

# THE EFFECT OF CAPITAL ADEQUACY RATIO (CAR), NON-PERFORMANCE FINANCING (NPF), AND OPERATIONAL COSTS OF OPERATING REVENUE (BOPO) ON THE PROFITABILITY OF SHARIA BANKS IN INDONESIA (STUDY ON ISLAMIC COMMERCIAL BANKS IN INDONESIA FOR THE PERIOD 2016-2020)

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## Abstract

Profitability is a ratio that describes whether a business entity has a very good opportunity in the future, which comes from sales, use, and utilization or use of capital. A bank looks good from the performance of management in generating maximum profit per the company's target. This study aims to determine the relationship between capital adequacy ratios (CAR), Non-Performance Financing operating income operating costs (BOPO) on profitability. This study aims to determine the existence of capital adequacy ratio (CAR) and operational income operating costs (BOPO) on profitability in Islamic banking in Indonesia for the 2016-2020 period. The sampling technique in this study was purposive sampling and obtained 12 banks with a study period of 5 years. The results showed that the capital adequacy ratio, non-performing finance, and operational costs of operating income simultaneously affected profitability. Partially, the capital adequacy ratio does not affect profitability, and non-performing finance does not affect profitability. While the operational costs of operating income harm profitability.

**Keywords:** Capital Adequacy Ratio (CAR), Non-Performance Financing (NPF), Operational Cost of Operating Income (BOPO).

## INTRODUCTION

In economic development activities, the financial sector is one of the most important factors in the success of economic achievement. The financial sector has become an important instrument in facilitating the development of a nation, especially the banking sector. The existence of the banking sector in a country's economy is very important because it functions as an intermediary institution, namely, collecting funds from parties with excess funds and distributing them to parties who need funds. Banking is the main key to helping economic development. If the bank cannot run properly, it will have an impact on the development of the country's economy and will hamper the development process (Chen & Sivakumar, 2021).

Under the new Banking Law, Indonesia's banking system consists of conventional and Islamic commercial banks. Conventional and Islamic commercial banks have the same function as intermediary institutions, collecting and distributing funds. Conventional and Islamic banks differ in their interest and profit-sharing systems. Conventional banks apply interest in obtaining profits, while Islamic banks use a profit-sharing system to obtain profits (Sadalia et al., 2018).

Islamic banks, or from now on referred to as Islamic banks, are banks that operate without relying on interest and operate based on profit sharing. An Islamic Bank, commonly called an interest-free bank, is a financial/banking institution whose operations and products are based on the Qur'an and the Hadith of the Prophet SAW (Azoitei, 2020).

The development of Islamic banking yearly is quite good and satisfying. Islamic banks can show their existence as financial institutions prioritizing Islamic sharia with a profit-sharing system. Many customers interested in Islamic banks also cannot deny the increase in Islamic banking in Indonesia. One reason is that Indonesia is a country dominated by the Muslim community, so, unsurprisingly, many people want banking based on Islamic sharia (Nugraheni & Widyani, 2020).

Islamic banks are not only concerned with profit alone but also about the customer as a partner. The development of Islamic banking products has become a driving factor for people to use Islamic banking services. As is known, Islamic banking does not charge interest on its financing products, so this is a special attraction for customers to choose Islamic banks as partners. The number of Islamic banks in Indonesia shows the performance of Islamic banks is very good (Albaity & Rahman, 2019).

Profitability is important in maintaining the continuity of banking prosperity in the long term. Profitability proves that a business entity has a good future opportunity. The role of profitability provides great information on the acquisition of a company's profit level in a certain period (Le et al., 2021).

In this study, the measure of profitability used is the return on assets (ROA). ROA is a ratio that measures the bank's ability to earn profits and overall efficiency. The greater the ROA of the bank, the greater the level of profit achieved by the bank and the better the bank's position in terms of asset use (Nguyen et al., 2020). The following are Islamic banking financial ratios for the 2016-2020 period:

**Table 1: Data on Islamic Banking Financial Ratios 2016-2020**

NO	Ratio (%)	Period				
		2016	2017	2018	2019	2020
1	CAR	16.63	17.91	20.39	20.59	21.64
2	NPF	4.42	4.76	3.26	3.23	3.13
3	BOPO	96.22	94.91	89.18	84.45	85.55
4	ROA	0.63	0.63	1.28	1.73	1.40

The table above shows that the CAR from 2016-2020 has increased yearly from 16.63% to 21.64%. This means that if the CAR exceeds the minimum number of 8% and experiences an increase, it generally strengthens in protecting customers and maintaining overall financial stability. The non-performance financial ratio (NPF) declined from 2016-2020, was 4.42%, and decreased to 3.13%. The decrease in NPF was due to a decrease in non-performing loans, but the operational cost of operating income (BOPO) decreased from 2016-2020, 96.22%, down to 85.55%. This means that the smaller the BOPO value, the more efficient banks are in carrying out their activities (Valdiansyah & Murwaningsari, 2022).

According to Atmoko, CAR is an indicator to see the health of a bank's capital and to measure the adequacy of capital owned by a bank to support assets that contain or generate risk. This variable can affect the profitability of Islamic banks because the higher the CAR value, the better the bank's ability to bear the risk of any risky productive assets. In addition, another thing that has a high CAR value is that banks can finance operational activities and make a sizeable contribution to profitability. This high ratio can increase a bank's income (Priyadi et al., 2021).

Non-Performance Financial (NPF), according to Lemiyana & Litriani, is a financial ratio that shows the financing risk faced by banks due to the provision of financing and investment of bank funds in different portfolios. This financing risk can occur due to the customer's failure or inability to repay the loan amount received (Misman & Bhatti, 2020). The higher the NPF, the worse the financing quality of an Islamic bank. Due to the high NPF, it can reduce cash inflows due to financing jams caused by non-payment of loans provided by banks so that the capital adequacy for investing is reduced and the level of profitability decreases (Muqorrobin et al., 2021).

Operational Cost of Operating Income (BOPO), Marginingsih said that financial ratios that show the efficiency of banking operations could show the ability of a bank to manage its business and to measure efficiency by comparing total operating costs with total operations. This ratio's purpose is to measure operating income's ability to cover operational costs (Mahopatra et al., 2019). The smaller the BOPO, the more efficient the bank is in carrying out its business activities. The higher the cost of bank income, the less efficient the operational activities, so the income is getting smaller, which impacts bank profitability. Because high bank income can cause banks to experience a shortage of capital adequacy channeled for investment and other bank operational activities, there is a decline in profitability (Khan et al., 2020).

One of the things highlighted in banking is the performance in assessing profitability. In this study, it is proxied by Return on Assets (ROA) which is used to measure bank management in obtaining profits from the assets used because assets or assets are all assets owned by banks that are obtained from their capital or capital from outside parties (Kwashie et al., 2022). Statistical data from the Financial Services Authority (OJK) shows the growth of assets obtained by Islamic banks as follows:

**Figure 1: Sharia Bank Asset Growth**



Based on the graph above, it can be seen that the total number of assets in Islamic banking has increased every year. This is in line with table 1, which shows that ROA has increased significantly in percentage terms. The increase in asset growth experienced by banks shows that Islamic banks can encourage people to use these financial institutions.

In achieving profitability with the background that the researcher has explained, it is interesting for researchers to examine whether CAR, NPF, and BOPO have a simultaneous or partial effect on the profitability of Islamic commercial banks. Therefore, the researcher wants to examine and focus on taking the title of this study, namely “The Influence of Capital Adequacy Ratio (CAR), Non-Performance Financial (NPF) and Operating Costs of Operating Income (BOPO) on Profitability of Islamic Commercial Banks in Indonesia Period 2016-2020”.

## LITERATURE REVIEW

### Definition of Bank

A bank is a business entity that collects funds from the public in the form of savings and distributes it to the public in the form of credit or other forms to improve the standard of living of the people at large (Law Number 10 of 1998 Amendment to Law Number 7 of 1992 concerning banking) (Abbas & Arizah, 2019).

The use of interest schemes in banking in collecting funds and distributing funds is classified into two, namely:

- a) Conventional banks (interest schemes) use an interesting scheme in carrying out their activities. The products offered by conventional banks in activities on the funding and lending side contain an element of interest (Julia & Kassim, 2019).
- b) Sharia Banks are banks that carry out their activities not using an interesting scheme but other schemes such as a sale and purchase profit sharing scheme and profit sharing.

The function of bank activities as a collection of funds for channeling funds is also called an intermediary function between depositors and debtors. Banks support industrial activities in the real sector by channeling funds to the industrial sector (Koenig, 2021).

### **Definition of Islamic Bank**

Definition of Islamic Banks According to (Law No. 21, 2008) in article 1, paragraph 7, Islamic banks are banks that carry out their business activities based on Sharia principles. In article 1 paragraph 8, it is also written that Islamic commercial banks are Islamic banks that in their activities provide services in payment traffic, related to the objectives of Islamic Banks as stated in Law no. 21 of 2008 article 1 paragraph 3 that the purpose of Islamic banks is to conduct business activities based on sharia principles, economic democracy, and the principle of prudence (Asmara & Abubakar, 2019).

Meanwhile, according to Mahardika, Islamic banks do not allow to take advantage of products that use an interesting scheme. Islamic banks have products that generate commissions such as Save Deposit Bo or the issuance of a Letter of Credit to get a profit. In carrying out activities to collect and distribute funds with an interest-free scheme, Islamic banks have several contracts in their activities (Tanjung, 2018), including:

- a) A production sharing contract is a financing contract for a project with a profit-sharing scheme. In this contract, the bank provides the funds, and the customer provides the funds and expertise. Before running the project, the Islamic bank and the customer determine the profit-sharing portion if the project earns a profit/loss (Syahmi et al., 2022).
- b) The sale and purchase contract is a contract for selling an asset from a sharia bank to its customers. In this contract, the Islamic bank sells an asset to the customer, and payments from the customer to the Islamic bank are made in installments. The profit earned by Islamic banks is the difference between the asset's purchase and selling price (Tlemsani et al., 2020).
- c) Non-profit contracts are social activities where Islamic banks providing financing do not take profits in any form (Nurmawati et al., 2020).
- d) A lease contract is a contract for assets between Islamic banks and customers. The type of asset is an asset that can be used many times (e.g., cars, machines) (Abdullah, 2020).
- e) Pawn contracts are financing contracts with movable assets as collateral (e.g., gold, motorcycles) (Okamoto et al., 2021).

### **Profitability**

According to Moh Khoirul Anama & Khairunnisah, profitability is a measuring tool to analyze or measure the level of business efficiency and profitability achieved by the bank concerned. The profitability of researching banking following this research is Return on Assets (ROA) because the acceptance of Islamic commercial banks is mostly obtained from third parties (Brogi & Lagasio, 2019).

Profitability in this study is proxied by Return on Assets (ROA). Return on Assets, according to Riduwan, is the ratio between profit before tax and total assets. The greater the Return on

Assets, the better the financial performance because the greater the rate of return (Kosasih et al., 2022). If the Return on Assets increases, the company's profitability increases, so the final impact is an increase in profitability enjoyed by shareholders. Therefore, ROA is the most important ratio among profitability ratios because it shows the company's ability to generate profits using its total assets (Gharaibeh & Khaled, 2020).

### **Capital Adequacy Ratio (CAR)**

Capital Adequacy Ratio (CAR) is a bank's capital adequacy ratio measured based on the ratio between total capital and risk-weighted assets (RWA). CAR or often called the capital ratio, is the authorized capital that capital banks must meet, this is used to maintain public confidence in bank performance (Bladwin et al., 2019). This is reasonable because the banking business is a business based on trust. In addition, various forms of great risk may occur in banks. The main factor that sufficiently affects the amount of bank capital is the minimum amount of capital determined by the central bank (Sun et al., 2020). In other words, CAR is a capital adequacy ratio that accommodates the ratio of losses that are likely to occur and be faced by banks. The higher the CAR, the better the bank's ability to bear the risk of any credit or risky productive assets. But if there is too much capital, the company's funds are not productive, so that the company will lose because they waste the opportunity to make a profit (Muhammad et al., 2020). So it can be concluded that the Capital Adequacy Ratio (CAR) affects the Return on Assets (ROA) because the large value of capital obtained will affect the bank's operational activities to the maximum and can bear and reduce the risks that will occur, which can harm the company so that the company can focus on increasing the amount of profit earned (Nguyen, 2020).

### **Non-Performance Financing (NPF)**

According to Syakhrun, Non-Performance Financing (NPF) is a ratio measuring Islamic banks' asset quality. This ratio measures the level of financing problems faced by Islamic banks. NPF is calculated by comparing non-performing receivables and financing to total receivables and financing (Nastiti & Kasri, 2019).

### **BOPO (Operating Expenses Operating Income)**

According to Litriani, the ratio of operating costs to operating income (BOPO) or commonly called the efficiency ratio, is "a ratio that is used to measure the ability of bank management to control operational costs to operating income" (Bawa et al., 2019). Meanwhile, according to Sudarmawanti & Joko, explaining that operational costs are costs incurred by banks to carry out their main activities (such as interest costs, labor costs, marketing costs, and other operating costs) while operating income is the bank's main income, namely other operating income (Rangaswamy et al., 2020). Thus, Riduwan stated that the greater the BOPO ratio indicates the operating income obtained cannot cover the operating expenses incurred, so the possibility of the bank experiencing an unhealthy condition is greater. So that if the BOPO ratio increases, the bank has difficulty reducing operational costs through the operating income it earns so that this can cause losses for the bank or reduce its profitability (Prihatna et al., 2021).

## METHOD

This study uses quantitative methods. This study uses a case study strategy and research analysis which is an analysis at the organizational or group level, namely companies in the Islamic banking sector listed on the IDX in 2016-2020. The independent variables in this study are the Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF), and operating costs of operating income (BOPO). The dependent variable in this study is profitability. The sampling technique used is the purposive sampling technique. With the 2016-2020 time period, there are 60 total data used. There are 12 Islamic banks in Indonesia used in this study. In this study, descriptive statistical tests are used to collect, analyze, and present data on Capital Adequacy Ratio (CAR), Non-Performance Financing (NPF), operational income operating costs (BOPO), and profitability at Islamic commercial banks in Indonesia for the 2016-2020 period.

## RESULT AND DISCUSSION

### Descriptive Statistical Analysis

The results of purposive sampling collected 60 observational data from the financial statements and annual reports of 12 Islamic commercial banks registered with the Financial Services Authority (OJK) during the 2016-2020 period. In line with the collection of observational data, the detection of possible outliers that interfere with the model. From 60 data obtained, 27 outlier data were excluded (excluded), and the research data became 33 samples from 9 Islamic commercial banks. Outliers are data that have different characteristics compared to other observational data so that they can interfere with other data to obtain research results.

The results of descriptive statistical analysis of Profitability (ROA), Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF) variables, and Operating Costs to Operating Income (BOPO) are explained in table 2 below:

**Table 2: Descriptive Statistics Test Results**

Information	ROA	CAR	NPF	BOPO
Maximum	0.1221	1.6307	0.0499	2.174
Minimum	-0.113	0.1151	0.0001	0.5807
Average	0.006287	0.258152	0.024422	0.9753
Std. Deviation	0.039863	0.21427	0.015215	0.259074
Observation	60	60	60	60

#### a) Profitability (ROA)

The profitability variable (ROA) has the highest value of 0.1221, which occurs at PT. Bank BTPN Syariah Tbk. (BTPS) in 2019. The lowest value for this variable is -0.113, which occurred at PT. Bank Panin Dubai Syariah Tbk. (PNBS) 2017. The average value of this variable is 0.006287, with a standard deviation of 0.039863. The standard deviation value shows a number higher than the mean value. It can be concluded that the research data varied

or varied and tended not to be grouped (heterogeneous). This average value shows that Islamic banks in Indonesia in 2016-2020 are capable of 0.6287% in creating profits from their total assets.

#### **b) Capital Adequacy Ratio (CAR)**

The variable Capital Adequacy Ratio (CAR) has the highest value of 1.6307, which occurs at PT. Bank Maybank Indonesia Tbk. (BNII) in 2018. The lowest value for this variable is 0.1151, which occurs at PT. Bank Panin Dubai Syariah Tbk. (PNBS) 2017. The average value of this variable is 0.258152, with a standard deviation of 0.21427. The standard deviation value shows a lower number than the mean value. It can be concluded that the research data do not vary or tend to be grouped (homogeneous). The average value shows that the capital adequacy level of Islamic banks in Indonesia in 2016-2020 can bear the risk of 25.8152%. This value is greater than the minimum limit set by Bank Indonesia, namely 8%, so it can be considered a bank in a healthy condition because it has sufficient capital reserves for operations.

#### **c) Non-Performing Financing (NPF)**

The Non-Performing Financing (NPF) variable has the highest value of 0.0499, which occurs at PT. Bank BRI Syariah Tbk. (BRIS) in 2018. The lowest value for this variable is 0.0001, which occurs at PT. Bank BCA Syariah in 2020. The average value of this variable is 0.024422, with a standard deviation of 0.015215. The standard deviation value shows a lower number than the mean value. It can be concluded that the research data do not vary or tend to be grouped (homogeneous). The average value shows that the level of non-performing financing of Islamic banks in Indonesia in 2016-2020 is at the level of 2.4422%. This value is still below the maximum limit set by Bank Indonesia, which is 5%. Therefore, in the period of this study, Islamic banks in Indonesia were still able to keep non-performing financing below the limit so that it would not interfere with profit gains and profit sharing to third parties.

#### **d) Operating Costs to Operating Income (BOPO)**

Variable Operating Costs to Operating Income (BOPO) has the highest value of 2.174, which occurred at PT. Bank Panin Dubai Syariah Tbk. (PNBS) in 2017. The lowest value for this variable is 0.587, which occurs at PT. Bank BTPN Syariah Tbk. (BTPS) in 2019. The mean value of this variable is 0.9753, with a standard deviation of 0.259074. The standard deviation value shows a lower number than the mean value. It can be concluded that the research data do not vary or tend to be grouped (homogeneous). The average value shows that the ability of Islamic banks in Indonesia in 2016-2020 to manage their operating expenses is above the maximum level set by Bank Indonesia, which is 90%, because it is worth 97.53%.

#### **Classic Assumption Test**

The classical assumption test is carried out before performing panel data regression analysis to provide certainty so that the regression coefficients are unbiased and consistent and have estimation accuracy. The classical assumption test in this study is useful for proving the absence of multicollinearity and heteroscedasticity symptoms. The results of the classical assumption test used are as follows:

**a) Multicollinearity Test**

Below is a table of the results of the multicollinearity test on the research variables.

**Table 3: Multicollinearity Test Results**

Variable	CAR	NPF	BOPO
CAR	1	-0.245868	0.346398
NPF	-0.245868	1	0.455276
BOPO	0.346398	0.455276	1

The multicollinearity test aims to test whether the regression model found a correlation between independent and independent variables. The level of correlation between the independent variables must be less than 0.9 so that the research data is said to be free from multicollinearity symptoms. Table 3 shows the results of the multicollinearity test for the variables of Profitability (ROA), Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF), and Operating Costs to Operating Income (BOPO). The test results show that all variables have values below 0.9, so it can be concluded that the research data is free of multicollinearity symptoms.

**b) Heteroscedasticity Test**

The heteroscedasticity test aims to test whether there is an inequality of variance in a regression model from the residuals of one observation to another. The research data does not occur heteroscedasticity if the significance value exceeds 0.05 ( $> 0.05$ ). On the other hand, heteroscedasticity occurs if the significance value is below 0.05 ( $<0.05$ ). The results of the heteroscedasticity test in table 4.3 show that the variables of Profitability (ROA), Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF), and Operating Costs to Operating Income (BOPO) have a significance above 0.05, so it can be concluded that there is no heteroscedasticity symptoms occur in the data of this study.

**Table 4: Heteroscedasticity Test Results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.332383	1.102508	0.301479	0.7642
CAR	0.195483	1.606618	0.121674	0.9036
NPF	15.19570	23.83922	0.637424	0.5264
BOPO	1.177362	1.446598	0.813883	0.4192

**Panel Data Regression Model Selection**

Researchers conducted the Chow and Hausman Test to determine the appropriate technique for estimating the panel data regression. The results of the panel data regression model selection are described as follows:

**a) Chow Test**

The Chow test determines the most appropriate common and fixed effects models for

estimating panel data. The basis for decision making is (1) if the probability value for the chi-square cross-section > a significant value of 0.05, then H<sub>0</sub> is accepted so that the model used is the common effect model; (2) if the probability value for the chi-square cross-section < a significant value of 0.05 then the H<sub>A</sub> is accepted so that the model used is the fixed effect model. Table 5 shows the cross-section chi-square value of 0.0000, which is below the significant value of 0.05. Therefore, the fixed effect model is a good model to be used in this study.

**Table 5: Chow Test Results**

Effects Test	Statistic	d.f.	Prob.
Cross-section F	8.612518	(11,45)	0.0000
Cross-section Chi-square	67.986274	11	0.0000

**b) Hausman test**

The Hausmann test determines which model approach fits the data: fixed effects and random effects. The basis for decision making is (1) if the probability value for a random cross-section > a significant value of 0.05, then H<sub>0</sub> is accepted so that the model used is a random effect model; (2) if the probability value for a random cross-section < 0.05 significant value, then H<sub>A</sub> is accepted so that the model used is the fixed effect model. Table 6 shows the probability value of 0.3824, so the value above is a significant value of 0.05, so the model used is the random effect model.

**Table 6: Hausman Test Results**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.060686	3	0.3824

**c) Lagrange Multiplier Test**

The Lagrange multiplier test aims to determine whether the random or common effect model is more appropriate. The basis for decision making is (1) if the calculated LM value > chi-squared, the model used is a random effect model; (2) if the calculated LM value < chi-squared, the model used is the common effect model. Table 7 shows the calculated LM value (Breusch-Pagan) of 0.000 so that the value is below the significant value of 0.05, so the model used is the common effect model.

**Table 7: Lagrange Multiplier Test Results**

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	35.44693 (0.0000)	0.286243 (0.5926)	35.73317 (0.0000)
Honda	5.953733 (0.0000)	-0.535017 (0.7037)	3.831611 (0.0001)
King-Wu	5.953733 (0.0000)	-0.535017 (0.7037)	2.616333 (0.0044)
Standardized Honda	6.910929 (0.0000)	-0.277975 (0.6095)	1.396102 (0.0813)
Standardized King-Wu	6.910929 (0.0000)	-0.277975 (0.6095)	0.264588 (0.3957)
Gourieroux, et al.	--	--	35.44693 (0.0000)

### 1. Coefficient of Determination Test

The coefficient of determination test is intended to explain how much influence the independent/independent variable has on the dependent/bound variable. Therefore, the test was conducted to determine the magnitude of the simultaneous effect of the Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF), and Operating Costs on Operating Income (BOPO) on the Profitability (ROA) variable.

**Table 8: Coefficient of Determination Test Results**

Weighted Statistics			
R-squared	0.846359	Mean dependent var	0.002059
Adjusted R-squared	0.838129	S.D. dependent var	0.028016
S.E. of regression	0.011272	Sum squared resid	0.007115
F-statistic	102.8289	Durbin-Watson stat	1.772202
Prob(F-statistic)	0.000000		

Table 8 shows the adjusted r-square value of 0.838129 or 83.8129%, with a probability value of 0.0000. The adjusted r-square value shows that the variables of Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF), and Operating Costs to Operating Income (BOPO) together affect Profitability (ROA) of 83.8129%, and the rest is 16.1877% influenced by other factors that were not tested in this study. The probability value below 0.05 indicates that the independent variables Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF), and Operating Costs to Operating Income (BOPO) together (simultaneously) have a significant effect on the Profitability (ROA) variable.

### Partial Test

The partial test is intended to explain how much influence each independent/independent variable has on the dependent/bound variable. Therefore, the test was conducted to determine the partial effect of the Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF), and Operational Costs on Operating Income (BOPO) on the Profitability (ROA) variable.

**Table 9: Partial Test Results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.125216	0.008126	15.41028	0.0000
CAR	0.016271	0.010618	1.532480	0.1310
NPF	-0.345758	0.182135	-1.898366	0.0628
BOPO	-0.117591	0.008634	-13.61880	0.0000

Table 9 shows the results of the partial test in this study which can be explained as follows:

- The coefficient value of 0.125216 indicates that if the variable Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF), and Operational Costs to Operating Income (BOPO) is 0, then the Profitability (ROA) variable will be worth 0.125216
- The regression coefficient value of the Capital Adequacy Ratio (CAR) is 0.016271 with a probability level of 0.1310 or more than 0.05. Therefore, it can be concluded that the Capital Adequacy Ratio (CAR) does not affect Profitability (ROA).
- The non-Performing Financing (NPF) regression coefficient value is -0.345758 with a probability level of 0.0628 or more than 0.05. Therefore, it can be concluded that Non-Performing Financing (NPF) does not affect Profitability (ROA).
- The regression coefficient value of Operational Cost to Operating Income (BOPO) is -0.117591 with a probability level of 0.000 or less than 0.05. Therefore, it can be concluded that BOPO has a significant negative effect on Profitability (ROA).
- The regression equation based on the test results is:

$$ROA = 0.125216 - 0.117591BOPO + e$$

## 2. Effect of Capital Adequacy Ratio (CAR) on Profitability (ROA)

The results of panel data regression testing show that the Capital Adequacy Ratio (CAR) variable does not affect Profitability (ROA). Capital Adequacy Ratio (CAR) has a significance value of 0.1310 (above 0.05). This indicates that the Capital Adequacy Ratio (CAR) to Profitability (ROA) test rejects the first hypothesis (H1). This means that if the CAR of an Islamic bank changes, the ROA will not change significantly. The results of this study are supported by the research of Dewi, Pravasanti, Dini & Manda, Effendi et al., and Nufus & Munandar (Alabbad & Schertler, 2022).

CAR indicates a bank's ability to cover a decline in its assets due to bank losses from risky assets. Following the standards issued by the Bank of International Settlement (BIS), banks in Indonesia must own a minimum of 8% of risk-weighted assets (RWA). CAR does not affect ROA, Islamic banks can cause it in that period by not optimizing their capital. In addition, Islamic banks operating in that period were likely very careful in using their capital to get a small return (Shah et al., 2021).

## 3. Effect of Non-Performing Financing (NPF) on Profitability (ROA)

The panel data regression test results show that the Non-Performing Financing (NPF) variable

has no effect on Profitability (ROA). Non-Performing Financing (NPF) has a significance value of 0.0628 (above 0.05). This indicates that the Non-Performing Financing (NPF) test on Profitability (ROA) rejects the first hypothesis (H2). This means that if the number of NPF of an Islamic bank changes, the ROA does not change significantly. The results of this study are supported by research from Irawan et al., Wirnawati & Diyani, Aini & Suselo, and Subekti & Wardana. NPF does not affect ROA because the financing provided to Islamic commercial banks is still not optimal, which is constrained in channeling financing to customers, so the risk of non-performing financing is very low and has no effect on ROA (Ajija et al., 2020).

#### **4. Effect of Operating Costs on Operating Income (BOPO) on Profitability (ROA)**

The results of panel data regression testing show that the variable Operating Costs on Operating Income (BOPO) harms Profitability (ROA). Operating Costs to Operating Income (BOPO) has a significance value of 0.000 (less than 0.05) and a regression coefficient of -0.117591 (negative). This indicates that the test of Operating Costs on Operating Income (BOPO) on Profitability (ROA) accepts the third hypothesis (H3). If the Operational Cost to Operating Income (BOPO) in a sharia bank increases, the Profitability (ROA) will decrease. The results of this study are supported by research by Pinasti & Mustikawati, Yundi & Sudarsono, Sofyan, Anindiansyah, and Pratama (Aspiranti & Amaliah, 2019).

Banks with high BOPO ratios tend to have lower ROA. This means that the level of efficiency of the bank in carrying out its operations affects the level of income generated by the bank. The high BOPO ratio indicates that the bank has not been able to manage its resources to run its business activities efficiently. The BOPO ratio is influenced by Third Party Funds (TPF) as the main source of operational costs. It is also influenced by earning assets consisting of realized loans and interbank assets as sources. The high BOPO ratio can disrupt the bank's health (Mustafa et al., 2022).

## **CONCLUSION**

This study was conducted to determine the effect of capital adequacy ratio (CAR), Non-Performing Financing (NPF), and operational costs per operating income (BOPO) on profitability proxied through return on assets (ROA) at Indonesian Islamic commercial banks for the period 2016-2020. The sample is 12 Islamic commercial banks, with data processed in as many as 60 sample units. Based on the results of data analysis that the author carried out using Microsoft Excel and Eviews 12 software. Based on the descriptive analysis, it is concluded that the average value of the capital adequacy ratio (CAR) variable is 0.258152, with a standard deviation of 0.21427. The standard deviation value shows a lower number than the mean value. It can be concluded that the research data do not vary or tend to be grouped (homogeneous). Then the average value of the Non-Performing Financing (NPF) variable is 0.024422 with a standard deviation of 0.015215.

The standard deviation value shows a lower number than the mean value. It can be concluded that the research data do not vary or tend to be grouped (homogeneous). The average value shows that the level of non-performing financing of Islamic banks in Indonesia in 2016-2020

is at the level of 2.4422%. This value is still below the maximum limit set by Bank Indonesia, which is 5%. Therefore, in the period of this study, Islamic banks in Indonesia were still able to keep non-performing financing below the limit so that it would not interfere with profit gains and profit sharing to third parties.

Furthermore, the value of the standard deviation of the variable Operating Costs to Operating Income (BOPO) shows a lower number than the average value. It can be concluded that the research data do not vary or tend to be grouped (homogeneous). The average value shows that the ability of Islamic banks in Indonesia in 2016-2020 to manage their operating expenses is above the maximum level set by Bank Indonesia, which is 90%, because it is worth 97.53%. Finally, the mean value of this variable is 0.006287, with a standard deviation of 0.039863. The standard deviation value shows a number higher than the mean value. It can be concluded that the research data varied or varied and tended not to be grouped (heterogeneous). This average value shows that Islamic banks in Indonesia in 2016-2020 are capable of 0.6287% in creating profits from their total assets.

Simultaneously, the capital adequacy ratio (CAR), the ratio of financing to Non-Performing Financing (NPF), and operating costs per operating income (BOPO) have a significant effect on the profitability of Indonesian Islamic commercial banks for the 2016-2020 period. The partial test is that each variable on profitability is the Capital adequacy ratio (CAR) which has no partial effect on the profitability of Islamic banks in Indonesia for the 2016-2020 period. Then Non-Performing Financing (NPF) has no partial effect on the profitability of Islamic banks in Indonesia for the 2016-2020 period. Finally, operational costs per operating income (BOPO) negatively affect the profitability of Islamic banks in Indonesia for the 2016-2022 period.

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