



## **Determinants Non-Performing Financing (NPF) in Indonesia Islamic Banks**

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### **Abstract**

*The aims of this research to identify the determinants of Non-Performing Financing (NPF) using the variables of Gross Domestic Product (PDB), Financing to Deposit Ratio (FDR), Minimum Capital Requirement (KPMM), and Operating Expenses on Operations Revenue (BOPO) in Indonesia Islamic Commercial Banks. The research sample used 12 (twelve) Islamic Commercial Banks in Indonesia 2014-2019 period with purposive sampling technique. Panel data regression analysis was used as an analysis technique, with estimation model selected the Fixed Effect Model (FEM). The results of this research showed that variables of PDB, FDR, KPMM, and BOPO have a significant influence toward NPF simultaneously in Indonesia Islamic Commercial Banks. The results of partial showed that the variable of FDR and KPMM have influence toward NPF are significant and negative. Then, the results of PDB and BOPO partially have influence toward NPF are significant and positive in Indonesia Islamic Commercial Banks.*

**Keywords :** PDB; FDR; KPMM; BOPO; NPF.

### **INTRODUCTION**

The growth of Indonesia Islamic banking as an embodiment in the demand of society that requires an alternative banking system. Sharia banking activities are dominated by channeling financing to the public. The distribution of financing becomes a very important part of the business of Islamic Banks, because it shows the alignments of banks in the economic progress of society. Financing in sharia principles has been regulated on Islamic law, QS. Al-Baqarah verse 245. In banking business, when people want to achieve high income, it

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is faced with high risk. Errors in financing analysis will result in banks facing high financing risks, high financing risks will become a potential or source of bank losses. The risk of financing occurs, it will threaten the sustainability of banks and affect the soundness of banks as measured through indications of the financial performance of banks (Mutawali et al., 2019). The greater financing risks in Islamic Commercial Banks shown indicated by increase Non-Performing Financing (NPF) (Rustam, 2018). High Non-Performing Financing (NPF) will have an influence on decreasing income of Islamic Banks. The decline in income will further reduce the ability of Islamic Banks to channel further financing and run other businesses (IBI, 2018).

NPF ratio in Indonesia Islamic Commercial Banks experienced fluctuations from 2014 to 2019 period. OJK statistical data for 2014-2019 shows, the NPF value of Islamic commercial banks in 2014 reached 4.33% and increased by 0.51% to 4.84% in 2015. In 2016 the average NPF ratio for Islamic Commercial Banks was 5.29%, with the highest value reaching 6.17%. Then, in 2017 back on increased by 0.35% from 4.42% to 4.77%. Until 2018, the NPF ratio had an average value of 4.28% with the highest value reaching 5.21%. While in 2019, the highest value of the NPF ratio reached 3.58%. These conditions indicate that Islamic bank still a lack of ability to control problematic financing. So that it will lead to the decline in the performance of Islamic banking in channeling funds to the public. The condition of the total movement of Sharia Commercial Bank financing which has increased accompanied by an increase in the NPF ratio, but based on empirical data Sharia Banking Statistics (SPS) 2019 shows the condition of the total financing that has increased accompanied by a decreased NPF ratio. Therefore, in-depth research needs to be done about the NPF phenomenon.

Research studies on NPF have been conducted by several previous researchers, Retnowati & Jayanto, (2020) in his research in 2012-2015 that the Non-Performing Finance (NPF) of Islamic banks is still relatively higher than the Non-Performing Loans (NPL) of conventional banks, even some Islamic banks with Non-Performing Finance (NPF) values exceeding the standard limit. And these results showed that the variables that affect the Non-Performing Financing of Islamic banks are capital adequacy ratio and efficiency ratio. Because, the large ratio of bank capital reserves can minimize the occurrence of Non-Performing



Financing because banks have sufficient reserves for losses. A high efficiency ratio value means that the costs incurred by the bank are more than the income earned, this indicates a poor quality of financing. As research from Wulandari et al., (2019) who states minimum capital adequacy significantly influence toward Non-Performing Financing. Research from Hosen & Muhari, (2019) who states operating cost on operations revenue has a effect toward Non-Performing Financing. However, it is different from Nihayah and Walyoto (2018) who state ratio of minimum capital adequacy ratio haven't affect toward Non-Performing Financing. And Havidz & Setiawan (2015) who states the operating expenses on operations revenue haven't affect Non-Performing Financing. Research by Hosen & Muhari (2019) with the Islamic Rural Bank research object that financing to deposit ratio (FDR) efficiency ratio (BOPO), and gross domestic product affect Non-Performing Financing (NPF) in 2010-2016 period. That research, supported by Sari et al., (2016) who states financing to deposit ratio has a significant impact toward non-performing financing ratio in Islamic bank 2006-2014 period, because the higher the bank liquidity ratio, it will be the higher the risk of bank financing. Research by Ozili, (2019) also states the financial intermediation ratio (LDR) affects NPLs. Different from Damanhur et al., (2018) and Muhammad et al., (2020) who states Financing to deposit ratio haven't affect Non-Performing Financing in Islamic Rural Bank 2012-2016 period.

Then, for macroeconomic variable as measured by gross domestic product (GDP/PDB), is a variable that affects non-performing financing (Akbar, 2016; Damanhur et al., 2018). Prasetyo, (2020) in the results of his research that gross domestic product affects Non-Performing Financing on the West Java Islamic Rural Banks 2011-2015 period. Different from Retnowati & Jayanto, (2020); who states that the gross domestic product (GDP/PDB) haven't affect non-performing financing Non-Performing Financing. Apart from the business phenomenon regarding Non-Performing Financing, previous studies showed inconsistent results study and explain the results of various studies. So, the research purpose is to review the relationship between variables of PDB, FDR, KPMM, and BOPO toward NPF in Islamic Commercial Banks. This research, expected can support previous research and help to provide information for further research about Non-Performing Financing (NPF).

## LITERATUR REVIEW

### **Islamic Banking**

Sharia banks are basically banks that carry out business activities in collecting form and distributing public funds and providing financial services according to sharia values and principles. Sharia banks in channeling funds based on sharia principles must be gain prudently by assessing several aspects to minimize risks. Sharia banks have belief in the willingness and readliness of customers to settle their obligations (loans or financing) according to contract and conformity with sharia principles. In business activities, Islamic banks are required to comply with prudence principles and risk management. In addition, Sharia Banks are required to apply knowing customers principles and customer protection, including the obligation to explain to customers the possible risk of loss on customer transactions made through Islamic Banks ([www.ojk.go.id](http://www.ojk.go.id)).

### **Islamic Financing**

Sharia financing is funding distributed by Islamic financial institutions to other parties to support planned investments in accordance with the provisions of Islamic values and principles (Rivai & Arifin, 2010). The process of distributing Islamic bank financing must be based on applicable policies, both provisions of Bank Indonesia, OJK, and general policies for channeling funds of banks, which are based on the principles of sound distribution of funds. The purpose of the distribution of funds is that each prospective customer must go through an objective assessment process, which provides assurance that the customer can return his obligations to the bank in accordance with the agreement. Sharia banks as an institution are required to carry out an ongoing assessment of the economic sector, market segments, business activities, and high-risk customers. In addition, every Sharia Bank officer and employee who is bound by fund distribution must understand and have a high caution (skeptical) attitude in channeling funds to bound customers to minimize the risk of financing problems (Muhamad, 2016).

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

Ratio Non-Performing Financing (NPF) is a illustrates risk magnitude of Islamic banks financing (IBI, 2018b). And ratio between problematic financing to total financing disbursed by Islamic bank is called ratio of NPF. Problematic



financing consists of financing whose collectibility is included in the criteria of substandard, doubtful, and loss financing (Djamil, 2014).

Financial Services Authority Regulation Number 15/POJK.03/2017 concerning Determination of Status and Supervision for Commercial Banks, explains that the NPF is a ratio that compares total problematic financing (substandard, doubtful, and loss) with total financing. Financing status that is substandard, doubtful, and loss in the category of problem financing following Financial Services Authority Circular Letter (SEOJK) Number 8/SEOJK.03/2015 about Quality Assessment of Asset for Islamic Commercial Banks (BUS) and Islamic Business Units (UUS). The calculation formula for Non-Performing Financing ratio (NPF) as follows:

$$\text{NPF} = \frac{\text{Non - Performing Financing}}{\text{Financing}} \times 100 \%$$

### **Factors Affecting NPF**

The cause of problematic financing is factors of deteriorating economic conditions, these conditions will lead to the debtor's business. Decreasing the amount of capital banks will also affect the reduction in the minimum capital requirement if the KPMM decrease will reduce public trust and threaten the sustainability of the banking business (Taswan, 2010). Financing problems caused by incorrect financing analysis and poor character of customers as internal factors of banks and customers. Other causes arise from external factors, namely business failures and management inability (Rustam, 2018). Djamil (2014) factors that lead to the emergence of NPF covers, internal factors, and external factors such as natural disasters, wars, changes in economic conditions and trade, digital technology, and others. Antonio (2018) states that the main cause of the risk financing is banks are too easy financing or make an investment because they are required to take advantage of excess liquidity (FDR).

So the possibility of problematic financing will increase. Under Financial Services Authority Circular Letter (SEOJK) Number 10/SEOJK.03/2014 about the Rating of Islamic Commercial Banks, financing risk indicators of external factors such as changes in economic conditions, technological change, or regulations that

affect the yield rate, exchange rate, debtor's business cycle, and the impact on the ability of borrowers to repay their obligations. Factors that affect NPF include economic conditions (PDB), inflation rates, and Capital Requirement (KPMM) (Taswan, 2010). Besides Financing to Deposit Ratio (FDR), economic conditions (PDB), and interest rates are also factors that affect NPF (Antonio, 2018). Then the factors used in this study are the variables of Gross Domestic Product (PDB), Financing to Deposit Ratio (FDR), Minimum Capital Requirement (KPMM), and Operating Cost on Operations Revenue (BOPO).

$H_1$  : PDB, FDR, KPMM, and BOPO significant influence toward NPF simultaneously.

### **Gross Domestic Product (PDB)**

Indicators of economic growth that explain macroeconomic performance directly shown by Gross Domestic Product (PDB). PDB is the total income generated by both citizens and foreign nationals from all goods and services in a country in a certain period (Hasyim, 2016). PDB value to calculate the value of production at a certain place and time. In general, the time or period used is annual or quarterly. The government reports quarterly PDB data that describes the amount of income and expenditure during the quarter, while the annual PDB data shows one year (Mankiw, 2018). When the country's economy is not in a good condition (crisis), it will cause a decrease in the level of sales and business income of customers, which is due to a decrease in people's purchasing power, so that businesses will experience difficulties in fulfilling debt obligations so that there will be the possibility of financing problems (Antonio, 2018). This is proven by research Damanhur et al., (2018); Hosen & Muhari, (2019); Prasetyo, (2020) that PDB has influence toward NPF.

Based on the theoretical foundation and empirical results above, hypothesis 2 can be formulated as follows:

$H_2$  : PDB significantly influences toward NPF.

### **Financing to Deposit Ratio (FDR)**

Ratio of Financing to Deposit (FDR) as a ratio showing a comparison of financing to third-party funds (DPK) (Muhamad, 2016). The FDR ratio is to



determine the amount of load funds that sourced from third-party funds (DPK). Condition of high or low FDR ratio will indicate bank liquidity level. So, the higher of FDR is indicates that the condition of bank less liquid than a bank with a smaller ratio (Rivai & Arifin, 2010). The large amount of funds channeled by banks to customers is often caused by demands to take advantage of excess liquidity. As a result, the evaluation of financing has become less accurate in anticipating various possible business risks and the risk of bad financing (Antonio, 2018). The FDR can be formulated as follows:

$$\text{FDR} = \frac{\text{Total of Financing}}{\text{Third Party Funds}} \times 100 \%$$

FDR is used to measure bank liquidity, the higher ratio FDR will lead the ability of liquidity in Islamic Banks. And the high level of FDR will also lead the high level of the Non-Performing Financing (NPF). When FDR increases without being supported by optimal supervision, the NPF level will increase (Akbar, 2016). This is proven by research Hosen & Muhari, (2019); Sari et al., (2016) states that FDR has influence toward NPF. Based on the theoretical foundation and empirical results above, hypothesis 3 can be formulated as follows:

**H<sub>3</sub>** : *FDR significantly influences toward NPF.*

### **Minimum Capital Requirement (KPMM)**

The Minimum Capital Requirement (KPMM) is a ratio of the ratio of total capital owned by banks to the number of risk-weighted assets (ATMR) (Dendawijaya, 2009). Bank capital adequacy is an important factor for Islamic banks to accommodate losses, especially risks due to non-current financing. Measured the ratio of bank capital called Minimum Capital Requirement (KPMM). When KPMM ratio is low, it will lead increasing non-performing financing (Taswan, 2010). Besides, as a ratio to measure the proportion of own capital compared to funds from outside banking business activities (Muhamad, 2016). Following Financial Services Authority regulation Number 21/POJK.03/2014 concerning the Minimum Capital Requirement for Islamic Commercial Banks, the Minimum Capital Requirement Ratio (KPMM) ratio can be formulated as follows:

$$\text{KPMM} = \frac{\text{Capital}}{\text{number of risk weighted assets (ATMR)}} \times 100\%$$

Relationship between KPMM toward NPF, when the minimum bank capital get higher, the financial resources also get greater to anticipate potential losses in the distribution of financing. So the greater of Minimum Capital Adequacy ratio will have an effect on reducing problem financing (Kumar et al., 2018). This is proven by research Retnowati & Jayanto, (2020); Wulandari et al., (2019) states that KPMM has influence toward NPF. Based on the theoretical foundation and empirical results above, hypothesis 4 can be formulated as follows:

$H_4$  : *KPMM significantly influences toward NPF.*

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

Ratio of Operating Expenses on Operations Revenue (BOPO) to determine the effectiveness of the bank to implement its operations. BOPO ratio used to determine the bank's ability to improve operational cost efficiency (Dendawijaya, 2009). Bank Indonesia Circular Letter Number 15/8/DPbS dated March 27 2013 concerning the Opening of the Islamic Commercial Banks Office Network, the amount of operational costs will reduce the income received by Islamic banks. So that reduced income will affect the amount of funds channeled through financing and result in the number of operational funds per bank being rotated (Muhamad, 2016). Operating Expenses to Operations Revenue (BOPO) can be formulated as follows:

$$\text{BOPO} = \frac{\text{Operating Expenses}}{\text{Operations Revenue}} \times 100 \%$$

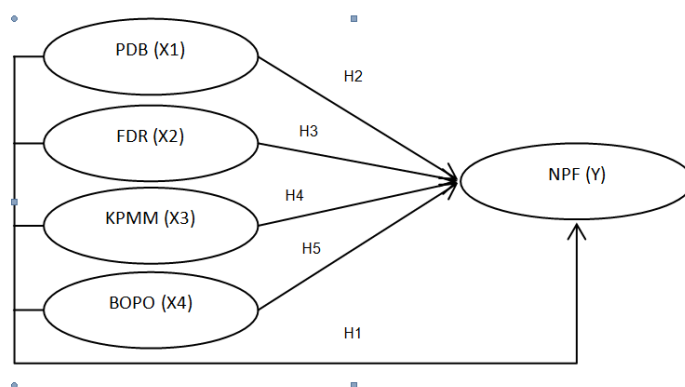
Relationship between BOPO and NPF, when efficiency ratio of the bank get better its indicates the better level of operational costs management that carried out by bank, so that the level of bank income can be maximized. The increase in income reflects the improving quality of bank financing and has the potential to reduce non-performing financing (Retnowati & Jayanto, 2020). This is proven by research Hosen & Muhari, (2019) that BOPO has influence toward NPF. Based on the theoretical foundation and empirical results above, hypothesis 5 can be formulated as follows:





**H<sub>5</sub>**: BOPO significantly influences toward NPF

**Figure 1** explained theoretical framework is needed that is developed based on the literature review and relationship between variables, to clarify the scope and sequence of this research.



**Figure 1.**

**Theoretical Framework**

**RESEARCH METHOD**

This research uses a quantitative-causal approach with secondary data. Type of data in this paper used panel data, which is a combination of time series data and cross-sections from quarterly publication reports of Sharia Commercial Banks and the Central Statistics Agency between 2014-2019. The sampling technique used purposive sampling. Criteria of sample, such as Islamic Commercial Banks exist in the Financial Services Authority (OJK) 2014-2019, Islamic Commercial Banks which successively publish quarterly financial reports during the period 2014-2019, and Islamic Commercial Banks can provide complete information regarding the data needed in this study include; NPF, FDR, KPMM, and BOPO. Then, the sample of this research 12 (twelve) Islamic Commercial Banks in Indonesia including; Mandiri Syariah Bank, Bank Muamalat Indonesia, Mega Syariah Bank, BNI Syariah Bank, BRI Syariah Bank, BCA Syariah Bank, Bukopin Syariah Bank, Maybank Syariah, Panin Bank Syariah, BJB Syariah, Victoria Bank Syariah, and BTPN Syariah with 288 (two hundred and eighty-eight) observations. The data of PDB used in this study is the calculation of PDB at constant prices based on the expenditure approach in the quarterly report published by the Central Statistics Agency (BPS) from 2014-2019.

The method of analysis used in this research is panel data regression analysis, regression analysis as a tool to measure the influence of the independent variable toward dependent variables (Sulistiyorini, 2018). Estimating panel data regression model can be done using three approaches, namely Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). Then, data will be tested using normality test and classical assumptions test. The panel regression model equation of this research is obtained as follows:

$Y$	= Dependent variabel (NPF)
$B_0$	= Intersep
$X_{1it}$	= Gross Domestic Product (PDB)
$X_{2it}$	= Financing to Deposit Ratio (FDR)
$X_{3it}$	= Minimum Capital Requirement (KPMM)
$X_{4it}$	= Operating Expenses to Operations Revenue (BOPO)
$\beta_1 \dots \beta_4$	= Coefficient of independent variable
$i$	= Cross sectional unit
$t$	= Year of time series
$\varepsilon_{it}$	= <i>Error</i>

## RESULTS AND DISCUSSION

Descriptive statistical analysis is a method that presents quantitative data and provides an overview of the minimum value, maximum value, mean value, standard deviation, and number of observations. Results of descriptive statistical with data processed for variables NPF, PDB, FDR, KPMM, and BOPO shown in **Table 1** as follows;



**Table 1.**  
**Descriptive Statistics**

	NPF	PDB	FDR	KPMM	BOPO
Mean	5.005451	5.011667	93.56594	23.26330	95.10267
Median	4.035000	5.040000	91.10000	19.24500	93.83000
Maximum	29.31000	5.270000	249.2300	69.90000	217.4000
Minimum	0.120000	4.490000	36.40000	10.16000	38.61000
Std. Dev.	4.582904	0.168560	24.48085	13.01096	21.25159
Observations	288	288	288	288	288

Source: Processed secondary data.

**Table 1** can be explained that the number of data in each variable is 288 data. Result of descriptive statistics explained that the NPF variable has a standard deviation value is 4.58, mean value is 5.00, the highest value is 29.31, and the smallest value is 0.12. And for variables independent the highest value of PDB is 5.27, the smallest value is 4.49, 5.01 for mean value, and 0.16 for standard deviation value. The mean value of FDR is 93.56, standard deviation value is 24.48, the highest value 249.23, and the smallest value is 36.48. Then, KPMM has 23.26 for mean value, 13.01 for standard deviation value, the highest and the smallest value is 69.90 and 10.16. BOPO has 95.10 for mean value, 21.25 for standard deviation value, the highest and the smallest value is 217.40 and 38.61.

**Table 2.**  
**Correlation Analysis**

	PDB	FDR	KPMM	BOPO
PDB	1.000000	-0.080046	0.037363	-0.000703
FDR	-0.080046	1.000000	0.382948	0.224999
KPMM	0.037363	0.382948	1.000000	-0.155373
BOPO	-0.000703	0.224999	-0.155373	1.000000

Source: Processed secondary data.

**Table 2** shown that the results of the magnitude of the correlation between the highest independent variables occur between the variables FDR and KPMM, namely with a correlation level of 0,38 or about 38.2%, because this correlation is still below 0.90, so it can be said that there is no Multicolonearity among independent variables. And autocorrelation test (**Table 3**) based on Sunyoto (2013) who states there is no autocorrelation if the Durbin Waston value is between -2 and +2.

The best model selection after testing with the Chow and Hausman Tests, from the estimation of the panel regression models, namely CEM, FEM, and REM, the Fixed Effect Model (FEM) was chosen in this study. The following is the Fixed Effect Model (FEM) approach that can be seen in **Table 3**.

**Table 3.**  
**Model of Panel Regression**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-19.13897	8.18462	-2.338405	0.0201
PDB	3.792485	1.5665	2.420996	0.0161
FDR	-0.035494	0.0159	-2.232721	0.0264
KPMM	-0.046611	0.00878	-5.308654	0.0000
BOPO	0.086422	0.01438	6.008621	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.691035	Mean dependent var		6.09441
Adjusted R-squared	0.673996	S.D. dependent var		7.77023
S.E. of regression	4.436548	Akaike info criterion		5.87158
Sum squared resid	5353.764	Schwarz criterion		6.07508
Log likelihood	-829.5079	Hannan-Quinn criter.		5.95313
F-statistic	40.55718	Durbin-Watson stat		0.67065
Prob (F-statistic)	0.000000			

**Source:** Processed secondary data.

A constant slope but different intercept among individual, Fixed Effect, it's the model estimates panel data using a dummy variable to capture the intercept diversity. The understanding of fixed effect is based on differences among companies but the intercept is the same in the period of time. Other, the model assumes that the coefficient is often called Least Square Dummy Variables (LSDV) (Sulistiyorini, 2018).

### Discussion 1

Simultaneous Significance test or called by F test shows whether all independent variables (PDB, FDR, KPMM, and BOPO) in the model and simultaneously affect the dependent variable (NPF). F test result shown in **Table 3** generated  $F_{count} = 40.555 > F_{table} = 5.65$  or significance value is  $0.000 < 0.05$ , means there is a significant effect between the variable of Gross Domestic Product (PDB), Financing to Deposit Ratio (FDR), Minimum Capital Requirement (KPMM), and Operating Expenses to Operations Revenue (BOPO) toward Non-Performing Financing (NPF) simultaneously.



The coefficient of determination or R-Squared value, used to assess the extent of model's ability to explain variations in the dependent variable, values 0 until 1 is the term of the coefficient of determination (Ghozali, 2018). The coefficient result of determination ( $R^2$ ) at the Adjusted R Square value is 0.6739 or 67.39 %. This shown that the variables of PDB, FDR, KPMM, and BOPO contributed an influence on the NPF of 67.39 %, meanwhile 32.61 % relied by other variables are not examined in this research (Ghozali, 2018). Then, to determine influence between partial or independent variables by explaining dependent variable using t-test.

### **Discussion 2. The Effect of PDB toward NPF**

Based on **Table 3**,  $t_{count}$  of PDB variable = 2.243 >  $t_{table}$  = 1.960 or significance of 0.016 > 0.05, means there is significant effect between PDB partially on NPF. Supposed, based on the theory of PDB variable can partially affect the NPF ratio. This is consistent with the view put forward by Antonio (2018), that an economy hit by a crisis or recession is the cause of the risk of financing. The ability of customers to fulfill their obligations to Islamic banks is due to decreased income or due to decreased sales on their business. This causes an increase in outstanding financing problems.

However, the results indicate that PDB has effect toward NPF. The economy during a crisis or recession can cause the risk of financing to banks. Decreasing sales will reduce people's income, so it will affect the ability of customers to meet their dependents to the bank and cause increasing outstanding non-performing financing (Antonio, 2018). Besides, external aspects such as macroeconomic factors influence the customer's business and related industries. Therefore, banks need to analyze domestic and global macroeconomic conditions. This is to find out how much economic impact on customer's businesses and business continuity financed. So the customer's potential to repay financing originating from the customer's business income is influenced by economic conditions (Ghosh, 2015). The research results is contradict the previous research by Rajha (2017), and Retnowati & Jayanto, (2020) who state that PDB has no significant effect toward NPF. However, this research is supported by the previous research from Akbar, (2016); Damanhur et al., (2018); Hosen & Muhari, (2019) who states that PDB has an effect on NPF.

Based on direction of influence shows that the PDB variable affecting positive toward ratio NPF in Indonesia Islamic Commercial Bank, 2014-2019 period. The theoretical variable PDB should have a negative influence toward NPF. IBI (2018b), states that the customer's ability to repay financing originating from customer business income is influenced by economic conditions that are getting better or better. The research results showed PDB had a positive and influence on NPF. This is because the condition of Islamic Banki is more resistant to macroeconomic variable shocks. This research contradicts the results of previous research by Akbar (2016), Prasetyo, (2020), and Firmansyah, (2015) who states that PDB has a negative effect on NPF. But in line with research Rajha (2017) who state that PDB has positive influence toward NPF.

### **Discussion 3. The Effect of FDR toward NPF**

Based on **Table 3**,  $t_{count}$  of FDR variable = - |2.232| >  $t_{table} = 1.960$  or FDR has significance value of  $0.026 < 0.05$ , means partially FDR has a significant effect toward NPF at Islamic Commercial Banks. This is consistent with the view put forward by Rivai and Arifin (2010), that the FDR ratio is used to assess the liquidity of Islamic Banks, and shows the extent which the bank can provide funds to customers, and can fulfill the bank's obligation to immediately meet customer requests that will withdraw funds that have been channeled. So that the high FDR ratio will have an impact on financing risk, resulting in problematic financing. Antonio (2018), the large amount of funds channeled by banks to customers is often caused by demands for utilizing excess liquidity. So that the financing assessment becomes less careful in anticipating various possible risks of bad financing. Muhamad (2016) states that the liquidity capacity of Islamic banks is determined by value of FDR ratio, where the higher the FDR, is can be showed the lower level of liquidity. A high FDR ratio will affect the amount of non-performing financing. These results are support with the previous research by Hosen & Muhari, (2019); Sari et al., (2016); and Akbar (2016) who states variable FDR has a significant effect toward NPF.

Based on direction aspect shows that the FDR variable affects the negative direction toward NPF ratio in Islamic Commercial Banks. This is based on the view expressed by Muhamad (2016), the higher of FDR ratio indicates less of



liquidity for capability in Islamic banks. And the lower of liquidity will have an impact on increasing NPF. However, the results showed that FDR variable has a negative effect toward NPF. It's because of Islamic Commercial Banks tend to be more careful in channeling financing by reducing the amount of financing in high-risk sectors such as working capital and investment and focus on financing with lower risk, namely the consumptive sector. FDR and NPF Syariah Commercial Banks in the consumptive category in 2019 have a reverse relationship. This study contradicts the research of Nihayah and Walyoto (2018) and Sari et al., (2016) who state FDR affecting positive toward NPF. But this research supported with the previous research by Akbar (2016) and Wulandari et al., (2019) states the FDR variable affects the negative direction toward NPF.

#### **Discussion 4. The Effect of KPMM toward NPF**

Based on **Table 3**,  $t_{count}$  of KPMM =  $- |5.308| > t_{table} = 1.960$  or significance  $0.000 < 0.05$ , means partially KPMM has a significant effect toward NPF at Islamic Commercial Banks. This is consistent with the view forward by Muhamad (2016), who said that KPMM ratio can have an influence toward non-performing financial. Because the ability of Islamic Banks in providing funds for business expansion needs and accommodate the risk of losses, it's measured by ratio of capital or KPMM. Rustam (2018) states that bank capital as measured by the KPMM ratio must be able to cover all business risks of Islamic Banks, including the risk of loss due to problematic financing. These results are supported with the previous research by Retnowati & Jayanto, (2020); Wulandari et al., (2019) who states that KPMM has a significant influence toward Non-Performing Financing ratio (NPF).

Based on direction aspect of influence shows the variable Minimum Capital Requirement (KPMM) has a negative influence toward Non-Performing Financing ratio (NPF) in Indonesia Islamic Commercial Banks, means that an increase in the Minimum Capital Requirement (KPMM) tends to reduce the Non-Performing Financing (NPF). This is consistent with the view put forward by Fahmi (2015) that the higher of Minimum Capital Requirement (KPMM) value, indicated a greater source of financial capital that can be used for business expansion needs and to anticipate potential costs due to the distribution of

financing. So that the greater the Minimum Capital Requirement Ratio (KPMM) affects the decrease in problem financing. Rustam (2018), which states that the Minimum Capital Requirement (KPMM) shows the amount of total bank assets that can contain risks, which are financed by their capital. Thus the higher the Sharia Bank KPMM, the losses due to problematic financing will decrease. These results are supported with the previous research by Akbar (2016); Kumar et al., (2018); Ozili, (2019); and Wulandari et al., (2019) who stated that the Minimum Capital Requirement (KPMM) has a negative influence toward Non-Performing Financing ratio (NPF).

### **Discussion 5. The Effect of BOPO toward NPF**

Based on **Table 3**,  $t_{\text{count}}$  of BOPO variable = 6.008 >  $t_{\text{table}} = 1.960$  or has significance value  $0.000 < 0.05$ , means partially FDR has a significant effect toward NPF. This is consistent with the view expressed by IBI (2018a), which states that when the operational (business) expenses incurred by banks increase, the burden used as a backup in anticipation of losses due to non-return of funds channeled through financing will decrease and not can cover the risk of financing distribution. Rivai and Arifin (2010), stated that the large BOPO ratio is due to the high cost of fundraised and the low income of the investments fund. So, the more efficient operational costs obtained by banks, this indicates the benefits of banks will be even greater. So bank possibility can getting lower in a bad condition. The results of this research are supported with the previous research by Hosen & Muhari, (2019); Retnowati & Jayanto, (2020) who states that BOPO has a significant influence toward NPF ratio.

Based on direction aspect of influence shows the BOPO variable has a positive influence toward NPF. This result following of view expressed by Muhamad (2016), that the number of operational funds for each Islamic bank can be rotated in the financing provided, which is sourced from the largest income. However, the large amount of revenue that will be turned into financing can pose the greatest risk of banking business operations and result in problematic and even non-performing financing. So that when the BOPO ratio increases it will have an impact on the increase of NPF ratio in Islamic Banks. The research results are support with the previous research by Hosen & Muhari, (2019); Retnowati & Jayanto, (2020) who states BOPO has a positive influence toward NPF ratio.

### **CONCLUSION**

Islamic banking, especially for Islamic Commercial Banks requires good conditions for each financial ratio. NPF is an important ratio in Islamic Bank for





maintaining the quality of asset conditions in financing. This makes NPF as a ratio that supports the duties of Islamic Banks in the intermediation function. In this research, the variables chosen as determinants affecting NPF ratio include PDB, FDR, KPMM, and BOPO. Simultaneously, the result of data analysis shows the variables of PDB, FDR, KPMM, and BOPO significantly influence toward NPF in Islamic Commercial Banks. Then partially, the result of data analysis shown that PDB has influence toward NPF is significant and positive, FDR has influence toward NPF is significant and negative, KPMM has influence toward NPF is significant and negative, and then BOPO has influence toward NPF is significant and positive in Islamic commercial banks for 2014-2019 period.

The suggestions for Islamic Commercial Banks management that can be conveyed from this research, related to the risk of financing to minimize the potential for NPF by optimizing supervision to debtors, increasing the principle of prudence in channeling financing, so that Islamic Commercial Banks able to defend the level of NPF at a proper level. This research is inseparable from some limitations and weaknesses that may affect the results of the study, the limitations of object is Islamic commercial banks only, so further research can use Islamic business unit for object. And this research used GDP as a representative of external variables, so further research may involve other external variables.

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