

## **Determinants of Finance Performance of State-Owned Enterprises (BUMN) Banking Using Data Panel Regression**

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*The purpose of this study was to determine whether there is an effect of Capital Adequacy Ratio (CAR), Net Performing Financing (NPF), Financing to Deposit Ratio (FDR), and Operating Expenses and Operating Income (BOPO) on the profitability of state -owned banking companies listed on the IDX. simultaneously and partially. The sample in this study were 7 banking companies listed on the IDX whose financial statement data were listed on the Indonesia Stock Exchange for the 2015-2020 period. Data analysis using Panel Data Regression Test, hypothesis testing using the coefficient of determination (R<sup>2</sup>), simultaneous test (F test) and partial test (t test) with data processing using the Eviews 6 program. The results show that from the coefficient of determination test (R<sup>2</sup>) obtained by 0.0587 or 5.87% shows that the variables CAR, NPF, FDR and BOPO are able to explain their existence to the Net Profit Margin (NPM) variable on profitability while the remaining 94.13% is explained by other variables not examined. In addition, the simultaneous test of the CAR, NPF, FDR and BOPO variables together has no effect on the level of profitability. Partially, the Capital Adequacy Ratio variable has a positive but not significant effect on profitability. Net Performing Financing has a positive but not significant effect on profitability. Financing to Deposit Ratio has a positive but not significant effect on profitability and Operating Expenses and Operating Income have a positive but not significant effect on profitability in banking companies listed on the IDX.*

**Keywords:** *Capital Adequacy Ratio, Net Performing Financing, Financing to Deposit Ratio, Operating Expenses and Operating Income and Profitability.*

### **1. INTRODUCTION**

The banking sector plays an important role in the economy, banks have a role in two sides, namely collecting funds directly from the community and distributing them. return these funds to the community and provide other bank services (Andrianto et al., 2019) . Bank also act as a liaison between the excess funds ( *surplus units* ) with parties who lack funds ( *deficit units* ). This intermediation activity works best if the surplus unit or deficit unit has confidence in the bank. If the intermediation function runs well, the level of efficiency and optimal use of funds will increase. Funds are circulated and distributed in the form of loans between surplus units and deficit units, making it a productive activity. From here, output will increase and jobs will be created along with the increase in income and people's welfare.

The performance of the banking sector can be used as a measure of the welfare of a country. Bank performance is an illustration of the success of bank operations in terms of marketing, capital allocation, finance, technology and even human resources. To assess the soundness of a bank, one of which can be seen from the financial performance of a bank through financial ratios as a calculation tool. The bank's financial ratios that are calculated regularly will be able to provide quality information from the bank. Financial reports in banking are the result of presenting performance information finance which has obtained banking on a certain period.

Good performance is efficient performance and efficiency is basically an important measure of the bank's overall performance. Initially, bank efficiency performance was measured using financial ratios, such as the ratio of Operating Costs and Operating Income (BOPO). The value of the BOPO ratio is obtained by comparing operating costs with operating income. Traditional banking needs to focus on performance from year to year, as

well as Islamic banking. Banks that perform well are not only able to fulfill their intermediation function to the public by increasing financing or credit, but also need to pay attention to the level of Non-Performing Financing (NPF) in directing funds in terms of financing.

The higher NPF of a bank, it will affect the profitability of a bank, which in turn can affect the bank's performance in the future. Banking performance is a description of the achievements achieved by banks in the aspects of finance, marketing, collection, and disbursement of funds in something period. Financial statements are basically the result of process accounting that can be used as a tool to communicate between financial or activity data a company with parties those with an interest in company data or activities that .

Throughout semester 1 of 2018, State-Owned Banks managed to record bigger profit than bank private. Citing data from the Financial Services Authority (OJK), as of June 2018, the net profit of state-owned banks was IDR 86.6 trillion. This figure is up 17.26% on an annual basis or *year on year* (YOY) compared to the same period in 2017 of IDR 73.9 trillion. While net profit private bank IDR 62.7 trillion or up only 1% YOY from same period 2017 Rp 62.1 trillion (Hastuti & Ratnawati H, 2019) . Different conditions occurred in 2019 where profits at four state-owned banks decreased due to increasing credit problems. Such as the decline in net interest margin due to an increase in the cost of funds, plus an increase in the ratio of non-performing loans which led to an increase in reserve costs and interest expenses. On the other hand, private banking performance seems to be unaffected by global economic pressures. BCA is a private bank that has managed to maintain its performance and demonstrate its superior financial performance with a good record in 2019 *Pre-Provisioning Operating Profit* ( PPOP ) of 15.5% with an operating profit growth of 13.6%. In contrast to state-owned banks which were only able to make a profit of 9.9% per year 2019 at Bank Mandiri, if you look at the bank's profit in 2018 of 21.2%, it means that financial performance declined by 11.3% from the previous year. Meanwhile, the profit of Bank Rakyat Indonesia (BRI) was recorded at 6.2% from 11.6% and the State Savings Bank ( BTN ) was forced to get a red report card because net profit fell drastically by 92.5% from total revenue of Rp 2.8 trillion to only Rp 209.3 billion. Meanwhile, Bank Negara Indonesia ( BNI ) is still in a safe position due to a slight increase in profit from 10.3% to 12.8%. In principle, competition in the banking industry is dominated by competition to obtain funds from the public and seize market share for business financing loans.

The decline in profits experienced by state-owned banks is an interesting phenomenon to study. This is because state- owned banks have more advantages over private banks, namely capital capacity and above-average liquidity strength which affect people psychologically to save their money in state-owned banks. Several previous studies have examined various factors that affect bank performance in terms of profitability. The level of performance of a company's profitability can be seen and measured through financial reports by analyzing and calculating ratios ratio in financial performance to find out whether a company is healthy or not. The results of research conducted at Islamic commercial banks show that all variables used to measure the four aspects of bank soundness assessment using the risk-based bank rating method , namely NPF, Financing to Deposit Ratio (FDR), composite value of Good Corporate Governance (GCG) , BOPO, and Capital Adequacy Ratio ( CAR ) simultaneously has a significant effect on profitability (Iskandar & Nisful Laila, 2016) . While the results of research on Islamic Rural Banks (BPRS) found that CAR and FDR have a positive effect on profitability while NPF, BOPO and inflation have a negative effect on the profitability of BPRS in Indonesia (Muhaemin & Wiliasih, 2016). Furthermore, research on banking companies listed on the Indonesia Stock Exchange ( BEI ) shows that there is no effect of CAR, LDR , and NPL on ROA, while BOPO has a negative and significant effect on ROA (Pinasti & Mustikawati, 2018) . The factors that affect the

growth of conventional and Islamic banking assets are not only related to the level of NPF and FDR only, but also how the level of efficiency and effectiveness of the number of offices and promotion costs.

## **2. LITERATURE REVIEW**

### **2.1 Banking Financial Performance**

Financial performance is an analysis carried out to see how far a company has implemented using financial implementation rules properly and correctly (Francis Hutabarat, 2020) . Financial reports that are prepared properly and accurately can provide a real picture of the outcomes that have been achieved by a company during a certain period, this situation is used to assess financial performance. (Kariyoto, 2017) . Banking performance is a general description of the achievement or success of the bank in carrying out its operations so that it is able to achieve what has been planned in a certain period (Sri Wahyuni, 2019) . The company's financial performance can be seen from the financial ratios. Financial ratios commonly used to analyze a company's financial development are the liquidity ratio, profitability ratio, solvency ratio and activity ratio (Hantono, 2018) .

### **2.2 Profitability Ratio**

Profitability Ratio is a ratio that shows the company's ability to make a profit (Hantono, 2018). Profitability ratios measure the company's ability to generate profits and measure the rate of return on investments made. Ratio profitability also reflects how management's performance is in maintaining the effectiveness of the company's operating activities (Sukamulja & Sukmawati, 2019) . Profitability ratios are financial metrics used to assess the ability of a business or company to earn a profit from its sales and operational activities over time. This profitability ratio is used as one of the metrics to assess the company's financial health.

Included in the group of profitability ratios are:

- a. Gross Profit Margin shows what percentage of profit is obtained from product sales. Under normal conditions, the gross profit margin should be positive because it shows whether the company can sell goods above the cost price. If negative, the company suffers a loss.

$$\text{Gross Profit Margin} = \frac{\text{Laba Kotor}}{\text{Penjualan}} \times 100\%$$

- b. Return On Investment ratio that shows the rate of return of all investments that have been used.

$$\text{Return On Investment} = \frac{\text{Laba Bersih Setelah Pajak}}{\text{Investasi}} \times 100\%$$

- c. NPM shows the level of net profit (after deducting costs) obtained from the company's activities. NPM Shows the level of net profit (after deducting costs) obtained from the business or shows the extent to which the company manages its business, the higher the company's Net Profit Margin value, the better the company's operations (Hantono, 2018) . Net profit margin or net profit margin is a profitability ratio that expresses profit from business operations as a percentage of net income or sales.

$$\text{Net Profit Margin} = \frac{\text{Laba Bersih Setelah Pajak}}{\text{Penjualan}} \times 100\%$$

Table 1. NPM . Assessment Criteria

Rating	Information	Criteria
1	Very healthy	NPM 100%
2	Healthy	81% NPM < 100%
3	Healthy enough	66% NPM < 81%
4	Unwell	51% NPM < 66%
5	Not healthy	NPM < 51%

Source: Bank Indonesia Circular

- d. Return on Assets is used to measure the company's ability to generate profits with all assets owned.

$$Return\ On\ Asset = \frac{Laba\ Bersih\ Setelah\ Pajak}{Total\ Aset} \times 100\%$$

- e. Return On Equity ratio which measures the rate of return obtained by business owners from the capital that has been issued to the business.

f.

$$Return\ On\ Equity = \frac{Laba\ Bersih\ Setelah\ Pajak}{Total\ Ekuitas} \times 100\%$$

- g. Earnings per Share the ratio of earnings per share or also the book value ratio is a ratio to measure the company's success in achieving profits for shareholders

h.

$$Earning\ Per\ Share = \frac{Laba\ Saham\ Biasa}{Saham\ Biasa\ Yang\ Beredar}$$

### 2.3 Factors Affecting Profitability

a. CAR

CAR is a bank performance ratio to measure the adequacy of capital owned by a bank to support assets that generate risk. Capital is an important factor in developing a business and accommodating the risk of loss, the higher the CAR, the stronger the bank 's ability to bear the risk of any risky loan/productive asset.

Table 2 CAR . Assessment Criteria

Rating	state level	Criteria
1	Very healthy	<94%
2	Healthy	94%-95%
3	Healthy enough	95%-96%
4	Unwell	96%-97%
5	Not healthy	>97%

Source: Bank Indonesia Circular Letter

CAR is a ratio that shows how much total bank assets contain an element of risk (credit, investment, securities, claims on other banks) which are also financed from the bank's own capital, in addition to obtaining funds from sources outside the bank. Minimum equity participation is 8% of risk-weighted assets (RWA), which means that if the CAR value is too high, it means that there are idle funds which have an effect on decreasing profits and resulting in a decrease in profitability.” (Sofyan, 2021) .

Results of previous research stated that CAR had no effect on ROA because operating banks did not optimize existing capital, this happened because Bank Indonesia regulations that required a minimum CAR of 8% resulted in banks always trying to keep their CAR in line. provision (Judge, 2018) .

b. Operating Costs Operating Income (BOPO)

Operating costs of operating income are used to measure operational performance. Operational performance is the ability to manage operating costs and income (Ni Made Sri Ayuni, 2020) . Operating Costs Operating Income (BOPO) is a comparison between operational costs and operating income in measuring the level of efficiency and ability of a bank to carry out its operational activities. This BOPO Ratio measuring the ability of operating income to cover operational costs, from this BOPO value can be seen the condition of the performance of the bank concerned. The smaller the BOPO ratio means the more efficient the operational costs incurred by the bank concerned, which means it will increase the profitability of a bank. On the other hand, if the BOPO ratio is greater, the operational costs incurred by the bank will be more inefficient, which means it will reduce the profitability of a bank. Operational risk is the risk that affects bank operations as a result of malfunctioning internal processes, human errors, system failures, and external events. Previous research said that BOPO had a negative and significant effect on NPM. The negative value shown by BOPO indicates that the smaller the BOPO value, the profitability increases (Judge, 2018) .

Table 3 BOPO Assessment Criteria

<b>Rating</b>	<b>state level</b>	<b>Criteria</b>
1	Very healthy	<94%
2	Healthy	94%-95%
3	Healthy enough	95%-96%
4	Unwell	96%-97%
5	Not healthy	>97%

Source: Bank Indonesia Circular Surat

c. NPF

The non-performing financing ratio is used as a measure of the failure rate of credit or financing by banks as creditors. NPF is better known as *Non Performing Loan* (NPL). Problem financing is a risk of disbursement of funds. The assessment criteria for the

NPF level is 12% in the traffic jam category. The NPF figure is a number that can be controlled through the internal managerial aspects of financial institutions (Mislan et al., 2021) . The ability of bank management in managing non-current financing provided by banks to the total financing owned is measured by *Non-Performing Financing* (HD et al., 2021) . According to Bank Indonesia regulation No. 17/19/DPUM/2015, the maximum NPF for commercial banks is 5%. Good performance is indicated by a small NPF. If there are funds that cannot be collected, it will result in the bank not being able to finance other productive assets so that profitability is disrupted due to reduced bank revenues. The results of previous studies stated that NPF had a negative effect on profitability (Ubaidillah, 2017) .

Table 4 NPF Assessment Criteria

<b>Rating</b>	<b>state level</b>	<b>Criteria</b>
1	Very healthy	NPF <2%
2	Healthy	2% NPF < 5%
3	Healthy enough	5% NPF < 8%
4	Unwell	8% NPF < 12%
5	Not healthy	NPF 12%

Source: Bank Indonesia Circular Surat

d. FDR

FDR is the ratio used to measure the liquidity of a bank in paying back withdrawals made by depositors by relying on the financing provided as a source of liquidity, namely by dividing the amount of financing provided by the bank to Third Party Funds (DPK). The higher the FDR, the higher the total burden of third party funds (DPK) stored on sharia banks in meeting their financing needs which means that the bank's condition is increasing illiquid, conversely the lower FDR, the lower the total burden of DPK in meeting in financing needs which means that the bank's condition is more liquid (Mubarok et al., 2020) .

Financing to deposit ratio (FDR) is used to calculate the liquidity ratio in banks. This ratio describes the ability of banks to repay withdrawals made by depositors by relying on loans provided as a source of liquidity. The greater financing, the income obtained will also increase, because the income increases automatically, the profit will also increase experienced an increase. But if the FDR ratio is low, it means that the income earned by the bank is also low. A good FDR limit is 80%, this is in accordance with Bank Indonesia Circular No. 6/23/DPNP.

The results of previous studies showed that there was a negative relationship between NPF and profitability (Syakhrun et al., 2019) .

Table 5 FDR Assessment Criteria

Rating	Information	Criteria
1	Very healthy	FDR<75%
2	Healthy	75%≤ FDR < 85%
3	Healthy enough	85%≤ FDR < 100%
4	Unwell	100%≤ FDR < 120%
5	Not healthy	FDR 120%

Source: Bank Indonesia Circular Surat

## 2. RESEARCH METHOD

### a. Types and methods of data collection

The type of data used in this study is secondary data. Secondary data is data obtained or collected by research from the results of research from other parties. This data is usually collected from the library (book text) or from previous research reports (Sofar Silaen, 2018) . The secondary data source used is in the form of SOE Banking Financial Statements Listed on the IDX from 2014-2019 which have been published on the Indonesia Stock Exchange or at [www.idx.co.id](http://www.idx.co.id). The data collection method in this method uses a documentation study with a quantitative research design sourced from secondary data. Secondary data is data collected by other people (Tanjung & Mulyani, 2021) . The data taken in this study is official data in the form of state-owned banking financial statements for 2015-2020 published by the company through the Indonesia Stock Exchange.

### b. Data analysis method

In this research, the technical analysis used is panel data regression analysis technique. Panel data is a combination of *time series* data and *cross section data* . This study uses the *Eviews 9* program as a tool in analyzing the data. The basic equation for panel data regression in general is as follows:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon_{it}$$

Information:

Y	= Profitability
$\alpha$	= constant
$\beta_1, \beta_2, \beta_3, \beta_4$	= Coefficient of independent variable
X1	= CAR
X2	= NPF
X3	= FDR
X4	= BOPO
E	= Error
i	= amount of sample
t	= research period 2015-2020

### c. Panel Data Regression

- Common Effect Model

This model is said to be the simplest model where the approach ignores the time and space dimensions possessed by panel data which only combines times series data and cross sections data. However, by combining these data, it is not possible to see the difference between individuals and between times. Then this combined data is treated as a single observation with

the OLS (Ordinary Least Square) approach. Ordinary Least Square is an estimation method that is often used to estimate the population regression function from the sample regression function. This method is known as the Common Effect method.

- Fixed Effect Model

The ordinary least squares method approach is an approach by assuming that the intercept and regressor coefficients are considered constant for all units of area/region as well as time units. One way to pay attention to cross-sectional units or times series units is to include a dummy variable to provide different parameter values, both across cross-sectional units and times series units. Therefore, this approach by including dummy variables is also known as the Least Square Dummy Variable (LSDV) or also called the covariance model.

- Random Effect Model

In estimating panel data with a fixed effect model through the dummy variable technique, it shows the uncertainty of the model used. To estimate this problem, residual variables known as random effects models can be used. The random effect approach improves the efficiency of the least squares process by taking into account errors from cross-section and time series.

d. Model Selection Panel Data Regression Estimation

The three panel data regression estimation models will choose which model is the most appropriate/in accordance with the research objectives. There are three tests that can be used as a tool in selecting the panel data regression model, namely the Common Effect, Fixed Effect, and Random Effect by conducting tests, namely the Chow test and the Hausman test. Chow test is conducted to find out which model is better between common effect and fixed effect. Hausman test was conducted to find out which model is better between random effect and fixed effect.

### 3. RESULTS AND ANALYSIS

#### 3.1 Research Results

a. Common Effect Model (CEM)

The first step is data processing using a simple Common Effect Model (CEM) approach by combining all time series and cross section data, then estimating the model using the Ordinary Least Square (OLS) method. The results of processing using the Common Effect Model are:

Table 6 Common Effect Model Results

Variable	Coefficient	t-statistics	Significance
C	-0.7000	-0.5267	0.6015
CAR	0.0304	1.5263	0.1354
NPF	0.0597	0.8041	0.4265
FDR	0.0227	3.5440	0.0011
BOPO	-0.0180	-1.6529	0.1068
R- squared	: 0.4493		
F-statistics	: 7.5493		
Significance (F-statistics)	: 0.0001		

Source: E-views 9 output , data processed

b. Fixed Effect Model (FEM)

The second step is data processing using the Fixed Effect Model (FEM) approach to compare with the Common Effect Model method. The results of processing using the Fixed Effect Model are as follows:

Table 7 Results of Fixed Effect Model

Variable	Coefficient	t-statistics	Significance
C	-0.1894	-0.1616	0.8726
CAR	0.0101	0.6578	0.5155
NPF	0.0299	0.6473	0.5222
FDR	-0.0015	-0.1999	0.8428
BOPO	0.0067	0.7105	0.4827
R -squared	: 0.8511		
F-statistics	: 17,72897		
Significance (F-statistics)	: 0.0000		

E-views 9 output, data processed

c. Chow test

Chow test is used to find out which model is better between common effects and fixed effects. The hypothesis on the Chow test is as follows:

Criteria:

If the value of Sig > 0.05 then Ho is accepted

If the value of Sig < 0.05 then Ha is accepted

Table 7 Chow Test Results

Effect Test	Significance
Cross-section F	0.0000
Cross-section Chi-square	0.0000

E-views 9 output data processed

Based on the Chow test shown in table 4.5 above, the significance value of the Chi-square Cross-section and Cross-section F is 0.0000 (less than 5%), so statistically Ho is rejected and Ha is accepted, then the appropriate estimation model is used in panel data regression is Fixed Effect Model. Because the results of the c how test show that the model that is more appropriate to use is the Fixed Effect Model, it is necessary to test the Hausman test to test the model that is more appropriate to use between the Fixed Effect Model and the Random Effect Model. Prior to the Hausman test, the Random Effect Model regression was performed first.

d. Random Effect Model (REM)

After performing the Chow test, data processing was carried out using the Random Effect Model (REM) approach to be compared with the Fixed Effect Model (FEM). The results of processing using the Random Effect Model are as follows:

Table 8 Results of Random Effect Model

Variable	Coefficient	t-statistics	Significance
C	-0.3058	-0.2674	0.7906
CAR	0.0146	0.9721	0.3373
NPF	0.0359	0.7813	0.4396
FDR	0.0029	0.4176	0.6786
BOPO	0.0022	0.2467	0.8065
R- squared	: 0.0587		
F-statistics	: 0.57710		
Significance (F-statistics)	: 0.6810		

E-views 9 output, data processed

e. Hausman test

The Hausman test is used to find out which model is better between random effects and fixed effects.

Criteria:

If the value of Sig > 0.05 then Ho is accepted

If the value of Sig < 0.05 then Ha is accepted

Table 8 Hausman test results

Test Summary	Significance
Random cross-section	0.3569

Source: E-views 9 output, data processed

Based on the Hausman test shown in table 8 above, the significance value of the random cross-section is 0.3569 (greater than 0.05) so that statistically Ho is accepted and Ha rejects, then the appropriate estimation model is used in panel data regression. is the Random Effect Model.

f. Random Effect Model (REM) Regression Estimation Results

Based on the Chow test and Hausman test, the right panel data regression model to be used in this study is the Random Effect Model. The results of the regression using the Random Effect Model are as follows:

Table 9 Results of Regression Random Effect Model

Variable	Prediction	Coefficient	t-statistics	Sig	Note.
C		-0.3058	-0.2674	0.7906	
CAR	Positive	0.0146	0.9721	0.3373	Rejected
NPF	Positive	0.0359	0.7813	0.4396	Rejected
FDR	Positive	0.0029	0.4176	0.6786	Rejected
BOPO	Positive	0.0022	0.2467	0.8065	Rejected
R -squared	: 0.0587				
F-statistics	: 0.57710				
Sig (F-statistics)	: 0.6810				

Source: E-views 9 output, data processed

Based on the results of the Random Effect Model regression shown in table 4.8 above, the results of the regression model equation between the dependent variable (Net Profit Margin on Profitability) and the independent variables (CAR, NPF, FDR, and BOPO) are as follows:

$$NPM_{it} = -0.3058 + 0.0146 CAR_{it} + 0.0359 NPF_{it} + 0.0029 FDR_{it} + 0.0022 BOPO_{it}$$

Based on the regression equation above, it can be explained that:

- a. Based on the above equation, the magnitude of the constant is -0.3058. This shows that if the independent variables (CAR, NPF, FDR and BOPO) are 0, then the level of profitability of Net Profit is -0.3058.
- b. The coefficient value of the CAR is 0.0146 and is positive. This shows that for every 1% increase in CAR, the Profitability level of the Net Profit Margin will increase by 0.0146%.
- c. The coefficient value of the NPF is 0.0359 and is positive. This shows that for every 1% increase in NPF, the Profitability level of the Net Profit Margin will increase by 0.0359%.
- d. The coefficient value of FDR is 0.0029 and is positive. This shows that for every 1% increase in FDR, the Profitability level of the Net Profit Margin will increase by 0.0029%.
- e. The coefficient value of BOPO is 0.0022 and is positive. This shows that for every 1% increase in BOPO, the Profitability level of the Net Profit Margin will increase by 0.0022%.

g. Hypothesis Testing

- Coefficient of Determination Test (R- Square)

The R-square test is intended to assess how much the independent variable's ability to explain the dependent variable is. Based on the results of the regression with the Random Effect Model, it is known that the R - square value is 0.0587. This shows that the variation of the dependent variable, namely Net Profit Margin on Profitability, can simultaneously be explained by the independent variables, namely CAR, NPF, FDR, and BOPO of 5.87% while the remaining 94.13% is explained by other factors outside the variables studied. Because the R - squared value obtained in this study is close to zero, it means that the ability of the independent variables to explain the dependent variable is limited. This happens because in the research model there is only one variable that has a significant influence on Net Profit Margin namely the BOPO variable.

- F Test Results

The F test was conducted to determine whether all independent variables had a simultaneous effect on the dependent variable. The hypothesis of the F test in this study are:

Ho : CAR, NPF, FDR and BOPO together have no effect on profitability.

Ha : CAR, NPF, FDR and BOPO together have an effect on profitability.

With criteria:

If the significance value  $> 0.05$  then Ha is rejected.

If the significance value  $< 0.05$  then Ha is accepted.

Based on table 4.8 t arithmetic or t-statistic of 0.57710 with a significance value of 0.7906 which means  $> 0.05$  so H0 is accepted and it can be concluded that the CAR, NPF, FDR and BOPO variables together have no effect on profitability.

- **t test results**

The t-statistic test was conducted to determine whether or not there was an influence between each independent variable on the dependent variable partially. The results of the t-statistical test can be interpreted as follows:

- **Capital Adequacy Ratio (CAR)**

Based on the t-test results shown in table 4.8 above, the CAR t-statistic value is 0.9721 with a positive direction and the CAR significance value is 0.3373 which means  $> 0.05$ . The hypotheses for the CAR in this study are:

Ho : CAR has no positive and significant effect on profitability.

Ha : CAR has a positive and significant effect on profitability.

By criteria:

If the significance value is  $> 0.05$  then Ha is rejected

If the significance value  $< 0.05$  then Ha is accepted

Based on the above shows that Ha rejected and accepted Ho. So it can be concluded that CAR has a positive but not significant effect on profitability.

- **Non Performing Financing (NPF)**

Based on the results of the t-test shown in table 4.8 above, the NPF t-statistic value is 0.7813 with a positive direction and the NPF significance value is 0.4396, which means  $> 0.05$ . The hypotheses for the NPF in this study are:

Ho : NPF has no positive and significant effect on profitability.

Ha : NPF has a positive and significant effect on profitability.

With criteria:

If the significance value is  $> 0.05$  then Ha is rejected

If the significance value  $< 0.05$  then Ha is accepted

Based on the above shows that Ha rejected and accepted Ho. So it can be concluded that NPF has no positive and significant effect on profitability.

- **Financing To Deposit Ratio (FDR)**

Based on the results of the t-test shown in table 4.8 above, the FDR t-statistic value is 0.4176 with a positive direction and the FDR significance value is 0.6786, which means  $> 0.05$ . The hypotheses for FDR in this study are:

Ho : FDR has no positive and significant effect on profitability.

Ha : FDR has a positive and significant effect on profitability.

With criteria:

If the significance value is  $> 0.05$  then Ha is rejected

If the significance value  $< 0.05$  then Ha is accepted

Based on the above shows that Ha rejected and accepted Ho. So it can be concluded that FDR has no positive and insignificant effect on profitability.

- **Operating Expenses to Operating Income (BOPO)**

Based on the results of the t-test shown in table 4.8 above, the BOPO t-statistic value is 0.2467 with a positive direction and the BOPO significance value is 0.8065 which means  $> 0.05$ . The hypotheses for BOPO in this study are:

Ho : BOPO has no positive and significant effect on profitability .

Ha : BOPO has a positive and significant effect on profitability .

With criteria:

If the significance value is  $> 0.05$  then Ha is rejected

If the significance value  $< 0.05$  then  $H_a$  is accepted. Based on the above shows that  $H_a$  rejected and accepted  $H_o$ . So it can be concluded that BOPO does not have a positive and significant effect on profitability.

### **3.2 Discussion**

In this study, the results of the R- squared test show that the variation of the dependent variable, namely profitability, can simultaneously be explained by the independent variables, namely CAR, NPF, FDR, and BOPO of 5.87% while the remaining 94.13% is explained by other factors outside the variables mentioned above. researched. Because the R - squared value obtained in this study is almost close to zero, it means that the ability of the independent variables to explain the dependent variable is limited.

Based on the results of the F test shown in table 4.8 above, it is known that the F-statistic value is 0.57710 with a significance value of 0.6810 which means  $> 0.05$  so that it can be concluded that the independent variables are CAR, NPF, FDR and BOPO. taken together has no effect on the level of profitability. The partial test results will be explained as follows:

#### **a. The Effect of CAR on Profitability**

The capital adequacy ratio or what is often referred to as the Capital Adequacy Ratio (CAR) is a description of the ability of state-owned banks to meet their capital adequacy. CAR has a positive influence on the level of Net Profit Margin (NPM). The higher the CAR ratio, the better the level of profitability. The bank's funds (capital) are used for working capital and to guarantee the liquidity of the bank concerned. Maintaining capital means that the Bank can gain the trust of the public which is very important for a bank because by doing so, the bank can raise funds for further operational needs.

Based on the t-test results, the CAR t-statistic value is 0.9721 with a positive direction and the CAR significance value is 0.3373, which means  $> 0.05$  so  $H_a$  is rejected and  $H_o$  is accepted, it can be concluded that CAR has a positive but not significant effect on the level of NPM on Profitability. This is because the Bank's capital is not only to support the operations of BUMN Banks but also to protect depositors by denying all losses to the Bank. In addition, capital is also an effort to increase public confidence in the ability of banks to meet their maturing obligations. This condition of adequate capital will maintain public confidence to keep their funds in the bank, therefore the higher the level of NPM in the profitability of a bank. This can be seen in the descriptive statistical table with a minimum CAR value of 11.84%, which means it is greater than the set standard, which is 8%.

This is in accordance with the theory of stewardship, this theory describes a situation where managers are not motivated by individual goals but are more focused on their main outcome goals for the benefit of the organization. In stewardship theory, managers will make efforts to gain public trust. In line with the Stewardship Theory, that the larger the capital owned by state-owned banks, state-owned banks as stewards are trusted by customers to invest their funds in state-owned banks and are managed by state-owned banks properly with the aim that the Bank can finance its operational activities and provide a substantial contribution to the profitability.

#### **b. The Effect of NPF on Profitability**

Non Performing Financing (NPF) is financing that is categorized into substandard, doubtful, and loss collectibility (non-performing financing). the higher the non-performing financing (NPF), the lower the income and the lower the level of profitability received by the bank.

Based on the results of the t-test, the NPF t-statistic value is 0.7813 with a positive direction and the NPF significance value is 0.4396 which means  $> 0.05$  so the hypothesis which states that NPF has a positive and significant effect on the level of profitability is rejected. The direction of the NPF in the results of this study was positive but not significant. So it can be concluded that the NPF has no positive and significant effect on the level of profitability.

This happened, one of which was because Islamic State-owned Banks had an NPF ratio of 3.3% (Gross) and 1.78% (Nett), based on OJK data as of August 2020. This was conveyed by the Research Director of the Center of Reform on Economics (Core) Indonesia, namely Piter Abdullah. This is not in accordance with the principles of Islamic Banks that apply the principle of prudence in the distribution of funds. Thus, the Bank does not have a good reserve in conducting a risk analysis which later the problem will affect the magnitude of the level of profitability.

The implication of Sharia Enterprise Theory in the results of this study is that with insignificant results, it means that the high or low NPF value has an influence on the level of profitability, meaning that Islamic BUMN banks have not been good in maintaining the quality of financing so that the risk of non-performing financing has not been overcome which makes the percentage of non-performing financing high. This can be seen from the average value of NPF data in state-owned banks of 1.89%, based on Bank Indonesia circular letter No. 9/24/DpbS of 2007 concerning the criteria for determining the NPF rating, based on the average value, that banks are good at maintaining their NPF level. Bank Indonesia stipulates that the quality of financing is good if the amount of non-performing financing is a maximum of 5% of the total financing provided. Therefore, the NPF ratio must always be below 5% to avoid the risk of financing or financing whose collectibility is substandard, and bad.

c. Effect of FDR on profitability

FDR is the ratio between the total financing provided and the total Third Party Funds (DPK) collected by the bank. FDR will show the level of the bank's ability to channel third party funds collected by the bank concerned. The higher the FDR ratio means the more efficient the use of all assets in the Bank. If the bank's ability to meet customer obligations is high, the higher the level of customer confidence to invest or distribute funds. Therefore, the higher the FDR value, the better the profitability of the Bank.

Based on the results of the t-test, the t-statistic value of FDR is 0.4176 with a positive direction and the significance value of FDR is 0.6786 which means  $> 0.05$  so that the hypothesis which states that FDR has no positive and significant effect on the level of profitability is rejected. So it can be concluded that FDR has no positive and significant effect on the level of profitability of the Bank. The results of this study are not in accordance with the theory which states that the higher the FDR, the better the level of profitability at the Bank. The results of this study indicate that FDR has no positive and significant effect on the level of profitability. This is because state-owned banks do not improve asset quality by lowering NPF to maximize profits.

The implications of Sharia Enterprise Theory in the results of this study are Islamic banks are quite good in maintaining the quality of financing disbursed based on an average FDR value of 86.32% which includes the standard FDR criteria according to Bank Indonesia Regulations, which is 80%-100%. The FDR ratio must be kept neither too low nor too high. Based on the circular letter of Bank Indonesia No. 6/23/DPNP, May 2, 2004 regarding the criteria for determining the value of FDR, the average value indicates that Islamic commercial banks have been quite good in maintaining the quality of their financing.

d. The effect of BOPO on profitability

Operating Expenses to Operating Income (BOPO) is the ratio between Operating Expenses and Operating Income. BOPO can also be interpreted as a ratio that describes a bank's ability to control operational costs against operating income. The larger the BOPO of a bank, the healthier the bank is and the better the position of the bank in terms of cost utilization. Based on the Circular Letter of Bank Indonesia No. 6/23/DPNP of 2004, Banks that are categorized as healthy have a maximum BOPO ratio of 94%-96%. If it passes these standards, the bank is considered inefficient in carrying out its operations.

Based on the results of the t-test, the t-statistical value of BOPO is 0.2467, with a positive direction and the significance value of BOPO is 0.8065 which means  $> 0.05$  so that the hypothesis which states that BOPO has a positive and significant effect on the level of profitability is rejected. So it can be concluded that BOPO does not have a positive and significant effect on the level of profitability.

The results of this study indicate that BOPO does not have a positive and significant effect on the level of profitability, this means that an increase in BOPO will result in a decrease in NPM and vice versa. The lower the BOPO, the more efficient the Bank's operational activities, so it can be interpreted that low operational costs will increase the Bank's profitability.

The increase in BOPO was influenced by pressure on interest income due to the company's massive credit restructuring since the end of March 2020 in order to save MSMEs affected by Covid-19, this was conveyed by the Director of Finance of BRI, Haru Koesmahargyo. One of the banks that recorded an increase in the BOPO ratio was PT. Bank Rakyat Indonesia, on a consolidated basis, was at the level of 78.78%, up from the level of 73.23% in the same period as of June last year.

#### **4. CONCLUSION**

Based on the results of the study, it can be concluded that:

1. Based on the partial test, the results of the t-test analysis on the CAR showed a t-statistic value of 0.9721 and a significance value of 0.3373  $> 0.05$ . This shows that CAR has a positive but not significant effect on the level of profitability.
2. Based on the results of the partial test, the results of the t-test analysis on FDR showed a t-statistic value of 0.4176 with a significance value of 0.6786  $> 0.05$ , this indicates that FDR has no significant positive effect on the level of profitability.
3. Based on the results of the partial test, the results of the t-test analysis on the NPF showed a t-statistic value of 0.7813 with a significance value of 0.4396  $> 0.05$ . So this shows that the NPF has a positive and insignificant effect on the level of profitability. This happened because the distribution of financing carried out by state-owned banks to customers had been carried out quite well. State-owned banks apply the principle of prudence in the distribution of their funds, the bank already has good reserves and has carried out a risk analysis which later the problem will not affect the magnitude of the level of profitability.
4. Based on the partial test results, the results of the t-test analysis on BOPO showed a t-statistic value of 0.2467 with a significance value of 0.8065  $< 0.05$ , this indicates that BOPO has a positive but not significant effect on the level of profitability.

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