah Periode 2018-2022)*. 1–120.
- Alifandi, T., & Sisdiyanto, E. (2024). Analisis Laporan Keuangan Syariah Dan Fungsinya Dalam Perbankan Syariah Analysis of Shariah Financial Reports and Its Function in Shariah Banking. *Jiic: Jurnal Intelek Insan Cendekia*, 1.
- Amalia, D., & Diana, N. (2022). Pengaruh BOPO, CAR, dan FDR Terhadap Profitabilitas Bank Bukopin Syariah Periode 2013-2020. *Jurnal Ilmiah Ekonomi Islam*, 8(1), 1095. <https://doi.org/10.29040/jiei.v8i1.4166>
- Ananda, A. S., & Inayati, A. A. (2024). Implementasi Prinsip Kehati-hatian Pada Tata Kelola Bank Syariah Indonesia. *RIKAZ*, 2(2), 9–22.
- B, J. E. L. C. (2022). *Modern Economics №34*. 34(July), 43–49.
- Bawono, A., Rofiuddin, M., Nabila, R., & ... (2021). Impact of Coronavirus and Macroeconomic Indicators on Sharia Obligation with Simultaneous Model. *Signifikan: Jurnal Ilmu* ....
- Car, A. P., Age, B., Suku, D. A. N., Ikrom, A., & Syaichu, M. (2024). *44105-102362-1-Sm*. 13(7), 1–13.
- Dirie, K. A., Alam, M. M., & Maamor, S. (2024). Islamic social finance for achieving sustainable development goals: a systematic literature review and future research agenda.". *International Journal of Ethics and Systems*, 40(4), 676–698.
- Izzah, R. N., Kosim, A. M., & Gustiawati, S. (2019). Pengaruh Non Performing Financing Dan Capital Adequacy Ratio Terhadap Profitabilitas Keberadaan

bank-bank syariah merupakan upaya untuk dapat memenuhi kebutuhan masyarakat yang semakin beragam, masyarakat dapat memilih dan menentukan apakah akan mengguna. *Al-Maal: Journal of Islamic Economics and Banking*, 1(1), 18–36.

- Kharimah, K. N., Nugraha, N., & Budiyo, I. (2024). *The Role of Fraud Pentagon Elements in Financial Statement Fraud: Evidence from Islamic Commercial Banks in Indonesia*. 15(2), 159–185. <https://doi.org/10.21580/economica.2024.15.2.22299>
- Moch Fajar Suryo Atmojo, Nurfaahmiyati, & Haviz, M. (2021). Pengaruh Capital Adequacy Ratio, Biaya Operasional Pendapatan Operasional dan Net Operational Margin terhadap Financing to Deposit Ratio pada Bank Umum Syariah di Indonesia Tahun 2016-2018. *Jurnal Riset Ilmu Ekonomi Dan Bisnis*, 1(1), 34–40. <https://doi.org/10.29313/jrieb.v1i1.69>
- Ningsih, W. F., & Rachmawati, L. (2019). Faktor-Faktor yang Mempengaruhi Profitabilitas pada Bank Pembiayaan Rakyat Syariah di Jawa Timur. *JABE (Journal of Applied Business and Economic)*, 5(4), 365. <https://doi.org/10.30998/jabe.v5i4.4185>
- Permana, M. I., & Musthofa, M. W. (2023). Pengaruh NPF, BOPO Dan NOM, Terhadap Likuiditas Bank Muamalat Indonesia Periode 2017-2021. *Jurnal Ilmiah Ekonomi Islam*, 9(2), 1831. <https://doi.org/10.29040/jiei.v9i2.8370>
- Profitabilitas, T., & Pada, S. (2022). *542-Article Text-1955-1-10-20230501*. 1, 1–20.
- Rakhima Salsabila, N., Hidayatullah, A. D., & Hussin, N. S. (2023). Bank Syariah Sebagai Alternatif Pembiayaan Untuk Meningkatkan Ekonomi Umat. *Ekonomi Islam*, 14(1), 96–114. <https://doi.org/10.22236/jei.v14i1.9144>
- Roziq, A., & Ahmad, Z. I. (2024). Enhancing performance: Minimizing Risk in Islamic Banks in Indonesia. *Cogent Business & Management*, 11(1), 2294519.
- Shafiin, A. (2014). *Pengaruh Rasio Keuangan Terhadap Profitabilitas dengan NOM dan GWM Sebagai Faktor Moderasi Rasio Keuangan Perbankan (Studi Di Bank NTB Syariah)*. 22–31.
- Sihotang, M. K. (2021). the Effect of Financing To Deposit Ratio (Fdr) and the Money Supply on Profitabilitas in Sharia Business Unit for the 2016-2020 Period. *Iqtishaduna*, 12(2), 304–313. <https://doi.org/10.20414/iqtishaduna.v12i2.4471>
- Supardi, P. L., & Syafri. (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. <https://doi.org/10.25105/jet.v3i2.17944>
- Syachreza, D., & Mais, R. G. (2020). Analisis Pengaruh CAR, NPF, FDR, Bank Size, BOPO terhadap Kinerja Keuangan Bank Umum Syariah di Indonesia. *Jurnal Akuntansi Dan Manajemen*, 17(01), 25–37. <https://doi.org/10.36406/jam.v17i01.326>

- Wahab, N. A., Hassan, L. F. A., Shahid, S. A. M., & Maon, S. N. (2016). The Relationship Between Marketing Mix And Customer Loyalty In Hijab Industry: The Mediating Effect Of Customer Satisfaction. *Procedia Economics and Finance*, 37(16), 366–371. [https://doi.org/10.1016/s2212-5671\(16\)30138-1](https://doi.org/10.1016/s2212-5671(16)30138-1)
- Wahyudi, R. (2020). Analisis Pengaruh CAR, NPF, FDR, BOPO dan Inflasi terhadap Profitabilitas Perbankan Syariah di Indonesia: Studi Masa Pandemi Covid-19. *At-Taqaddum*, 12(1), 13. <https://doi.org/10.21580/at.v12i1.6093>
- Wita Sari, E., Irvani, A., Meilani, R., & Cipta, H. (2023). Determinant Factors Of Profitability Of Islamic Banks In 2017-2021 With Capital Adequacy Ratio As a Variable Intervening. *Al-Bank: Journal of Islamic Banking and Finance*, 3(2), 102. <https://doi.org/10.31958/ab.v3i2.9088>